Communicable disease screening for asylum seekers and refugees in Ireland: an analysis of professional stakeholders’ insights into knowledge into action

Gemma Smith
Royal College of Surgeons in Ireland, gemmasmith@rcsi.ie

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Communicable disease screening for asylum seekers and refugees in Ireland: an analysis of professional stakeholders’ insights into knowledge into action

Gemma Smith, MSc, BSc

Division of Population Health Sciences
Royal College of Surgeons in Ireland
Dublin

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Supervisors: Professor Samuel McConkey, Professor Ruairí Brugha, Dr Elaine Byrne and Professor Richard Coker
Candidate Thesis Declaration

I declare that this thesis, which I submit to RCSI for examination in consideration of the award of a higher degree of Doctor of Philosophy is my own personal effort. Where any of the content presented here is the result of input or data from a related collaborative research programme this is duly acknowledged in the text such that it is possible to ascertain how much of the work is my own. I have not already obtained a degree in RCSI or elsewhere on the basis of this work. Furthermore, I took reasonable care to ensure that the work is original, and, to the best of my knowledge, does not breach copyright law, and has not been taken from other sources except where such work has been cited and acknowledged within the text.

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Abstract

Introduction
Numerous countries employ migrant communicable disease screening programmes and initial health assessments (IHAs). Although the evidence base underpinning screening policies has been criticised, relatively little is known about the extent to which screening policies, guidelines and programmes are implemented and practice is evidence-informed.

Methods
A case study design was employed to examine the development of communicable disease screening guidelines for asylum seekers and refugees in Ireland and the enacting of the guidelines and programme in practice. A national mapping study of screening service provision was undertaken, alongside a document review. Three sets of in-depth interviews were conducted with key informants involved in the guideline development, the related broader policy context, either current or past screening service provision or the provision of services relating to HIV/AIDS, TB or depression, for example referral services.

Results
Screening service coverage was decentralised and fragmented nationally, and concerns were raised regarding access and continuity of care. Where screening services existed the national guidelines were broadly implemented, but there was variation in implementation and barriers were particularly identified to Mantoux testing and polio screening.

Adaptation of the screening service and guidelines was evident, with some screening health care providers (sHCPs) adopting a more holistic perspective. The findings demonstrated the importance of the adaptable elements of the intervention in understanding the enacting of the guidelines, programme and services, for example, the provision of screening through a dedicated screening service or mainstream General Practitioners (GPs).

Conceptual and theoretical insights were gained from the critical use of a conceptual framework, based on an adapted version of the Consolidated Framework for Implementation Research (CFIR) and the Normalisation Process Theory (NPT). The use of the adapted CFIR highlighted the multiple interacting barriers to implementation and...
normalisation. These included the characteristics of the intervention, the multiple stakeholders involved and the process, including the development of the guidelines. Contextual factors were also influential, for example, the lack of national level responsibility for the screening programme and the historic decentralised establishment of the screening service. The use of the NPT in the conceptual framework particularly highlighted the dynamic and social nature of implementation, including the individual and collective responses to implementation.

Conclusions
The findings illustrate the value of a more bottom-up perspective in order to understand the enacting of the screening guidelines and programme, and provide support for an alternative view to a simple top-down conceptualisation of an implementation gap. Through the use of the conceptual framework these findings could have broader applicability to understanding and getting knowledge into action in other contexts.

Screening service provision needs to be evidence-informed, rather than determined by the implementation barriers identified in this thesis. Ensuring evidence informs guideline and programme development, and is subsequently enacted in practice, is necessary in order to provide equitable, high quality and sustainable health services, including screening, which contribute towards public health. This is also essential if the services are to meet the needs of vulnerable populations, including asylum seekers and refugees.
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<th>Abbreviation</th>
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<tr>
<td>AGREE</td>
<td>Appraisal of Guidelines, Research and Evaluation</td>
</tr>
<tr>
<td>AIDS</td>
<td>Acquired immune deficiency syndrome</td>
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<tr>
<td>AMO</td>
<td>Area Medical Officer</td>
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<tr>
<td>ART</td>
<td>Antiretroviral therapy</td>
</tr>
<tr>
<td>BCG</td>
<td>Bacille Calmette-Guérin</td>
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<tr>
<td>CAQDAS</td>
<td>Computer-Assisted Qualitative Data Analysis Software</td>
</tr>
<tr>
<td>CCA</td>
<td>Community Care Area</td>
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<tr>
<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<tr>
<td>CFIR</td>
<td>Consolidated Framework for Implementation Research</td>
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<td>Continuing Medical Education</td>
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<td>COREQ</td>
<td>Consolidated Criteria for Reporting Qualitative Research</td>
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<tr>
<td>CWO</td>
<td>Community Welfare Officer</td>
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<tr>
<td>CXR</td>
<td>Chest x-ray</td>
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<tr>
<td>DoI</td>
<td>Diffusion of Innovation</td>
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<tr>
<td>DoH</td>
<td>The Department of Health (named the Department of Health and Children between 1997 and 2011)</td>
</tr>
<tr>
<td>DoJ</td>
<td>Department of Justice and Equality or previously the Department of Justice, Equality and Law Reform</td>
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<tr>
<td>DOTS</td>
<td>Directly observed therapy, short course</td>
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<tr>
<td>EBHC</td>
<td>Evidence-based health care</td>
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<tr>
<td>EBM</td>
<td>Evidence-based medicine</td>
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<td>EBP</td>
<td>Evidence-based practice</td>
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<tr>
<td>EEA</td>
<td>European Economic Area</td>
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<tr>
<td>EPOC</td>
<td>Cochrane Effective Practice and Organisation of Care</td>
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<td>ERHA</td>
<td>Eastern Regional Health Authority</td>
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<td>EPTB</td>
<td>Extrapulmonary TB</td>
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<td>General Medical Services</td>
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<td>Interferon-γ-release-assay</td>
</tr>
<tr>
<td>HCP</td>
<td>Health care provider</td>
</tr>
<tr>
<td>HIV</td>
<td>Human immunodeficiency virus</td>
</tr>
<tr>
<td>HPA</td>
<td>Health Protection Agency</td>
</tr>
<tr>
<td>HPSC</td>
<td>Health Protection Surveillance Centre</td>
</tr>
<tr>
<td>HRB</td>
<td>Health Research Board</td>
</tr>
<tr>
<td>HSE</td>
<td>Health Service Executive</td>
</tr>
<tr>
<td>ICGP</td>
<td>Irish College of General Practitioners</td>
</tr>
<tr>
<td>IHA</td>
<td>Initial Health Assessment</td>
</tr>
<tr>
<td>LHO</td>
<td>Local Health Office</td>
</tr>
<tr>
<td>LTBI</td>
<td>Latent tuberculosis infection</td>
</tr>
<tr>
<td>MDR</td>
<td>Multi-drug resistant TB (MDR-TB)</td>
</tr>
<tr>
<td>NDSC</td>
<td>National Disease Surveillance Centre</td>
</tr>
<tr>
<td>NIH</td>
<td>National Intercultural Health Strategy</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-governmental organisation</td>
</tr>
<tr>
<td>NPM</td>
<td>Normalisation Process Model</td>
</tr>
<tr>
<td>Acronym</td>
<td>Definition</td>
</tr>
<tr>
<td>---------</td>
<td>------------</td>
</tr>
<tr>
<td>NPT</td>
<td>Normalisation Process Theory</td>
</tr>
<tr>
<td>NUI</td>
<td>National University of Ireland</td>
</tr>
<tr>
<td>OECD</td>
<td>The Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>OPMI</td>
<td>Office for the Promotion of Migrant Integration</td>
</tr>
<tr>
<td>ORAC</td>
<td>Office of the Refugee Applications Commissioner</td>
</tr>
<tr>
<td>PARiHS</td>
<td>Promoting Action on Research Implementation in Health Services</td>
</tr>
<tr>
<td>PCCC</td>
<td>Primary, Community and Continuing Care</td>
</tr>
<tr>
<td>PCO</td>
<td>Primary Care Organisations</td>
</tr>
<tr>
<td>PCRS</td>
<td>Primary care reimbursement service</td>
</tr>
<tr>
<td>PHN</td>
<td>Public Health Nurse</td>
</tr>
<tr>
<td>PLA</td>
<td>Participatory learning and action</td>
</tr>
<tr>
<td>PMO</td>
<td>Principal Medical Officer</td>
</tr>
<tr>
<td>PRECEDE</td>
<td>Predisposing, Reinforcing and Enabling Constructs in Education/Environmental Diagnosis and Evaluation</td>
</tr>
<tr>
<td>PROCEED</td>
<td>Policy, Regulatory, and Organizational Constructs in Educational and Environmental Development</td>
</tr>
<tr>
<td>PRISM</td>
<td>A Practical, Robust Implementation and Sustainability Model</td>
</tr>
<tr>
<td>PTB</td>
<td>Pulmonary tuberculosis</td>
</tr>
<tr>
<td>PTSD</td>
<td>Post-traumatic stress disorder</td>
</tr>
<tr>
<td>QFT</td>
<td>Quanti-FERON®-TB Gold</td>
</tr>
<tr>
<td>RCSI</td>
<td>Royal College of Surgeons</td>
</tr>
<tr>
<td>RESTORE</td>
<td>Research into implementation Strategies to support patients of different Origins and language background in a variety of European primary care settings</td>
</tr>
<tr>
<td>RIA</td>
<td>Reception and Integration Agency</td>
</tr>
<tr>
<td>RGN</td>
<td>Registered General Nurse</td>
</tr>
<tr>
<td>sHCP</td>
<td>Screening health care provider</td>
</tr>
<tr>
<td>SMO</td>
<td>Senior Medical Officer</td>
</tr>
<tr>
<td>STD</td>
<td>Sexually transmitted disease</td>
</tr>
<tr>
<td>STI</td>
<td>Sexually transmitted infection</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>TST</td>
<td>Tuberculin skin-test</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNHCR</td>
<td>United Nations High Commissioner for Refugees</td>
</tr>
<tr>
<td>US</td>
<td>United States of America</td>
</tr>
<tr>
<td>VFR</td>
<td>Visiting Friends and Relatives</td>
</tr>
<tr>
<td>VZV</td>
<td>Varicella zoster virus</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
</tr>
</tbody>
</table>
Chapter 1: Introduction

1.1 Rationale

Migrant health is a major issue in the global health policy arena (1-4), at least in part due to the significant influence of migration on global communicable disease epidemiology (5). Migrants' health can reflect the communicable disease burden in their country of origin, where the prevalence of certain communicable diseases may be significantly higher than in Ireland (6). Mortality from infectious diseases can also be higher in refugees and migrants than in the native population (7). While migrants are a heterogeneous population and many individuals are healthy, at least on arrival (8), ensuring migrants have access to prevention, diagnosis and treatment of communicable diseases is integral to meeting their health needs.

Numerous countries employ communicable disease screening programmes for migrants as one component of a range of disease control strategies (9) (see Box 1 for a definition of screening). Although screening policies and programmes have historically focused on tuberculosis (TB), some include other infections, for example, human immunodeficiency virus (HIV) (10-12). Screening and initial health assessments (IHAs) are both examined in this thesis. While IHAs can include screening, the term may be associated more with resettlement, whereas screening may be associated more with the early identification of diseases for public health protection.

Criticisms have been levelled at screening policies internationally, including a questioning of the evidence base (13-15) and motivation behind the policies (16-19). Screening can be a contentious topic, with questions over the extent to which programmes are founded on evidence or on ‘assuaging public fears and misconceptions’ (20). After an examination of the United Kingdom (UK) and Australian screening policies for TB, Welshman & Bashford highlighted the political influences and concluded that ‘history can help explain

Box 1. The UK National Screening Committee definition of screening used in this thesis

‘a process of identifying apparently healthy people who may be at increased risk of a disease or condition. They can then be offered information, further tests and appropriate treatment to reduce their risk and/or any complications arising from the disease or condition’ (21).
what epidemiology cannot’ (22). In light of the criticisms it is vital that a robust evidence base exists and informs policy, guidelines and practice.

A more long-term, integrated, comprehensive and holistic approach to screening has been advocated for (13, 23-26) and a new research and policy agenda flagged as ‘an urgent priority’ in the UK (27). An alternative conceptualisation of screening may therefore be required. The literature does not adequately address this proposed more integrated approach to screening, as studies tend to focus either on TB screening (28, 29) or on IHAs for refugees (30, 31). This thesis extends beyond TB to examine the range of communicable diseases included in the Irish national screening guidelines, in order to provide insights into a possible alternative conceptualisation of screening.

Ensuring the development of evidence-informed policies and programmes is insufficient for the transfer of knowledge to action: the effective enactment of screening policies and programmes is also required. Although a number of studies have identified variation in screening and IHA policies and programmes (32) and their implementation (33-35), in-depth studies examining why the variation occurs and the influences on implementation are lacking, including from the perspective of health care providers (HCPs) or migrants. Furthermore, the evidence base is predominantly concerned with TB screening for migrants or IHAs for refugees (30), with less attention paid to the implementation of screening for a broader range of diseases for asylum seekers.

The model of service provision is integral to getting knowledge into action and spans both the policy and implementation fields (see the terminology in Box 2). Varied policies, strategies and models of service provision have been identified in relation to migrant screening (28, 33) and refugee IHAs in Australia (31), yet there is little research examining the specific influence of model of service provision on the enactment of policies, guidelines and programmes. Inadequate data collection can hinder comparisons of their effectiveness (33).

**Box 2. Model of service provision terminology used in this thesis**

Throughout this thesis ‘referral specialists’ is used for TB specialists, or infectious disease specialists for example, whereas the term ‘specialist service’ refers to a service which is focused on migrant health.
In the absence of evidence-informed policy and practice there are likely to be consequences for the effectiveness of the screening programmes, the broader health system, the population and importantly for the health of vulnerable migrants. Chapter 2 provides a thorough review of the literature in this field and highlights the need for further rigorous research in this area. This thesis aims to contribute towards addressing some of the gaps identified above.

This thesis focuses on asylum seekers and refugees and Appendix I provides a list of the terminology and key definitions. Programme refugees have refugee status prior to arriving in Ireland, whereas asylum seekers are in the process of applying for refugee status and if their application is successful they are termed convention refugees. A broad definition of the term migrant is used in this thesis, which includes economic migrants and migrants with irregular status. The definition encompasses asylum seekers and refugees who are the primary focus of this thesis.

A person undergoing a (semi-permanent) change of residence which involves a change of his/her social, economic and/or cultural environment' (36).

One of the difficulties encountered in the field of migrant health is the different terminology employed. For example, migrant can also be used as a much narrower term relating to voluntary migration and exclude refugees (37). Although this thesis focuses on asylum seekers and refugees, a diverse migrant population exists in Ireland, including: migrant workers, students, asylum seekers, refugees and migrants with irregular status. Unaccompanied minors were not included in the study.

1.2 Knowledge to action and implementation

In order to examine the issues identified above, an understanding of the broader knowledge to action and implementation literature is required and key concepts from these fields were used throughout the thesis (see Chapter 3 for a detailed review).

Clinical guidelines are one tool to assist with the translation of evidence into practice (38) and this thesis focuses on the implementation of the communicable disease screening guidelines, programme and service for asylum seekers and refugees in Ireland.
A move away from studies focusing solely on practitioner behaviour change has been advocated for in the broader implementation literature, towards studies examining the multiple levels of barriers to implementation (38-43). Particularly emphasised is the need for a greater understanding of the contextual and process factors influencing implementation (39, 41, 44-46). Furthermore, a greater use and formation of theory in implementation research has been advocated for (39, 44, 45).

This thesis builds on these suggestions, as the case-study design enables a rigorous analysis of the multiple levels of influences and an emphasis on contextual factors. A conceptual framework incorporating the consolidated framework for implementation research (CFIR) (47) and the normalisation process theory (NPT) (48) is critically applied during the thesis, building on the existing theoretical and conceptual literature (see Chapter 4). The CFIR synthesises a range of theories, models and frameworks which are relevant for implementation, for example, theories of change (47), whereas the NPT is a theory with sociological origins, which can be used to examine the normalisation of an intervention (48).

A re-conceptualisation of guidelines and evidence has been proposed by certain authors in the literature. Kitson proposes that guidelines should be conceptualised as more flexible ‘complex communication vehicles’ containing a ‘bundle’ of different knowledge types (39). Boaz et al. challenge the assumption that interventions, including guidelines, are always evidence-based (44). These viewpoints are adopted and explored throughout the thesis. A more inclusive definition of evidence is used, in line with the categorisation of evidence by Bowen and Zwi which encompasses: research, knowledge, information, ideas, interests, politics and economics (49).

This thesis draws mainly on the knowledge to action literature and in line with a more bottom-up (50, 51), continuous policy formation approach, the importance of the adaptation of the intervention and guidelines (39, 41, 47) informed the conceptual framework. The viewpoint is adopted that policy formation and implementation are not a linear, mechanistic process (49, 52); this non-linearity has also been recognised in the guideline implementation literature (39). As Gilson discusses, a policy implementation analysis asks “What actually happens and why?” rather than ‘Why is there an implementation gap?’ (52). Also aligned with more of a policy analysis approach is the
viewpoint that guideline formation and implementation are intertwined, rather than distinct processes (50). This has also been recognised in the knowledge translation literature (40).

Lastly, a long-term perspective is adopted in this thesis in order to examine the historical influences on the screening and guideline implementation and the sustainability and normalisation of the service.

1.3 Situating the research in Ireland

Ireland experienced a rapid increase in inward migration from the mid-1990s after a long history of net outward migration (53) and therefore provides a particularly interesting case-study to look at the health services for first-generation migrants. From the 2011 census, 17% of Irish residents reported a place of birth outside Ireland (54) and 12% of residents were non-Irish nationals (55). Ruhs and Quinn (53) identified five stages in Ireland’s migration history which are detailed in Box 3. Asylum seeker applications have declined dramatically since 2002 but there are still significant numbers of asylum seekers residing in accommodation centres across Ireland (56). Although the centres are a combination of those privately owned or owned by the state all asylum seeker accommodation are referred to as ‘Reception and Integration Agency (RIA) accommodation centres’ in this thesis rather than ‘asylum seeker accommodation’ which could encompass private accommodation.

The communicable disease burden among the foreign-born population in Ireland is a cause for concern. For example, in 2009 there was a crude TB rate of 33.6/100,000 population in the non-Irish-born population in comparison to 7.6/100,000 population in the Irish-born population (57). Provisional data for 2010 indicated that 40% of the TB cases were in foreign-born individuals (58).

In the Irish health policy context, migrant health featured in the Irish National Health Strategy in 2001 (59). Screening was highlighted in the more recent Irish National

| Box 3. The five stages of migration as described by Ruhs and Quinn (53) |
|---|---|
| 1. Until the early 1990s: | Net emigration |
| 2. Mid-1990s to early 2000s: | Increased immigration due to asylum applications and returning Irish nationals. |
| 3. 2001 to 2004: | An increase in non-EU immigration and asylum applications |
| 4. 2004 to 2007: | An increase in EU immigration |
| 5. 2007 to 2009: | A decline in immigration |
Intercultural Health Strategy (NIHS) (2007-2012); the strategy included a short paragraph detailing health screening and stating that it is Department of Health and Children policy to offer voluntary screening to refugees and asylum seekers (60). In Ireland a voluntary screening programme is in place for asylum seekers and refugees (61) and national screening guidelines were produced in 2000, 2001 and 2004 alongside adapted versions for GPs. The title of the guidelines refer only to asylum seekers however, refugees may also be offered screening and so are included in this thesis.

Epidemiological evidence for the health needs of asylum seekers and refugees is sparse in Ireland, as is evidence on the effectiveness and implementation of screening. This thesis builds on a previous audit and evaluation of the screening service in Ireland, published in 2006 (62) and conducted before major health service restructuring in 2005, when the centralised national HSE came into effect (63). This research examines the implementation of the screening service post health service restructuring, while still examining the implementation of the screening services and guidelines historically.

1.4 The origin of the research

The origins of the research idea, area and questions arose from the International Meeting on Emerging Diseases and Surveillance in Vienna attended by the PhD Scholar (GS) (hereafter referred to as the researcher), where migration was highlighted as a significant research area. Both the researcher (GS) and supervisory panel at the time (SM, RB) had previous research interests in global health and communicable diseases. The primary supervisor of the thesis (SM) also had clinical experience in working with migrants in Ireland. The research questions were developed further through a literature review and a number of consultations with key professional stakeholders; this process is described in detail in Chapter 5. This thesis was conducted as part of the Health Research Board (HRB) PhD programme in Health Services Research (see Appendix I for a definition). A detailed description of the PhD programme is provided in Appendix II.

1.5 Aims and research questions

The development of the research questions is described in detail in Chapter 5. The overarching aim of the thesis is to examine knowledge into action in relation to the development of communicable disease screening guidelines for asylum seekers and refugees in Ireland and the enacting of the guidelines, programme and services.
The following research questions are addressed in the thesis:

- To what extent did different types of knowledge, and specifically evidence and implementation considerations, inform the development and distribution of the national communicable disease screening guidelines? (Chapter 6)
- To what extent were the guidelines and screening services enacted and modified in practice and what influenced their implementation? (Chapters 7-9)
- What are the views of professional stakeholders regarding a mainstream GP model of service provision, in comparison to a dedicated screening service for the detection of health issues and facilitating access and integration into the health system (including screening and IHAs) in order to meet the needs of asylum seekers and refugees? (Chapter 10)
- To what extent does international literature and theory assist in understanding the enacting of screening, IHAs and the detection of health conditions through specialist and mainstream services? (all chapters)

Within the overarching aim there were five primary aims of the thesis which are detailed in Figure 1 and include the building of a conceptual framework to assist in addressing the primary aim. Detailed aims and objectives are provided in Appendix III and the data sources used to address the aims in each chapter in Appendix IV.

1.6 Ethical approval and overview of the methods used

Ethical approval was granted by the Royal College of Surgeons (RCSI) Research Ethics Committee (REC531, REC531b and REC669) (Appendices V, VI, VII). Ethical considerations are discussed within the relevant sections in Chapter 5.

1.7 Thesis outline

A case-study method was adopted for this thesis and within this four separate studies, a literature review and a secondary document review were conducted. The separate studies are detailed in Box 4 and this terminology will be used to refer to the studies throughout the thesis. Appendices VIII, IX and X outline the overall categories, themes and sub-themes for each of the in-depth interview studies and highlight which themes and sub-themes are examined in the final thesis in each chapter. An outline of the thesis chapters and the aims addressed in each chapter is provided in Figure 1.
**Overarching aim:** To examine knowledge into action in relation to the development of communicable disease screening guidelines for asylum seekers and refugees in Ireland and the enacting of the guidelines, programme and services.

**Thesis aim 1:** To investigate the mechanisms behind the development and distribution of the guidelines and influence of different types of knowledge, with a focus on the evidence-base for the guidelines and implementation considerations.

**Thesis aim 2:** To examine the extent to which the guidelines and screening tests and services are implemented or enacted and modified in practice.

**Thesis aim 3:** To explore the influences on the implementation or enactment of the guidelines and screening tests and services in practice.

**Thesis aim 4:** To explore the views of professional key stakeholders on a mainstream GP model of service provision in comparison to a dedicated screening service, in relation to the detection of health issues and facilitating access and integration into the health system (including screening and initial health assessments) in order to meet the needs of asylum seekers and refugees.

**Chapter 6**
The broader context, guideline content and the process of knowledge to action for the guideline development

**Chapter 7**
The national coverage of the screening services and the influence of responsibility, coordination and service structure

**Chapter 8**
Implementation of the guidelines and tests in the screening programme

**Chapter 9**
Adaptable elements of the intervention: holistic service provision in practice

**Chapter 10**
Adaptable elements of the intervention in practice: model of service provision

**Thesis aim 5:** To consider the findings in relation to the international literature and to build a conceptual framework to address the primary aim of the thesis.

**Figure 1. An outline of the aims of the thesis addressed in each chapter.**
Box 4. Methods used within the main case-study design

**Primary data collection methods:**

1. **Mapping study:** A cross-sectional national level mapping study using telephone interviews
2. **Guideline development study:** An analysis of the process of guideline development using in-depth interviews with professional stakeholders (initial and follow-up interviews)
3. **Implementation study:** An analysis of the implementation of the guidelines and screening programme employing in-depth interviews with frontline providers and line-managers (initial and follow-up interviews)
4. **Integration study:** An analysis of service provision through a mainstream GP service and a dedicated screening service in relation to the detection of health issues and facilitating access or integration into the system (including through IHAs and screening) with a focus on meeting the health needs of asylum seekers and refugees

**Secondary data collection methods:**

1. Literature reviews
2. Secondary document review

Chapter 2 provides an overview of the international literature in the field of migrant IHAs and screening and is composed of four parts. The first part examines the importance of communicable disease screening and IHAs and the consequences if they are sub-optimal. The second section examines the diversity of screening policies, programmes and guidelines internationally, including the models of service provision and reviews the current knowledge on the extent to which policies programmes and guidelines are evidence-informed and implemented in practice. The third section explores cross-cutting themes in migrant health. The final section highlights gaps in the literature and areas where further research is required.

A critical review of the relevant theoretical and conceptual literature surrounding knowledge to action and implementation is presented in Chapter 3. Chapter 4 details the development of the conceptual framework used for the analysis in this thesis. Chapter 5 describes the methods and methodology used in this thesis.

Chapter 6 provides an introduction to the subsequent results chapters. Within the chapter the views of professional stakeholders involved in developing the guidelines are explored.
in relation to the evidence base behind the guidelines, the broader context for the establishment of the screening services nationally and the process of dissemination and implementation.

The theme of coverage of the screening services emerged as a significant area during the analysis and is examined from the perspective of professional stakeholders in Chapter 7. This includes the extent to which services are in place and the influences on the coverage of the services. The influence of responsibility, coordination and service structure on coverage and the broader implementation of the guidelines and service are discussed.

Chapter 8 explores the views of frontline HCPs and line-managers on the use of the guidelines and the implementation of the tests in the guidelines. HCP’s views on the guidelines and on the importance of screening are also investigated.

Selected adaptable elements of the guidelines are examined in Chapter 9 and Chapter 10. In Chapter 9 the more holistic provision of services in practice is discussed. In Chapter 10 the model of service provision for screening in Ireland is examined, with a particular focus on the detection of health issues and integration of asylum seekers and refugees into the health system.

In each chapter the findings are reviewed in the context of the previous migrant health screening and IHA literature in addition to the implementation literature. Furthermore, the conceptual framework incorporating the CFIR and NPT is critically applied to the findings and associated insights are discussed.

Chapter 11 summarises and reviews the findings from the five results chapters and includes a discussion of the limitations of the studies. Avenues for future research are identified and new insights from the findings are highlighted, alongside the potential implications and recommendations for research, policy and practice.
Chapter 2: Screening and initial health assessments for migrants: literature review

2.1 Introduction

This chapter critically reviews the existing literature on migrant health screening and IHAs and highlights gaps in the evidence-base. The review first examines the reasons why screening and IHAs are important and the evidence base for screening. International and Irish screening policies, programmes and guidelines are then explored, alongside the criticisms directed at the screening policies and programmes. Following on from this, the evidence base for the extent to which screening programmes, guidelines and policies are implemented is reviewed and finally, key gaps in the literature are highlighted.

Asylum seekers and refugees are particularly focused on in this thesis. However, the literature review encompasses screening and IHAs for new-entrant migrants more broadly. The detailed literature review method is provided in Appendix XI. Countries with a context relevant to Ireland were focused on.

2.2 The importance of screening and IHAs

This section addresses the importance of the early detection of communicable diseases and other health conditions through screening and IHAs for migrants and briefly reviews the evidence-base for screening (see section 2.3.6 for the review of the evidence base relating to implementation and section 2.3.3 for the evidence relating to models of service provision).

2.2.1 The need for communicable disease detection at an early stage

Ensuring the early detection of communicable diseases is imperative for a number of reasons. For the individual, early detection can result in improved health outcomes. For example in the case of HIV, initiation of treatment at a more severe stage can result in a reduction in life expectancy of 10 years (64). Early detection also results in benefits for the contacts of those with the infection and the wider population, both nationally and globally through reducing transmission. Verver et al. (65) estimated that the infectious period for TB was reduced by approximately a third for those detected through migrant screening in the Netherlands, in comparison to those detected passively. Furthermore, there is evidence to suggest that individuals taking antiretroviral therapy (ART) for HIV are less likely to transmit the infection to their partner (66). Finally, early detection of communicable diseases also has benefits for
reducing costs for the health system. For example, linking those with HIV in with services at a less severe stage is cost effective (67).

Detection of communicable diseases at an early stage is also important for communicable disease control more broadly. In Ireland, although the overall TB crude notification rate has remained relatively stable, the percentage of TB cases in foreign-born persons increased from 8.3% in 1998 (68) to 43.4% in 2012 (provisional data) (69). In 2009, the crude TB rate for the foreign-born population was notably higher at 33.6/100,000 population, than the rate for the indigenous population at 7.6/100,000 population (57). Table 1 demonstrates the burden of communicable disease in the migrant population in Ireland in relation to hepatitis B, hepatitis C and HIV.

Screening is one strategy to improve early detection of infection and disease. However, to ensure screening is beneficial the decision to undertake screening needs to be based on evidence and the criteria for a screening programme must be met; for example, there should be evidence for improved outcomes after early, rather than late treatment (70, 71).

2.2.2 The consequences of sub-optimal communicable disease screening and IHAs

Evidence-informed policy and guidelines and their effective implementation are required in order to meet the health needs of migrants. If this is sub-optimal there is a risk that these needs will not be met and that conditions will be detected at a later, more serious stage (72). Certain screening policies may currently miss some migrants, including: those with irregular status (18, 73-76); children (77, 78); migrants who can move freely across borders, for example in the EU (17); and asylum seekers in the US, even though they have a similar infectious disease burden to refugees (79). Screening policies offering screening to asylum seekers and refugees, though not other migrants, needs to be questioned as a high incidence of TB, for example, can exist among other migrant groups (80).

Without effective screening policies and programmes, the passive detection of conditions may be insufficient. Barriers in primary care may impede detection, for example, the knowledge and attitudes of migrants towards screening (81, 82), migrants not having a primary care provider (24, 83, 84) and restrictions to free care and treatment for migrants (85, 86).
Table 1. Summary of the communicable disease statistics for Ireland

<table>
<thead>
<tr>
<th>Disease</th>
<th>Migrant health data for Ireland</th>
<th>Ref</th>
</tr>
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</table>
| TB               | **Provisional national 2010 data:** 40% total TB cases in foreign-born persons
|                  | **National 2009 data** Crude rate 7.6/100,000 in Irish-born & 33.6/100,000 in non-Irish born persons
|                  | **Screening Cork 2002-2004:** 4% had a history of TB, 1% screened had TB (0.2% infectious PTB, 0.3% non-infectious PTB, 0.1% EPTB, 0.3% LTBI). Average detection rate for TB was 34.2/100,000 |
|                  | **Screening Dublin 1998-2003:**                                                                                                                                       | (87) |
| **Hepatitis B**  | **National data chronic cases (2008):** 86% in individuals born in HBV endemic countries or who were reported as asylum seekers* 23% of the chronic hepatitis B cases were identified through asylum seeker screening but in the third quarter of 2012 this was only 4%
|                  | **National data chronic cases third quarter 2012** 78% in individuals born in HBV endemic countries or who were reported as asylum seekers**
|                  | **Screening Cork 2002-2004:** 59% were non-immune, 28% had evidence of past infection, 9% were e Ag negative carriers, 1% were e Ag positive carriers, 10% of pregnant women were HBV carriers
|                  | **Screening Dublin 1999-2003:** Detection rate was 5.0% 20% had evidence of past infection.                                                                            | (62) |
| **Hepatitis C**  | **National 2008 data** 3% of cases notified were asylum seekers
|                  | **National data third quarter of 2012** 7% of cases were born in hepatitis C endemic countries***
|                  | **Screening Dublin 1999 - 2003:** 1.5% average case detection rate                                                                                                | (62) |
| **HIV ††**       | **National 2011 data:** 17.8% were born in sub-Saharan Africa, 8.8% born in Central and Eastern Europe, 6% born in South America, 37.2% born in Ireland****
|                  | **Screening Cork City 2002-2004:** Average prevalence 2%
|                  | **Screening Dublin 2002-2003:** Case detection rate 2.2%                                                                                                        | (62) |
| **Polio**        | **Screening Dublin 1998-2003:** 4 polio samples positive and all vaccine strains                                                                                     | (62) |
| **Immunity to rubella** | **Screening Cork City 2002 - 2004:** 10% of women non-immune
|                  | **Screening Dublin 2003:** 12.3% of those tested non-immune                                                                                                        | (62) |
| **Immunity to VZV** | **Screening Cork City 1998 - 2003:** 17% of women over 12 years non-immune
|                  | **Screening Dublin 2002-2003** 18% non-immune†                                                                                                                       | (62) |

* Enhanced data with country of birth was only available for 56% of chronic cases. ** Enhanced data with country of birth was only available for 46% of the chronic cases notified in the third quarter in 2012. *** The most likely risk factor was known for 63% of cases. **** The geographic origin was unknown for 22%. † this may be an underestimation due to pregnant women being screened at antenatal centres; †† HIV became a notifiable disease in 2011 (93). PTB: Pulmonary TB; EPTB: Extrapulmonary TB; LTBI: Latent TB.
For example, in Ireland although 73% of asylum seeker respondents in one study reported having had a GP check-up since arrival, 29% reported difficulties in making an appointment with a GP (94) and therefore health conditions may be missed. Where formal screening programmes are absent internationally, screening driven by community organisations may be too fragmented to ensure coverage (95). The detection of communicable diseases in the absence of formal screening programmes is examined in Chapter 10 of this thesis.

Sub-optimal implementation could also have consequences for policy and guideline development, as aspects such as uptake inform the assumptions underlying modelling and cost-effectiveness analyses. Implementation therefore needs to be understood and evaluated in order to accurately inform policy and guideline development.

2.2.3 The evidence base for screening

There are a number of opinion or expert advice articles which present non-systematic reviews of the literature (96-100). Some are based on the experiences of practitioners and academics (101, 102) and so incorporate more experiential and tacit forms of knowledge. Frequently, these articles acknowledge the complex needs of some migrants and adopt a more holistic viewpoint (97, 100-102). Walker and Barnett provide a comprehensive overview of migrant health, including recommendations for practitioners on a diverse spectrum of migrant health issues (103).

A significant number of studies demonstrate the burden of disease in the migrant population (79, 100, 104-116) including the detection of infections in referral settings (24, 26, 117, 118). A significant literature also exists on the risk factors for infection, particularly around TB (80, 119-122). Canadian guidelines for migrant health assessments (10, 123, 124) (see section 2.3.5) review and grade the evidence relating to the prevalence of conditions and risk factors in refugees, alongside treatment adherence. Although the literature review in this thesis focuses more specifically on the evidence base for screening, this broader literature can provide useful evidence for the design of communicable disease control strategies, including screening.

The majority of studies identified in the literature focused on TB screening and so correspondingly TB receives the greatest attention in this literature review. The evidence base includes which tests should be used at what stage (pre-entry, at entry, follow-up screening or contact tracing), which sub-population should be targeted and also the broader policy for whether screening should be compulsory or voluntary.
2.2.3.1 Effectiveness of TB screening

A systematic review by Klinkenberg et al. reviewed the screening strategies targeted at migrants in Box 5 and concluded that the yield of screening was relatively low in comparison to strategies such as contact tracing. The authors therefore recommended it should form just one aspect of TB control (28). A median yield of 0.35% from screening for TB in the EU was calculated when all strategies were examined and a more recent review by Zenner et al. (125) identified a comparable yield of 0.31%. This yield is inflated by occasional screening programmes and so for solely national screening programmes the median yield was 0.18% (28).

Numerous studies have examined the effectiveness of the different strategies included in Box 5 (29, 65, 123, 126-131). However, interestingly, the systematic review by Klinkenberg et al. identified no difference in effectiveness between the three main strategies for screening: pre-entry, at entry or after entry in the community (28). Also the review found that although mandatory screening may have a higher coverage, it does not have a higher yield (28). In addition to the models of screening in Box 5, opinions differ between proponents for contact tracing strategies (12) and chest x-ray (CXR) or tuberculin skin-test (TST) screening programmes (132, 133).

In relation to LTBI screening, although a systematic review by Nienhaus et al. (134) found evidence to support the use of IGRAs in screening migrants from countries with a high incidence of TB, the authors highlighted the variation between studies and limitations of the current evidence base. Pareek et al. found a single IGRA test was the most cost-effective strategy in the UK for three thresholds of TB incidence in migrants’ countries of origin (135). However, this is not a clear situation as previously in the US, Oxlade et al. concluded that screening at entry with either a TST or Quanti-FERON®-TB Gold (QFT) is costly and unlikely to impact significantly upon the

Box 5. Klinkenberg et al. examined the yield and coverage of screening through the 6 categories of TB screening strategies below (28)

1. Pre-entry/pre-migration screening
2. Port of arrival screening (at the airport/harbour after arrival)
3. Reception/holding/transit centre screening
4. Community post-arrival screening
5. Occasional screening (screening of specific groups in the community)
6. Follow-up screening (periodic follow-up screening after the initial entry screening)

1 Klinkenberg et al. stated that different definitions of yield were used by the studies included in their review (26). See Wilson and Jungner for a description of yield in relation to screening (347).
subsequent incidence of TB (136). Investigating close contacts was identified as a possible cost-saving strategy (136).

LTBI screening is the stimulus of one of the major debates in the literature. A high burden of LTBI has been detected in single studies looking at asylum seekers (137, 138) and refugees (139, 140) and there are strong proponents for LTBI screening (132, 141-145) due to the significant contribution of the reactivation of LTBI to foreign-born TB more generally (141). For example, Ormerod (145) advocated for increased LTBI screening in the UK and suggested that the greater emphasis on LTBI screening in the US was a major influence on the decline in active TB in contrast to the rise in the UK.

However, particular problems arise with LTBI screening, in part due to the lack of a gold standard and imperfect nature of the screening tests (10, 123, 146). More rigorous evidence is needed in order to draw firmer conclusions, as a dearth of data meant that LTBI screening could not be included in a recent systematic review comparing the yield and coverage of screening strategies (28).

TB screening tests are also debated in the literature and the limitations of chest x-rays (CXRs), IGRAs and TSTs have been widely acknowledged (123, 137, 147, 148). Other authors have conducted extensive reviews on the sensitivity and specificity of the TB screening tests (12, 123, 125) and so these are not reviewed in detailed here. Table 2 highlights key strengths and limitations of the main TB tests, alongside estimates of their specificity and sensitivity. Specific considerations exist for refugee populations, for example the influence of boosting from repeated TST testing, which may be resolved to some extent by the use of IGRAs (149).

**2.2.3.2 Non-TB health issues**

Although the majority of the literature on migrant screening specifically addresses TB, a number of studies have examined the burden of hepatitis B (79, 108, 109, 114, 150-152), the knowledge and perceptions of HCPs and migrants, including barriers and facilitators to hepatitis B screening (153-155) and hepatitis B screening strategies in migrant and ethnic minority populations (79, 114, 156). Certain hepatitis B screening strategies have been found to be effective (157) and cost effective (158, 159). This is supported by a couple of recent systematic reviews (111, 113). However, community-based screening programmes may be insufficient in meeting national screening
Table 2. The strengths, limitations, sensitivity and specificity estimates for the main tests for latent and active TB

<table>
<thead>
<tr>
<th>Test</th>
<th>Strengths</th>
<th>Limitations</th>
<th>Sensitivity (estimates)</th>
<th>Specificity (estimates)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CXR</strong></td>
<td>• Some authors state preferable to contact tracing in certain population e.g. asylum seekers (160).</td>
<td>• Unable to detect EPTB (148) or LTBI&lt;br&gt;• Can't distinguish between active and previous abnormalities (148) &lt;br&gt;• Further bacteriological tests required to examine infectiousness (161). &lt;br&gt;• Some authors argue yield low (148)</td>
<td>59 – 82% (12)</td>
<td>52 – 63% (12)</td>
</tr>
<tr>
<td><strong>Questionnaire</strong></td>
<td>• Some authors state cough &amp; sputum production greater in those with TB (148). &lt;br&gt;• Enables greater flexibility and higher coverage (147).</td>
<td>• Symptoms suggested &amp; found to be poor predictors of TB (162, 163) &lt;br&gt;• Will miss those without specific enough symptoms (147)</td>
<td>65-90% * (125)</td>
<td>30-90% * (125)</td>
</tr>
<tr>
<td><strong>Sputum smear</strong></td>
<td>• More specific than CXR</td>
<td></td>
<td>50-80% (12)</td>
<td>95% (12)</td>
</tr>
<tr>
<td><strong>Culture</strong></td>
<td>• Very sensitive for active TB (pulmonary) (12) &lt;br&gt;• Diagnostic standard (12)</td>
<td>• Time taken for bacteria to grow &lt;br&gt;• Need multiple cultures for improved sensitivity (12)</td>
<td>Single: 80-85%. Three cultures: 80-100% (12)</td>
<td>Single: 98%. Three cultures: 98% (12)</td>
</tr>
<tr>
<td><strong>Nucleic acid amplification &amp; molecular approaches</strong></td>
<td>• There are several different tests and they have high specificity and sensitivity &lt;br&gt;• Can be rapid and simple to use</td>
<td>• Relatively high cost &amp; so in low incidence countries unlikely to be cost-effective</td>
<td>Depends on test but can be 75-98% (125)</td>
<td>99% (125)</td>
</tr>
<tr>
<td><strong>TST (LTBI)</strong></td>
<td>• Risk of active disease determined by induration size (10)</td>
<td>• Can't distinguish 90% who won't develop disease from 10% who will (10) &lt;br&gt;• Specificity reduced if have BCG vaccination (10)</td>
<td>70-90% (10)</td>
<td>&gt;90% (if received BCG then 60%) (10)</td>
</tr>
<tr>
<td><strong>IGRAs (LTBI)</strong></td>
<td>• In isolation or sequentially with the TST may compensate for some limitations of the TST (137)</td>
<td>• Longitudinal prospective studies needed (10) (136) &lt;br&gt;• May still be problematic e.g. in refugee children (146)</td>
<td>70-90% (10)</td>
<td>&gt;95% (10)</td>
</tr>
</tbody>
</table>

* Data from observational studies in high-burden settings & asking about *any symptom* (125). BCG: Bacille Calmette-Guérin
guidelines (95), and further research is needed into the effectiveness and feasibility of hepatitis B screening strategies (164).

Although some single studies and cost-effectiveness analyses focus on screening for diseases other than TB and hepatitis B, for example, HIV (79, 165-168), syphilis (169), malaria (170) and intestinal and other parasites (79, 110, 114, 166, 171, 172), the data can be from very specific migrant populations (153, 165, 173) and geographical areas (110) and it is the review by Pottie et al. (10) which provides the most comprehensive review of the evidence. There are also a number of articles at the level of a clinic (174) or referral centre and non-systematic review pieces.

2.2.3.3 Evidence for screening in Ireland

The evidence base for refugee and asylum seeker screening in Ireland is relatively sparse, with a few articles in the grey literature providing the majority of the information (62, 87, 90, 175). Doyle conducted an in-depth audit and evaluation of the screening service primarily focusing on the Eastern Region of Ireland and the audit provides information on the screening between 1998 to 2003 in the reception centres (62). Boyle et al. provided an overview of the screening service in what is currently the only Dublin reception centre (61). In the dispersal areas the audit by Doyle provides some information (62), as do reports from Cork (87, 90, 94) and some of the annual health board reports (176). See section 2.3.6 for a review of the existing evidence about the implementation of the screening programme.

Table 1 details the diseases detected through the screening programme from the available figures for TB, hepatitis B, hepatitis C and HIV. However, the reported yields for TB screening were highly variable (62). Screening figures are also available from Kosovan refugees entering Ireland in 1999 who were offered screening: 1% were diagnosed with TB, 3% were HBsAg positive and 18% were anti-HBc positive (177). Outbreaks of chicken pox are a major consideration in the asylum seeker accommodation centres and Boyle gives an overview of the protocol in Balseskin reception centre (61). The majority of the data is from a time when there were far greater numbers of asylum seekers entering Ireland, prior to the establishment of the HSE.

2.2.3.4 Limitations of the evidence

There are a number of limitations of the studies included in this review. Descriptive study designs can limit causal conclusions about effectiveness (126). The inclusion of
cases diagnosed clinically could result in an overestimation of the number of TB cases (127). Assumptions in cost-effectiveness analyses can also limit the generalisability. For example, Oxlade et al. (136) based their study on legal migrants entering Canada and an assumption of almost no HIV in the population was made. Cost-effectiveness is influenced by the prevalence of LTBI and an individual’s country of origin (144) and Oxlade et al. (136) point out that alternate strategies may be optimal for different migrant populations and contexts.

Although yield and coverage are used to examine the effectiveness of screening, they are intermediate endpoints and considerations such as onward transmission, treatment uptake, adherence and outcomes need to be taken into account. Effectiveness can also depend on the viewpoint from which it is being examined, for example the protection of the health of the individual or the population. Also, the prevalence of TB in the population and specificity and sensitivity of screening tests influence the effectiveness of TB screening, the percentage of false positives (28) and the positive predictive value (see Coker (178) for a more detailed description). The screening and TB evidence base is further complicated by screening biases, including lead time and selection bias which means that screening will detect more disease.

Different viewpoints are evident in the literature, for example on the relative importance, value and practicalities of LTBI screening (144, 148, 179) and on the optimal strategy for screening (12, 132, 180). Differing views may be in part a consequence of the context in which the studies are situated or the differences in the risk factors of those studied (28), for example, TB prevalence and co-infection with HIV and BCG vaccination status. Even using the TB prevalence rate in a migrant’s country of origin as an indicator is complex, as one study found the rates didn’t correspond with the rates of TB detected among migrants from these countries (127).

### 2.3 Diversity in the spectrum of screening policies, programmes and guidelines internationally

One of the major difficulties in synthesising the evidence base for screening is the variation between screening policies and programmes at a national and sub-national level, hindering comparisons.

#### 2.3.1 Diversity between countries

Numerous countries employ migrant health screening programmes in Europe (32, 181) and in countries such as Australia, Canada and the US (182). Screening programmes and IHAs for migrants are characterised by a high degree of diversity (33,
183, 184) and the nature of this variation is explored below. Table 3 highlights a number of the models of service provision. A detailed comparison of screening in countries with a context similar to Ireland and guidelines identified during the literature review is provided in Appendix XII.

Despite the diversity, distinct trends are evident between certain countries and regions in relation to the focus on pre-entry or domestic screening. This review primarily focuses on national level screening programmes, policy and guidelines. However some illustrative examples are provided of regional and clinic-level programmes. Other authors provide a detailed description of screening in Europe (183, 185) and Norredam et al. examined the patterns in the screening programmes across Europe (32, 181).

Differences exist in the mandatory or voluntary nature of screening policies and to which diseases or infections these policies apply (32, 181). Screening is mandatory for certain migrants in order to obtain a visa or residency permit in Australia (182, 186), Canada (187, 188) and the US (189). Variation exists in whether this includes asylum seekers and refugees (182, 186, 190) and screening can depend on factors such as the applicant’s country of origin (182, 191, 192).

Certain countries impose much greater restrictions based on a positive screening result than others; for example, some conditions are considered inadmissible for entry to Australia, Canada and the US, although waivers and exemptions are in place (193-195). Australia includes a broader range of health conditions in their pre-entry screening than some other countries, including obesity and diabetes (182) (see Appendix XII). Their rationale for the inclusion of the broader conditions appears to be related to exclusionary measures, based on reducing public health risks and expenditure rather than the concept of a more holistic health assessment (193).

For programme refugees travelling to Ireland it is stated that ‘Ireland does not exclude applications based on health issues unless the specific health issue cannot be dealt with by the national health service or it poses a threat to public health’ (196); what constitutes a ‘threat to public health’ is not clarified further. Provisions are in place in the Immigration Act 2004 for port of entry screening, where individuals with certain conditions can be excluded. Whether or not port of entry screening is implemented was explored in the mapping study (see Chapter 7).
Table 3. A spectrum of models of service provision exists for migrant IHAs and screening. The table is based on categories developed by Klinkenberg et al. (28) and the descriptions of models by Coker et al. (33, 183) and Woodland et al. (30)

<table>
<thead>
<tr>
<th>Screening model</th>
<th>Further detail relating to the model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-entry and port-of-arrival screening</td>
<td>Pre-departure screening for refugees</td>
</tr>
<tr>
<td></td>
<td>• Organised by the International Organisation for Migration (IOM) (171, 197-201) prior to arrival for a number of countries including Australia (198-201), Denmark (202), the US (189, 203) and Ireland (196). Tests contingent on refugee group and location (172, 198-201, 204-207).</td>
</tr>
<tr>
<td>Visa-associated screening</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Screening is a requirement for certain migrants in order to obtain a visa or residency permit in Australia (182, 186), Canada (187, 188) and the US (189). For example, treatment for active TB must have been completed prior to entry to Australia (193, 208), Canada (except for refugee claimants) (169, 209), the US (194, 210) and the UK for certain migrants (189).</td>
</tr>
<tr>
<td></td>
<td>• Pre-entry screening is employed in several European countries including France (186) and the UK (211-213), but not in others such as Germany or Sweden (186).</td>
</tr>
<tr>
<td>Port-of-arrival screening</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The UK &amp; Switzerland have both moved away from port-of-entry screening (19, 147, 148, 183, 214, 215). Belgium screened at port of entry in 2003 (183) and France has mandatory CXR screening for certain migrants (76).</td>
</tr>
<tr>
<td>Reception centre screening, screening of asylum seekers by an organisation on arrival and follow-up</td>
<td>Reception centre/registration centre screening</td>
</tr>
<tr>
<td></td>
<td>• Offered to asylum seekers in a number of countries (137, 183, 216, 217), including Switzerland (147), Norway (137, 216, 217), Ireland (61, 62), the UK (19) and refugees in New Zealand (218) and by the red cross in Denmark for asylum seekers (7).</td>
</tr>
<tr>
<td>Medical surveillance or official follow-up screening</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• for example, follow-up for LTBI in Canada is mandatory (193, 208, 219) and recommended in the US (194, 220). Also present in the Netherlands and Norway (29, 137, 216, 217, 221, 222).</td>
</tr>
<tr>
<td>Other domestic screening</td>
<td>Migrants offered TB screening in Norway and Sweden if from a high incidence country for TB (33) (reference in Swedish) (82) and in Norway if intending to stay &gt;3 months (see above for asylum seekers) (137, 216, 217, 222, 223).</td>
</tr>
<tr>
<td>In a specialist clinic or outreach screening</td>
<td>Specialist screening in an outreach hospital clinic or other type of clinic or in outreach services in the community</td>
</tr>
<tr>
<td></td>
<td>• Domestic IHA model of service provision varies in Australia (30), some TB clinics in the UK (224).</td>
</tr>
<tr>
<td>Through GPs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• In Denmark for non-asylum seekers screening depends on local municipality or GP (7) and depends on GP in Switzerland (162). GPs were reimbursed in Australia for IHAs for humanitarian entrants and refugees who had arrived in past 12 months (225).</td>
</tr>
<tr>
<td>Targeted screening</td>
<td>Community based targeted screening or occasional screening (95, 151, 156, 157, 164, 226, 227).</td>
</tr>
</tbody>
</table>

Further distinctions exist between the domestic screening and IHAs offered by countries and who screening is offered to. Screening is offered in short-term reception or induction centres for asylum seekers and refugees prior to dispersal in a number of European countries (137, 183, 216, 217), including Ireland (61, 62). Domestic
screening is mandatory for certain migrants in the Netherlands (29, 65, 221) and Norway (228). However, in contrast to the restrictive approach in the US, Australia and Canada, individuals are not excluded but are encouraged to complete treatment and domestic follow-up is in place (29, 137, 216, 217, 221, 222). Elsewhere, domestic screening appears to be more dependent on the more ad hoc delivery of services at a sub-national level (see section 2.3.2). Norredam et al. found that Nordic countries offered screening more systematically than other countries such as Austria and Spain (32, 181). In Ireland, screening is in place for asylum seekers (62) and programme refugees (196), but there is no mention of a specific service for other types of migrant. Figure 2 provides an overview of the flow of migrants and the points at which screening is offered in Ireland.

Health conditions included in the screening programmes and IHAs vary. In the EU, TB screening was offered by the majority of programmes in one study, while fewer programmes included mental health screening (32, 181). Several countries reported offering a more holistic health assessment (32, 181). Appendix XII demonstrates the diversity of the screening tests included in certain programmes internationally. In Ireland the communicable disease screening recommended for asylum seekers (229) appears to be more comprehensive than the domestic screening offered in some other countries (29, 65, 137, 216, 217, 222), although further information may reside in the international grey literature or non-English language articles.

Variation occurs even in relation to disease specific screening to the extent that Coker et al. found that no two European countries had the same clinical strategy for the detection of TB (183) and a more recent study found variation in TB screening among Organisation for Economic Co-operation and Development (OECD) countries in when and how it was conducted and who was targeted (230).

Screening guidelines at multiple different levels were identified during the literature review (see Appendix XII). These included guidelines for the formal pre-departure and visa linked screening in the US (194, 231, 232) and Australia (233); medical surveillance of TB in Canada (234); guidelines for infectious disease screening in Australia (235); the Migrant Health Guide (MHG) in the UK, which brings together recommendations; and comprehensive guidelines for migrant health assessments in Canada (10, 123, 124, 236) and refugee screening in the US (205, 237).
Figure 2. Overview of the stages at which screening can be offered for different groups of migrants in Ireland. This figure was produced by the researcher (GS)
National communicable disease screening guidelines for asylum seekers were the only national policy documents identified specifically for the screening process in Ireland (229, 238-242) (see section 6.4). In Europe, Coker et al. found that the majority of the 13 countries in Europe reporting new-entrant screening in their study in 2003 had national guidelines (183).

Local guidelines and protocols are also in place (200) in Australia and in the US where states develop their own protocols for initial medical assessments for refugees (102). These may include a more comprehensive list of health needs (110, 174, 243). In Ireland Doyle found that approximately 60% of the Community Care Areas (local health service areas) had a local written policy for communicable disease screening of asylum seekers (62). However, the extent to which the guidelines identified in this review inform practice is not clear and the practical implementation of the guidelines is explored further in section 2.3.6 and section 3.3.2.

There are a number of possible reasons for the variation in policies, programmes and guidelines between countries. The screening policies are likely to reflect the broader migrant health policy context in a country (27, 244), which in turn may be influenced by the differing lengths of migration history (245). Differing migration trends, TB burdens in migrant populations and the broader national infectious disease contexts have also been suggested to influence screening policies (183), alongside varied legislative (16), social and political contexts influencing best practice in migrant health (246). Norredam et al. (32) suggested that differences in the motivation behind the screening policies between countries were also likely to influence the variation. A lack of consensus on the optimal approach to pre-departure and domestic IHAs (174) and a lack of minimum standards for screening (32, 181) are also reported and are likely to influence the variation.

2.3.2 Diversity at a sub-national level

In addition to the inter-country heterogeneity (28, 32, 183, 230), variation in screening, IHAs and follow-up has been identified at the sub-national level in a number of countries, including Australia (30, 173, 200), the US (34), the UK (14, 33), Germany and Italy (32); for example, in Australia and the US domestic health assessments appear to vary by jurisdiction or state (31, 79, 114, 166, 168, 198, 200, 201, 203, 207, 235, 243, 247-250) and provider (251).
In some cases this is attributable, at least in part, to the organisation of the health system; for example, screening is determined by the federal states in Germany (32). Additional reasons for the variation could include the different organisations providing initial health services for refugees in the US (34) and different sources of funding for the screening between states (252).

A lack of national policy and guidelines also appeared to influence the variation and this has previously been criticised by authors in the US (34) and Canada (253, 254). In both the UK and the US this lack of guidance was perceived to contribute to individual clinics and providers establishing their own protocols and criteria for dealing with the screening and health assessments (214, 253, 254) and ad hoc arrangements were identified in Denmark (202). The views of HCPs in Ireland on the sufficiency of the guidance and guidelines for screening are explored in this thesis.

Even where policy and guidelines do exist, deviation from them in practice contributes to the diversity in implementation in numerous countries (15, 33-35, 74, 173, 214, 255-257). For example, Pareek et al. found that under two thirds of Primary Care Organisations (PCOs) in their study in the UK reported offering LTBI screening and within those PCOs, national guidelines were not necessarily followed with regards to who to offer screening to and the tests used (35). Guidelines may leave a certain amount of judgement to the provider (243) and the discretion of the HCP in using them is an important influence to consider (173). Migrants may therefore not be offered and may also not accept all the tests (104). For example, in the US one study found that although there was a 99% uptake of refugee health assessments, only 70% of those attending were tested for HBV (150).

In Ireland, an audit found differences in who was offered some screening tests, for example, CXRs to all asylum seekers or just adults (62). Variation also existed in the vaccinations offered as the reception centres had a policy not to vaccinate for hepatitis B and in the dispersal regions while screening services offered certain vaccinations, some vaccinations were referred to GPs (90).

While variation is not automatically a negative finding, the sub-national variation was reported to result in gaps in service provision in Australia (30) and differences in the comprehensiveness of health assessments offered in the US, which Vergara et al. proposed may mean some individuals are missed (34).
2.3.3 Models of service provision

One aspect of the variation is the model of service provision through which screening and IHAs are delivered. For example, in Australia a spectrum of arrangements are in place, from comprehensive assessments to no screening (31, 198, 201, 207, 235, 248, 249). The model of service provision for screening bridges both the policy and implementation literature, depending on the level at which the decisions on the model of service provision are taken and the aspects considered.

Comparisons between models of service provision internationally are hindered by the differing contexts and multifaceted nature of the models. The conceptualisation of a dichotomy between mainstream and specialist service provision is artificial but provides a useful starting point for discussion. Screening models can reflect a combination of models, for example, specialist services linking refugees in with GPs in an ad hoc manner in Denmark (202). Other models of service provision include offering screening in social service settings (258) and community organisations facilitating screening for migrant groups and ethnic minorities (95, 157, 164) which can be effective (157). Potential advantages and disadvantages to mainstream and specialist service provision were highlighted in the literature and a summary is presented in Tables 4 and 5, including barriers and levers to implementation.

For example, gaps in service provision could present if screening and IHAs are provided by mainstream GPs (31). GPs were found to encounter difficulties in offering IHAs to asylum seekers and refugees in Australia (249) and in the UK Hargreaves et al. found that a very small minority of GPs in their survey in the UK offered screening for TB, malaria or parasitic infections to asylum seekers, or asked about mental health or a history of torture (259). Remuneration for GPs to offer refugee health assessments was introduced in Australia (30) but Johnson et al. found that GPs remained reluctant to offer IHAs and the funding didn’t compensate for missed appointments, longer consultations and greater work outside the consultations (249). Despite moderate support for health assessments through GPs, the study found that GPs may not take it on at present and highlighted the need for support for GPs (249), as have other authors (30, 260).

Klinkenberg et al. examined different models of screening for TB (see Box 5) and found that no strategy was more effective for coverage, when port of entry, reception or holding centre and community follow-up were examined (28).
Table 4. The perceived strengths and weaknesses of a specific dedicated models of service provision for IHAs or screening for migrants

<table>
<thead>
<tr>
<th>Specific dedicated screening service</th>
<th>Perceived strengths</th>
<th>Perceived weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HCPs: cultural competency (261), experience (261), knowledge (261), specialist (258), potentially more languages (261)</td>
<td>Short term (30)</td>
</tr>
<tr>
<td></td>
<td>Ability to provide comprehensive IHAs (30)</td>
<td>Duplication between HCPs (30) e.g. screening &amp; primary care resulting in increased costs for the health service and individuals falling through the gaps (261)</td>
</tr>
<tr>
<td></td>
<td>Interdisciplinary combination of providers (30)</td>
<td>Interruptions in continuity of care between specialist services and mainstream primary care (19, 30, 261, 262)</td>
</tr>
<tr>
<td></td>
<td>Role in more complex cases (260)</td>
<td>Doesn't build up trust and rapport with primary care provider (260)</td>
</tr>
<tr>
<td></td>
<td>Higher numbers of migrants can be seen (261)</td>
<td>Difficulties in linking in with primary care (30)</td>
</tr>
<tr>
<td></td>
<td>Direct referral to other specialists if in a hospital clinic (258)</td>
<td>May not be convenient and local to access (30, 258).</td>
</tr>
<tr>
<td></td>
<td>Viewed as better equipped and safer by some migrants (258)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Greater resource availability and service capacity (261)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Free specialist centres may be required to overcome demand side access barriers (141)</td>
<td></td>
</tr>
</tbody>
</table>

Clearly pre-departure screening has a high coverage (28), although pre-departure screening may only cover a limited set of screening tests and refugees have been found to still have significant health needs, including those related to communicable diseases, after arrival (173). See section 2.3.6.1 for more detail about coverage of the screening services.

In Ireland voluntary screening is offered to asylum seekers and refugees in accommodation centres. The results chapters present findings on the extent to which this is currently implemented. Originally, screening teams were in place in all three reception centres and comprised an area medical officer (AMO), a nurse (public health nurse (PHN) or Registered General Nurse (RGN)) and a receptionist (175). GPs were attached to the reception centres for the primary care services (62). At the time of a previous audit, health boards either provided screening through a dedicated medical officer, through a formal agreement with GPs or there was no screening in place (62).

The discussion is not a normative one as the suitability of the models of service provision is likely to be context dependent (30, 31, 249). Differing models of service provision may also be complementary and multiple models of care may be necessary to meet the needs of the clients and for uptake. Brewin et al. (258) examined migrants’ views on screening in GP, hospital and social services settings.
Table 5. The perceived strengths and weaknesses of a mainstream model of service provision for IHAs or screening for migrants

<table>
<thead>
<tr>
<th>Mainstream service provision e.g. through mainstream GPs</th>
<th>Perceived strengths</th>
<th>Perceived weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perceived strengths</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Suited to the early detection of disease/infection (98)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• TB screening could be integrated with other health care (19)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Access perceived as local and easy by some migrants (258)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Perceived as an appropriate location by some migrants (258)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• More empowering for migrants (260)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Holistic, family centred care where additional health issues can be addressed (30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Some migrants perceive it as safer and cleaner (258)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Relationship formed with primary care provider (260, 261)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Possible improved follow-up after TB screening if initiated in primary care (19)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perceived weaknesses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Difficulties seeing large numbers of migrants (261, 263)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• May not be registered with a GP (83)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• HCP knowledge and awareness (98, 201, 249, 261, 264, 265) and may not want to become specialists (249)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Language barriers and cultural competency (30, 31, 201, 225, 249, 261)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Difficulties dealing with large families (261)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Difficulties due to the need to provide longer consultations (31, 201, 249)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Work surrounding consultations (249, 260)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Logistically difficult for GPs (31)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• HR shortages and full practices (249)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Burden of referrals to GP (249) and difficulties with onward referrals (30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Funding (30, 249, 260, 261)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Need support and training (30, 249, 260)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Intersectoral communication difficulties (249, 260)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Fragmentation of care (260)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Duplication of care (260)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• GP perceptions that IHAs should not be offered through them (249) and should be offered by specialist centres or at entry (259) (even if they support screening in principle)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Perception by some migrants that GPs may just refer on to specialist services anyway (258)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• GPs may not be offering initial screening and IHAs (259) &amp; there may be gaps in service provision (31) and testing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• High risk populations may not be offered hepatitis B testing (in the US) (154, 265)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Additional or other models may be required to improve access e.g. to screening for TB (263, 266)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• GPs may encounter difficulties in coordinating between the providers at different levels (260) and dealing with the transfer of records (249)</td>
<td></td>
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</tr>
</tbody>
</table>

They found that individuals would not necessarily go to all the settings and were satisfied with the one they were attending (258). This is also an area for discussion in the broader migrant primary health care literature.

The sub-national diversity identified in this review raises questions over the extent to which the policies are evidence-informed and the sufficiency of the evidence base to inform policies (see section 2.3.4) (183), suggesting factors other than best-evidence
may be influential, including other sources of knowledge. The nature and causes of the variation require further attention as they could impede the enactment of evidence-based policies, programmes and guidelines and impact on quality and access. Sub-national variation across Ireland is explored throughout this thesis as are the influences which may contribute towards this variation.

2.3.4 General criticisms of screening policies and programmes

Numerous criticisms were identified in the literature in relation to screening policies and guidelines and they are broadly categorised below:

i. **The need to ensure screening is motivated by improving the health of the individual alongside the wider population** and that human rights are taken into account, rather than solely public health protection (15, 23, 32, 141, 181, 263, 267-269) or exclusion (23, 32, 181, 263, 267, 268). Restrictive approaches could be viewed as impacting on human rights (15) and stigmatising and discriminatory (15, 269). However, early detection can also be viewed as necessary to protect the health of the individual and to ensure the human right to the 'highest attainable standard of health' (270).

ii. **The need for the development of evidence-based policies and guidelines informed by evidence, including the effectiveness of the screening strategies and IHAs** (5, 9, 13-19, 74-78, 135, 141, 226, 266, 271-277). For example, criticisms were directed at the evidence behind the port-of-entry TB screening in the UK (13, 14, 18, 19, 135, 271-275), discriminatory nature of screening (13), one point CXR screening (9, 13, 18, 266, 271) and mandatory screening policies (15, 17, 18). A call has been made for policies to be 'based on rational arguments and a sound evidence-base, not political agendas' (18). Other proposed influences included legal (276), political (18), the media, reducing public fears (14, 17-19), old laws and fears (16, 18) and historic policies and issues rather than the current evidence base and migration and population demographics (5, 13, 16, 277, 278).

iii. **The need for a coherent, united approach to migrant health and screening policies and programmes** (13, 18, 30, 34, 77, 101, 110, 141, 201, 204, 267, 279-282). Greater coherence is needed in relation to national screening coordination (30, 34, 77, 201, 204), the broader migrant health (267, 269, 283), communicable disease (18, 86, 142, 183, 282-285) and broader health system policy contexts, (11, 23, 141, 279, 281) and with other sectors nationally and internationally (18, 30, 110, 141, 267, 279-282, 286).
iv. **The need to consider implementation difficulties to ensure knowledge into action** (see section 2.3.6).

v. **The need for sufficient guidelines for practitioners** (181) including in relation to the model of service provision (287) and broader health needs of migrants (254). General infectious disease guidelines are insufficient, as there is a need to tailor them to specific populations, for example, refugees (243).

### 2.3.5 The development process for screening and IHA policies, programmes and guidelines

In light of these criticisms, information about the process of the development of policies, programmes and guidelines was sought with a focus on the extent to which evidence was influential. Guideline developers detailed the use of an expert group, grading of evidence and limited external stakeholder consultations for infectious disease guidelines for refugees in Australia (235, 288) and consensus processes and evidence-based reviews in the US (205, 289). At a sub-national level in the US the expertise of practitioners (290) and local expert knowledge (261) were also influential alongside national guidelines.

The Canadian Collaboration for Immigrant and Refugee Health (236) provide one of the most detailed descriptions of the guideline development process. Priority conditions were selected using a Delphi consensus method and the evidence was graded (236). There were several interesting features of the process, for example, service users were involved (10, 236) and health inequalities were considered in addition to the burden of illness in the development of the guidelines (10, 236). Descriptions of the development of the screening and migrant health guidelines are primarily by the guideline developers, who are likely to promote the evidence base used to inform them. Section 3.3.1 explores the extent to which guidelines and policies are evidence-based in the broader guideline and implementation literature.

### 2.3.6 The extent to which policies, programmes and guidelines are implemented in practice

Effective implementation of screening programmes is essential, as for example, even where screening policies exist, migrants with hepatitis B have been missed (291). A number of varied implementation difficulties for screening and IHAAs are proposed and identified in the literature including migrants having a lack of medical records, different vaccination schedules in other countries, the complex needs of some migrants (101, 292), co-morbidities such as TB and HIV potentially complicating diagnosis (98) and co-infections potentially altering the mitogen responses with IGRAs (146). Feasibility questions are also raised around the implementation of LTBI screening in the literature.
(19, 293, 294). Even the use of the Interferon-γ-release-assay (IGRA), which may compensate for some of the well-established implementation difficulties when screening using a TST (137), could be problematic (146). LTBI screening has however been found to be feasible in certain refugee and asylum seeker groups (140, 295).

A number of potential influences on implementation were highlighted in section 2.3.3, including language barriers and the cultural competency of providers (97, 101, 167, 200, 296-298). Implementation difficulties relating to coverage and follow-up are particularly focused on below.

2.3.6.1 Coverage

Ensuring the coverage of the screening services, the offer of comprehensive health assessments and the uptake of the services by asylum seekers and refugees are all important for the implementation of screening policies, programmes and guidelines. This relates to access and elucidating the barriers and facilitators to coverage, access, uptake and the provision of a comprehensive assessment could help to facilitate knowledge into action.

A mixed picture emerges from the literature in relation to post-arrival screening coverage. Due to the variation in screening policies and contexts across countries this is not necessarily surprising. The recent systematic review by Klinkenberg et al. reported a high median coverage of approximately 90% for migrant TB screening in 11 EU/European Economic Area (EEA) countries (including Switzerland), from the studies examining national screening strategies (28). As would be expected coverage was higher for mandatory (90%) than voluntary (49%) screening programmes (28). High uptakes of screening for asylum seekers have also been reported, (19, 217), although again this is clearly influenced by voluntary or mandatory screening (28). Outside Europe, several authors have reported a high uptake of IHAs by refugees in the US (171, 298) and LTBI screening by refugee claimants in Canada (295). There is a need to be cautious of publication bias in this area which may artificially inflate coverage and uptake estimates.

Sub-optimal coverage and uptake has however been reported as a problem in other studies and articles, including for refugee health assessments in Australia (31, 77, 299) and the US (34) and TB screening in the UK (35, 214, 300). Coverage may also be high for asylum seekers who may be screened in reception centres, but lower for other groups of migrants (28), unless screening is attached to residency permits or visa applications. Optimal coverage also requires screening to be offered to the
appropriate individuals, but over and under screening for TB due to a lack of adherence to guidelines was identified in the UK (35).

In Ireland screening coverage has been reported to be sub-optimal. Screening for asylum seekers is initially offered in the reception phase in Dublin and Doyle identified that screening was offered to all asylum seekers in just over a third of the Community Care Areas (CCAs) in the dispersal areas and to asylum seekers not already screened in one quarter (62). It was not offered at all in almost 40% of the CCAs (62). Doyle estimated that only approximately 35-40% of asylum seekers entering the country were screened in the reception centres. This estimate is explained by approximately 30% of asylum seekers not being accommodated in reception centres, approximately 80% of asylum seekers in the centres being invited to screening (so 55% of the total), and around 70% attending (62). From January to the end of May 2010 the RIA figures indicate that almost 30% of the new asylum applicants were not in RIA accommodation which would fit with previous estimates (301). Doyle reported that individuals passing through the reception centres may not always be invited for screening, for example if they are only in place for a weekend and were dispersed before screening (62). Reports of sub-optimal coverage are of concern if services are evidence-based.

The uptake rate for screening is also variable in Ireland and at Balseskin Direct Provision Reception Centre the percentage annual uptake for 2002 to 2007 ranged from 55.7% to 78.5% (average 69.7%) (61). Other reports of the uptake of screening are within this range at approximately 75% for the Eastern Region in December 2000 (175) and higher at 80% in one of the dispersal locations (302). These are relatively high for a voluntary screening programme, but individuals will still be missed. In the dispersal regions, just under a half reported that asylum seekers had ‘mostly’ attended for screening in the Eastern region and just under half stated that they were ‘sometimes’ screened (62).

Coverage also relates to the comprehensiveness of the assessments offered. This varies across Europe (32, 181) and within countries (see section 2.3.2) in respect to what tests are offered and accepted. Demand and supply side barriers may contribute to the variation, for example the reluctance of clients to take up stool testing (171) or the alertness of HCPs to particular health issues. An earlier audit in Ireland found that uptake varied for the different tests. Almost all (98.7%) asylum seekers were given the TB screening questionnaire and BCG scar check in the Dublin reception centres, but
Mantoux tests decreased from a high of 152 in 1999 to two in 2002 due to a change in policy (62).

In the Dublin reception centres CXRs prior to dispersal ranged from 24.1% to 57.5% over a 6 year period and from 100 records examined approximately 60% of those who weren’t pregnant had a CXR (62). From a needs assessment in Cork and Kerry in a survey of asylum seekers 70% reported having been tested for TB in Ireland, this means almost a third of the asylum seekers had not (94). It would be useful to know whether this third were those who may not be from high incidence countries and whether they were offered one and did not accept.

2.3.6.2 Barriers and levers to coverage and uptake of screening and IHAs

Numerous proposed barriers to the coverage and uptake of screening were identified and they are categorised according to patient, provider and institutional factors in Tables 6.a–6.c. These levels are interactive and not clear cut, but they provide a useful starting point for the discussion throughout this thesis. Although some of the barriers in Tables 6.a–6.c. may also affect the non-migrant population, many of the barriers are specific to new entrants and ethnic minorities.

Barriers at the client level, client preferences and the acceptability of screening and IHAs are clearly key considerations, yet with a couple of exceptions (167, 258, 303) there was little evidence from the perspective of migrants. Brewin et al. (258) found screening for TB was broadly acceptable and reassuring among the sample of migrants in their study but the majority in their sample were those who had accepted screening. Those who declined reported it was because they preferred screening in another setting or felt they didn’t need screening as they had a BCG scar, rather than because of an objective to screening itself (258).

This literature review focuses primarily on screening, rather than just testing, in new entrant migrants and so a comprehensive literature review of the broader literature on testing in ethnic minorities and broader populations was beyond the scope of the review.
Table 6.a. Patient level barriers to the coverage and uptake of screening and IHA among migrants suggested in the international literature*

<table>
<thead>
<tr>
<th>Barriers suggested to coverage and uptake</th>
<th>Barriers suggested to follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Language (10, 100, 123, 141, 155, 164, 304, 305)</td>
<td>• Non-attendance at TST reading and drop-outs (83, 297)</td>
</tr>
<tr>
<td>• Cultural &amp; social barriers (141, 155, 235, 294, 304)</td>
<td>• Costs to the individual (10, 307)</td>
</tr>
<tr>
<td>• Cultural &amp; gender norms (304)</td>
<td>• Health knowledge (217, 248)</td>
</tr>
<tr>
<td>• Differences in the health beliefs of migrants (10, 100, 123, 164, 298)</td>
<td>• Demographic factors e.g. education, gender, marital status (10, 308-310)</td>
</tr>
<tr>
<td>• Fear of dying (306), denial (164)</td>
<td>• Beliefs about the tests (10)</td>
</tr>
<tr>
<td>• Stigma &amp; negative attitudes towards screening (10, 98, 123, 164, 306) &amp; discrimination (304)</td>
<td>• Stigma (10)</td>
</tr>
<tr>
<td>• Fear of loss of status &amp; community support (304)</td>
<td>• Language barriers (85, 294)</td>
</tr>
<tr>
<td>• Lack of health literacy and understanding of the conditions (153, 164), health system (10, 102, 164, 261), how to access the health system (100, 304) and that conditions are treatable (164)</td>
<td>• The mobility of the population (248)</td>
</tr>
<tr>
<td>• Lack of familiarity with attending health services for preventative care (261, 306)</td>
<td>• Fear and mistrust (310)</td>
</tr>
<tr>
<td>• Competing priorities (98, 200, 261, 304)</td>
<td>• Non-attendance at TST reading and drop-outs (83, 297)</td>
</tr>
<tr>
<td>• Reluctance to have venipuncture (123, 164), phlebotomy for refugee children for IGRAs (146) and obtaining stool samples from clients (200)</td>
<td>• Costs to the individual (10, 307)</td>
</tr>
<tr>
<td>• Vulnerable nature of the population (235)</td>
<td>• Health knowledge (217, 248)</td>
</tr>
<tr>
<td>• Mental health conditions (10)</td>
<td>• Demographic factors e.g. education, gender, marital status (10, 308-310)</td>
</tr>
<tr>
<td>• Fear of authorities and screening (10, 141, 235, 294) &amp; that it may influence immigration status (304)</td>
<td>• Beliefs about the tests (10)</td>
</tr>
<tr>
<td>• Logistical difficulties in attending facilities (10, 30, 31, 100, 102, 123, 200), including the location and timing of clinics (10, 123), transport (30, 200), distance to health services (31) &amp; opportunity cost for the individual (123)</td>
<td>• Stigma (10)</td>
</tr>
<tr>
<td>• May not perceive they are at risk (153, 304)</td>
<td>• Language barriers (85, 294)</td>
</tr>
<tr>
<td>• Cost concerns (164)</td>
<td>• The mobility of the population (248)</td>
</tr>
<tr>
<td>• Poor living conditions (304)</td>
<td>• Fear and mistrust (310)</td>
</tr>
<tr>
<td>• Perception TB is a severe disease (295)</td>
<td>• Logistical difficulties in attending facilities (10, 30, 31, 100, 102, 123, 200), including the location and timing of clinics (10, 123), transport (30, 200), distance to health services (31) &amp; opportunity cost for the individual (123)</td>
</tr>
</tbody>
</table>

However, a number of parallels and useful insights were identified within the broader prevention, testing and screening literature for hepatitis B, C (153-155, 164, 265, 311-315), TB and HIV (304, 316-319). These included the views of migrants of testing (306, 317, 318), among migrant and ethnic minority groups and a wider population, and so information from key literature reviews, covering these different perspectives, is included in Tables 6.a –6.c. and Box 6.
Table 6.b Provider level barriers to the coverage and uptake of screening and IHAs among migrants suggested in the international literature*

<table>
<thead>
<tr>
<th>Barriers suggested to coverage and uptake</th>
<th>Barriers suggested to follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Lack of provider knowledge of the communicable disease and who to offer screening to (10, 35, 123, 155, 164, 248)</td>
<td>• Test results e.g. individuals with a positive TST and CXR were more likely to be seen for follow-up (308)</td>
</tr>
<tr>
<td>• Provider reluctance to offer HIV testing (10)</td>
<td>• HCP experience, knowledge (307, 310, 320), training, awareness (307, 320) and lack of cultural competency (309)</td>
</tr>
<tr>
<td>• Negative attitudes of providers and discrimination possibly increasing HIV related stigma (10)</td>
<td>• Communication between HCPs (308)</td>
</tr>
<tr>
<td>• Provider’s cultural background (164)</td>
<td>• Lack of adherence to or awareness of guidelines (217, 310)</td>
</tr>
<tr>
<td>• Provider knowledge of relevant guidelines (154)</td>
<td>• Negative perceptions of the HCPs of the screening system (214) and LTBI screening (35)</td>
</tr>
<tr>
<td>• Reluctance to screen due to financial barriers for patient in following up after hepatitis B screening (155)</td>
<td>• Limited attention paid to TB by HCPs (&amp; society) (217)</td>
</tr>
<tr>
<td>• Lack of knowledge of entitlements to care (304)</td>
<td></td>
</tr>
</tbody>
</table>

Table 6.c Institutional level barriers to the coverage and uptake of screening and IHAs among migrants suggested in the international literature*

<table>
<thead>
<tr>
<th>Barriers suggested to coverage and uptake</th>
<th>Barriers suggested to follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Payments for access to services and medications (30)</td>
<td>• Dispersal and voluntary movement of migrants and logistical barriers (19, 83, 214, 217, 256, 263, 294, 300, 308, 310, 321, 322)</td>
</tr>
<tr>
<td>• Lack of consensus guidelines (31)</td>
<td>• Capacity of services and resources (19, 30, 34, 35, 214, 217, 294).</td>
</tr>
<tr>
<td>• Complexity of the health system &amp; referral system (164)</td>
<td>• Funding (34, 74, 203, 310)</td>
</tr>
<tr>
<td>• Some migrants not having insurance (164)</td>
<td>• Opening hours of clinics and centres closing (307, 308)</td>
</tr>
<tr>
<td>• Legal and administrative status (304)</td>
<td>• Organisational barriers (35, 214, 217, 307, 308, 310) including the need for a common strategy in different geographical areas (308)</td>
</tr>
<tr>
<td>• Responsibility (34, 202)</td>
<td>• Responsibility for screening and follow-up (256)</td>
</tr>
<tr>
<td></td>
<td>• Lack of current guidance, protocols and policies (30, 214, 217, 308, 310)</td>
</tr>
<tr>
<td></td>
<td>• Bureaucracy (14, 83, 323)</td>
</tr>
<tr>
<td></td>
<td>• Need for quality assurance systems (217)</td>
</tr>
<tr>
<td></td>
<td>• Model of service provision (217)</td>
</tr>
<tr>
<td></td>
<td>• Lack of a unique identifier (217)</td>
</tr>
<tr>
<td></td>
<td>• Short length of stay of asylum seekers in reception centres (217, 294)</td>
</tr>
<tr>
<td></td>
<td>• Deportation (308, 324)</td>
</tr>
</tbody>
</table>

* Many of these are proposed by authors and so are not necessarily grounded in strong evidence.

The barriers proposed are from a combination of articles which focused on different subpopulations of migrants, for example refugees (30, 200, 235, 261, 298) or new-entrants more broadly (35, 98, 141, 167). There will be differences in the barriers between and within these different groups. Furthermore, the articles focus on a range of diseases and health conditions, with some just focusing for example on TB (35, 123, 141, 294) and others on screening more broadly (10, 98, 235, 261, 298).
Box 6. Possible levers and interventions to improve the coverage and uptake of screening and IHAs

**Levers and interventions targeted at clients**
- Reminders to attend screening (10)
- Comprehensive & holistic care (10)
- Providing more holistic information about health services (266)
- Formal and informal support services for HIV testing (167) & peer educators (10)
- Specific follow-up & liaison HCPs (325) and volunteer health workers to assist with transport (325)
- Providing information through a variety of sources (e.g. local refugee groups, social services & housing departments (266)) and culturally tailored (protocol published for an RCT) (326)
- Recommendations from a family member, friend or doctor to attend hepatitis B screening (164)
- Fear of transmitting hepatitis B (164)
- A family member developing severe complications from chronic hepatitis B (164, 327)
- Access to free or low cost screening for hepatitis B or knowing there is insurance coverage (164)
- Knowledge that hepatitis B is treatable (164)

**Levers and interventions targeted at HCPs**
- Provider education to improve the numbers screened for LTBI (328)
- Nurse administered LTBI screening questionnaire as a triage step to remind physicians (307)
- Provider’s understanding that screening for hepatitis B is cost-effective and that effective treatment is available (164)

**Levers and interventions targeted at the institutional or structural level**
- Greater inter-agency collaboration to link refugees in with screening services and mainstream care (30)
- Improved service provision models & framework for good practice for healthcare provision for refugee children (30)
- Cultural training of HCPs may facilitate access into the healthcare system for hepatitis B screening (164)
- Community-based, culturally friendly clinics (164)

Some of the barriers and facilitators are specific to the particular diseases, for example, increased stigma associated with certain conditions. However, others such as a mistrust of authorities by migrants may influence screening for a broader range of conditions.

Possible levers and interventions to improve the access and uptake of screening and IHAs are summarised in Box 6 and are categorised by interventions targeted at the level of the clients, HCPs and institutional or structural level. Woodland et al. proposed a 10 stage framework to improve care for refugee children in Australia in relation to IHAs. The stages are:
1. Routine comprehensive health screening
2. Coordination of initial and ongoing health care
3. Integration of physical, developmental and psychological health care
4. Consumer participation
5. Culturally and linguistically appropriate service provision
6. Inter-sectoral collaboration
7. Accessible and affordable services and treatment
8. Data collection and evaluation to inform evidence-based practice
9. Capacity building & sustainability
10. Advocacy

Few other interventions to improve the access, uptake and coverage of screening were identified in this literature review. One exception was an outreach education intervention in GP practices for TB screening by Griffiths et al. (328) which found that while it did increase TB screening, the effect on the detection of active TB and LTBI was modest. In one area of Ireland, a needs assessment in 2000 recommended that a more proactive approach was needed with regards to access to health services for individuals with diseases such as TB and HIV and that a targeted approach was needed for those who didn’t attend screening (94).

2.3.6.3 Follow-up

Effective follow-up and coordination after screening and IHAs was one of the major implementation difficulties identified in the literature. Yet this is essential as:

i. follow-up is an essential requirement of a screening programme (71, 329)
ii. inadequate follow-up can be detrimental for the individual (330)
iii. coordination is required to provide ‘accessible, equitable and quality care’ (30)
iv. treatment compliance is particularly important in preventing drug resistance (330)
v. if individuals are lost to follow-up this may increase transmission (330)
vi. repeat testing may be required for certain infections e.g. intestinal parasites (298).

vii. follow-up impacts significantly on the effectiveness and cost-effectiveness of screening programmes (179, 331) and programme performance has been suggested to be more important for cost-effectiveness than the screening strategy selection (136).

Difficulties with coordination of care and follow-up were identified at a number of levels, including the clinic level (307), with gaps between the administering and
reading of the TST test (25, 146, 149, 307, 309) and the commencement of treatment after screening (25, 171, 320). A major aspect of follow-up is adherence to treatment (140, 248, 256), which is beyond the scope of this literature review. In Ireland problems relating to follow-up after screening and continuity of care were particularly noted in the national intercultural health strategy, although this is not elaborated on (60).

Particular problems were identified between the initial TB entry screening and subsequent follow-up in a number of countries (14, 28, 83, 125, 275, 332). For example, inconsistent implementation and difficulties with follow up were reported after port-of-arrival screening in the UK (13, 14) as Consultants in Communicable Disease Control had developed varied pragmatic methods to determine who to follow-up (214). Inadequate follow-up following TB screening in reception centres after the dispersal of asylum seekers in Norway was reported; for example, only 42% of asylum seekers with a positive Mantoux test were seen in primary care (308). Formal and mandatory systems for TB follow-up after the initial screening were not sufficient to resolve the difficulties as problems were still encountered (186, 310). Multiple and varied barriers to follow-up were proposed in the literature and they are summarised in Tables 6.a.–6.c. A number of the barriers mirror those identified for coverage, such as language barriers (85, 294).

A lack of responsibility, coordination and structure was mainly mentioned in the discussion section of articles or in non-systematic reviews but are highlighted by authors as barriers to implementation in several countries in relation to both coverage and follow-up (30, 31, 34, 142, 202, 256, 296). For example, Vergara et al. stated that the questions of who are responsible for detection and treatment, and financing and resources for the domestic refugee health assessments in the US, needed to be addressed (34). Between and within countries there is variation in respect to who is responsible for screening and follow-up (32, 181, 214). Responsibility and coordination of the screening services in Ireland is examined in Chapter 7 of this thesis.

Several strategies were proposed in the literature to improve follow-up, including a more integrated, comprehensive and holistic approach to TB screening and follow-up (25, 28). However, follow-up for TST tests can also be poor in GP settings (83). The one-step IGRA test, in place of the two-step TST, could improve follow-up for LTBI screening (307) but this can be resource intensive, particularly when there is a high burden of TB (137). At a systems level the strengthening of intersectoral links with state agencies for settlement and integration in Australia has been proposed to
improve coverage, coordination and follow-up as has capacity building for ongoing care and improving links between primary and secondary care (30).

### 2.4 Cross cutting themes

Several of the points identified during this literature are cross-cutting issues for migrant health more broadly. Key elements of the broader migrant health literature are highlighted briefly below, in order to situate the information regarding screening in the context of the broader literature.

#### Access to healthcare

Access to health services for migrants is recognised as a major issue internationally. A migrant health report by the World Health Organisation (WHO) emphasised the importance of access including the fact that although specific services may exist in the initial transition period, migrants are subsequently often left to ‘navigate the system’ (1). Access was prioritised by experts in 16 countries across Europe in a recent Delphi consensus exercise looking at the principles of good practice for healthcare for migrants (246). Ensuring access to healthcare for migrants is vital and as discussed by Norredam et al. (32), barriers to access may result in the health needs of asylum seekers not being met.

Several articles or reports provide an in-depth examination of the access to healthcare for migrants in Europe (181) and beyond (333-335), including an EC migrant health report (336). Norredam et al. compared access policies across Europe with a particular focus on screening and found that while all of the 24 countries surveyed, except for Greece, had medical screening programmes, access was limited to emergency care for migrants in ten of the countries (32). A systematic review by Uiters et al. (334) found that there were no consistent patterns of differing use of primary care services for physical problems between immigrants and non-immigrants. However, there did appear to be differences between countries and the authors suggested this was likely to be due differing emphasis on primary care between country health systems (334).

Norredam et al. identified practical barriers to access, for example a delay in obtaining a medical card and elucidated the four categories of barriers detailed below (32); both formal and informal barriers have been identified (181). The categories overlap with access barriers suggested by Mladovsky below (337).
Types of barriers to accessing healthcare for migrants

<table>
<thead>
<tr>
<th>Identified by Norredam et al. (32):</th>
<th>Identified by Mladovsky (337):</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) lack of awareness of the health services;</td>
<td>a) the stringent requirements for obtaining permanent status</td>
</tr>
<tr>
<td>b) language barriers;</td>
<td>b) literacy, language and cultural differences</td>
</tr>
<tr>
<td>c) cultural barriers;</td>
<td>c) administrative and bureaucratic factors, lack of knowledge of the health system and mistrust of health providers</td>
</tr>
<tr>
<td>d) structural barriers</td>
<td></td>
</tr>
</tbody>
</table>

A broader literature also exists on barriers to access for ethnic minorities, which although broader, is closely aligned with the access literature for migrants.

These categories resonate with findings from other studies. Specific examples of barriers for asylum seekers or refugees include language barriers (338-340), a lack of continuity (338), stigma (340), post-migration stress and mental health issues, a lack of information about health care (341) and varying GP attitudes (340). Institutional barriers also exist such as the need to pay for medical care (341, 342), difficulties registering for care (343) and bureaucratic barriers such as a lack of awareness of HCPs of asylum seekers’ entitlements to care (341), and timely access to a GP (339), especially when a health issue is perceived as an emergency (338). Facilitators have also been discussed in the literature to access, for example an asylum seeker support nurse was a facilitator to accessing primary care for asylum seekers (338).

The broader health needs of migrants

The literature relating to the broader needs of the migrant population ranges from descriptions of ‘the healthy immigrant effect’ (8) where migrants are suggested to be healthier than the host population to the complex and multiple health needs of other migrants (61, 344, 345). A number of other authors provide further detail on the broader health status (346) and needs of migrants (2), including mental health (344) and the social determinants of health (101, 103, 286).

This need to focus on the broader health needs of migrants is recognised in several newer sets of international screening and migrant health guidelines (10, 237). Conditions may however not be detected as mental health was not included in all screening programmes in Europe (32), providers may not consider taking histories of trauma (347, 348) and onward referrals may be problematic (349). A gap between
asylum seeker needs and mental health service provision has also been identified in Ireland (350).

The model of service provision

Mainstream versus specialist or targeted healthcare provision for migrants is a much broader discussion in the primary care field beyond just screening, where concerns over marginalisation need to be weighed up against the need to provide dedicated services to meet the specific needs of asylum seekers (336). This is not a simple discussion and specialist services may be needed at specific times, for example, initially when migrants enter the country or in areas where there is a high demand for services (336). Healy & McKee provide an interesting discussion of the models of care for diverse populations, including migrants, in Europe (351).

Feldman provides a useful framework to facilitate the discussion about differing models of care and states that a combination of gateway, core and ancillary services can be used to reduce the burden on the mainstream providers (349). For example nurse led outreach clinics, and innovative strategies can be used to support mainstream providers and provide integrated and comprehensive services (349). In Switzerland different models are in place but nurse practitioners are used in a gatekeeping system for primary care for asylum seekers. Bodenmann et al. (352) found that the nurse practitioner system for screening provided adequate access to treatment when compared with physician provided care. Although the procedures used to assess need were found to be less appropriate through the nurse practitioner system, the authors suggested this could be addressed through further training (352).

A limitation of mainstream service provision can be the lack of expertise or specialist knowledge (261, 336) and gaps in HCP knowledge (353) and migrants may perceive GPs as uneducated (354). Primary healthcare workers may be ‘often unfamiliar with the epidemiological profiles of migrant groups and feel unprepared to manage the complex psychosocial issues’ (1). Therefore there have been calls to strengthen the links and support for GPs with specialist services and for specialist training (336, 349, 355). The lack of time GPs have to spend with clients has been noted as one of the major problems in the literature (343). Feldman comments that even with specialist staff assisting the GP, more clinical sessions may be needed and that this can be particular problem when using interpreters (349). Cultural competency and interpreter use have been highlighted as problems for mainstream services (356), but may not be so pertinent for specialist services (349).
For GPs specifically, demand side barriers have been identified to asylum seekers raising issues, as O’Donnell et al. (338) found there was a lack of awareness of available services for anxiety or sadness and that the asylum seekers participating felt it would be inappropriate to discuss this with their GP. Furthermore, they found that asylum seekers expectations of the UK healthcare system were influenced by their history of living in countries with no primary care system and so they recommended initiatives to increase the awareness and understanding of asylum seekers of the UK system (338). Continuity of care may be problematic for a number of reasons and while Smaland Goth & Berg found that individuals may not want to disclose everything to one doctor due to a fear it may be used against them (354), a lack of continuity of care was identified as a problem by Bhatia & Wallace, within a practice and due to dispersal (340).

A couple of studies have found that asylum seekers generally reported a positive experience once in contact with a GP (338, 341) but O’Donnell et al. reported that a lack of trust and confidence in the GP was a difficulty for some asylum seekers (357).

2.5 Discussion

2.5.1 The need for high quality reviews and synthesis of the data

Many of the barriers and levers to implementation are proposed by authors and require further investigation, as they were identified from letters, non-systematic reviews (141), the discussion sections of articles (31, 294), opinion pieces, reports describing the provision of care to migrant populations, and advice pieces from practitioners and academics (30, 98, 200, 298), rather than from evidence from primary studies. The extensive evidence review by Pottie et al. is one of the main exceptions to this (10, 123, 124). Synthesising these broader forms of knowledge does not provide robust research evidence, but it assists in formulating propositions to test in further rigorous research. Several contextual and policy changes have occurred since the publication of some of the literature which may now be out-of-date, but it is important to understand previous implementation difficulties and the historical context.

A review of the broader knowledge base in the grey literature would complement this review and could circumvent some of the publication bias in the peer reviewed literature. Further high quality reviews and synthesis of the data are also required, as presently the evidence base could be difficult for policy makers and guideline developers to navigate. In Ireland the data on the screening service is obtained primarily from relatively few grey literature reports and there is a lack of easily
available, recent data and peer reviewed literature on the screening service effectiveness or implementation. This review contributes to the existing literature as the search was conducted using a systematic method and it extends beyond TB and offers a broader perspective on the evidence.

2.5.2 Greater understanding of both the development of policies, guidelines and programmes and their implementation

Further independent research is needed as relatively little is known about the development of the policies, programmes and guidelines in this area, including the extent to which evidence is influential. Policy and guideline developers may encounter difficulties in obtaining the necessary high-quality evidence to inform decision making, as a sub-optimal evidence base exists.

Further evidence is also required on the enacting of guidelines, strategies, policies and programmes, building on previous international surveys (32, 183). Although guidelines are likely to play a role in the variation in implementation, the extent to which they are influential in comparison to the wide range of other proposed influences is difficult to elucidate and requires further investigation. Arguin et al. (283) highlighted the need for more evaluations of migrant health interventions, beyond defining populations and describing conditions. Research is particularly needed on the effectiveness, implementation and acceptability of screening and IHAs beyond TB.

A review of the screening service in Ireland has previously been recommended (60, 62), alongside an alignment of the service with the new HSE structures in the NIHS (60). Recommendations from the audit by Doyle, focusing on the Eastern Region, included: the restructuring of the service; greater support, leadership and coordination; and for a national expert group on communicable disease screening to be convened (62). A committee was formed by the Health Protection Surveillance Centre (HPSC) in 2010 to review the screening guidelines (358).

Relatively few studies have examined the model of service provision for screening or IHAs (30, 33, 151, 183, 230, 262) and some are disease focused (224, 359). Therefore, the development of an evidence base to inform decisions about models of service provision is a priority, particularly in relation to more holistic screening and IHAs. For example, although numerous reviews and meta-analysis exist, they frequently focus on one aspect of TB screening, rather than the effectiveness of screening programmes or models of service provision.
This discussion incorporates the debate over whether screening and IHAs should be integrated into mainstream primary care or delivered through a specific vertical programme. Some authors have encouraged the consideration of different strategies for screening (13) and have suggested a move towards primary care (271), GP based screening and a community approach in the UK (24). However, other authors have commented on the lack of literature about the provision of healthcare to asylum seekers and refugees through GPs (249, 259) and further research is needed into potential screening in primary care.

Particularly absent in the evidence base were the views of policy makers, HCPs and the migrant population on new-entrant screening and IHAs, both nationally and internationally. One small scale qualitative study found that TB screening was broadly acceptable to the migrants included (258), but as other authors have noted the majority of the migrants in the study had accepted screening (360, 361). Robust research, including the use of qualitative methods, is needed to explore the views of these key stakeholders on screening policies, programmes and implementation in order to complement the existing studies employing methods such as questionnaires (32, 183, 214) or semi-structured interviews (33).

2.5.3 An alternative conceptualisation of screening

In response to the call for renewed thinking about policies for migrant screening (13), one idea is to view screening not as exclusionary, but as a mechanism to facilitate integration into the health system in the migrants’ new country. Gushulak and MacPherson note ‘immigration screening in this context has the potential to become an integral component of public health promotion and prevention in migration receiving countries’ (362).

More comprehensive new-entrant IHAs and holistic screening have been proposed internationally, (10, 13, 25, 30, 77, 201, 250, 263, 363) and may exist at a sub-national level (166, 261, 290). This is not a new idea (325) and it could assist in addressing the tension between the focus on public health protection through screening and the health of the individual. Papers describing broader IHAs primarily centre on refugees and are limited to a single clinic or specific area of the country (100, 262) with few examining multiple regions (34). IHAs could include a broader range of health conditions (168), including a greater emphasis on chronic infectious diseases which may not be detected through the current screening measures (5, 278, 279). These may not be transmissible to the host population but could have deleterious consequences for the individual (5, 278, 364).
Previously TB may have attracted greater attention due to history, public perceptions, its transmissibility (12) and because issues such as TB screening yields are more amenable to examination using traditional research methods. This focus may not however be grounded in evidence of the needs of the migrant population. Criticisms have also been directed at the biomedical model of TB control and arguments put forward for a greater consideration of the social determinants of health (263, 281, 363) and socio-economic and politico-economic factors (363). Further rigorous research is needed in this area.

The scope of screening policies may also need to be expanded to include a wider group of migrants, such as migrants with irregular status (107) and a longer time frame after immigration as TB can reactivate a number of years after migrants have been in the country (365). The need to move beyond the traditional classifications of migrant groups has also been acknowledged (362) alongside the importance of appreciating and understanding the diversity in the migrant population (5).

2.6 Conclusions

Screening programmes and IHAs vary widely between and within countries, raising questions over the extent to which they are evidence-based. A diverse picture therefore emerges, particularly when the range of screening programmes are situated within differing health system contexts, and different migrant trends and patterns internationally. Inter- and intra-country variation in screening programmes, policies and guidelines is not unexpected, due to these differing contexts. Although screening policies and programmes need to be tailored to the context, it is unlikely that this alone accounts for the extensive variation.

Numerous criticisms have been directed at screening policies, programmes and guidelines, yet relatively little is known about their development. Sub-optimal implementation of screening programmes was also highlighted in the literature, alongside a wide range of potential influences on implementation. Ineffective, misdirected or non-existent screening and IHA policies, programmes and guidelines could have a serious impact upon communicable disease control and meeting the health needs of migrants.
Chapter 3: Knowledge to action, evidence-informed practice and implementation: literature review

3.1 Introduction

This chapter presents a critical review of the relevant conceptual and theoretical literature which informed this thesis. The aims in this thesis could be addressed from a broad range of disciplinary and theoretical perspectives; a knowledge to action perspective (366) is adopted, although insights from other disciplines and perspectives are also critically considered.

As the research in this thesis progressed, the conceptual and theoretical literature examined evolved concurrently. Initially the framework by Bowen and Zwi (49) (Figure 3) was used to inform the guideline development study topic-guide and study design (see section 5.4.3.3), while frameworks from the programme implementation and integration literature (367, 368) were used to inform the implementation study.

The investigation and analysis were iterative and it emerged during the thesis that there should be a greater focus on the enactment of the guidelines, programme and services in practice, rather than the guideline development. The data were richer in this area and the emergent findings were pertinent to informing both policy and practice. Therefore, the knowledge to action, implementation and specifically guideline implementation literature became a more dominant influence in the analysis. Chapter 4 details the development of the conceptual framework and the theory and frameworks employed.

3.2 Conceptualising the guidelines, programme and service

3.2.1 Conceptualising the guidelines, programme and screening services as a complex intervention and innovation

A clear conceptualisation of the national communicable disease screening guidelines, programme and services for asylum seekers was necessary in order to identify the relevant literature and study their enactment. Yet this is not a straightforward task. Detailed within the guidelines are the tests and procedures for a screening programme, to be offered by screening services or GPs. Consequently, there is a significant overlap between the concept of the enacting of the guidelines and the screening programme or services.
Figure 3. Bowen and Zwi's evidence-informed policy and practice pathway (re-drawn by the researcher (GS))
Several concepts are frequently used when categorising interventions, including complex interventions and innovations. Conceptualising the screening guidelines, programme and services as a complex intervention is supported by the inclusion of multiple screening tests in the guidelines, for example, TB, HIV and rubella screening. The screening tests for a single infection can also encompass multiple elements, such as chest x-rays or Mantoux test for TB. Furthermore, the remit of the guidelines extends beyond screening, to include recommendations for vaccinations and VZV outbreaks. The guidelines were also produced for use by different HCPs, for example, medical officers and members of the nursing profession. The guidelines and programme therefore ‘contain several interacting components’ and meet the description of a complex intervention by Craig et al. (369) and definition by May et al. (370) in Box 7.

Table 7 demonstrates the elements of the complex intervention examined in this thesis. Originally the thesis focused on the implementation of the screening guidelines and tests. However, during the thesis the conceptualisation of the complex intervention evolved and expanded to include the implementation of the services needed to provide the screening and the follow-up after screening. Also the findings from the thesis fed back and informed the conceptualisation of the intervention and so the holistic service provision, screening for hepatitis C and the model of service provision were included.

Box 7. The description of a complex intervention by Craig et al. (369) and definition by May et al. (370)

**Description of ‘what makes and intervention complex?’ by Craig et al. (369).**
- Number of interacting components within the experimental and control interventions
- Number and difficulty of behaviours required by those delivering or receiving the intervention
- Number of groups or organisational levels targeted by the intervention
- Number and variety of outcomes
- Degree of flexibility or tailoring of the intervention permitted

**Definition of a complex intervention by May et al. (370)**

*‘In this context, a complex intervention is defined as a deliberately initiated attempt to introduce new, or modify existing, patterns of collective action in health care. Deliberate initiation means that an intervention is: institutionally sanctioned; formally or informally defined; consciously planned; and intended to lead to a changed outcome’.*
An innovation is a distinct but related concept and a significant body of literature is
dedicated to the spread of innovations, across a number of disciplines (371). Aligned
with Atun et al. (367), who draw on the work of Rogers, this thesis views the
intervention as an innovation which comprises new ideas, objects or practices.
Importantly this may not be a completely new concept but individuals or the ‘unit of
adoption’ need to perceive it as novel (367). As Greenhalgh et al. describe,
innovations can vary in the extent to which they are proactively developed and
enacted through ‘planned and coordinated actions’ or arise as ‘good ideas’ (41). The
concept of an innovation is applicable to both the national screening guidelines and
the screening programme and services.

3.2.2 Definitions used in relation to knowledge to action, knowledge translation
and EBM in this thesis

A number of interrelated bodies of literature are relevant to ensuring the use of
evidence in practice or knowledge in action, including: knowledge to action, knowledge
translation, evidence-based medicine (EBM), evidence-based health care (EBHC) and
evidence-based guideline implementation. Terms and definitions used include those in
Box 8. The literature on implementation is one aspect within these fields. Other areas
including knowledge management (372) and quality improvement (373, 374) are also
highly relevant.

The definition of EBM in Box 8 by Sackett et al. (375) is used in this thesis alongside
the description by Dopson et al. (376) of the similar concept of EBHC, which includes
the use of research evidence in a bottom-up manner, alongside clinical expertise and
other forms of evidence in decision making about the care of patients. Dopson et al.
(376) provide a succinct history of the relevant EBHC literature. There is a significant
debate about the value of EBM in the literature (see section 3.4.1) and Sehon and
Stanley (377) state that a lack of clarity around the definition of EBM obscures the
debate. The authors state that non-EBM viewpoints would also perceive value in using
research evidence alongside other sources, such as patient values, and it is the high
priority given to randomised control trials (RCTs) and systematic reviews which
distinguishes EBM (377).

While the term knowledge translation (378) can be preferable to EBM and Evidence-
based practice (EBP) as it is more encompassing and extends beyond the narrower
focus on evidence, Greenhalgh & Wieringa (378) suggest a move away from the use
of this metaphor.
Table 7. The elements of the complex intervention examined in this thesis

<table>
<thead>
<tr>
<th>Element of the complex intervention examined in this thesis</th>
<th>Detailed description</th>
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<tbody>
<tr>
<td>1. National communicable disease screening guidelines for asylum seekers and refugees</td>
<td>• National communicable disease screening guidelines</td>
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</table>
| 2. Communicable disease tests and catch-up immunisations included in the guidelines | • Implementation of the tests:  
  o TB screening (CXR, Mantoux, TB screening questionnaire)  
  o Hepatitis B screening  
  o ‘HIV testing should be provided when requested and should be encouraged where indicated’  
  o VZV and rubella immunity screening  
  o Polio screening (as appropriate)  
• Catch up immunisations |
| 3. Other essential elements of the screening programme | • Coverage of services offering screening  
• Voluntary screening |
| 4. Adaptable, additional elements related to the provision of the screening service | • Adapted regional and local guidelines for asylum seekers and refugees  
• Additional screening tests or health assessments: holistic care, hepatitis C screening, STIs e.g. syphilis, helminth infections, malaria screening  
• Additional elements related to the screening: HIV counselling, health promotion related to positive results and prevention e.g. advice on condoms, contact tracing, single room (for the prevention of transmission)  
• Data collection |
| 5. Follow-up steps after screening (if required) | • Vaccinations and immunoglobulin: BCG vaccine, hepatitis B vaccine, VZV vaccine, immunoglobulin if required (hepatitis B, VZV)  
• Transfer of the records and 4 part form and follow-up between HCPs  
• Referral to specialists for further tests and treatment (e.g. sputum smears)  
• Continuation of screening in dispersal areas |
| 6. The model of service provision for implementing screening | • Model of service provision - whether screening is offered for example through a dedicated screening service or mainstream GP |
### Box 8. Definitions of evidence-based medicine, knowledge translation and knowledge in action

**Evidence-based medicine and evidence-based healthcare definitions**

‘Evidence based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from clinical research. By individual clinical expertise, we mean the proficiency and judgment that individual clinicians acquire through clinical experience and clinical practice’ (375).

EBHC involves the use of research evidence in a bottom-up manner, alongside clinical expertise and other forms of evidence in decision making about the care of patients (376).

**Knowledge translation definition:**

Greenhalgh & Wieringa (378) quote the WHO (2005) definition (379) of ‘the synthesis, exchange and application of knowledge by relevant stakeholders to accelerate the benefits of global and local innovation in strengthening health systems and advancing people’s health’.

**Knowledge in action definition**

‘evidence that has been converted through social processes into locally accepted knowledge, which is then put into use and leads to evidence-based change in working practice’ (380).

The authors propose that the ‘knowledge translation’ metaphor may restrict the conceptualisation of the study of the link between knowledge and practice due to the underlying assumptions that: 1. ‘knowledge’ is considered in relation to objective, explicit knowledge and perceived as unproblematic; 2. the ‘know-do gap’ is a useful conceptualisation; and 3. that practice is based on a series of rational decisions (378).

The authors point out that these assumptions have been questioned outside of the medical field (378). These assumptions are discussed in section 3.4. Greenhalgh et al. (378) provide an overview of the history of knowledge translation from the first article published in 1972 to an increased interest in the latter part of the 2000s.

The term knowledge to action is used in this thesis as it is a more generic term than practice and it includes the use of knowledge by a broader range of actors (40) including ‘practitioners, policymakers, patients and the public’, in line with the viewpoint of Graham et al. (381). While the term knowledge to action may not necessarily resolve the criticisms levelled at the knowledge to action metaphor, it was viewed as the most appropriate term by the author at the time of the thesis. The terminology used evolved over the course of
the thesis as the conceptual and theoretical analysis progressed; originally the terminology of the translation of evidence into policy and practice was used.

3.2.3 Definitions used in relation to guidelines and implementation

The definition of implementation differs by discipline. In the relatively new and emerging implementation science literature, the definitions used for implementation indicate a more active strategic approach. However, in line with health policy and systems research this thesis views implementation ‘as an organisational, social and political process to be enabled rather than as a centrally controlled and almost mechanical process’ (52).

Clear definitions highlighting the distinctions between diffusion, dissemination and implementation are required (see Box 9). Diffusion and dissemination exist along a spectrum, where diffusion is a more passive process and dissemination a more active endeavour to distribute new knowledge (382). Implementation is concerned with the adoption and use of the intervention post dissemination or diffusion (43, 382). As Green et al. describe:

‘Dissemination is not an end in itself, but a distinct process from the implementation processes of reinventing or adapting what has been disseminated and working through and around the policies, traditions, culture, and other constraints of the organisational context in which disseminated innovations or policies are to be implemented’ (382).

Implementation science can be perceived as another term for the field of knowledge to action (40), however, it can also be viewed as a specific stage after adoption in the knowledge to action process (41, 381) and diffusion of innovation literature (41). The terminology also differs geographically as the terms implementation science or research utilisation are commonly used in Europe, whereas dissemination and diffusion are used more in the US (40). Ferlie uses the term ‘enactment’ rather than implementation which suggests a more top-down process (383) and this is used alongside the more commonly used term implementation in this thesis.
Box 9. Definitions for implementation, diffusion and dissemination

Definition of implementation science
‘the scientific study of methods to promote the systematic uptake of proven clinical treatments, practices, organisational, and management interventions into routine practice, and hence to improve health. In this context, it includes the study of influences on patient, healthcare professional, and organisational behaviour in either healthcare or population settings’ (384)

Definition of implementation (from the Consolidated Framework for Implementation Research (CFIR)) (47)
‘the constellation of processes intended to get an intervention into use within an organisation’ (47)

Definition of implementation (policy implementation)
‘Translation and application of innovations, recommended practices, or policies. A process of interaction between the setting of goals and actions geared to achieving them’ (382)

‘as an organisational, social and political process to be enabled rather than as a centrally controlled and almost mechanical process’ (52)

Definition of implementation (from the knowledge to action literature)
“the execution of the adoption decision, that is, the innovation or the research is put into practice” (381, 385)

Definition of implementation (from the diffusion of innovation literature)
‘active and planned efforts to mainstream an innovation within an organisation’ (41)

Definition of implementation (Normalisation Process Model)
‘pattern of organized, dynamic, and contingent interactions in which individuals and groups work with a complex intervention, within a specific context or health system, over time’ (370)

Definition of diffusion (from the diffusion of innovation literature)
‘passive spread’ (41)

Definition of dissemination (from the diffusion of innovation literature)
‘active and planned efforts to persuade target groups to adopt an innovation’ (41)

3.2.4 The definition and purpose of clinical guidelines

A specific literature exists on the development and implementation of clinical guidelines, although this is highly interlinked with the broader research evidence into practice, EBM and EBHC literatures. Guidelines can be defined as ‘syntheses of best available evidence
that support decision making by clinicians, managers and policy makers about the organisation and delivery of healthcare’ (386).

Guidelines and guidance exist at a number of levels; this thesis focuses on clinical guidelines. Guidelines can be positioned within the broader field of health policy in some cases, as health policy can be defined as ‘courses of action (and inaction) that affect the set of institutions, organisations, services and funding arrangements of the health system’ (387).

Clinical guidelines are one strategy to improve the delivery of recommended and high quality care, by facilitating the use of evidence in practice (38). They can be used as a tool for EBM or Evidence-based practice (EBP) (38, 42, 375, 388) alongside other interventions such as audit and feedback (43). In Chapter 2, the literature review clearly demonstrated the need for evidence-use in policies, programmes and guidelines, in relation to migrant screening and IHAs, and the difficulties with implementation. There have been calls in the literature for more guidelines in this area internationally. Guidelines could function as one tool in improving the use of research evidence and ultimately the healthcare and health outcomes for migrants.

3.3 Difficulties in ensuring evidence is used in guidelines and in enacting guidelines and knowledge into action

3.3.1 Difficulties in ensuring evidence is used in guidelines

Best practice guidance for developing clinical guidelines has existed for several decades, including the involvement of patients (or end users), a multidisciplinary team and the grading of evidence (389). More recently, the Appraisal of Guidelines, Research and Evaluation (AGREE) II instrument was developed which can assist in reviewing the quality of a guideline (390). A series of research papers from the World Health Organisation (WHO) Advisory Committee on Health Research advise on the translation of research evidence into guidelines and policies (391) and national bodies have also been established in some countries to develop guidelines (392).

Despite this knowledge, guidelines are not all based on the best available research evidence and implicit assumptions that all guidelines and recommendations are based on high quality evidence need to be challenged (44), as do incorrect assumptions about the organised nature of guideline development processes and the sufficiency of available
Evidence should not be viewed as panacea or assumed to be robust or applicable, as Ferlie et al. discuss how it can be contestable (397). In line with this Greenhalgh et al. reference the earlier work of Ferlie et al. and state that evidence can be ‘ambiguous or contested and must be continually interpreted and reframed in accordance with the local context and priorities’ (41). A more complex view of guidelines may therefore be needed and Kitson (39) argues for a re-evaluation of the conceptualisation of guidelines where guidelines can be perceived as a ‘bundle’ of different knowledge types, including for example expert opinion.

Chapter 2 highlighted the questions in the literature regarding the extent to which migrant health screening policy, programmes and guidelines are evidence-based and the fact that there is little independent research on the development of guidelines and policy in this area. This thesis examined the development of guidelines in Ireland for migrant health screening and the findings are presented in Chapter 6.

Guidelines can be perceived to be positioned at the interface of knowledge translation, EBM and evidence-based policy. Bowen and Zwi’s (49) evidence-informed policy and practice framework included a number of useful concepts which informed this thesis and they are detailed in Box 10. The framework was used to develop the topic guide for the guideline development study in this thesis (Appendix XIII). There are a number of commonalities between the concepts discussed by Bowen and Zwi (49) and the major debates in the knowledge to action, implementation and specifically guideline implementation literatures discussed in section 3.4.

Black (398) warns that caution needs to be taken in examining EBM and evidence-based policy together as they are ‘qualitatively different’, due to the non-linearity and non-rational nature of the policy making process (398). However, a linear rational model for the implementation of knowledge, evidence or guidelines may be equally inept (see section 3.4.3) and a number of points could be applicable to guideline development groups.
Box 10. Key concepts from Bowen and Zwi’s framework for evidence-informed policy and practice

- The need for a terminology and conceptual change from evidence-based policy to evidence-informed, influenced or aware (376) to acknowledge the different types of evidence.
- The importance of the influence of the capacity to implement.
- Emphasis on the non-linearity of the policy making process.
- The use of evidence for different purposes and in different stages of the process.
- The need to consider the broader context, including the ideology, beliefs and values of the policy makers alongside the economic, political, social, cultural, historic, resource and health service contexts.
- The influence of the influence of the individual, organisation and usefulness of the innovation (reflecting the diffusion of innovation theory underpinning the framework)
- Multi-level perspective considering the influence of leadership, resources, networking, organisational support and whether a decision-making process is formalised and centralised.

Furthermore, the policy literature acknowledges that it may not be practically possible to develop a policy in line with the evidence and that tacit and local knowledge is relevant for policy making (378). Economic and political influences may be operating, policy makers may have alternative goals to clinical effectiveness and policy is developed in light of competing priorities (378, 399). As long as the differences are acknowledged, there could be much to learn between the bodies of knowledge; it is likely that some principles will be applicable whereas others will not (400).

Critically the Bowen and Zwi (49) framework highlights the influence of the capacity to implement on evidence-informed policy making as a neglected area (49). It is defined as:

‘the ability to carry out stated objectives; it is the expertise and resources at individual, organisational, and system levels for the production and application of new knowledge to health problems’ (49, 401).

Capacity thinking examines what needs to be in place to support evidence uptake in policy and practice, including for example an appropriate workforce and the ability to mobilise resources (49); this could be applied to both guideline development and implementation. In this thesis the definition of capacity used is aligned with the definition of capacity in the organisational change literature by Elliott et al. (402), building on the work of Parcel et al. and described by Greenhalgh et al. (p186):
‘Capacity is the sum of the resources available to the organisation or system for the management and delivery of the implementation process. It is measured in terms of financial resources, staffing, training and technical assistance’ (371, 402).

Implementation considerations are included under applicability in the AGREE statement as part of the quality criteria for guidelines and reporting (390). There is also an increasing recognition by guideline developers of the need to consider implementation in the content of the guidelines or implementation strategies (10).

### 3.3.2 Difficulties in enacting effective implementation and knowledge to action

The literature on implementation, the diffusion of innovations and the implementation of evidence, research evidence, knowledge, guidelines and change in practice is highly interlinked. Findings in relation to guideline implementation are particularly often nested within the broader evidence or research evidence into practice literature and the fields can be particularly difficult to differentiate. In light of the interconnected nature of the literature and the conceptualisation of the national screening guidelines and programme discussed in section 3.2.1 the evidence base for guideline dissemination and implementation is explored below alongside the broader literature. This literature was used to inform the conceptual framework and analysis.

Ensuring the use of evidence in practice is not a new problem: for example, 264 years passed between the discovery of how to prevent scurvy to the implementation of a universal preventative policy in Britain (403). Originally it was assumed that strong research evidence would spread quickly and automatically (376). However, the realisation that this was not the case led to the frequently cited know-do gap (378), also called the knowledge translation or EBHC implementation gap (376, 404). There is now widespread recognition in the field of EBM and EBHC that the production of evidence and knowledge in itself is not enough to change practice (376). This moved the focus in the EBHC field towards making information more easily accessible, for example, in the form of guidelines (376).

More specifically, there is also a recognition that guidelines are underused in practice (386, 405, 406), including for migrant TB screening (35), which can result in variation in
practice. Local adaptation of interventions can assist with implementation more broadly (41, 47) and while adaptation and tailoring of recommendations at a national and sub-
national level has been recommended (407, 408), the influence of local adaptation on
guideline implementation remains uncertain (409, 410). Undesired variation, due to local
adaptation, can potentially result in reduced quality, efficiency and equity of care if the
guidelines are evidence-informed.

Implementation efforts may not be consistent across different contexts and may differ
temporally in addition to spatially. The balance between implementation and fidelity of the
intervention is discussed further in section 4.6. Whether underutilisation of guidelines is
due to the intervention characteristics, or the implementation, or both, needs to be
established. Correspondingly there is a recognition of the need for a greater focus on the
implementation of recommendation and guidelines internationally (407, 411).

3.3.3 Uncertainty about the strategies for guideline, evidence or knowledge
implementation and for the diffusion of innovations

Despite a number of studies and systematic reviews (43, 45, 374), and even a synthesis
of systematic reviews (412), the effectiveness of many of the diverse range of
interventions for guideline implementation (Table 8) remains unclear and a wide range of
effect sizes have been reported (412).

Despite the uncertainty several conclusions can be drawn. A recent systematic review
concluded that in isolation ‘didactic education and passive dissemination strategies were
ineffective’ (412) (see Table 8), which is a claim supported by previous reviews (43, 407),
including those looking more broadly at the implementation of research evidence (44) or
interventions (410).

Passive dissemination strategies may however still be employed, due to the cost and
complexity of applying other strategies outside of a research setting (386, 413).
Conversely, decision support, educational outreach and reminder systems were effective
(412). Engaging end-users in the process is recommended by the WHO (414) but the
evidence remains inconclusive or varied (38, 412). Guideline content was influential, with
improved implementation associated with easily comprehensible guidelines, strong
evidence (38, 412) and increased credibility of guideline developers (412).
Table 8. The effectiveness of guideline implementation strategies (adapted from Prior et al. (412))

<table>
<thead>
<tr>
<th>Effective</th>
<th>Uncertain/variable effectiveness</th>
<th>Ineffective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision support systems</td>
<td>Audit/feedback/peer review</td>
<td>Distribution/dissemination</td>
</tr>
<tr>
<td>Educational meetings/interactive educational</td>
<td>Continuing Medical Education</td>
<td>only</td>
</tr>
<tr>
<td>Educational outreach</td>
<td>Financial incentive</td>
<td>Organisational intervention</td>
</tr>
<tr>
<td>Guideline content</td>
<td>Local opinion leader</td>
<td>Traditional educational</td>
</tr>
<tr>
<td>Multifaceted intervention</td>
<td>Management support</td>
<td></td>
</tr>
<tr>
<td>Patient specific</td>
<td>Mass media strategies</td>
<td></td>
</tr>
<tr>
<td>Procedural justification</td>
<td>Material incentive</td>
<td></td>
</tr>
<tr>
<td>Reminder system</td>
<td>User developed/consensus guidelines</td>
<td></td>
</tr>
</tbody>
</table>

Previously reviews found the evidence base was still insufficient to determine whether multifaceted interventions were more effective than single interventions for guideline implementation (38, 45, 374); however, recent reviews suggest that multifaceted interventions are more effective for the implementation of guidelines (412) and research evidence more broadly (44), especially those targeting multiple levels, in changing clinician behaviour (415). Effectiveness was found not to have a relationship with the number of components and ambiguity remained regarding the most effective combination of components (412). The effectiveness of strategies for implementing research evidence may also vary according to the field. For example, audit and review is more effective with prescribing, than complex areas such as disease management. Therefore not only the complexity of the intervention but the complexity of the decision-making process may influence the implementation of research evidence (44).

Comparisons between studies and reviews are hindered by a lack of detailed reporting of the intervention, differing definitions and considerable heterogeneity between reviews (412) and studies (42). Limitations in primary study designs are also evident with the use of self-reported compliance measures and the presence of confounders such as baseline compliance (412). Therefore, the evidence base is only rated as modest (412) and one meta-review found the majority of guideline implementation reviews had ‘major’ or ‘extensive’ flaws in their methodology (38). Either process or outcome measures can also be used to assess implementation and effect sizes need to be considered (45).

Furthermore, Boaz et al. criticised previous studies looking at the implementation of research evidence for not explicitly stating which elements of the interventions targeting practice change were research evidence-based (44).
Clearly there is still a need for a much greater understanding of implementation and knowledge into action. The main issues and debates in the literature in this area are discussed below and future directions for research identified to further this understanding.

3.4 Knowledge into action and implementation: the main debates and gaps in the literature

3.4.1 The value of EBM

A significant debate exists in the literature concerning the value of EBM. Proponents declare a paradigm shift, whereas critics cite a lack of evidence for EBM and state that it is irreconcilable with good clinical practice (416). Critics question the high value given to RCTs and epidemiological data in EBM (417) and argue for the importance of other sources of knowledge, including basic science knowledge, the art of medicine, psychological evidence about patient values and preferences, economic evidence, contextual evidence, organisational evidence and clinical experience and judgement (375, 417). Some authors state that the individual patient is unique and so applying a recommendation from an average in a population sample is not useful (417). A further criticism is the lack of description by proponents of how different types of knowledge should be integrated with evidence (416).

Sehon and Stanley state that the suggestion of a ‘paradigm shift’ overly polarises the debate; they claim this is a philosophical mistake, as EBM is not incommensurable with the previous approach and there is no clear dividing line for the paradigm shift (377). Furthermore, EBM and the focus on RCTs is intertwined with basic science and has many commonalities with clinical experience and observational studies; Sehon and Stanley therefore argue that they are just different paths to understanding the question posed (377). Greenhalgh (417) concurred that a false dichotomy exists in the literature between clinical intuition and EBM or the ‘science’ and ‘art’ of clinical practice. However, Greenhalgh (418) notes that EBM does have a logical view of providing healthcare which is built on ‘rationalistic assumptions’ which ignore the complexity of practicing medicine and the non-linear and unpredictable nature of providing care. Greenhalgh suggests that medicine is ‘not merely about knowing the rules but about deciding which rule is most relevant’ (418).
3.4.2 The contested nature and different types of evidence and knowledge

In order to understand knowledge translation, the discussion about knowledge types needs to be acknowledged. Greenhalgh & Wieringa (378) expand on their criticism of the knowledge translation metaphor above and discuss how Aristotle proposed that knowledge consists of ‘not only episteme (facts) but also techne (skill) and phronesis (a form of practical wisdom)’ and point to the recognition by philosophers of the importance of tacit knowledge and the context dependent, socially constructed nature of knowledge.

Although evidence can be narrowly defined, a definition by Bowen and Zwi (49) was used in the design of the studies in this thesis, which includes: research; knowledge and information; ideas and interests; politics; and economics. Kitson (39) and Rycroft-Malone et al. (419) have also detailed broader definitions of evidence including for example experiential and clinical experience respectively. As discussed in section 3.2.2 evidence can also be viewed as contested (41, 397). In relation to guidelines specifically, Kitson discusses how guidelines should be viewed as ‘one type (amongst many types) of knowledge that has to be transferred, translated and transformed in order to achieve an improvement in practice’ (39).

3.4.3 Moving beyond the top-down implementation gap and linear models

As mentioned briefly in relation to the knowledge translation metaphor above, there may be a need to re-evaluate the conceptualisation of the ‘know-do’ (378), knowledge translation or EBHC implementation gap (39, 376, 404). A simplistic perspective of the implementation gap, in line with a more linear approach, has been adopted by some researchers and policy makers. However, in reality Dopson et al. point out that there is an appreciation among some authors that the process is much more dynamic, with emergent behaviour and the interactions between the actors potentially leads to the unpredictable innovation process (420). Similar ideas are well developed in the policy analysis literature (376) and can offer insights into a different perspective of the implementation gap.

A call has been made to move away from linear models, such as planned action, to a re-evaluation of the conceptualisation of how the guidelines are interpreted and adapted in practice (39). Therefore the characteristics of the innovation are not determinants on their own but it is how the guidelines interact with the context and potential adopter(s) that influences the adoption rate (41). Kitson highlights a paradox regarding interpretation and adaptation in practice (39). Previously there was an explicit assumption that guidelines
should be followed exactly, yet local adaptation was also discussed, creating confusion as to the extent HCPs can challenge them (39). This arose in part from an assumption that there was a logical, planned approach to knowledge creation and that this was also applicable to implementation (39).

The development literature describes how the meaning of an innovation may be different for those introducing it to those adopting it (41) and in the review by Greenhalgh it was emphasised how knowledge is 'made social' and so the social features need to be addressed before knowledge will spread (41). Guidelines are interpreted in practice and Kitson (39) describes the work of Carlile (421, 422) who discusses how a 'shared meaning' may need to be established for effective knowledge translation.

The analysis of the findings in this thesis draw on work of Dopson, Ferlie, Fitzgerald et al. (383) who discuss a social analysis of EBHC and a non-linear, unpredictable perspective of the diffusion of innovation, which the authors state has been recognised in the organisational field for some time. Dopson et al. reference Argyris and Schon who argued that diffusion is frequently decentralised and iterative and that the capacity of the organisation to learn, social networks and communities are important in understanding the diffusion of innovation (420). More broadly, Greenhalgh (371) notes that there has been an increased awareness in the EBM field of the non-linear pathway for the translation of evidence. The CFIR and NPT support this move away from linear models (see Chapter 4).

In line with this discussion of the non-rational process of knowledge to action and decisions in practice, Greenhalgh & Wieringa (378) highlight the socially constructed nature of the clinical encounter, which can include both research evidence and tacit knowledge and that it requires situated judgements about what is the best course of action for the specific individual, at that time, in those circumstances.

3.4.4 Understanding the multiple barriers to implementation

Historically, interventions targeting improved uptake of guidelines and evidence have focused on changing individual provider behaviour (371, 373), such as the educational strategies in Table 8. As Damschroder et al. (47) highlight, the theory of planned behaviour was found to account for under a third of the variance in behaviour in a study by Godin et al. (423) indicating that a change in focus is required to examine broader influences.
Box 11. Key variables influencing the adoption and implementation of clinical guidelines

- the characteristics of the guidelines (38, 43)
- HCP (38, 43)
- practice setting and incentives and regulation (43)
- implementation strategies (38)
- patients and environmental context (38)

A reportedly belated appreciation of the influence of a broader range of factors (43) extending beyond individual behaviour change has been commented on in the EBM field (41). Several reviews have identified a broader range of interacting influences on the adoption and implementation of guidelines (Box 11) (38, 43) and barriers have been identified at several levels (42) including the characteristics of the guideline (38), individual patient (38) and provider (38, 39), team (39, 45), organisation (39, 45), social (42) and system levels (41, 45, 424). Factors in isolation only account for a small amount of the variation (41).

The response of systems and not solely individuals to new knowledge is a key consideration (39) and may have a greater influence on implementation than the quality of the evidence behind the intervention (425). Kitson (39) points out that other disciplines, such as organisational theory, have looked at this for some time. The concept of an ‘innovation-system fit’ described in Greenhalgh et al.’s model of the diffusion of innovations (see section 4.2 below) is relevant to this (41). In this model the critical component is the interaction between the innovation and the context rather than just the characteristics of the innovation (41). Previously held assumptions are being challenged and organisational theory and the process literature can aid with this investigation (39).

Further investigation into the broader and multiple levels of influence is worthwhile (39, 373, 426) as there are ‘multiple challenges operating at different levels of the health system’ (40). For example, there is a recognition that economic and political strategies may be needed for change (42).

3.4.5 Greater attention to the process and context of implementation

The need for greater attention to context and process of implementation has been emphasised (38, 40, 44, 47, 426, 427), as a focus on effectiveness alone may not provide the knowledge needed for effective implementation of research evidence (44, 46, 426). Furthermore, Ferlie and Dopson (397) state that the complexity of healthcare
organisations means that there is a need for a greater focus on contextual factors and processes. Greater reporting (45) and analysis of contextual factors is therefore required. An increased emphasis on process in addition to causation is also suggested to aid in understanding why an implementation worked or didn’t work in the complex context (39).

Similar issues are raised in the broader diffusion of innovation literature, where previous assumptions that findings could be automatically generalised to other contexts are now rejected (41). Greenhalgh et al. emphasise that context and “confounders” ‘are not extraneous to the object of the study; they are an integral part of it’ and so the interactions in different contexts are key to determining whether dissemination is successful (41). In the broader change management and organisational behaviour literature, contextual influences are also recognised as important, including the past history and available resources (376, 420).

Dopson and Fitzgerald state that a more sophisticated view of context is needed, which includes the network of social relationships between actors, the influence of the historical context and the capacity of actors to influence the context (46). The authors emphasise that the context is ‘socially perceived and enacted’ (46). An examination of the ‘nature of social influence’ and social networks in healthcare has been highlighted as an area for future research in the diffusion of innovation literature (371) and the use of the NPT in the thesis particularly facilitates this (see section 4.4).

A change in focus may require different methodologies, for example, Kitson (39) highlights the viewpoint from Dopson et al. (376) that a biomedical approach focusing on systematic reviews and clinical trials ‘is unlikely to provide reliable and helpful insights into organisational change’. The role of context was previously appreciated in the organisational and change literature with a move away from the biomedical perspective of EBHC implementation (376). Methods which can examine the complexity of the context and causal studies conducted alongside process studies will aid with this (39).

3.4.6 Greater use and development of theory

The lack of theory development and use has been criticised in relation to the guideline dissemination and implementation literature by some authors (45, 428). One systematic review found under a quarter of the studies identified between 1976 and 1998 reported using any theory and only 6% explicitly used theory (429). There have been calls for
greater use of theory in the wider knowledge translation arena (430) and the more specific guideline implementation literature, with the need for a coherent theoretical basis for professional and organisational behaviour change (45). Heterogeneous theory formation (39) and use has been suggested and that the theories must ‘reflect the diverse mechanisms involved in implementation’ of research evidence (44). Exploratory rather than just descriptive theory use has also particularly been advocated for (431). Without the use of theory Eccles et al. describe the evaluation of implementation strategies using RCTs as an ‘expensive version of trial-and-error’ (431). A sound theoretical basis, in addition to a greater emphasis on context should aid with understanding the generalisability of the interventions (45).

Estabrooks et al. point out however, that although an increased use of theory has been requested for four decades, no overarching theory for knowledge translation exists (430). The authors provide an overview of relevant theories for knowledge translation (430). The application of theories and literature from a range of fields, such as health promotion, organisation science (42), social sciences (44), innovation, knowledge management (39) and education (45) may therefore offer new and more in-depth insights into effective change (42, 44). Kitson (432) highlights that other disciplines have been investigating these issues for a number of years.

In line with the multiple layers of influence, Grimshaw et al. and Eccles et al. suggested that theories should be considered at the levels of: the individual or HCP, healthcare teams or groups, organisations providing healthcare and larger healthcare systems or environments (45, 424, 431). Grol et al. provide a useful review of relevant theories for change across multiple levels, but also describe how empirical evidence and robust scientific research is not necessarily in place to support many of the theories (373). Caution does need to be taken as it is posited that most organisational change strategies are based on theory without the evidence of the effectiveness of the strategies (433).

However, the view that greater theory use is needed in this area is not universal. Oxman et al. contest this and argue for a greater emphasis on common sense, rigorous evidence and sound logic and less of a focus on high-level theories (434). The NPT used in this thesis originates from a model which was developed from research studies and was empirically tested (435). It is a middle-range theory (435) and so may offer some form of middle-ground.
3.5 Conclusion

The screening guidelines, programme and service are therefore conceptualised as a complex intervention in this thesis and the constituent components were detailed in this chapter. This thesis will examine the points raised in the guideline development literature about the different types of evidence which can inform guidelines, with a focus on the extent to which the capacity to implement influenced the screening guidelines. Difficulties are clearly encountered in implementing guidelines and knowledge more broadly in practice. A number of gaps highlighted above in the knowledge to action literature, where further research is proposed, are explored in this thesis to see if they assist in furthering the understanding of the enacting of guidelines and complex interventions in practice in this field. More specifically, this includes an exploration of a more complex perspective of an implementation gap, beyond a linear top-down conceptualisation and the multiple potential influences on implementation, with a particular focus on the context and process. The need for a greater use of theory in this field is also addressed and Chapter 4 outlines the conceptual framework employed in this thesis.
Chapter 4: Conceptual framework

4.1 Introduction

A conceptual framework was developed during the thesis in order to initially examine, classify and structure the findings and subsequently to critically analyse the data. The critical review in Chapter 3 was used to inform the development of a conceptual framework. To enable an in-depth analysis the decision was taken to explore the use of the CFIR and NPT and they are discussed in detail below.

4.2 The CFIR

4.2.1 Selection of the CFIR

The CFIR, created by Damschroder et al. (Figure 4) (47), was selected for the analysis as it is a comprehensive framework with a number of strengths. A major advantage of the CFIR is that it is intended to be meta-theoretical, which facilitates the critical application of theories from a number of disciplines, as proposed in the guideline implementation and knowledge translation literature (45, 424, 431). The authors state that it can open the ‘black box’ of the implementation component of other frameworks (47).

Encapsulated within the CFIR are a number of key theories, models and frameworks (47, 436). Damschroder et al. (47) conducted an extensive review to inform the CFIR, which crossed disciplinary boundaries and encompassed prominent theories and frameworks from overlapping fields of literature, including research evidence implementation, guideline implementation and knowledge translation, alongside programme implementation, aspects of the change literature and the diffusion of innovations (47).

A highly cited model by Greenhalgh et al. (41, 371), focusing on the diffusion of innovations, strongly influenced the CFIR. Greenhalgh and colleagues (41, 371) also undertook an extensive literature review of the relevant theoretical and conceptual literature across a number of fields to inform their model. Greenhalgh et al.’s model (41, 371) and the diffusion of innovation theory were not selected as the main model and theory for this thesis due to their focus on the initial spread of ideas, including diffusion, dissemination, adoption by individuals or assimilation by the system (41).
Figure 4. The Consolidated Framework for Implementation Research (47)
This thesis focuses instead primarily on the implementation and normalisation of the intervention (the guidelines and screening programme), after the spread of the innovation has occurred, for which the CFIR and NPT are more suitable. The diffusion of innovations has also been perceived as a more linear model (41) and as detailed in Chapter 3 there is a call for a move away from linear models. Greenhalgh’s conceptual model did however demonstrate the expanded scope of the diffusion of innovation, beyond Roger's original work (41). Several of the concepts from Greenhalgh’s model (41) are employed extensively during the analysis, for example, the ‘hard-core’ and ‘soft-periphery’ of the intervention and are captured in the CFIR and discussed below.

4.2.2 The domains of the CFIR

Clear parallels exist between the CFIR, initially designed for the translation of research findings into practice, and the knowledge translation (381) and guideline implementation literature. It therefore has broader applicability, as demonstrated in Table 9.

The use of the CFIR enables the exploration of influences from multiple levels including individual, organisational, system, contextual and process level factors (39, 373, 426) which was one of the main suggestions for future research in the broader implementation and knowledge to action literature (see section 3.4.4). The CFIR facilitates this analysis as it comprises five main domains which are proposed to influence implementation: the intervention characteristics, characteristics of the individuals involved, process of implementation, inner setting and the outer setting (47). Within these domains are a number of constructs (47) and these are detailed in Table 9. As the authors intended (47), only those constructs relevant to this thesis are explored during the analysis.

Constructs within the intervention characteristics domain include the evidence strength and quality and the adaptability of the intervention (47). As part of the adaptability construct the intervention can be conceptualised as containing a ‘hard-core’ and a ‘soft-periphery’ (47). The ‘hard-core’ of the intervention includes ‘the essential and indispensible elements’, whereas the ‘soft-periphery’ includes ‘adaptable elements, structures and systems relating to the intervention and organisation into which it is being implemented’ (47) or ‘the organisational structures and systems required for the full implementation of the innovation’ (41).
Table 9. The domains and constructs of the CFIR from Damschroder et al. (47). Additional sources are referenced individually.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Description</th>
<th>Constructs</th>
<th>Guideline specific parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention characteristics</td>
<td>Includes both ‘core elements’ &amp; an ‘adaptable periphery’</td>
<td>Intervention source (e.g. grass roots, external)</td>
<td>Characteristics of the guidelines (38)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evidence strength &amp; quality (numerous evidence types)</td>
<td></td>
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<td></td>
<td></td>
<td>Relative advantage</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adaptability (including ‘hard-core’ &amp; ‘soft-periphery’)</td>
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<tr>
<td></td>
<td></td>
<td>Trialability</td>
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<td></td>
<td></td>
<td>Complexity</td>
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<td></td>
<td></td>
<td>Design quality and packaging</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cost</td>
<td></td>
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<tr>
<td>Characteristics of the individuals</td>
<td>Individuals have agency and ‘are carriers of cultural, organizational,</td>
<td>Knowledge &amp; beliefs about the intervention</td>
<td>Professionals (38)</td>
</tr>
<tr>
<td>involved</td>
<td>professional, and individual mindsets, norms, interests and affiliations’</td>
<td>Self-efficacy</td>
<td>HCP characteristics (38, 43)</td>
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<td></td>
<td></td>
<td>Individual stages of change</td>
<td>Awareness of the guidelines (38)</td>
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<td></td>
<td>Individual identification within organisation (e.g. how willing to put in</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>personal attributes (motivation, values)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>The process of implementation</td>
<td>Includes active change processes (e.g. local champions)</td>
<td>Planning</td>
<td>Implementation strategies (38)</td>
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<td></td>
<td></td>
<td>Engaging (e.g. role leaders)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Executing (can be formal or no obvious planning)</td>
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<td></td>
<td></td>
<td>Reflecting &amp; evaluating</td>
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<tr>
<td>Inner setting</td>
<td>‘Features of structural, political and cultural contexts through which the</td>
<td>Structural characteristics (social architecture, age,</td>
<td>Environment (38)</td>
</tr>
<tr>
<td></td>
<td>implementation process will proceed’</td>
<td>maturity, size of organisation</td>
<td>Practice setting (43)</td>
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<td></td>
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<td>Networks and communication</td>
<td>Incentives (43)</td>
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<td></td>
<td>Culture (norms, values, basic assumptions)</td>
<td>Regulation (43)</td>
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<td>Implementation climate</td>
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<td>Readiness for implementation (leadership engagement, available resources,</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>available access to information &amp; knowledge</td>
<td></td>
</tr>
<tr>
<td>Outer setting</td>
<td>‘Economic, political &amp; social context within which an organisation resides’</td>
<td>Patient needs &amp; resources (patient centredness)</td>
<td>Patient factors (38, 43)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cosmopolitanism (degree of networking with external organisations, social</td>
<td>Environment (38)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>capital)</td>
<td>Incentives (43)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Peer pressure</td>
<td>Regulation (43)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>External policies &amp; incentives</td>
<td>Economic &amp; political (43)</td>
</tr>
</tbody>
</table>
Other authors have identified elements of the ‘soft-periphery’ of innovations in practice, including variation in follow-up procedures between implementation sites, the types of patients an innovation was offered to and which elements of an innovation are implemented (437). Greenhalgh et al. discusses the concept of ‘fuzzy boundaries’ between them and that the ‘soft-periphery’ is associated with the reinvention of the innovation and the ‘innovation-system fit’ (41). Furthermore, Greenhalgh et al. (41) describes how individuals can ‘adapt, refine, or otherwise modify the intervention to suit their own needs’. A definition of sustainability, including the concepts of the ‘hard-core’ and ‘soft-periphery’ was recommended in a recent review (438) and these concepts facilitate the examination of more long-term implementation and adaptation.

The characteristics of individuals involved in implementation is another domain in the CFIR. Individuals are perceived to have agency and therefore influence implementation (47).

The process of implementation is a domain in the CFIR and Greenhalgh et al. (41) describe a spectrum of processes, ranging from an ‘active change process’ to a more passive process. This recognition that implementation may not be such a proactive top-down endeavour is an important concept in this thesis. The authors of the CFIR highlight that these processes are not necessarily linear and can include interrelated sub-processes, which may be ‘formally planned or spontaneous; conscious or subconscious; linear or nonlinear’ (47). The CFIR tends to adopt a more active definition of implementation, whereas implementation is conceptualised along a spectrum in this thesis, as described by Greenhalgh et al. (41).

Inner and outer setting domains are included in the CFIR and setting is defined as ‘the environmental characteristics in which implementation occurs’ (47). The inner setting is conceptualised as the setting through which the intervention proceeds (47). It is perceived to have a dynamic interface with the outer setting, which is the ‘economic, political and social context within which an organisation resides’ (47). It includes the concept of a ‘receptive context’ which is outlined in Box 12 (47), an idea used in the diffusion of innovation, change management and complexity science literature. Setting is a more precise concept than the context, which is defined in the CFIR as the set of circumstances or unique factors that surround a particular implementation effort’ (47). Context is
Box 12. A brief summary of the ‘receptive context’ discussed in the CFIR (47).

The ‘receptive context’ for implementation in the CFIR is sub-divided into:

1. **The implementation climate** – this is a socially constructed context and refers to the ‘shared receptivity of involved individuals to an intervention and the extent to which the use of the intervention will be “rewarded, supported and expected within their organisation”. It includes: tension for change, compatibility, relative priority, organisational incentives and rewards, goals and feedback and a learning climate.

2. **Readiness for implementation** – this includes the more ‘immediate and tangible factors of available resources, leadership engagement (commitment), and infrastructure for information and knowledge to support intervention adoption and use’. It includes: leadership engagement, available resources, access to information and knowledge.

therefore a broader concept and encompasses, for example, the characteristics of the individuals involved.

In the CFIR the inner and outer setting are recognised as multifaceted and interactive, incorporating constructs such as networks in the inner setting (47) and so the framework moves beyond the critiqued layered models of influences and a linear top-down approach to implementation (see section 3.4.3). The extent to which the CFIR adequately captured the multiple aspects of the context was explored in this thesis (see Chapter 11) (46).

A consideration of the context and process is therefore embedded in the CFIR. As Damschroder et al. (47) highlight, a focus on the intervention, process and context is not a new concept in the implementation field and it also has parallels within the policy analysis literature (439) (see section 4.5.2). The CFIR therefore has a number of strengths and it informed the basis for the conceptual framework for this thesis.

4.3 **Longer term implementation**

The CFIR primarily focuses on implementation, rather than the longer term implementation of the intervention. Considering the influence of the diffusion of innovation literature, the focus on the initial stages of implementation within the CFIR is perhaps not surprising. For example, leadership engagement and available resources are included within the ‘readiness for implementation’ construct of the CFIR (47). The terminology reflects a focus on the initial stages of diffusion, adoption and implementation, rather than longer term implementation. It cannot be assumed that the influences on initial implementation will also influence the longer term implementation of the intervention. In
this case-study, the longer term implementation of the guidelines, screening tests and services is an important consideration and the CFIR not capturing the longer term influences is a potential weakness of the framework.

Terms used to describe the longer term implementation of interventions include sustainability, routinisation, institutionalisation, maintenance and normalisation; even with a single term, such as sustainability, different disciplines have different definitions (440). Other authors provide reviews of the conceptual and empirical literature on sustainability (440) and the sustainability of new programs and innovations (438).

Greenhalgh et al. (399) distinguished between two approaches to the study of sustainability. The first is an intervention-focused approach which concentrates on simple links between independent and dependent variables and whether the original goals of the programme have persisted (399). The second is a system-dynamic approach which can examine what has changed and why and how change has occurred and looks at the multiple interacting processes (399). This is aligned with a more ecological and complex-systems approach (438). Greenhalgh et al. states that both approaches can have a role but that the system-dynamic approach can be used to explore evolving relationships and interdependencies (399).

Gruen et al. also highlighted the importance of dynamic interactions, for example, between the programme and key stakeholders or in the evolution of interactions over time, including ensuring the adaptability of the programme (440). The authors noted that the structural influences on sustainability have previously received more attention than the dynamic influences (440). This fits in more with a bottom-up policy analysis perspective where further change and development are an integral part of the process (see section 4.5.2).

For routinisation to occur, Greenhalgh et al. highlighted the importance of organisational structure, leadership and management, human resource issues (including the motivation and capacity of practitioners), funding and intraorganisational communication (371). Furthermore, the authors highlighted the influence of feedback on the implementation impact and the extent to which the innovation can be adapted or reinvented according to the local context (371).
The CFIR was not specifically designed for an examination of the longer term implementation of interventions and doesn’t facilitate an examination of the more dynamic process discussed above. Therefore, the NPT was included in the conceptual framework for this thesis to examine the more dynamic social processes and the longer term normalisation of the intervention in order to augment the analysis in this case study. The NPT is discussed in detail below.

4.4 The Normalisation Process Theory (NPT)

The NPT is a relatively recent middle-range sociological theory which can be used to examine ‘the social processes through which new or modified practices of thinking, enacting, and organising work are operationalised’ (435). A number of important aspects relating to implementation and normalisation are captured in the NPT, which are not sufficiently accounted for in the CFIR.

The theory focuses on the longer term embedding and normalisation of interventions within an organisation, including complex interventions (48). Therefore, one of the main strengths of NPT, and advantages in using it in addition to the CFIR, is that it extends beyond implementation to examine the longer term normalisation of the intervention. This is highly beneficial in the case study in this thesis, as it extends over a number of years, and the NPT recognises that implementation is not a discrete event.

As May describes, the NPT was developed after refinement and testing of an initial model called the Normalisation Process Model (NPM) (435). The model was developed from a secondary analysis of qualitative studies examining healthcare work and organisation and more observational than explanatory propositions were developed initially (435). The NPT is an evolving theory and the descriptions of the theory by May and Finch in 2009 (48) and May in 2009 (435) were primarily used in this thesis, alongside the NPT online toolkit in 2012 and 2013 (441, 442) and papers published by this time (441, 443). Previously the model focused on interactional workability, relational integration, skill-set workability and contextual integration (444) which are included under the collective action construct in the NPT used in this thesis. The NPT is continuing to evolve (445).

The NPT can be employed to examine the everyday use of an intervention, in order to understand and explain how and why social and work processes may or may not be implemented, embedded and integrated (370, 435, 443). It enables a focus on the actual
Box 13. The Normalisation Process Theory. Directly quoted from May et al. (435)

The NPT postulates that:

1. Practices become routinely embedded – or normalised - in social contexts as the result of people working, individually and collectively, to enact them.
2. The work of enacting a practice is promoted or inhibited through the operation of generative mechanisms (coherence, cognitive participation, collective action, reflexive monitoring) through which human agency is expressed.
3. The production and reproduction of a practice requires continuous investment by agents in ensembles of action that are carried forward in time and space.

practical implementation and integration of the intervention in practice (370). As the developers of the theory describe, the NPT focuses on action and so differs from theories such as the diffusion of innovation and those looking at attitudes, intentions and behaviours (435); it is termed an action theory (441).

The theory is detailed in Box 13. Four theoretical constructs are viewed as the generative mechanisms (see Table 10), which are energised by investments by participants, which promote or inhibit the work of enacting a practice: Coherence, Cognitive Participation, Collective Action and Reflexive Monitoring (435, 441, 443).

Short descriptions of the constructs are provided in Table 10 and are based on an online toolkit, which was developed to assist with the understanding and use of the NPT (441). Within each construct there are four components, these are included in brackets and include both individual and collective components. This recognition of the importance of the social and collective aspects of the intervention across the constructs, is another key strength of the NPT as this is not a major feature in the CFIR. The NPT facilitates an analysis of both the individual and collective work to normalise an intervention and new knowledge.
<table>
<thead>
<tr>
<th>NPT constructs</th>
<th>Explanation of the construct and their components</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coherence</strong></td>
<td>The ‘sense-making work’ people undertake individually and collectively regarding the implementation. It includes whether participants:</td>
</tr>
<tr>
<td></td>
<td>• ‘distinguish the intervention from their current ways of working’ (differentiation)</td>
</tr>
<tr>
<td></td>
<td>• ‘understand individually what the intervention requires of them’ (individual specification)</td>
</tr>
<tr>
<td></td>
<td>• ‘collectively agree about the purpose of the intervention’ (communal specification)</td>
</tr>
<tr>
<td></td>
<td>• ‘construct potential value of the intervention for their work’ (internalisation)</td>
</tr>
<tr>
<td>Cognitive participation</td>
<td>The ‘relational work’ participants undertake to ‘build and sustain a community of practice’ around a new intervention. It includes whether:</td>
</tr>
<tr>
<td></td>
<td>• there are ‘key individuals to drive the intervention forward’ (initiation)</td>
</tr>
<tr>
<td></td>
<td>• participants buy in to the intervention and believe that it is right for them to be involved (legitimation)</td>
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<tr>
<td></td>
<td>• participants agree that it should be part of their work (enrolment)</td>
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<tr>
<td></td>
<td>• participants provide continued support for the intervention (activation)</td>
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<tr>
<td>Collective Action</td>
<td>The ‘operational work’ participants do to implement a set of practices. It includes:</td>
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<tr>
<td></td>
<td>• how the work fits with current practice (interactional workability) (‘the interactional work’)</td>
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<td></td>
<td>• how trust is maintained in each other’s work and in the intervention (relational integration) (‘the relational work’)</td>
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<tr>
<td></td>
<td>• whether the work is allocated appropriately to the participants (skill set workability) (‘the allocation work’)</td>
</tr>
<tr>
<td></td>
<td>• how the work is supported and resourced by its host organisation (contextual integration) (‘the resource work’)</td>
</tr>
<tr>
<td>Reflexive Monitoring</td>
<td>The ‘appraisal work’ that people do to assess and understand the ways that a new set of practices affect them and others around them. It includes whether participants:</td>
</tr>
<tr>
<td></td>
<td>• access information about the effects of the intervention (systemisation)</td>
</tr>
<tr>
<td></td>
<td>• assess the intervention as worthwhile (individual appraisal)</td>
</tr>
<tr>
<td></td>
<td>• collectively appraise the intervention as worthwhile (communal appraisal)</td>
</tr>
<tr>
<td></td>
<td>• modify their work and practices according to the intervention (reconfiguration)</td>
</tr>
</tbody>
</table>

Sources: Quotes are taken from the Normalisation Process Toolkit (441, 442). Additional descriptions are taken from May et al. (443) and May and Finch (48).
components in Table 10 (highlighted in brackets) and so whether participants have an understanding of the intervention, how it differs from the normal ways of working (differentiation) and what they are required to do (individual specification), alongside whether they agree on the purpose of the intervention (communal specification) and perceive value in it (internalisation) (441, 443) and whether this influences the normalisation of the intervention.

Cognitive participation refers to whether participants ‘buy in’ (legitimation) and participate in the intervention, both initially and in a sustained manner (activation) (441, 443). This includes whether they view it as part of their work (enrolment) and whether there is anyone to drive the intervention forward (initiation) (441, 443).

Collective action is concerned with ‘the operational work that people do to enact a set of practices’ (441) and includes how the work fits with existing practice (interactional workability), the trust of participants in the intervention and the work of others (relational integration), the allocation of the work (skill set workability) and the context of the support and resources of the host organisation (contextual integration) (441, 443). This construct was particularly focused on in the thesis as the difficulties relating to the operational work were numerous and particularly insightful.

Reflexive monitoring refers to the understanding of the participants of the work, including whether participants obtain information on the effects of the intervention (systemisation), whether it is perceived as worthwhile both individually (individual appraisal) and collectively (communal appraisal) and the modification of work and practices in relation to the intervention (reconfiguration) (441, 443). The constructs are clearly highly interlinked and the interactions between them are illustrated in Figure 5 and are clear throughout the findings in this thesis.

Numerous studies have used the NPM and NPT to examine the normalisation of a diverse range of interventions, including in GP practices (446, 447), community settings (448, 449) and organisational initiatives (257). Previously the NPT has been discussed in relation to the implementation of evidence-based guidelines (444) and it addresses some of the concerns raised in the guidelines and implementation literature.
For example, it facilitates an examination of the adaptation of interventions in practice as May (444) accepts that interventions are ‘often locally invented or re-invented, and externally defined innovations are often subject to local modification and reconfiguration’ and specifically discusses flexible implementation in relation to evidence-based practice.

One of the major benefits of using the NPT in addition to the CFIR in the conceptual framework is the focus on the process of enacting the actual work in practice. Although the CFIR includes the process domain, the NPT facilitates a much greater understanding of the dynamic process of the work and the chance an intervention will be normalised. Therefore the influences identified in the CFIR are useful as they provide a detailed description of the structural and more static influences on implementation, but this analysis needs to be combined with the NPT in order to understand how these influences interact in the context of the dynamic and social processes of enacting the work and normalisation of the intervention.
The NPT was therefore employed in this thesis in the conceptual framework to enhance the analysis in relation to the longer term normalisation of the intervention, the more dynamic process and to examine the social aspects of implementation.

4.5 Other theories, frameworks and models which informed the amendments to the conceptual framework

The conceptual framework was therefore based on the CFIR and the NPT and is illustrated in Figure 6. Certain additional frameworks, theories, perspectives and bodies of literature were highly influential in informing the selection of the CFIR (47) and NPT, the thinking throughout the thesis and several informed amendments to the CFIR component of the conceptual framework which were not captured with either the CFIR or NPT; they are outlined in Appendix XIV and described briefly below. Of particular note is the influence of the complexity perspective, policy analysis and programme implementation literatures.

![Figure 6. The conceptual framework, based on the adapted CFIR and NPT. (Figure drawn by the researcher GS)](image-url)
The following amendments were made to the CFIR component of the conceptual framework to form an adapted CFIR and are discussed further below:

- the domains overlapping to demonstrate the interactions between domains and a dashed line to further emphasise this (see section 4.5.3)
- the inclusion of two shapes for the adapted intervention to demonstrate the multiple adaptations which may occur (from the findings)
- an expansion of the scope of the inner and outer setting from Damschroder et al's (47) definition (see section 4.5.1) to include broader contextual factors, including historical influences
- the inclusion of the process of the formation of knowledge (in this thesis the guidelines and programme) in the process domain (see section 4.5.2).

4.5.1 Programme implementation and integration

The programme implementation and integration literature and primarily frameworks by Atun et al. (450, 451) and Coker et al. (452) were particularly influential in the development of the topic guides and fieldwork and a memo was written on them at the time. The initial frameworks used to examine the emerging themes from the implementation study were based on the work of Coker, Atun and colleagues (367, 368, 450, 452). A greater emphasis on the broader context exists in the programme implementation literature and this was considered in the study design, fieldwork and analysis. A broader conceptualisation of the context was also included in the amended conceptual framework. The programme literature informed the selection of the CFIR, as it includes a consideration of the influence of multiple factors, including the inner and outer setting involving the health system context (367, 368, 452, 453). The CFIR was preferable to the initial programme implementation framework, which was more aligned with adoption and the diffusion of innovation literature.

4.5.2 Parallels between the policy analysis and knowledge to action literatures

Although as emphasised by Black (398) and discussed in section 3.3.1, EBM and evidence-based policy making are qualitatively different, there are a number of commonalities between the fields which could offer insights and do not seem to have been explored fully in the literature. For example, one of the suggestions in the guideline implementation literature was a greater focus on multiple influences, including process and context (439, 454) and this is well established in the policy development and
implementation literature. Guideline development and implementation should also not be assumed to be free from the influences on policy development, such as political and social influences, which have been acknowledged in the diffusion of innovation literature (437).

Proponents of the bottom-up viewpoint of policy development and implementation, for example Lipsky (51), were particularly influential in both the design and the analysis of this thesis, for example, in relation to the adaptation of the guidelines and programme in practice. The rational, top-down, linear perspective of policy development and implementation has long been challenged by the more bottom-up theorists in the policy implementation literature, where it is viewed that policies will be interpreted and modified in practice (454). Yet, Greenhalgh et al. point out that the recognition that the implementation of evidence-based medicine is not a simple linear process, requiring individual behaviour change, is relatively recent (41). Clearly this parallels some of the viewpoints from the guideline implementation and knowledge to action literature (39, 376, 383) in relation to the move away from a simplistic top-down view of an implementation gap, towards a more emergent, bottom-up perspective where implementation is viewed as a more dynamic, social process (383, 420) (see section 3.4).

Policy analysis frameworks were influential in the initial study design and topic guide formation for the guideline development study (see section 5.4.3.3), namely with the use of the health policy triangle (439) and Bowen and Zwi’s framework (49) (see section 3.3.1). This bottom-up perspective of policy implementation influenced the move towards the knowledge to action literature and more complex view of implementation taken in this thesis. In line with one viewpoint in the policy implementation literature, the process of implementation is focused on in this thesis, rather than just the normative dichotomy of ‘success’ or ‘failure’ and the outcomes (454).

The policy literature also influenced the focus on a wide range of influences on implementation as for example Gilson describes how the policy implementation literature is distinct from the ‘more mechanistic top-down approach’ taken by implementation science and is concerned with relationships, communication and trust for example (52). Furthermore, policy can be conceptualised as the complete process encompassing policy formation and implementation, as policy making can be perceived as continuing during implementation (50). This moves beyond staged models of development and implementation and the linear perspective criticised in the implementation literature.
(section 3.4.3). The process of the formation of the knowledge (in this thesis the development of the guidelines and programme) was included in the process domain of the adapted CFIR in the conceptual framework.

4.5.3 Conceptualising the health system as a complex adaptive system

Throughout the thesis the health system is conceptualised as a complex adaptive system (367), where both the agents and the system are adaptive (455). Other authors in the field of knowledge translation have acknowledged the unpredictable and chaotic nature of health care systems and the interactions at multiple levels (456, 457). Kitson proposed that the implicit conceptualisation of the health system as a machine, rather than a complex adaptive system, hinders knowledge translation (432). Appendix XIV details several of the key aspects of a complexity perspective. Health programmes can be viewed as embedded within complex systems (440) and so as Atun and Menable discuss constraints and successes encountered in relation to communicable disease control programmes may be more attributable to the health system, rather than the actual programme (458).

A complexity perspective emphasises the need to examine the dynamic interactions between individuals. For example, the dynamic response conceptual framework developed by McPake et al. (459) and Balabanova et al. (460) included the influence of informal relationships, structures and behaviours and emphasised the social nature of decision making, the interactions between the influencing factors and how policies are interpreted at many levels. The framework explicitly included the ‘dynamic responses’, involving multiple human interactions, situated between the _de jure_ legislated services (e.g. organisational structures) and the _de facto_ observed outcomes (e.g. access) (459, 460).

This literature (459-461) resonates with the system dynamic approach to studying sustainability (see section 4.3). This was not judged to be sufficiently highlighted in the CFIR and is one of the points where the addition of the NPT to the conceptual framework particularly adds value to the analysis. The reflexive monitoring construct in the NPT is particularly useful in capturing these more dynamic responses. The interactions between the domains in the adapted CFIR are demonstrated by the overlapping boundaries and blurred lines.
The use of the conceptual framework in the analysis

The conceptual framework was critically applied and the strengths and weaknesses of using the adapted CFIR and NPT are discussed in Chapter 11. In this thesis in results Chapters 7 to 10 the adapted CFIR is used first to highlight the influences on implementation identified in each chapter and then the NPT is used to examine the social and work processes underpinning screening and the use of the guidelines. In Chapter 6 the adapted CFIR is used as it provides a context for the other chapters. A much more detailed analysis using the NPT component of the conceptual framework is presented in Chapter 10 in relation to the potential implementation of screening through a more mainstream model of service provision.

The CFIR was intended for prospective use (47), but can be useful for a retrospective analysis. The NPT and previously the NPM have been used retrospectively (447, 448, 462, 463), but can also be employed prospectively (464). The NPT potentially has a role as a ‘trial-killer’ (465), where an analysis can be performed prior to a trial commencing to determine whether it has enough potential to be normalised and whether the trial should continue. This potential prospective use of the NPT is advantageous as the NPT provides a coherent theory through which the likelihood an intervention will be normalised can be assessed. The adapted CFIR and NPT in the conceptual framework are primarily used retrospectively in this thesis, but in Chapter 10 they are used to examine the potential influences on future normalisation through a more mainstream GP service.

A framework analysis was used to initially analyse the data and create a thematic framework with higher level categories, themes and sub-themes. This is described in detail in section 5.5 and Appendices VIII to X detail the thematic frameworks. The adapted CFIR and NPT were then employed during the mapping and interpretation phase of the framework analysis in a bottom-up manner as the categories, themes and sub-themes had already been determined.

A table was produced for each of the core categories or themes included in the final thesis and the findings were mapped to the domains of the adapted CFIR and it was used to structure them. This assisted in determining the extent to which the CFIR captured the findings from the thesis. A memo had been written on the CFIR domains and constructs prior to this to assist with the analysis. The CFIR was also useful at this stage in
examining the findings in relation to what was already known or suggested in the broader implementation literature as it synthesised multiple bodies of literature.

Similarly, the NPT was used at a later stage in the analysis after the categories, themes and sub-themes had been determined. The NPT can be used at different stages in a qualitative research project (442, 466) and other authors have used the NPT after an initial thematic analysis (447). A memo was written detailing the scope of the NPT and a table was developed with the main NPT constructs and sub-components and their relevance to the findings in the thesis. This facilitated the analysis when the researcher (GS) returned to the transcripts and themes to examine the propositions at a more micro-level and moved up and down the analytical hierarchy.

For the NPT analysis, core themes from the framework analysis were interrogated using the propositions developed from the NPT in Table 11 and they were used to examine and structure the findings. The use of the propositions facilitated an examination of the usefulness of the NPT in explaining the phenomena identified in the studies. As the authors of the NPT encourage, the NPT was used flexibly in the analysis (467). Tables were produced for each chapter which mapped the findings to the constructs and sub-components and included key quotes. Mapping the findings onto the constructs and sub-components of the NPT was often at the level of the sub-themes. Examples from previous studies using the NPT were also useful at this stage and were included in the memo. These memos also facilitated the discussions with the supervisory panel. At this stage the extent to which the NPT assisted in analysing the findings in comparison to the adapted CFIR was also examined.

A particular strength of the adapted CFIR is that it enables an identification of a broad spectrum of core factors influencing implementation at multiple levels. Therefore, it facilitated the identification of multiple influences on implementation, which could then be further explored with the NPT. Although the NPT recognises a wide range of influences on the normalisation of an intervention, it doesn’t provide such a detailed description of the individual factors.

In addition to the detailed identification of multi-level influences on implementation, the concept of the ‘hard-core’ and ‘soft-periphery’ of the intervention is a highly valuable concept in the CFIR. While the NPT can capture the process of implementation and
Table 11. Propositions developed from the NPT constructs and critically applied during the analysis.

<table>
<thead>
<tr>
<th>NPT constructs</th>
<th>Propositions tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coherence (Do people know what the work is?)</td>
<td>Screening work and the use of the guidelines requires conceptualisation of the boundaries and nature of screening, agreement on the purpose of screening and guidelines, individual understanding of their tasks and responsibilities and construction of the potential value of screening and the guidelines by the participants.</td>
</tr>
<tr>
<td>Cognitive participation (Do people join in the screening work?)</td>
<td>Screening work and the use of the guidelines requires engagement of key individuals with a shared set of techniques that deal with screening. This includes key individuals driving it forward, individuals agreeing that screening should be part of their work, ‘buying’ in to the intervention and continuing to support the screening and use of the guidelines.</td>
</tr>
<tr>
<td>Collective Action (How do people do the work?)</td>
<td>Screening work and the use of the guidelines requires agreement about how the screening is organised, who is required to deliver the screening and their structural and human interactions. It includes participants performing the tasks, maintaining trust in other’s work and expertise and the intervention, the work being allocated appropriately and it being adequately supported by the host organisation.</td>
</tr>
<tr>
<td>Reflexive Monitoring (How do we know that the work is happening?)</td>
<td>Screening work and the use of the guidelines requires the ongoing assessment of how screening and the use of the guidelines is enacted. This includes participants accessing information on screening and the guidelines, participants individually and collectively assessing them as worthwhile and participants modifying the screening and use of guidelines in response to the individual and communal appraisals.</td>
</tr>
</tbody>
</table>

Adapted from Gunn et al. (468) and the Normalisation Process Toolkit (441).

normalisation, including the response to practice and adaptation, the use of the CFIR facilitates a clear description of the nature and extent of this adaptation. See Table 12 for the elements of the intervention in this thesis categorised by the ‘hard-core’ and ‘soft-periphery’ of the intervention.
Table 12. The ‘hard-core’ and ‘soft-periphery’ of the intervention examined in this thesis

<table>
<thead>
<tr>
<th>The ‘hard-core’</th>
<th>The ‘soft-periphery’</th>
</tr>
</thead>
<tbody>
<tr>
<td>• National communicable disease screening guidelines for asylum seekers and refugees</td>
<td>• Adaptable, additional elements related to the provision of the screening service e.g. health promotion, holistic service provision, adapted guidelines</td>
</tr>
<tr>
<td>• Communicable disease tests and catch-up immunisations included in the guidelines e.g. TB screening questionnaire</td>
<td>• Follow-up steps after screening (if required) e.g. Hepatitis B vaccination</td>
</tr>
<tr>
<td>• Other essential elements of the screening programme e.g. coverage</td>
<td>• The model of service provision for implementing screening e.g. specialist dedicated service or GP service provision</td>
</tr>
</tbody>
</table>

The tension between the fidelity and adaptation of the intervention is an important discussion point (438) and relevant to both the initial implementation and sustainability of an intervention. The concepts of the ‘hard-core’ and ‘soft-periphery’ of the intervention from the CFIR can be used to examine the fidelity and adaptability of the intervention. For example, the extent to which the elements considered part of the ‘hard-core’ are implemented could give an indication of the fidelity of the intervention. Adaptations relating to other elements of the intervention can then be examined by conceptualising them within the ‘soft-periphery’. A recent review stated that fidelity measures do not usually examine the nature and consequences of the adaptation of interventions (438) and the concept of the ‘hard-core’ and ‘soft-periphery’ could therefore assist with this.

The NPT adds value to the different influences analysed using the adapted CFIR, as the NPT views that all the constructs need to be functioning for normalisation to occur. The NPT constructs are particularly highlighted in this thesis where they enhance the analysis using the adapted CFIR; for example, reflexive monitoring in understanding the coverage of the screening services (Chapter 7) and collective action (sub-component reflexive monitoring) in understanding the influence of the relationship between the sHCP and client (Chapter 9).

4.7 Conclusions

The CFIR and NPT are highly relevant to the aims addressed this thesis and address a number of suggestions proposed in the guideline and broader implementation and knowledge to action literatures. The conceptual framework, based on the CFIR and with the amendments detailed above, is used in this thesis to identify and describe the influences on the development of the national communicable disease screening
guidelines for asylum seekers and the enacting of the guidelines and screening service in practice. The NPT is used in the conceptual framework to examine the social and work processes which underpin the normalisation of an intervention and to identify barriers to normalisation of the screening guidelines, tests and services.
Chapter 5: Methodology and Methods

5.1 Relevance of the research area and research questions

As detailed in Chapter 1, communicable diseases in the migrant population were highlighted as a significant research area at a conference attended by the PhD Scholar and researcher (GS) in the taught first year of the PhD programme and were aligned with the research interests of the supervisory panel at that time (SM & RB). In order to identify pertinent research questions in this field, which were interesting, novel, related to the existing literature, feasible, clear, focused and relevant (469), several strategies were employed and are illustrated in Figure 7. Informal consultations with two NGOs also took place during the three years in order to gain their perspective on the research area.

5.2 Methodology and research design

5.2.1 Pragmatism

An outline of the research process for this thesis is provided in Figure 8 and the sampling and data collection methods for the studies are detailed in Table 13. Pragmatism was the approach underpinning this thesis. Johnson et al. describe how pragmatism is proposed as a third research movement, where the incompatability thesis between the positivist and constructivist or interpretivist paradigms is rejected and a more pluralistic approach is adopted (470). Pragmatism adopts the viewpoint that neither paradigm should have hegemony (470) and therefore enables greater flexibility in the use of epistemological or methodological assumptions (471). It proposes that methodology and methods are not necessarily synonymous and therefore encourages mixed methods research (470). Johnson and Onwugbuzie (470) discussed how contingency theory is recommended for the selection of research methods, where the superiority of the method depends on the circumstances.

A pragmatic approach was selected for a number of reasons. Firstly, methodological pluralism has been suggested to lead to more effective research (470). Secondly, there is a perception that ‘inductive and deductive reasoning can be complementary, rather than mutually exclusive, data analysis tools’ (471). Thirdly, one of the major purposes was ‘complementarity’ where the findings from one method are enhanced by the findings of another. ‘Development’ was a further purpose, as the results of the mapping study informed the in-depth interview studies and lastly ‘expansion’ was an aim in order to broaden the range and depth of the research (470). Mixed methods research is also particularly suitable for dealing with the complexity of
A literature review was conducted to identify the optimal methods and methodology to address the research questions & the informal consultations assisted in providing information on the nature & scope of the screening services. Feedback on the initial research questions & design were obtained from a group of peers & academic advisors which facilitated the refinement of the research questions & study design. Formal feedback & approval was obtained from a steering committee on the proposal in September 2009. Continued engagement with key stakeholders was facilitated through informal consultations and the presentation of preliminary findings at national expert group meetings.

After engagement with key stakeholders and further investigation the decision was taken not to continue with the observation and epidemiological study and instead the integration study was developed. Research questions for the follow-up integration study were developed from the initial analysis of the findings from the implementation research, document review, literature reviews in areas arising from the findings, inputs from the research team and informal consultations with key stakeholders.

**Figure 7. Strategies employed in the development of the research question**

.. health, health care, interventions and the context in health services research and is commonly employed (471, 472). Cresswell proposes a middle ground between the perceptions of mixed methods either as a methodology or as a method and suggests that it is 'a research design with philosophical assumptions as well as methods of enquiry' (473).

Predominantly qualitative methods were used in the study as they were best suited to addressing the research questions. This is due to the fact they facilitate an in-depth understanding of the respondents' perspectives, alongside an examination of the
The development of a conceptual framework for this thesis was undertaken alongside these stages. The complexity of the phenomena and the dynamic processes involved (470): for example, the interactions of the influences on implementation. Crucially qualitative methods also enable an examination of the phenomena in relation to the context (470). A mixed methods approach was originally adopted for the research design as initially the thesis was designed with a more significant quantitative element, but the final studies were predominantly qualitative, with the mapping study providing more quantitative data.

The ontological assumptions were more aligned to a constructivist, naturalistic or interpretivist approach as: reality was assumed to be subjective (471) rather than a ‘real truth’ (474); ‘facts’ are perceived as theory-laden (470, 474); a separation between cause and effect and value-free research were not perceived as possible and neither were context or time-free generalisations. Similarly, the epistemological perspective taken was more aligned with this paradigm as the researcher is viewed as interacting with the phenomenon in the study (471, 474).
Table 13. An overview of the studies and data collection methods included in this thesis

<table>
<thead>
<tr>
<th>Study</th>
<th>Aims</th>
<th>Sampling</th>
<th>Data collection method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mapping</td>
<td>To examine the extent to which the guidelines and screening tests and services are implemented or enacted and modified in practice. To explore the influences on the implementation or enactment of the guidelines and screening tests and services in practice. *</td>
<td>Purposive sampling of individuals currently or previously working on the dedicated screening service, or who would have been in charge of the screening if no screening was in place.</td>
<td>Telephone interviews with 33 respondents out of the 36 individuals invited to participate.</td>
</tr>
<tr>
<td>Guideline development</td>
<td>To investigate the mechanisms behind the development and distribution of the guidelines and influence of different types of knowledge, with a focus on the evidence base for the guidelines and implementation considerations. *</td>
<td>Purposive sampling of those directly involved in the guideline development or those with a perspective of the broader policy context influencing or related to the development of the guidelines.</td>
<td>In-depth interviews with 20 key-informants (19 from the initial interviews and 1 from the follow-up interviews)</td>
</tr>
<tr>
<td>Implementation</td>
<td>To examine the extent to which the guidelines and screening tests and services are implemented or enacted and modified in practice; To explore the influences on the implementation or enactment of the guidelines and screening tests and services in practice. *</td>
<td>Purposive sampling of individuals involved either currently or previously in the implementation of the screening. GPs who accepted asylum seekers from the accommodation centres were included in areas where no dedicated screening HCPs were in place.</td>
<td>In-depth interviews with 28 key informants (19 from the initial interviews and 9 from the follow-up interviews)</td>
</tr>
<tr>
<td>Integration</td>
<td>To explore the views of professional stakeholders on a mainstream GP model of service provision in comparison to a dedicated screening service, in relation to the detection of health issues and facilitating access and integration into the health system (including screening and IHA) in order to meet the needs of asylum seekers and refugees. *</td>
<td>Purposive sampling of HCPs and managers involved in the provision of health care for migrants in relation to HIV/AIDS, TB and depression.</td>
<td>In-depth interviews using a vignette with 21 respondents. There was one round of interviews.</td>
</tr>
<tr>
<td>Document review</td>
<td>To review secondary data sources to triangulate the findings from the four studies detailed above. *</td>
<td>n/a</td>
<td>Literature searching, recommendations &amp; snowballing</td>
</tr>
</tbody>
</table>

* Aim 5 of the thesis was applicable across all of the studies: To consider the findings in relation to the international literature and to build a conceptual framework to address the primary aim of the thesis
The ‘context stripping’ approach of a positivist or post-positivist approach (474) was therefore rejected as interactions with the context were one of the core characteristics of the phenomena to examine. Rich insights were needed in order to further the understanding of the phenomenon (474).

The framework analysis approach employed in this thesis (see section 5.5.1) suited the pragmatic paradigm as it enabled a dual inductive and deductive approach to the analysis, although it would also have been useful within the interpretive paradigm. The research was intentionally not aligned to one theoretical perspective initially and this is discussed further in the relevant sections below. Originally the qualitative elements of the study were intended to focus on a policy analysis. However, as the study progressed it became more appropriate to focus on guideline and programme implementation. The influence of policy analysis methods is also clear throughout the thesis.

5.2.2 Case-study design

A retrospective case study was undertaken: the case was the formation and implementation of communicable disease screening guidelines for asylum seekers in Ireland. This included the development of the first set of national communicable disease screening guidelines in 2000 and the subsequent reviews in 2001 and 2004 and associated versions for GPs were also produced during this period. The implementation of the guidelines was examined from their initiation in 2000 until the final interview in February 2012; the case-study therefore spans 12 years. Ireland is particularly suited to a case-study approach in this field, as asylum seekers only arrived in sizeable numbers from the mid-1990s (475) and therefore, the historical context is relatively recent, in comparison to countries with longer migration histories.

This retrospective case-study can be described as an instrumental case-study as it aimed to provide insights into migrant communicable disease screening programmes and the Irish health care system, as opposed to an intrinsic case study where attempts are not made to generalise further (476). With the exception of a previous audit, published in 2006, there was a dearth of research examining asylum seeker screening in Ireland. Due to the sparseness of the national literature and the diversity of screening in the international literature, rich data and an in-depth understanding of the context of the implementation was required. Additionally, in light of the suggestions in the implementation literature for a greater emphasis on context (Chapter 3) a case-study was particularly suited for the research questions posed; one of the defining features of a case-study is the 'multiplicity of perspectives which are rooted in a
specific context’ (469). Therefore, a case-study design was selected to provide an understanding which is ‘holistic, comprehensive and contextualised’ (469).

A further advantage of the case-study design is the ability to examine the dynamic interactions between the influences on implementation. As the health system is conceptualised as a complex adaptive system throughout the thesis this was particularly relevant and important in moving beyond a simple identification of barriers and facilitators to implementation.

5.3 Sampling and recruitment

5.3.1 Purposive sampling

Purposive sampling was employed, alongside snowball sampling, for all four primary data collection studies. In line with best practice for qualitative sampling techniques the sample was not fixed prior to the study commencement and suitability was more important than representativeness (477). Snowball sampling is particularly useful as the identification of key stakeholders is an iterative process and valuable recommendations can be obtained from respondents once the study has commenced. In accordance with a case-study method the sampling was ‘structured around the context rather than around a series of individual participants’ (469). Purposive sampling also facilitated an examination of the networks between key informants which was particularly important for the integration study.

Snowball sampling was supplemented by public data sources such as the ICGP and HSE websites, as the dynamic context rendered some recommendations outdated. For example, some GP surgeries were contacted to ensure they were still receiving asylum seekers from the accommodation centres, prior to the letter of invitation being sent. Public health departments and nurses, hospitals, social inclusion units and local health offices were also contacted.

5.3.2 Sample size

Sample sizes was determined by the number of interviews needed to reach the point of data saturation, alongside the richness of the data gathered and feasibility issues (one researcher (GS) conducted and transcribed the interviews). Recommendations by Morse (478) informed the sample size and were in line with other recommendations (479) and so approximately 15 to 30 respondents were estimated for each study. A total of 69 in-depth interviews were conducted across the three in-depth interview studies and the individual samples are reported below.
Table 14. The detail of the respondent pseudonyms and codes used in the results chapters

<table>
<thead>
<tr>
<th>Respondent code detail</th>
<th>Guideline development study</th>
<th>Implementation study</th>
<th>Integration study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic respondent code</td>
<td>Professional stakeholder A (number)</td>
<td>Respondent B (number)</td>
<td>Respondent C (number)</td>
</tr>
<tr>
<td>Profession (category)</td>
<td>Cannot include for anonymity</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>• GP: General Practitioner</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• HCP: Screening healthcare providers and healthcare providers involved with the asylum seeker accommodation centre or line manager</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• RS: Referral specialists</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• PH: Public health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GP practice size*</td>
<td>n/a</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>• Large</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Small</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currently or previously working on the screening service**</td>
<td>n/a</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>• Currently</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Previously</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* GP practice size is based on the number of GPs in the practice, rather than the patients.
** It needs to be noted that some services fluctuated and so this was based on the respondent’s situation at the time of the interview and whether they were working on the screening service or in the accommodation centres.

Several respondents were involved in more than one of the in-depth interview studies. Four respondents were interviewed twice: one for the policy and integration interviews and three for the implementation and integration interviews. As these were two different interviews with one individual at different times for different studies, the respondent pseudonyms for the corresponding study are used when the quotes are presented. The term ‘respondents’ is used to refer to those interviewed throughout the thesis. The term ‘professional stakeholders’ incorporates staff working within the health service, those involved in the guideline development or those with a perspective of the broader context. This is preferable to the term ‘key stakeholder’ which would include the clients. The codes used for the respondents in the results chapters are outlined in Table 14; for example (Respondent B5;HCP;Current).

In addition, four respondents were also included in both the implementation and the integration study and the topic-guides were both covered in the course of one interview session. The integration topic-guide followed up on initial findings from the implementation study and so this was not difficult in practice as the topics overlapped.
The integration study was broader as it also looked at economic migrants and depression in addition to TB and HIV and so in these interviews the respondents were also discussing these wider topics. The primary vignette centred around an asylum seeker though (see section 5.4.3.3) and it would only have been the GPs and HCPs in the accommodation centres who would also have dealt with depression. Where both topic-guides were included in one interview, only one of the study pseudonyms (either the implementation or integration pseudonym) is used for these respondents when the quotes are presented in this thesis.

One individual was initially recruited for the guideline development study but they were instead included in the implementation study, as they more aptly met the inclusion and exclusion criteria; this was covered by the informed consent.

5.3.3 Development of the sampling frames
Purposive sampling ensured that ‘information rich’ participants were selected (480). The strategy employed stratified purposive sampling, with the identification of prescribed selection criteria. However, due to the diversity and low numbers of potential respondents this was combined with critical case sampling (480) where individuals are ‘chosen as they demonstrate a particular phenomenon or position dramatically’ or are pivotal in the delivery of a process or operation’ (479).

Prescribed selection criteria were used as purposive sampling aims to achieve ‘symbolic representation’ to ensure representativeness and diversity, so that the range of characteristics could be investigated (479). Due to the nature of the phenomenon examined, the sampling frames did not contain a substantial number of potential respondents. The sampling frames were particularly useful for the sampling of GPs and the integration study.

Initial sampling frames were informed by the literature reviews, document review and informal consultations for all four studies alongside the research team’s knowledge and personal contacts. Findings from the mapping study helped inform the sampling frames for the implementation and integration studies.

Prescribed selection criteria, rather than detailed sampling frames, are reported in this thesis as protecting the anonymity of the respondents is of paramount importance; often respondents may have unique job roles in relation to the development of guidelines, policy, screening and service provision relating to HIV/AIDS, TB or
Table 15. Prescribed selection criteria for the sampling frame for the three in-depth interview studies

<table>
<thead>
<tr>
<th>Selection criteria</th>
<th>Guideline development study</th>
<th>Implementation study</th>
<th>Integration study</th>
</tr>
</thead>
</table>
| Primary purposive selection criteria | • Job role & profession & organisational affiliation  
• Role & extent of involvement in the group  
• Stage of involvement in process | • Job role & profession  
• HSE region  
• Type of accommodation centre (reception or dispersal)  
• Practice size (for GPs only)  
• Presence of sHCPs  
• Currently or previously working on the service,  
• Whether GPs would see asylum seekers | • Presence & type of screening service  
• Presence of specific sHCPs  
• Screening service setting  
• Presence and type of RIA accommodation  
• Rural, town or city location  
• Job role & profession  
• Number of asylum seekers in RIA accommodation  
• Practice size (for GPs only) |
| Secondary purposive selection criteria | • HSE region  
• Reception or dispersal location  
• Gender | • Number of asylum seekers in the LHO  
• Gender  
• Screening service permanent or fluctuating  
• Rural, town or city location | • Gender |

depression. As illustrated in Table 15, different sampling frames were developed for each study and they are described below.

5.3.3.1 Mapping

A recent list of screening services across Ireland was not available, therefore, enquiries were made in each of the Local Health Office (LHOs) or Asylum seeker Services Units to identify individuals involved in migrant screening and to ensure the sample was nationally representative. Snowball sampling was subsequently employed until a service was identified or it was established that there was no service present during the mapping period.

Individuals currently or previously working on the dedicated screening service, or who would have been in charge of the screening if no screening was in place were invited to participate. Inclusion criteria were intentionally broad due to the nature of the mapping exercise to ensure individuals were not excluded incorrectly. However, GPs and related healthcare professionals such as those working in sexually transmitted infection (STI) clinics were excluded as the focus was on the specific screening service and so a separate mapping exercise would be required to look at related HCPs. Antenatal screening services were also not included in this thesis.
Of the 36 individuals invited to participate, 33 were included in the sample (92%). Even though there are only 32 LHO areas, 36 individuals were included as in some locations it was suitable to interview HCPs in screening teams with different roles. Ten airports were emailed for information and three responded. Individuals across the LHO areas from a range of healthcare roles were interviewed. Findings were analysed and presented by LHO area, rather than HSE region as the variation in asylum seeker numbers within the regions meant limited insights were gained at this more macro level.

**5.3.3.2 Guideline development study**

In addition to the sources mentioned above, meeting minutes and secondary documents were used to develop the sampling frame. During the interviews additional documents were collected and the individuals involved in the guideline development discussed.

The guideline development group included at various time-points representatives from public health, the Department of Health (DoH) (named the Department of Health and Children between 1997 (302) and 2011 (481)), GPs, community health, referral consultants and other HSE employees who worked in relation to infectious diseases. In the broader policy arena social inclusion, the DoH, the Department of Justice and Equality, including RIA and the Department of Foreign Affairs were involved. The initial sampling frame included those directly involved in the guideline development or those with a perspective of the broader policy context influencing or related to the development of the guidelines.

Primary purposive selection criteria are detailed in Table 15 and included professional category and organisational affiliation, role & extent of involvement in the group and stage of involvement in the process. Secondary purposive selection criteria included HSE region, reception or dispersal location and gender. The composition of the group changed during the guideline development process and representation from those involved over the time-span was ensured in the sample. The sampling frame was relatively small and diverse.

A total of 32 individuals were included in the initial sampling frame and 20 agreed to participate. 19 respondents were interviewed during the initial interviews and one respondent for the follow-up interview. Reasons for non-inclusion or non-participation included individuals who had moved or retired, could not remember being involved (and so may have had a more minor role), inability to contact individuals, individuals
declining to participate and individuals not meeting the inclusion/exclusion criteria after further investigation. The sample was representative of those involved; there were slightly more males and over half were from the two Dublin HSE areas. Those not included were distributed across the organisational affiliations, but more females than males were excluded for the reasons detailed above. Detailed sample characteristics are not reported due to the nature of the study design and the need to protect the anonymity of the respondents.

5.3.3.3 Implementation

Individuals involved either currently or previously in the implementation of the screening were included in the initial sampling frame. This included Public Health Nurses (PHNs) who were involved to varying degrees in screening and in some cases may assist more with the vaccinations in response to screening e.g. hepatitis B vaccines and support the sHCPs in the centres. In the findings these PHNs are referred to as HCPs in the centres for clarity, whereas PHNs who are more actively involved in offering screening or are included in the screening team are included within the term sHCP. Both types of PHN and line-managers are included when the term either currently or previously involved in the screening service is used. This terminology is also used in the integration study. In areas where no dedicated screening HCPs were in place, the sample included GPs who accepted asylum seekers from the accommodation centres in order to investigate the level of screening offered. Included in the sampling frame were medical officers, members of the nursing profession, GPs and line-managers.

Primary purposive selection criteria (Table 15) were nested and comprised: profession, HSE region, type of accommodation centre (reception or dispersal), practice size (based on the number of GPs, rather than patients, for GPs only), whether GPs would see asylum seekers, the presence of sHCPs and whether individuals were currently or previously working on the screening service. PHNs were included in the sampling frame if they were suggested during the snowball sampling and assisted with some elements of the programme in the screening guidelines, for example, assisting with hepatitis B vaccines or TB follow-up, even if their primary role was not screening.

Secondary purposive selection criteria were the number of asylum seekers in the LHO, gender, whether the service was permanent or fluctuated and whether the location was a rural area, town or city. In both the integration and implementation interviews some respondents were from the same geographical location. As with the guideline
Of the 50 individuals included in the sampling frame, 49 were invited and 28 agreed to participate. Of these 19 interviews were conducted in the first round and there were 9 follow-up interviews. The sample included medical officers, members of the nursing profession, GPs and line-managers (see Table 16).

Reasons for non-inclusion included individuals not meeting the inclusion/exclusion criteria after further investigation, no response to participate or to arrange the interview, saturation of the criteria in the sampling frame and individuals declining to participate. The majority of those invited but not included in the final sample were GPs.
The sample was representative of the sampling frame, with the exception of one location where despite rigorous recruitment strategies a GP could not be recruited.

Of the sHCPs, over three quarters of those included were currently working on the service and under a quarter had previously worked on the screening programme (see Table 17). Greater numbers of sHCPs were included who worked in stable services, although approximately a third were from services which had fluctuated or stopped. Good representation from centres with different numbers of asylum seekers residing was achieved in the sample. For the GPs there was an even division between the larger and smaller practices. Two GPs were recruited from the same practice. Respondents were represented from the four HSE regions, with slightly fewer from Dublin mid-Leinster (see Table 18).

5.3.3.4 Integration

For the integration study, the sampling frame included HCPs and managers involved in the provision of health care for migrants in relation to HIV/AIDS, TB and depression. The initial sampling criteria were deliberately broad, as it was an iterative process using purposive and snowball sampling. Primary purposive selection criteria (Table 15) were nested and were: the presence of specific sHCPs, the presence and type of screening service, screening service setting, the presence and type of RIA accommodation, rural, town or city location, the number of asylum seekers in RIA accommodation and job role and profession.

For GPs the number of GPs in a practice was also a primary purposive sampling criterion. This was established through using publicly available information, primarily the ICGP website and the individual GP practice websites. Gender was a secondary purposive selection criterion and was also nested. For several GPs in the integration interviews a screening service was in place in their area, however, the majority of GPs across the implementation and integration studies were from areas where no screening service was in place.

Of the 50 individuals invited to participate, a total of 21 respondents were included in the sample. Reasons for non-inclusion included individuals not meeting the inclusion/exclusion criteria after further investigation, individuals were on leave or no longer worked in the location, no response to the invitation or to arrange the interview, individuals declining to participate and saturation of the criteria in the
Table 20. The composition of categories of professions and organisational affiliations within integration sample.

<table>
<thead>
<tr>
<th>Profession or organisational affiliation</th>
<th>Number included in sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>sHCP (medical officer or nursing professional)</td>
<td>5</td>
</tr>
<tr>
<td>Public health</td>
<td>4</td>
</tr>
<tr>
<td>Referral specialist</td>
<td>5</td>
</tr>
<tr>
<td>GPs</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 21. The gender of those included in the integration sample

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number included in the sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>11</td>
</tr>
<tr>
<td>Male</td>
<td>10</td>
</tr>
</tbody>
</table>

sampling frame. The vast majority of those not participating were GPs; more male GPs declined to participate but more were invited.

Within the sample there was good representation from the categories of professions and organisational affiliations in the sampling frame (Table 20). Slightly more females were included in the total sample (Table 21). In relation specifically to the GPs more male than female GPs were included due to the difficulty in recruiting female GPs. For the GPs within the sample there was representation from smaller and larger practices. Two sets of GPs were from the same practices.

5.3.3.5 Recruitment

For the mapping study a cover letter or email with a cover letter attached was sent to potential respondents explaining the purpose of the exercise. This was followed by a telephone call by the researcher (GS) one week letter. An email or inquiry form was sent to the ten airports in Ireland.

For the three in-depth interview studies respondents were invited to participate via post or email. Potential respondents were sent a cover letter or email alongside two copies of the consent form (one for them to keep and one to return), participant information sheet and pre-paid self-addressed envelope (if sent by post). The vignette was included for the integration interviews. Standard cover letters were used in all four primary data collection studies, but were tailored slightly where necessary in order to aid with uptake, for example, reference to previous contact if applicable. Follow-up calls and letters were also employed. Documents sent to potential respondents are included in Appendices XV to XXII.
5.4 **Data collection methods**

5.4.1 **Quantitative data**

The thesis was also originally designed with a major quantitative element, as detailed in Appendix XXIII, but difficulties were encountered with the proposed studies, including the feasibility, relative priority of the area and the quality and comprehensiveness of the national screening data. Quantitative data were however still used in three main ways in the thesis to inform the analysis. Firstly, the mapping study involved a quantitative element, which was used as a foundation for the qualitative interviews. Secondly, a previous audit and evaluation of the screening service was used to inform the research questions, study design and the discussion and interpretation of the study findings (62). Similarly, quantitative data from the literature and document review were also used at this stage, for example, in relation to migration trends.

5.4.2 **Document review**

Secondary data documents were collected and used to inform the initial research questions and study design, sampling frame, topic-guides and the analysis. Initial documents were collected during informal consultations and narrative grey literature searches. A search of key websites was performed in October 2009 to gather policy documents, guidelines and grey literature related to screening for migrants in Ireland. The DoH were also contacted at this stage for any guidelines or related documents. The search strategy is provided in Appendix XXIV.

Documents were collected throughout the thesis and the search for documents was iterative. Interviewees were also asked for recommendations for useful documents and a number were highlighted, viewed and collected during the fieldwork and through informal consultations. Snowballing was also undertaken from some of the documents identified. It was not possible to ensure that a complete set of documents were obtained and so a review was undertaken of the documents, rather than a more formal, comprehensive document analysis, to assist in triangulating the information from the other studies and the peer reviewed literature.

Table 22 details the documents included in the document review, the information from which is included in the results sections of the thesis. Documents were only
Table 22. The documents included in the document review

<table>
<thead>
<tr>
<th>Document type</th>
<th>Actual documents</th>
<th>Document number</th>
</tr>
</thead>
</table>
| Screening guidelines (national) | • One set of GP guidelines in 2000 *†  
• Communicable disease screening for asylum seekers 2000  
• Communicable disease screening for asylum seekers 2001  
• Communicable disease screening of asylum seekers. Information for GPs. 2003**†  
• Communicable disease screening for asylum seekers 2004.  
• Communicable Disease Screening for Asylum Seekers. Information for GPs. 2004 | D26Nat  
D27Nat  
D28Nat  
D29Nat  
D30Nat  
D31Nat |
| Screening guidelines (sub-national & guidelines for GPs by other national & sub-national organisations) | • 10 sets of guidelines on health screening, communicable disease screening and vaccination for asylum seekers and refugees  
• 2 sets providing broader advice for GPs (including screening)  
• Other communicable disease prevention guidelines | D32Reg to D41Reg  
D42Reg  
D69Nat  
D43Reg |
| Other forms of guidelines used in practice e.g. screening forms, history sheets | • 8 screening forms  
• 2 TB screening questionnaires  
• 4 consent forms (and 2 consent forms included in questionnaires) | D44Form to D51Form  
D52TB to D53TB  
D54Con to D55Con |
| Other forms used in practice & screening information leaflets for clients | • 8 other forms (including information sheets and a memo)  
• 3 referral forms (including for a GP or hospital) | D57Form to D64Form  
D65Ref to D67Ref |
| Letters attached to or related to the guidelines or recommending screening | • December 1998  
• August 2000  
• August 2000  
• August 2000  
• December 2000  
• May 2001  
• September 2001  
• September 2001  
• October 2001  
• October 2004  
• March 2005  
• November 2006 | D06Let  
D07Let  
D08Let  
D09Let  
D10Let  
D11Let  
D12Let  
D13Let  
D14Let  
D15Let  
D16Let  
D17Let |
| Minutes from the national guideline meetings | • May 2002  
• October 2002  
• January 2003  
• October 2004 | D02Min  
D03Min  
D04Min  
D05Min |
| Minutes from local committees | • September 2001  
• Undated | D18MinL  
D19MinL |
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<th>Actual documents</th>
<th>Document number</th>
</tr>
</thead>
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<td>An agenda from the national guideline meetings</td>
<td>• December 2001</td>
<td>D01Ag</td>
</tr>
<tr>
<td>Dail written answers, a record of the Joint Committee on Health and Children</td>
<td>• Meeting the challenges of Cultural Diversity in the Irish Healthcare Sector speech by Michael Martin, November 2001</td>
<td>D20Spe</td>
</tr>
<tr>
<td>parliamentary debate and a speech from government referring to screening</td>
<td>• Dail Eireann written answers infectious disease screening, December 2001</td>
<td>D21Wa</td>
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<tr>
<td></td>
<td>• Dail Eireann written answers infectious disease screening, January 2004</td>
<td>D22Wa</td>
</tr>
<tr>
<td></td>
<td>• Dail Eireann written answers infectious disease screening, June 2004</td>
<td>D23Wa</td>
</tr>
<tr>
<td></td>
<td>• Parliamentary debate Joint Committee on Health and Children meeting, January 2009</td>
<td>D24Deb</td>
</tr>
<tr>
<td>Terms of reference for new-entrant screening sub-committee in 2011</td>
<td>• Webpage 2011</td>
<td>D68ToR</td>
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</tbody>
</table>

* No logo on copy of guidelines but national GP guidelines referenced in meeting minutes and appear to be referring to these guidelines.
** No logo on copy of guidelines but national GP guidelines again referenced in minutes and in guidelines they refer to remit of national group.
† With the GP guidelines there was some ambiguity with regards to the dates they were finalised and this was difficult to elucidate.

Included in the document review if they mentioned screening for asylum seekers or refugees in relation to communicable diseases. Memos were written from the information in the documents and these were then used for triangulation and to provide additional contextual information.

Other documents which were relevant but did not specifically mention screening were included in the literature review and discussion where relevant. These included reports from the media, national communicable disease reports, other national communicable disease guidelines, the NIHS consultation report and final strategy and other national health strategy documents.

Other documents were reviewed but are not reported on in detail in this thesis as they were beyond the scope of the final thesis, including health board reports, HSE and DoH national plans. Articles and reports in the grey literature were also a useful source of information and were included in the national literature review and discussion sections of the thesis.
5.4.3 Interviews

5.4.3.1 Selection of interviews for the data collection

In-depth interviews were employed as the primary research method, to enable the collection of rich data, suitable for addressing the research questions. This was aligned with the rationale for the selection of the broader case-study design, where due to the lack of previous research in the field there was a need for an inductive component to identify emergent themes through an in-depth exploration of the perceptions of the HCPs. Semi-structured questionnaires were unlikely to provide the richness of data required and would be more suitable for a follow-up study after the initial themes were identified. Furthermore, in-depth interviews are more suited to the purposive sampling technique selected for the identification of networks in the integration study.

Protecting the anonymity of the respondents was crucial in order for them to discuss their perspectives honestly and so individual in-depth interviews were preferable. Also due to the sensitive nature of some of the subject areas face-to-face interviews were the optimum method. In addition, an understanding of the context was key and again due to the geographical dispersion discussions were required with individuals regarding their particular context.

For the mapping study, telephone interviews were selected as they assisted with the initial building of trust and a relationship between the researcher (GS) and others working in the field, which was essential for the snowball sampling and later studies. This was one of the main advantages of telephone interviewing in the mapping study in comparison to a postal survey. The use of telephone interviews was advantageous in comparison to in-depth face-to-face interviews for the mapping study as they were shorter and more feasible for data collection across Ireland. The questions in the mapping study were not sensitive or confidential and didn’t examine the opinions of the respondents and therefore limitations such as not being able to detect interviewee’s non-verbal responses were not so crucial and in-depth interviews were not necessary at this stage.

5.4.3.2 Common points for the interviews across the studies

- General principles for interviewing
Kvale’s (482) advice was considered throughout the designing and implementing of the interviews. The types of interview questions detailed by Kvale (482) were used in the design of the topic-guide and in the interviews to facilitate the collection of rich,
high quality data. These included introductory, follow-up, prompts and probes, specifying, direct, indirect, structuring and interpreting questions (482). Funnelling was employed, with initial broad questions leading onto more sensitive questions (483) once a rapport had developed within the interviewee-interviewer dyad. Due to the desire for an inductive approach, questions were intentionally broad and open questions were posed. Flexibility was also ensured during the interviews and so questions were not always followed sequentially to facilitate the conversation flow. The responses of the interviewee therefore guided the interview to a certain extent.

An informal best-practice interviewing sheet was compiled by the primary researcher (GS) based on interviewing techniques from the literature, feedback from the practice and pilot interviews and from the reflections of the researcher (GS). This included common interview advice from the literature including the need to ask clear questions, listen carefully to the participant, mirror the language of the participant and to avoid abstract or leading questions and commenting on or judging an answer (484). Furthermore, the criteria suggested by Kvale for a high quality interview included the interviewer clarifying the answers, beginning to interpret during the interview and the interview being a ‘self-reliant story’ (482). This was to ensure high quality, rich data. Silences were used to encourage the interviewee to expand on points raised (484).

As suggested by Legard et al. interviewer assumptions arising from the responses were turned into questions in the interview (484). This was an effective strategy as interviewees would affirm or challenge the assumption and explain the point further. Prior to the commencement of the interviews the researcher (GS) piloted the interview with two members of the supervisory team (SM and RB) at the time and two experienced qualitative researchers within the department who provided feedback on the topic guide and the interviewing technique of the researcher (GS).

- **Timescale**

The mapping exercise was undertaken between May and September 2010. Due to the iterative nature of the data collection and the highly inter-related nature of the guideline development and implementation study the first round of interviews were conducted in parallel. This enabled the emerging findings to influence both the guideline development and implementation studies. First round interviews for the guideline development study were conducted from June to September 2010, with a follow-up interview in January 2012. For the implementation study, first round interviews were conducted from May to September 2010 and follow-up interviews from November
2011 to January 2012. Fieldwork interviews for the integration study were conducted from November 2011 to February 2012.

- **Interview setting**
  For the mapping study interviews were conducted by telephone, with some follow-up in person. In the guideline development, implementation and integration studies, interviews were face-to-face. The interview locations were chosen by the interviewee and were a combination of offices, private rooms in the location where the respondent worked, asylum seeker accommodation centres, GP surgeries, respondent’s homes, cafes or hotels and the RCSI. Interviews in the accommodation centres enabled the researcher (GS) to gain a greater understanding of the implementation context. A safety protocol for the interviews was followed. Only the researcher (GS) and interviewee were present in the interviews and in the public locations the interview took place at a private table. In one location other staff in the location did enter the room and the interviewee asked another staff member for their opinion at one point. This was not transcribed.

- **Informed consent**
  For the mapping study formal informed consent was not required as only publicly available information was collected. The respondent was clearly informed at the beginning of the telephone conversation that the information disclosed was not confidential and the intended use of the data; this was reiterated at the end of the conversation. Respondents were asked if their names and contact details could be included in the report and for their preferred contact details. This information was included as one of the aims of the mapping report was to provide an immediately useful output from the research for those working in the health service. Interviewees were asked if they would like a copy of the report.

Informed consent was obtained prior to the commencement of the in-depth interviews for the guideline development, implementation and integration studies. Respondents were reminded of the confidentiality information in the participant information sheets and were given the opportunity to ask questions at any stage.

- **Interviewing elites**
  Specific considerations for interviewing elites were required for the guideline development interviews. Elites are determined in terms of their social position and power in relation to the researcher and society (485). It was anticipated that scheduling interviews with elites might be more problematic. However, in comparison
to busy frontline HCPs this was not found to be the case in this study. Other potential issues with interviewing elites were identified prior to the commencement of the study including gate keeping questions (485) and attempts by the elites to steer the conversation; these were not found to be a major problem. The biographies of the interviewees were researched as much as possible prior to the interview and the researcher (GS) was as knowledgeable about the topic and language used in the field as possible (482). The researcher (GS) used prompts and probes in order to attempt to move beyond ‘talk tracks’ (482) although again this was not found to be particularly problematic.

### Interview duration

The average interview duration for the guideline development study was approximately 41 minutes (range approximately 19 to 70 minutes). For the implementation study the average was approximately 39 minutes (range approximately 19 to 63 minutes) and for the integration study it was approximately 35 minutes (range approximately 12 to 71 minutes). Several of the interviews for the integration study were under half an hour in duration. This was a limitation but was necessitated by the busy schedules of the HCPs. However, some HCPs provided further information after the interview and when permission was granted these points were recorded as contemporaneous notes and included in the analysis. For the short interviews interviewees tended to state their main points with little prompting and they provided a significant amount of information in the short length of time. There was also some overlap where interviewees had been interviewed for another study and so specific points could be followed up from the initial interviews.

### Audio-recording

With the exception of the mapping study, all interviews were audio-recorded using an Olympus WS-450S digital recorder. Audio-recording was discussed with each interviewee prior to commencement and recording was ceased if the interviewee requested any discussion to be off the record.

### Transcription and review

Interviews were transcribed verbatim by the researcher (GS) using the annotations detailed in Appendix XXV. “Ums”, part spoken words and repeated words were included in the original transcripts but are removed from the quotes presented throughout the thesis. Where respondents used “you know”, “you know what I mean” or “kind of” frequently out of context this was also removed from the quotes presented. Parenthesis and ellipses are used for superfluous words and phrases and extra
punctuation was sometimes used. However, these were used with caution to retain the original words of the interviewee. Quotes are selected to demonstrate recurring patterns but also diversity within the sample.

In line with the ethical requirements of the study, interviewees were given the opportunity to review the transcript of their interview and add to or indicate that part or all of it should not be used until an agreed date prior to the point of publication; they were informed of this in the participant information sheets. In total for the three studies only 14 out of 69 respondents requested to view their transcripts, a summary or discuss the summary points over the phone; this was 9 out of 20 respondents for the guideline development study, 5 out of 28 for the implementation study and 0 out of 21 for the integration study. Only very minor amendments were made if any.

For some respondents a bullet pointed summary of the interview, retaining the original language of the respondents as much as possible was sent through or discussed over the phone as this was more acceptable. This strategy worked well for both the interviewee and the analyst and meant that the core points had been interpreted correctly without the editing of the phrases used for example.

The value of transcript review and respondent validation more broadly is contested and the decision was taken not to employ participant transcript review as a data validation strategy, both for study design and feasibility reasons. Caution has been suggested with the use of participant validation as participants do not have an overview of the study. Furthermore, there was a concern that the additional time burden for busy HCPs and need to follow strict data protection protocols may result in respondents withdrawing their data or a reluctance of respondents to engage with future research studies due to the arduous process.

- Data storage and processing
  Only publicly available information was collected in the mapping study but in accordance with best practice for data management electronic data were stored on the secure RCSI server and password protected. Paper data collection forms were stored in a locked filing cabinet.

  For the three in-depth interview studies the data storage and protection is detailed below. Respondents were informed about how the data would be stored in the participant information sheets. An initial recruitment code was allocated to each respondent and subsequently a study pseudonym if they consented to participate.
Identifying details were stored in a separate excel file from the interview data with a separate password. Any identifying details in the transcripts were coded to ensure the transcripts were anonymised and again the details were stored in a separate excel file with a different password. Identifiable information from the recruitment process and qualitative interviews were only accessible by the researcher (GS), SM and RB.

Consent forms were scanned and stored electronically and the original copies were stored in a locked filing cabinet separate to the interview transcript data.

Transcripts were password protected and stored electronically in a dedicated folder on the secure RCSI server under the pseudonym. The MP3 audio files on the recording device were uploaded into the dedicated folder on the secure RCSI server. They were password protected and will be overwritten and erased at the end of the study, retaining only the transcripts. MP3 files on the audio-recorder were erased. Contemporaneous notes were typed up using the pseudonyms, were password protected and the paper copies were shredded after they had been transcribed. The data will be stored for 7 years after the submission of the final report or publication (whichever occurs last), and then destroyed. This is the joint responsibility of the researcher (GS), SM and RB. The IT department will also be contacted to ensure any back up files are also erased. Pseudonyms are used in any publications.

For the mapping study, data were typed up and stored, graphs and tables produced and summary statistics calculated using Microsoft® Excel 2008 for Mac. Maps were produced using Microsoft® PowerPoint 2008 for Mac. The map of Ireland was adapted from the map used in the HPSC Annual Report 2007 (489) and the HSE Annual Report 2009 (490) and drawn by the researcher (GS).

5.4.3.3 Topic-guides and interviewing

Topic-guides were used for the guideline development, implementation and integration studies (Appendices XIII, XXVI and XXVII). Pilot interviews were conducted with academics, several of whom were also HCPs, prior to the pilot interview. The first interview of each study was a pilot interview; they were included in the analysis as they assisted in refining the prompts and researcher’s (GS) style, but did not change the topic-guide fundamentally.

Topic-guides were revised during the fieldwork, to include new prompts and probes from emerging themes and to validate and test other interviewee’s responses. As an example, in the implementation study, communication and coordination emerged as a
theme and additional prompts were included. Emerging themes from the first rounds of interviews were explored in the follow-up interviews, for example, responsibility was examined further. The follow-up interviews were also used to fill in gaps identified in the data collection from the first round of interviews, particularly in relation to financing and the broader policy context.

- **Mapping**
A telephone data collection form, based on the topic-guide, (Appendix XXVIII) was employed to standardise the data collection. In certain cases an adapted question sheet was used which focused on the same core questions. The topic-guide was based on the informal consultations, literature reviews, document review and a previous mapping study performed by the North East Public Health Observatory in the UK (491). The topic-guide focused on four areas: service provision (type of service, tests and responsibility), coverage (migrant groups and geographical), human resources and data collection (numbers screened, positive or negative, monitoring and review). Researchers with experience in telephone interviewing were consulted and they advised on developing, piloting (through two pilot interviews) and revising the form.

- **Guideline development**
The topic-guide for the guideline development study was intentionally broad but loosely structured around the evidence into policy framework by Bowen & Zwi (49) and the health policy triangle (439). The literature review and UK National screening committee guidelines (71) also informed the guide. In the development of the topic-guide a table was devised with one column for the thematic research questions and the corresponding interview questions in the other. Throughout the three studies the secondary document review also informed the topic-guides.

- **Guideline and programme implementation**
Questions were intentionally broad in the implementation topic guide in order to facilitate emergent themes from the respondents’ responses (Appendix XXVI). The topic-guide was informed by the initial frameworks and articles by Coker et al. (452) and Atun et al. (450, 451) which emphasised the importance of the health system and broader context influencing the screening. For the context questions and prompts, broader influences on health system performance were considered, such as service provision, resource generation and factors external to the health system (492).
The ‘capacity to implement’ component of the Bowen and Zwi framework (49) also informed the topic-guide, which included the role of structures and resources, alongside policies at a system level. The influence of broader policies, such as dispersal and direct provision were therefore included in the topic-guide. The requirements of a screening programme also informed the topic-guide (71), as did the points raised in the informal consultations.

Questions from the mapping report were also expanded on, for example, data collection, which was intended to inform the original design for the last component of the thesis. The use and role of the guidelines and other sources of guidance, in relation to the implementation was a main focus in line with the aims of the thesis. Furthermore, the conceptual and subject specific literature reviews informed the topic-guide; for example, adaptation in practice was considered in line with the concept of Lipsky’s ‘street-level bureaucrats’ (51).

As discussed in Chapter 4 the research was intentionally not aligned to one theoretical perspective. However, both the Atun et al. (450, 451) and Bowen and Zwi (49) frameworks were underpinned by the diffusion of innovation (DoI) theory, which consequently influenced the topic-guide formation. A focus on the characteristics of the problem and the nature of the intervention, for example, were therefore included.

- **Integration**

  The initial analysis from the implementation study informed the development of the integration study and therefore the topic-guide included holistic health service provision and continuity and coordination of care. A literature review was undertaken around the main themes arising from the first sets of interviews, in both the migrant specific and broader literature. The review encompassed continuity of care, primary care, integration, holistic service provision, access and need (349, 493-500) and identified frameworks in these areas. Again the topic-guide was intentionally broad and based around the aims of the study.

  The core aspects of primary care, detailed by Kringos et al. were used to inform the prompts throughout; these included governance, primary care workforce, access, economic conditions, continuity of care, coordination of care, comprehensiveness and equity in health care (500, 501). Furthermore, from the conceptual framework the levels of influence were used as prompts, including factors to do with specific health problems, individual level factors, migrant population, broader health system and the wider context.
A vignette (502, 503) was used as a tool during the interview to focus the discussion and to examine the pathway of an individual through the healthcare system (Appendix XXIX). It described a migrant from Sudan who had several health needs relating to tuberculosis, depression and HIV. Interviewees were encouraged to draw out their interactions with other HCPs in the care of the individual in the vignette to facilitate a more coherent discussion. This was not always used in the interviews, due to time constraints and the preferences of the interviewees, but proved a useful technique where used. Pilot interviews were used to refine the vignette and topic-guide. It was used as a tool to initiate and focus the discussion rather than as a rigid guide.

A literature review was performed on vignettes, prior to the inclusion of a vignette in the study design. Vignettes have been employed in previous qualitative interview studies (504, 505) and more recently were used in a similar study examining GP’s views on referral pathways for refugees in Denmark (348). Vignettes can assist with an inductive approach, aid with consistency between the interviews, facilitate greater specificity and detail in the discussion (506) and enable participants to discuss their general principles and values (506), attitudes and beliefs while ensuring they are grounded in concrete cases (507). Furthermore, they can assist in understanding the context in which the ideal pathway may not be followed which is a core aim of the thesis. Vignettes have been criticised for not representing real life, however, this was used as a tool to discuss what happened in practice and both ideal and real pathways were explored.

Recommendations to use a gender neutral name were followed (508), as were recommendations to ensure the vignette was clear, appropriately detailed and plausible (503). The three health issues in the vignette were selected due to their importance in the migrant population (61, 236, 509, 510), a consideration of health issues raised in previous interviews and the co-morbidity between the conditions (511). Furthermore, they span a variety of levels in the health services, a variety of policies and HCPs.

The term seamless was selected as continuity-of-care could be understood in terms of the traditional definition relating to the relationship with one HCP, rather than the broader definition. Integration as a term could also be understood in relation to the health system elements, rather than integration from the perspective of the individual. The term seamless is used in the international literature and is described by Gulliford et al. as:
The term was also used in an HSE strategy (513) and in the previous audit of the screening service in Ireland (62). The definition of a service which is as ‘seamless’ as possible was discussed with interviewees during the interview.

5.5 **Data analysis**

In line with best qualitative research practice the process of analysis was iterative (502) and continuous (514) from the data collection through to the writing stage. Alongside memoing, this enabled emerging themes to be identified and explored during the data collection, for example, through the modification of prompts in the topic-guide to facilitate additional questions on communication and coordination. A framework analysis was undertaken.

Computer-assisted qualitative data analysis software (CAQDAS) was used as a data management tool. Initially FrameWork software was used for the analysis and subsequently from September 2011, NVivo 9 and 10 were used as NVivo incorporated the FrameWork software.

5.5.1 **Framework analysis**

5.5.1.1 **Introduction**

Framework analysis is employed frequently in health services and systems research (399, 515, 516) and was used for the analysis. One of the major advantages of the method is that it enabled flexibility (517) and the application of different frameworks and theories so that the research was not constrained by one theoretical perspective from the start of the study; this is a benefit of thematic analysis more generally (518).

For health services and policy research the framework approach is particularly applicable as it facilitates a more deductive analysis than other qualitative approaches (514) and so can respond to questions directly relevant to policy and practice. An inductive approach can also be incorporated, as emergent themes can be identified from the data and included in the thematic framework. This combination of an inductive and deductive approach fits with the pragmatic paradigm approach taken (470). The approach to analysis was aligned with the tradition of ‘policy and evaluation analysis’ (519) where the aim is to provide answers about the screening programme which are relevant to policy and practice.
Another advantage is the systematic and transparent nature of the method (517). Due to the nature of the research the PhD student (GS) was the primary researcher and analyst and so this was particularly advantageous as it facilitated discussions within the supervisory team. Furthermore, the analysis focused on the substantive meanings of the data, rather than the structure and construction of the talk for example (519) and the framework method suits this type of analysis.

The five stages of the framework analysis method were followed and are detailed below: familiarisation, identifying a thematic framework, indexing, charting and lastly mapping and interpretation. The concept of the analytic hierarchy was used during the analysis (519) and so although the stages of the framework analysis were followed, there was a constant movement between the levels of abstraction to improve analytical rigour (517, 519) (see Figure 9). This was facilitated by the software as there were clear links back from the summaries and charts to the original transcripts in NVivo.

One of the major advantages of the framework approach is that during the analysis the analyst stays close to the original data and there are easy links back to the data to keep it in context (517). Again this aided with the transparency of the research as the primary supervisor could if needed easily inspect the links made through the analysis.
from the conclusions to the original data (519). The analysis started with more loosely defined indexes based around the voice of the interviewee and became more abstract as the analysis progressed (519). Examples of the analysis are provided in Appendix XXX.

5.5.1.2 Familiarisation

Several methods were used to enable the familiarisation of the analyst with the data: the primary researcher (GS) and analyst was also the interviewer, transcribed the interviews verbatim and wrote transcript memos (see section 5.5.2).

5.5.1.3 Identifying a thematic framework

A core aspect of the framework approach was the development of the thematic framework, to organise the index categories and themes (517). The topic-guides were used to form the initial frameworks, with a hierarchy of parent and child themes (entitled themes and index categories). These were modified as the indexing progressed with memos documenting the progress at each stage. A priori information was used to build the framework, from the literature reviews, research questions and conceptual or theoretical framework, alongside the more inductive emergent issues identified from the data (514).

5.5.1.4 Indexing

Indexing, rather than coding, is the preferred terminology for a framework analysis as indexing is intentionally less precise in the initial stages of analysis (517). The coding guidance from Saldana is still relevant to the indexing (520). First round coding strategies were employed, including attribute, descriptive and values coding (a combination of grammatical, elemental and affective methods) (520). For example attributes across the three studies included the gender, profession and HSE region and 'views on whether there is sufficient guidance' was one of the indexes.

Second round coding methods included pattern coding, where indexes were combined under higher level sub-themes and themes (520). Both 'splitting' (disaggregating) and 'lumping' (aggregating) approaches to coding, or in this case indexing, were applied (520) to the analysis through the indexing and identifying a thematic framework stages respectively. For example, 'picking up health issues (including screening)' was an index used in the first round of indexing for the integration study this subsequently evolved to became a theme entitled ‘detection of health issues’ and was split into three sub-themes including ‘detection of health issues through GPs’, ‘medical assessment
As anticipated themes and sub-themes overlapped within the data and data were ‘multi indexed’ (517). After familiarisation, at least two rounds of initial indexing were conducted and then further refinements were iterative and continued through the analysis using the summaries in the charts. In line with the framework analysis the thematic frameworks were applied systematically to the data (517). Index categories were developed into themes relating to more ‘subtle and tacit processes’, as described by Saldana (520) referencing Rossman and Rallis, during the analysis, such as ‘holistic needs and access’ and ‘follow-up, continuity and coordination’ and higher level categories such as ‘actors and relationships’ which included themes such as ‘knowledge of the screening service’ (see Appendices VIII, IX and X for a full list of categories, themes and sub-themes for each study).

The software packages greatly facilitated the indexing; during the transition phase between software packages the indexing commenced manually for the guideline development data but then migrated to NVivo.

As there was only a single coder for this thesis, the researcher (GS), coder consistency was checked through writing clear descriptive memos on every index for the implementation study, alongside the description of the index, for the primary supervisor of the thesis (see example in Box 14). Clear descriptive memos were written on the main themes and sub-themes of interest for the primary supervisor for the guideline development and integration study. Iterative inclusion and exclusion criteria were used in the development of the indexes and themes as described by Saldana (520) referencing Maykut and Morehouse. These were then discussed and indexes and the thematic framework were revised where necessary.

Indexing was also discussed with more experienced qualitative researchers at an early stage. They were consulted during a number of meetings after the preliminary analysis about the emerging thematic frameworks, primarily for the first two studies (guideline development and implementation) and provided advice on the number and type of index categories, sub-themes, themes and categories, including reducing the number of index categories and advice about the interpretation of the terminology used within the themes. A clear audit trail of memos was recorded of changes to the frameworks, index categories and themes, alongside explanations for the major changes (517). The primary analyst was also conscious of coder reliability and so ensured that at later
Box 14. An example of the code description and an excerpt from the summary sent to the primary supervisor for the index ‘Guidance use/don't use’

<table>
<thead>
<tr>
<th>Include</th>
<th>Exclude</th>
</tr>
</thead>
<tbody>
<tr>
<td>What people mention they use to guide the screening</td>
<td>Anything relating to views on guidelines</td>
</tr>
<tr>
<td>National/other guidelines, advice (expert, local), experience, clinical opinion, what is always done</td>
<td></td>
</tr>
<tr>
<td>Whether guidance is for: who to screen, how to screen</td>
<td></td>
</tr>
<tr>
<td>Extent of use and how influential guidance is in comparison to other factors</td>
<td></td>
</tr>
<tr>
<td>Whether the guidance is officially adapted</td>
<td></td>
</tr>
<tr>
<td>How different guidelines interact</td>
<td></td>
</tr>
<tr>
<td>What influences the use of guidance (e.g. resources, inherited, don’t know about guidance, line-manager)</td>
<td></td>
</tr>
</tbody>
</table>

Excerpt from summary:

‘Consent forms, SOPS, holistic health interviews, history sheets and TB questionnaires were also used in practice. Quite a few interviewees used national immunisation and TB guidelines and in general there was no confusion in using the different sets. Advice from PH was particularly reported, however, their level of involvement did seem to be considerably higher in some locations’…

stages of the analysis the analyst returned to the descriptions of the codes to ensure consistency in interpretation (521).

5.5.1.5 Charting

Data summaries were used in the charts; when the FrameWork software was employed they were hand typed separately, whereas the auto-summary function was used in NVivo and summaries subsequently modified where necessary. In order to improve the credibility (or validity) of the analysis the summaries remained close to the original data, using the language of the participants as much as possible to retain the richness of the data and minimise interpretation by the analyst at this stage (517). While some of the themes in the charts remained from the initial framework, they frequently became disaggregated and adapted sub-themes (such as ‘awareness and use of the guidelines’) and others emerged from the data such as ‘knowledge of the screening service’.

The descriptive and explanatory stages of analysis were facilitated by the charts produced, as the data could easily be examined across themes and cases (see Figure 10 for an example section of a chart for the implementation study).
5.5.1.6 Mapping and interpretation

During the mapping and interpretation stage, a descriptive analysis was conducted using the charts to explore within the categories and themes and across the cases. Patterns and also deviant cases were sought as the analysis progressed beyond the ‘emic’ summaries (purely the view of the participant). As Spencer et al. discuss, a perspective was taken that the categories and themes could not be standardised in a quasi-variable type approach but that through the identification of the themes, comparisons between the conceptual content could be performed. Therefore, the aim was to try to ‘clarify the nature and interrelationship of different contributory factors or influences’.

Diagrams such as Figure 11 were used during the analysis at a number of stages including the development and modifying of the thematic framework, the indexing and mapping and interpretation stages. The research questions were applied to the charts to examine the ‘range and nature of phenomena’ and identify patterns within the data. In line with the principles of good qualitative analysis movement up and down the analytical hierarchy and conceptual thinking were employed at this stage.

Core themes which were pivotal to answering the research question were focused on at this stage and these are highlighted in Appendices VIII, IX and X. Themes focused on in the final thesis were selected based on the strength of their discussion by respondents, or points which were raised frequently, and themes which provided a
novel contribution to knowledge, both in relation to what was already known about migrant screening, IHAs and knowledge to action in Ireland and in the international literature. Themes were also selected where the data were rich. As the thesis is applied and intends to inform policy and practice, consideration was also given to themes which would assist with this. For example, one of the main decisions taken was to focus on implementation, rather than the development of the guidelines, as this was perceived to be more useful for policy and practice in Ireland and in other contexts. Decisions regarding themes were also informed by the document review, informal consultations and the grey and peer reviewed literature. The length and scope of the thesis also limited the number of themes which could be addressed.

The pre-existing frameworks, theory and literature were also used during the mapping and interpretation, alongside the documents from the document review. An approach was adopted following recommendations from the policy analysis field, where existing frameworks and theories were critically applied to form testable propositions (522). Chapter 4 details the selection of relevant frameworks and theories and the development of the conceptual framework. See section 4.6 for a detailed description of the use of the conceptual framework in this thesis.
Secondary data sources were used to examine the data in the charts and to identify if any data contested or supported the findings or helped to explain the phenomena. An analytic memo was written for the document review and this was used during the analysis for each chapter in the thesis. An individual chapter memo was then written and the findings were integrated into the writing of the chapter.

The four studies for this thesis were analysed separately with notes made of key points of relevance to the other studies. At this stage the findings from the other studies were considered alongside the charted data and the research questions, again to examine whether they supported, contested or offered any further explanations or indications of patterns within the findings. Points where there was triangulation between the different studies were included in the final write up. As the integration study built on the findings from the implementation study, there was overlap between the final categories and themes and so they were analysed together in the analytic memos relating to responsibility, more holistic service provision and the model of service provision. The integration study was broader and included a discussion around other types of migrants, such as economic migrants, follow-up and depression in addition to HIV and TB. This was primarily used for triangulation of the data in the other studies and it offered a number of new insights. Combining ideas from different methods only from the theme stage has been employed by other authors in the field (452). Appendix IV details the data sources (study and themes where applicable) used in each chapter.

5.5.2 Memos

Memos were used extensively during the fieldwork, analysis and writing stages. They were used flexibly, for example, analytic memos were more relevant for some interviews at the familiarisation stage than others.

Transcript and interview memos were written where relevant to enable the researcher to reflect on the interview process as field notes have been described as ‘the researcher’s written documentation of participant observation’ (520). Reflections included the interviewer-interviewee relations and interactions where relevant, for example whether any previous contact influenced the interview, as recommended by Saldana (520). Where possible key points from the interview were recorded immediately afterwards (523) in case the audio-recording failed.

Audio-files were listened to and a brief summary written to ensure the interview had recorded correctly for the initial guideline development and implementation interviews.
This aided the researcher in refining their interview technique and facilitated the discussion of summary points with supervisors during the fieldwork process. Furthermore, it helped the researcher with familiarisation, which is the first stage of the framework analysis. Anonymous quotes for context were also recorded in these fieldwork memos as were comments once the recording had stopped; these were only used with permission in the analysis and write up.

Descriptive and analytic memos were written throughout the fieldwork and analysis. Analytic memos were used at the familiarisation stage for certain transcripts and these were useful for the analysis and also for informing the process of subsequent interviews. For example, a memo was recorded to provide more information to GP interviewees about screening services nationally if they were unclear. They also facilitated in identifying points to probe further in future interviews.

Specific memos were written during and after the framework matrices were created and included both descriptive and analytic components. The structure of the memos for the index categories and themes was flexible but included: inclusion/exclusion criteria, comments on the relevance to the research questions, a summary of the data, potential patterns or connections between themes, links with the existing literature, frameworks or theories and whether there are any connections with the other studies or data sources.

Memos also included reflections on personal or research dilemmas and notes for the final report in line with the advice on memo writing by Saldana (520), alongside reflections on the methods used. The use of memos also aided in overcoming certain limitations due to having only one primary analyst; the major memos were shared with the primary supervisor of the thesis and they increased the transparency of the analysis, including an audit trail demonstrating the development of the analysis, and facilitated discussions.

During the data analysis stage memos were particularly useful to document the stages of analysis and judgements made at each stage (517), for example in the formation of indexes, themes and the thematic framework. Memos were also developed outlining the scope and potential use of the components of the conceptual framework (the CFIR and the NPT) used in the analysis, as detailed in section 4.6 which helped in the rigorous examination of the data. Sample memos are provided in Appendix XXX.
5.6 **Research quality**

Rigour in qualitative research was considered throughout the thesis and a number of strategies to ensure rigour and validity have been discussed throughout this chapter. The concept of trustworthiness, put forward by Guba and Lincoln and described by Bryman was considered as well as credibility (paralleling internal validity), transferability (paralleling external validity), dependability (paralleling reliability) and confirmability (paralleling objectivity) (502). In accordance with the approach of the paradigm used in this thesis, validity does not refer to the positive perception of an ultimate ‘truth’ but the believability of the findings.

Credibility (internal validity) (502) was considered at the stage of the topic-guide development with the inclusion of broad questions. Furthermore, the use of in-depth interviews and a case-study method increases the richness of the data, increasing the internal validity.

During the analysis the dynamic movement up and down the analytical hierarchy was intended to improve rigor. For example, even during the final stage of the writing of the thesis the analyst returned to the some of the original transcripts to ensure the analysis reflected the findings from the interviews. Furthermore, the analyst aimed to look for other explanations for the findings and deviant cases which opposed the propositions formed and underlying assumptions. The systematic recording of the decisions taken throughout the analysis also adds to the validity and the rigour of the findings.

As discussed in previous sections, the extensive use of memoing and the use of the framework analysis approach were intended to improve the dependability of the research (502). Furthermore, the inductive and deductive approach, the use of the framework method and memos and updates for supervisors and the reflexivity of the primary analyst were employed to enhance the confirmability of the research (502).

As this was a PhD project only the PhD student (the researcher) (GS) indexed the data. Barbour cautions against multiple coding of the full dataset but recommends that another individual looks over a segment of the data and the emerging frameworks (487). This occurred through memo writing and meetings with the primary thesis supervisor (SM) and experienced qualitative researchers were consulted on the emerging indexes, sub-themes, themes and categories during meetings after the preliminary analysis (see section 5.5). For the first study analysed, which was the implementation study, the researcher wrote a memo with a description of every index
category for consideration by the primary supervisor. Memos were also written to share with the primary supervisor on the key emerging index categories and themes for the guideline development and integration studies and the thematic frameworks were discussed in supervisory meetings.

Supervisory meetings were held very regularly throughout the thesis. Particularly at the beginning of the analysis the primary supervisor also looked at some of the transcripts to discuss the indexing. During the later stages of the analysis NVivo was also used to discuss specific points where the primary researcher (GS) was uncertain or had questions. Overview memos were also written for the other members of the supervisory team at the time (RB and RC) during the analysis.

Although transcript review was not used as a method to improve the validity some follow-up validation occurred with respondents and the inclusion of several respondents in two sets of interviews also aided with this. Across all the studies permission was sought from the respondents to follow-up with any questions arising from the interviews or for clarification.

For the mapping study a report on the findings was circulated to those involved in implementing the screening and to key professional stakeholders in the HPSC and HSE. The preliminary findings were also presented to two national expert groups. Feedback was obtained at this point and minor amendments made; the feedback did not alter the core findings. This suited the validation of the more quantitative mapping results.

Triangulation can be used to refine the findings in qualitative research (487), enhance comprehensiveness and encourage reflexivity (488) and as discussed previously, multiple methods were considered carefully. The analysis of the studies separately and comparison at the mapping and interpretation stage of the analysis was intended to aid with this. It can be used in mixed-methods research in line with the paradigm used to augment the rigor and credibility of the study (471, 502) and mixed methods can be used to add greater depth to the knowledge of the phenomena under investigation rather than to corroborate them (470).

Transparency in reporting is key to the validity of the findings; therefore, this methods section is written purposefully in-depth and examples of memos and the development of the analysis are included in Appendix XXX. Throughout the write-up quotes are used to ensure that the reader can judge the validity of the findings (519) and the
consolidated criteria for reporting qualitative research (COREQ) checklist was used to ensure the comprehensive reporting of the studies (524).

Issues of accuracy were also considered. The primary researcher (GS) transcribed all the interviews and listened through to the interviews after they had been transcribed in order to check the accuracy of the transcription. Transparency was ensured in the accuracy of the transcripts as when words or phrases were inaudible this was clearly marked in the text.

Transferability is a known criticism of qualitative research as it is highly context specific and the purposively selected sample was not intended to be representative. Although lack of generalisability is a criticism frequently levelled at qualitative research and more specifically case-study research, it is possible in several ways. Firstly, as Silverman describes purposive sampling can improve the generalisability of the findings as the sample size can be expanded during the research (476). This was used in this research in order to find out more information about certain influences in the follow-up studies. The application of the conceptual framework, incorporating the adapted CFIR and the NPT, was intended to enable the transfer of findings at a theoretical and conceptual level. A rich in-depth description of the methods used and rich description of the context enables readers to judge whether the findings may be relevant to other contexts.

5.7 Reflexivity

In line with the epistemological perspective taken in the thesis, reflexivity was vital in order to assess how the researcher may have interacted with the phenomenon under investigation (471) and to contribute towards the quality of the study (488).

The primary researcher (GS) was a full-time HRB PhD student at the time of the study. A more detailed description of the PhD programme is provided in Appendix II. The primary researcher (GS) had a biomedical science (BSc) and parasitology (MSc) background where a more postpositivist (474) quantitative, deductive stance would have been taken. Prior knowledge in the field was therefore primarily in relation to the communicable disease and diagnostic test elements. However, the researcher had a strong interest in vulnerable populations, international communicable disease control and prevention, equity and the health of individuals from low-income countries.

Self-reflection aided in recognising the inherent biases of the researcher and at times it was challenging to approach the research from a more qualitative perspective. For
example, during the analysis there was a need for an awareness to not treat the
themes as ‘variables’ and look for causal relationships through a more quantitative
approach. Prior to the study the researcher was more aware of the epidemiological,
medical and laboratory research knowledge regarding screening for communicable
diseases. During the course of the thesis the researcher gained an appreciation for the
importance of other sources of knowledge.

The researcher recognised that the indexing and subsequent stages of analysis
required judgements which were influenced by a number of factors including the
analyst’s role as the interviewer, the interactions with the participants and the
demographic features of both the analyst and the interviewees (520). Self-reflection
aided in identifying the assumptions and propositions of the researcher throughout the
thesis. For example, the initial consultations took place with a relatively small number
of individuals, primarily in one geographic area. Therefore, it was important to
challenge any assumptions from the initial consultations throughout the research.
Another example was the need to challenge assumptions and hypothesis formed from
reading the international literature and to examine the differences in this context.

The researcher (GS) was English which could have had both advantages and
disadvantages. The researcher (GS) may have been perceived as more of an outsider
and so the interviewee may not want to present the Irish health system in a negative
light. However, as an outsider individuals may also have been more honest in their
responses. This was not felt by the researcher (GS) to have an impact in the
interviews. It did mean that interviewees explained the Irish health system at a more
basic level than was needed at times, which delayed the progression to a more in-
depth discussion, but this was not a significant problem. The primary researcher (GS)
was female which may have influenced the interactions with the respondents but no
impact of this was identified during the interviews.

The researcher (GS) had previous contact with some of the interviewees where a
relationship had already been formed, particularly where several interviewees were
interviewed twice for the different studies. This facilitated the interview process as trust
had already been built up. In addition the basic knowledge from the mapping study
facilitated a more in-depth discussion earlier on in some interviews as the basic facts
about the screening service had already been established. Respondents were
informed about the goals of the study prior to the research and that the research was
being conducted as part of a PhD thesis. The personal goals of the researcher were
only discussed if it was raised by the respondent.
5.8 **Dissemination**

As detailed above, the mapping report was presented at two national expert groups and circulated to those involved in the mapping and key professional stakeholders in the HSE and Health Protection Surveillance Centre (HPSC). Posters were presented at two conferences in the UK and one in Barcelona. Findings were also presented within the RCSI seminar series and in a research-in-practice meeting in the Institute of Population Health in the University of Ottawa. Publications are being prepared from the findings and it is intended that there will be continued engagement with the two national expert groups working in the field in Ireland (see Appendix XXXI for a description of the research output and dissemination from this thesis).

5.9 **Research funding**

The research was funded by the HRB Scholars Programme in Health Services Research under Grant No. PHD/2007/16. The funders had no involvement in the research design, data collection, analysis or the writing of any subsequent publications.
Chapter 6: The broader context, guideline content and the process of knowledge to action for the guideline development

6.1 Introduction

This chapter provides a descriptive account as a basis for the analysis in following chapters. In addition to thesis aim 5, which is addressed in all the results chapters, this chapter addresses the following aim:

Thesis aim 1: To investigate the mechanisms behind the development and distribution of the guidelines and influence of different types of knowledge, with a focus on the evidence base for the guidelines and implementation considerations.

This chapter is structured in three parts. The initial context in which the screening services were established is described first, followed by a description of the content of the guidelines. The process of knowledge to action in the development of the guidelines is then explored, with a focus on the extent to which evidence and implementation considerations influenced the guidelines and dissemination. The AGREE instrument (390) and Bowen and Zwi framework (49) respectively are used to examine the content of the guidelines and the evidence informing them in more detail. Multiple findings relate to more than one domain of the adapted CFIR but are only discussed under a single domain below to limit duplication.

Findings in this chapter are largely from the in-depth interviews which explored the guideline development process, alongside data from the secondary document review (see Appendices IV, VIII IX and X for a full description of data sources and themes explored in each results chapter). Where applicable, data from the implementation and integration interviews are used to elaborate on the findings. Key information from the national literature review is also included in order to provide a description of the context in which the guidelines were developed and for the mapping and in-depth interview studies.

6.2 Outer setting: the policy context and the establishment of health services more broadly for asylum seekers

6.2.1 The context of migration trends in Ireland

Ireland experienced a rapid change from a history of net emigration to a rapid influx of migrants in the second half of the 1990s (53) and this context is important to understand for the case study. The number of asylum seeker applicants increased
rapidly from 1996 with a peak of 11,634 in 2002 and subsequent decline to 883 in January to November 2012 (525) (Figure 12). Significant numbers of asylum seekers still reside in Ireland and in November 2012, 4,822 were accommodated in RIA accommodation centres, including self-catering, catered and reception centres (525). The duration of stay was over 3 years for approximately 60% of applicants in direct provision in November 2012 and the median length of stay was 44 months (525).

Figure 13 illustrates the diverse countries of origin of asylum seekers in Ireland (525, 526), with over 50% of the countries of origin coming under ‘other’ (525-527). This diversity needs to be considered in the provision of screening and health services.

Programme refugees have refugee status prior to arriving in Ireland. Ireland became part of the United Nations High Commissioner for Refugees (UNHCR) resettlement programme in 1998 (528). In 2005 a decision was made to admit 200 refugees per annum (528, 529). The countries of origin for programme refugees change with the global political situation; from 1956 to 2000 refugees were resettled from six countries or former countries (529), whereas from 2000 to 2012 refugees from 30 different origins or who were stateless have been resettled (530) (see Figure 14). Although programme refugees were accommodated in a resettlement centre in Mayo between 2007 and 2010 (531) they may also be accommodated in Balseskin reception centre or other accommodation centres around the country (personal communication). Therefore, they may be included within the centres covered by the screening service and so are included in this thesis.

6.2.2 The structure of the Irish health system

The Department of Health (DoH) is responsible for the development and delivery of health policies in Ireland (302). Until 2004, the Irish health system was composed of eight health boards following the Health Act in 1970 (302) and an Eastern Regional Health Authority (ERHA) was formed in 2000 with the remit for three of the health boards (302). Major restructuring of the health system occurred on the 1st January 2005 when the HSE, a centralised, national entity, came into effect, with the responsibility for ‘managing and delivering health and personal social services in Ireland’ (63).

HSE services were organised into four HSE regions at the time of this thesis: Dublin North-East, Dublin Mid-Leinster, South and West (490). These regions are divided into Local Health Office (LHO) areas and hospital groups; nationally there were 32 LHO areas when the mapping study was designed (63). Previously there were 32
Figure 12. Number of applications for Declaration as a Refugee received at the Office of the Refugee Applications Commissioner (ORAC) from 1991 to 2012.
Source: RIA monthly statistics report January 2013 (475). Diagram drawn by the researcher (GS) to replicate the diagram in the RIA monthly statistics report.
A. For the year 2010 up until November 2010 (526)

B. For the year 2012 up until the end of December 2013 (527)

Figure 13. The top five countries of origin for applications for declaration as a refugee A. 2010 up until November 2010 (the year the thesis fieldwork commenced) and B. For 2012.

Source: RIA monthly statistics reports (526, 527). Diagram drawn by the researcher (GS) to replicate the diagram in the RIA monthly statistics report.
A. From 1956-2000* (529)

B. For the years 2000-2012 (530)

* For Vietnam, Bosnia and Kosovo the figure includes the initial intake and the family reunification process

Figure 14. The countries of origin of programme refugees admitted to Ireland from 1956-2012 (529, 530)
Legend: Colour coding for the four HSE regions

Figure 15. The 32 Local Health Office (LHO) areas and four HSE regions.
This was adapted from the maps used in the HSE Annual Report 2009 (490) and the HPSC Annual Report 2007 (489) but drawn by the researcher (GS).

Codes used to label LHO areas in Figure 15

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community care areas (CCAs). Figure 15 illustrates the four HSE regions and 32 LHO areas. The Irish Health System is currently undergoing major changes and is in a state
of transition with a move towards universal free GP care (532) and universal health insurance (533).

GPs are private practitioners and a General Medical Services (GMS) Scheme is in place which provides free access to GPs and certain other services based on means testing (534). Primary care teams were outlined in the Primary Healthcare Strategy in 2001 (535) and are slowly being established (536).

The RIA describe the access to health services for asylum seekers as ‘mainstreamed’ (56). Although it has been reported that asylum seekers are exempt from means testing for a medical card (302, 537), RIA state that asylum seekers do not automatically receive a medical card as the system is based on means testing (538). However, if individuals move into private accommodation and are missing from an accommodation centre for over three nights then the Citizens Information website states that it will be ‘taken as an indication that you do not wish to receive any aid or assistance from the Agency’ (539).

6.2.3 An overview of direct provision and dispersal

A policy of dispersal and direct provision has been in place since 2000 (540), which is also important in the context of this case study. Asylum seekers initially reside in a reception centre in Dublin for an intended period of ten days to two weeks before dispersal to centres around the country; individuals may reside in the centre for longer as the ‘Reception and Integration Agency (RIA) is requested to defer dispersal of clients to other centres until the health team is satisfied that clients are properly cared for’ (61). At the end of May 2010, when the thesis mapping study commenced, there was one reception centre, 45 accommodation centres and four self-catering centres (301). By November 2013 the number of accommodation centres had reduced to 35 including the reception centre (525).

Some asylum seekers reside in private accommodation; from April 2000 to the end of May 2010, 90% of asylum applicants were in RIA accommodation (301), however, between January and May 2010 only 72% of new applicants were in RIA accommodation (301). Detrimental impacts of the system of direct provision and dispersal on the health of asylum seekers have been reported (541, 542).
6.3 **Inner setting: the broader establishment of the screening services**

6.3.1 **The timing of the establishment of the screening services**

Some screening services were in place prior to the development of the national screening guidelines. The arrival of the Kosovan refugees was a key stage where several respondents discussed that services were put in place and HCPs began to consider screening; this occurred around 1996 and 1997 and services were established in the reception centres. Services included screening for TB, hepatitis B and C, immunisations, gastrointestinal parasites and psychological services. There are a couple of detailed accounts of the history of the screening service in the grey literature (62, 175) and one report confirms that a screening programme was in place in the Eastern region since 1997 (62, 175).

The DoH communicated with the Chief Executive Officer (CEO) of at least one of the health boards about screening around this time, primarily in relation to Kosovan refugees, and in 1998 instructed that screening should be offered to asylum seekers and refugees for certain infectious diseases, alongside immunisations. There was a suggestion that it was around this time that infectious diseases came back onto the agenda. From a broader policy perspective, it was noted that the establishment of screening services was viewed as a priority, as people needed to be healthy and the ultimate aim was integration.

6.3.2 **Ad hoc and chaos**

Several respondents discussed the rapid influx of asylum seekers and resulting new population to provide services for; the influx of asylum seekers differed between the health boards. The sudden influx of asylum seekers, necessitating a rapid response, was echoed by respondents in the integration study.

“there was a relatively sudden influx I don't think the people were prepared for this at all, at the start there were ad hoc measures taken” (Professional stakeholder A16)

Initial ad hoc responses and a situation of chaos in some cases were described by a number of respondents, alongside the decentralised implementation of screening services. Respondents discussed some trial and error and the sporadic nature of service provision in general, alongside a sense of feeling their way at a local level.
However, it was noted from a broader policy perspective that although it was a chaotic situation, the influx of migrants was perceived as a good thing, rather than a crisis. Also from a broader policy perspective, it was acknowledged that initially the response was probably more reactive than proactive but that the aim was to ensure treatment for asylum seekers who needed it and prevent transmission. The influence of the rapid changes in asylum seeker trends on the ad hoc implementation of services highlights the need to consider the broader context and demonstrates the interaction between the inner and outer settings.

6.3.3 Decentralised implementation

Localised or regional implementation of the screening services through the health board structures was evident from the interviews. Examples included the setting up of a database at a local level and local meetings and groups, for example looking at the health needs of asylum seekers and refugees. In one case screening was reportedly organised at a county level as organisation at the regional level had proved too difficult. The decentralised structure of the screening programme is corroborated by the audit by Doyle, as at the time of the audit the Northern Area Health Board was responsible for the screening of asylum seekers in the Eastern Region (62). Furthermore, Doyle (62) suggested that the different services evolving, rather than planned implementation may have contributed to the lack of coherence in the screening programme.

Broader health services were established for asylum seekers in some cases, where screening was one component alongside the setting up of GP services, dealing with individuals who had experienced torture and the setting up of physical facilities. An example was given where the respondent had put forward suggestions for the services that needed to be in place. It was discussed that frontline providers would need to adapt their resources to meet the needs of the guidelines and recognised that in some areas there would not be sHCPs to provide the screening. Adaptation of the guidelines is discussed in section 6.4.

A broader policy perspective offered insights into the decentralised implementation, as it was noted that this was how the health service functioned at the time; the health boards were allocated money and adhered to national guidelines with some oversight from the DoH. Therefore, the finding of decentralised implementation is not surprising and was also identified in a key report on the Irish health system by McDaid et al. (302). The health boards had statutory responsibility for health service delivery and were not accountable to the DoH for the evaluation of service provision (302).
The decentralised implementation of the screening service is therefore likely to have reflected the broader health system context again demonstrating the interactive nature of the influences in the outer and inner domains of the adapted CFIR component of the conceptual framework on implementation, and the influence of the structural elements of the health system on implementation (47). The formation of the HSE was intended to increase the centralisation (302) and the impact of this on the screening service implementation is explored in subsequent chapters.

Decentralised implementation of screening programmes internationally has been identified (125) and as discussed in Chapter 2, variation in screening programmes was reported within countries, including the US, Italy, Germany and Australia and Denmark (30, 32, 34, 74, 202).

6.3.4 A lack of uniformity in screening nationally

In this context of decentralised implementation, a lack of uniformity was discussed by several respondents. Regional guidelines for screening were developed at least in certain areas and it was raised that there was less of an emphasis on national guidelines at the time. A set of regional guidelines for the Eastern Health Board were published in 1997 and some respondents in other areas mentioned the use of these guidelines. Earlier regional guidelines were reviewed in the document review but they did not differ extensively (D32Reg, D33Reg, D34Reg). Heterogeneity in the number of asylum seekers between different areas was also highlighted as a reason for variation in service provision.

From a broader perspective the lack of a “central driving force at the delivery level” (Professional stakeholder A01) was raised, as while the National Disease Surveillance Centre (NDSC) had a coordinating role they probably lacked the strength to ensure consistent implementation across the health boards. Therefore, it was suggested that the health boards tried to implement what they could and would have been “making their own efforts in a sporadic way” (Professional stakeholder A01); it was noted that these were well intentioned and quite effective in some parts of the country.

“invariably there would have been a maybe a lack of consistency maybe a lack of uniformity in terms of how these things were delivered in terms of the effort that may have been put into it the resources applied to it and the success or the effectiveness of how it was done” (Professional stakeholder A01)
A centralised role for the DoH or Department of Justice and Equality in the implementation of the screening programme was not discussed by other respondents. In relation to screening, due to implementation being devolved to the health boards it was reported that the DoH may not have been as interested in implementation. From the broader policy context it was discussed how once the policy was decided, the DoH would not have had a particular interest and would have given the health boards a free hand.

Methods reported by respondents to improve the consistency of service provision included the formation of the national guideline group and more broadly the secondment of an individual from the DoH to the Department of Justice and Equality when they were establishing the service provision for asylum seekers. It was mentioned that the DoH were the main body able to develop national guidelines in this area at the time. A comment was made that that there was a hope that the guidelines would assist in ensuring that uniform screening would be offered to everyone so that it wouldn’t be “hit and miss” (Professional stakeholder A05) in the tests asylum seekers’ received. Proposals for a national meeting of the Departments of Public Health to meet and share information at a national level were identified in the document review (D02Min), in addition to dealing with medical issues at a local level.

6.3.5 Model of service provision for the screening and difficulties with staffing coverage

Initial intentions for the screening to be provided by GPs were reported and one possible explanation provided was the desire to ensure asylum seekers were treated as closely to the broader population as possible. However, difficulties for GPs in offering screening and a reluctance of GPs to take on asylum seekers were reported by a number of respondents. In 1999 and 2000, it was noted that the majority of GPs were single practitioners. Therefore, it was mentioned that the feedback from the doctors indicated that screening through GPs was not going to work. This is related to engaging stakeholders and the process of implementation (47), demonstrating the interactions between the context and process domains. Screening service provision through GPs is discussed in detail in Chapter 10.

“it was a huge…challenge at the time to actually get somebody to deliver the screening, in terms of well who’s going to do it”
(Respondent B16;HCP)
Versions of the national guidelines were produced for GPs and several respondents still discussed a role for the GPs in screening, either when asylum seekers were missed, or where community doctors had previously offered the screening but subsequently it had fallen back to the GPs. The point was raised that the guidelines were intended to facilitate awareness among GPs of conditions they should consider if other immigrants from high incidence countries attended for their medical cards.

A business case was therefore put forward for funding for the screening service by one health board and it was mentioned that other health boards followed suit; this included salaries for the AMOs, PHNs, clerical staff and non-pay elements. Some confusion between respondents as to whether the funding was from the Department of Justice and Equality or DoH was identified, however, it was reported that any funding from the Department of Justice and Equality would have been at an early stage. In one situation the number of asylum seekers enabled a business case to be made and research was conducted in order to sustain the funding; a particular individual appeared to have driven this case forward.

Accordingly, it was reported that community care doctors, termed AMOs, and senior medical officers (SMOs) mainly implemented the screening. In some locations this was as part of a team, including members of the nursing profession and clerical staff. Midwives attached to the service in the reception centre were also mentioned. Community services were reported to be involved in the implementation of the broader services at this stage, whereas public health were more concerned with the particular conditions.

It was noted that the decision to have voluntary screening and outreach teams visiting the centres was taken at a national level. Interestingly it was raised that the system was designed to enable teams in the centres to befriend the asylum seekers and build confidence, as screening was voluntary and so it was recognised that a longer process would be required for asylum seekers to take up the screening. This system was also intended to reduce the pressure on GPs. Chapter 10 explores the perceived benefits of a dedicated service further.

However, the lack of uniformity discussed above also applied to the staffing of the service and it was mentioned that a baseline for screening was needed.

“we needed to have a standard approach, I mean one of the issues that continued to bug the screening service was that it was
Difficulties with the lack of screening services around the country were highlighted and the situation was described as fluid as to whether areas had the human resources to provide the screening; in some instances sHCp posts were lost (see section 7.5.2). At the time of the 2004 guidelines the guideline committee were aware of the difficulties posed by the staff shortages for the screening service and this was highlighted to the DoH. Issues with staffing and coverage are explored in Chapter 7.

6.3.6 Tension for change

The description of initial ad hoc responses, trial and error and a chaotic aspect in response to the rapid increase in asylum seeker numbers indicates that there was a tension for change among the professional stakeholders. Tension for change is one of the contextual influences in the CFIR and Damschroder et al. suggest that local stakeholders need to feel the tension for change, particularly first hand, to facilitate implementation (47). A survey of staff in the CCAs in Ireland in 2000 supported the difficulties reported by respondents; problems were identified with the lack of specialised or dedicated staff for asylum seekers (175), the lack of structure and difficulties for GPs, including communication problems (175). Furthermore, the lack of adequate notice of asylum seeker centres opening was previously found to have contributed towards the ad hoc responses (350). Ireland is not unique in the reporting of initial ad hoc screening, as outside of the reception centres this has also been identified in Austria, France, Spain and Britain (32, 181), alongside more bottom-up ad hoc health service provision for refugees in Australia (31).

6.4 Intervention characteristics: the content of the guidelines

National communicable disease screening guidelines for asylum seekers were identified for the screening process in the interviews and document review (D26Nat to D31Nat); the DoH produced a set of communicable disease screening guidelines in 2000 (D27Nat) (238) and subsequent guidelines were developed by an expert group in 2001 (D27Nat) (239) and 2004 (D30Nat) (229). The recommendations in the 2004 guidelines are summarised in Table 23 and differences between the different sets of guidelines are highlighted. Initially the research in this thesis focused on the public health guidelines above, but during the interviews it arose that associated guidelines for GPs were also produced during this period (D26Nat, D29Nat, D31Nat) (240-242). This thesis therefore explored whether the GPs were aware of the GP guidelines
<table>
<thead>
<tr>
<th>Topics</th>
<th>Specific recommendations in the 2004 national guidelines (D30Nat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>Recommended that screening for some diseases &amp; some vaccinations should be offered to asylum seekers.</td>
</tr>
<tr>
<td>Voluntary offer</td>
<td>States that participation is voluntary but it is important that such persons are encouraged to avail of the screening and vaccination processes.</td>
</tr>
<tr>
<td>Location</td>
<td>Initial screening usually takes place at the reception centre and should continue in the centres after relocation.</td>
</tr>
<tr>
<td>Records</td>
<td>The importance in making sure that information is quickly available for HCPs in the relocation centres and for the assigned GP is stressed. The use of the standard four-set form is recommended. Standardised data collection and analysis at a regional and national level is recommended.</td>
</tr>
<tr>
<td>TB *</td>
<td>Recommended that all late entrants to the Irish health system arriving from high incidence countries should be assessed for TB. Example regions are provided. Screening tests recommended vary by age and an algorithm is provided. They include:</td>
</tr>
<tr>
<td></td>
<td>o TB questionnaire &amp; BCG scar check</td>
</tr>
<tr>
<td></td>
<td>o Sputum specimens for a direct smear</td>
</tr>
<tr>
<td></td>
<td>o CXR (routinely offered to all aged over 15 years)</td>
</tr>
<tr>
<td></td>
<td>o Adults aged 15 years of age and over, who are asymptomatic, have a normal CXR but no BCG scar should be offered a 2TU Mantoux test (if they have a BCG scar no further action is required)</td>
</tr>
<tr>
<td></td>
<td>o Children under 15 years of age with no BCG scar should be offered a Mantoux test. Children aged 5 – 15 years with a BCG scar should be offered a Mantoux test</td>
</tr>
<tr>
<td></td>
<td>o Depending on the result and their age onward steps include a BCG, referral to a TB clinic for a CXR, no further action, advising about symptoms and consideration of treatment or chemoprophylaxis.</td>
</tr>
<tr>
<td></td>
<td>o Mantoux tests should only be initiated if the result can be read within 48-72 hours.</td>
</tr>
<tr>
<td></td>
<td>Recommendations advise that local arrangements can be agreed as to whether preliminary TB tests should be performed before or after the clinic.</td>
</tr>
<tr>
<td></td>
<td>Contact tracing for contacts of individuals with active TB is recommended alongside referrals to a TB clinic.</td>
</tr>
<tr>
<td></td>
<td>Specific conditions are considered such as deferring CXRs until after pregnancy, not given BCGs to HIV infected individuals and offering HIV testing prior to BCG vaccinations.</td>
</tr>
<tr>
<td></td>
<td>Recommendations include advice around non-dispersal of individuals suspected to have TB, follow-up BCG vaccinations and conditions for preventative therapy.</td>
</tr>
</tbody>
</table>
### Specific recommendations in the 2004 national guidelines (D30Nat)

<table>
<thead>
<tr>
<th>Topics</th>
<th>Recommendations</th>
</tr>
</thead>
</table>
| Hepatitis B             | - Recommended that hepatitis B screening is offered to all asylum seekers from high incidence areas and provides examples.  
                         |   - Recommendations included:  
                         |   - Taking blood for HbsAg and anti HBc  
                         |   - Offering the hepatitis B vaccine and advice regarding pregnancy  
                         |   - Administration of HBIG to susceptible contacts of individuals with a carrier status  
                         |   - Contact tracing for household contacts and vaccinations  
                         |   - Referral of chronic hepatitis B carriers to the relevant specialist                                                                                                                                                                                                                   |
| HIV                     | - ‘HIV testing should be provided when requested and should be encouraged where indicated’                                                                                                                                                                                                                                                                  |
| Polio**                 | - Polio is included in the list of conditions included in screening, with the caveat of ‘as appropriate’                                                                                                                                                                                                                                                     |
| Rubella ***             | - Recommended for all non-pregnant women of childbearing age and if negative the MMR or rubella vaccine is recommended.                                                                                                                                                                                                                                   |
| Varicella Immunity **** | - Recommends all asylum seeker women of child bearing age (i.e. >12 years) and other at-risk groups (e.g. immunocompromised individuals) should be offered antibody testing for VZV.  
                         |   - States that this should be in reception, relocation centres or antenatal clinics and that results should be given in writing alongside advice on exposure during pregnancy.  
                         |   - Advice given regarding VZIG administration  
                         |   - Recommends accommodation centres should not admit non-immune women until 28 days after the onset of the last case of chicken pox.  
                         |   - Recommendations provided regarding antenatal clinic attendance for women with significant exposure to VZV.                                                                                                                                                                                      |
| Vaccination             | - States that asylum seekers may have no documentation or knowledge of past immunisation and if documents are absent children should be assumed to be un-immunised and started on a catch up programme.  
                         |   - Recommendations include the primary immunisation schedule, adverse reactions and a specific section on diphtheria immunisations.                                                                                                                                                      |
### Not included in the 2004 national communicable disease screening guidelines (D30Nat) but included in other guidelines:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis C</td>
<td>Included in a couple of the earlier sets of regional guidelines identified (D33Reg, D34Reg), but not others.</td>
</tr>
<tr>
<td>Syphilis &amp; STIs</td>
<td>STIs were included in regional guidelines in 2000 (D35Reg) and in information for GPs in 2000 (D26Nat) and 2004 (D31Nat).</td>
</tr>
<tr>
<td>Intestinal parasites</td>
<td>Earlier regional guidelines included specific follow-up for certain occupations e.g. food handlers (D32Reg, D33Reg).</td>
</tr>
<tr>
<td></td>
<td>Only recommended in earlier regional guidelines to screen for if there are symptoms (D32Reg, D33Reg, D34Reg, D35Reg, D36Reg, D37Reg).</td>
</tr>
<tr>
<td></td>
<td>Also in the information for GPs (D26Nat); 2004 the recommendations state that screening for intestinal parasites is not routinely implemented but may be considered depending on the symptoms (D31Nat).</td>
</tr>
<tr>
<td>Malaria</td>
<td>Earlier regional guidelines and guidelines for GPs included advice about malaria (D32Reg, D33Reg, D34Reg, D35Reg, D36, D37) as did the GP guidelines (D26Nat, D31Nat).</td>
</tr>
</tbody>
</table>

* Repeat Mantoux tests are recommended in earlier sets of regional guidelines (D32Reg, D33Reg, D34Reg).  
** Polio was included for the first time in the national screening guidelines in 2000 (D27Nat) and was in a set of regional guidelines at this time (D34Reg).  
*** Rubella was included in one of the earlier sets of regional guidelines (D34Reg).  
**** VZV screening was included for the first time in the 2001 public health national screening guidelines (D28Nat).  
† This was also not included in the 2000 (D27Nat) or 2001 (D28Nat) sets of national public health guidelines.  
‡ This was included in the Galway GP information booklet (D42Reg) (543).  
+++ These were included in the Galway GP information booklet (D42Reg) (543).
during the follow-up interviews. Elucidating the precise dates of the GP versions proved difficult during the document review.

No other national policy documents were identified for the screening service and the guidelines are predominantly simple clinical guidelines, without details such as staffing requirements. A number of recommendations within the guidelines were directed at the provision of ongoing care or follow-up. This thesis only focused on the recommendations relevant to the shCPs or GPs. A slightly higher level approach was taken to examine the implementation of the tests, as specific recommendations may have altered since the guidelines were produced, for example for Mantoux testing.

This section describes the content of the guidelines from the document review; respondents’ perspectives of the guidelines are examined in Chapter 8. The ‘implementability’ of the guidelines, referring to their format and content, has been proposed to influence implementation (386) and therefore the AGREE instrument is used under the relevant sections below to examine the quality and sufficiency of the recommendations in the guidelines (390). Appendix XXXII provides a fuller analysis against the AGREE criteria.

Throughout the thesis the intervention (the guidelines and screening programme) is conceptualised as having a ‘hard-core’ and a ‘soft-periphery’, in line with the conceptual framework for the thesis (Figure 6). The components of the intervention were detailed in Table 7 in Chapter 3 and so will not be reiterated here. Categorisation of elements into the ‘hard-core’ and ‘soft-periphery’ of the intervention is based on the judgment of the author and the ‘fuzzy boundaries’ (41) between them, discussed in Chapter 4 (see section 4.2.2), need to be acknowledged.

6.4.1 The ‘hard-core’ of the unadapted intervention

The specific screening tests were categorised as the ‘hard-core’ of the intervention. The guidelines state on the first page that screening refers to ‘TB, Hepatitis B, Polio virus as appropriate and Varicella Zoster virus’ (229). An algorithm for TB screening is provided and the recommendations for TB screening encompass Mantoux testing, a TB questionnaire, BCG scar check, CXR and sputum smear testing.

HIV testing and rubella immunity screening are also mentioned in the guidelines. The guidelines do not provide a recommendation for routine screening for HIV, but instead state that ‘HIV testing should be provided when requested and should be encouraged where indicated’ (229). Catch up immunisations are also recommended in a specific
section of the guidelines and so, although not screening, they are included within the ‘hard-core’ in addition to the voluntary offer of screening detailed in the guidelines. Coverage of HCPs to offer the screening services is also included within the ‘hard-core’ in this thesis as it is an essential requirement for the implementation of the screening programme, even if it is not detailed explicitly in the guidelines.

When the guidelines are examined against the criteria under clarity of presentation domain in the AGREE instrument (390) the clarity varies between the different recommendations. For example, while certain recommendations are clear, for example the TB algorithm, the recommendation regarding HIV testing is highly ambiguous. The scope and purpose of the guidelines could also be clearer, as they only include a vague overall objective and the wording around HIV lacks clarity about who should be offered the screening. The views of those implementing the guidelines on their clarity are examined in Chapter 8.

It was discussed that the GP guidelines were basically the same as the public health version and that they were a “fleshing out” (Professional stakeholder A01) of the guidelines to provide GPs with practical information. Additional advice in the GP guidelines includes testing for intestinal parasites in response to symptoms, rather than routinely, including malaria in the differential diagnosis if asylum seekers from endemic areas have an unusual fever, referring those at risk for a sexually transmitted disease (STD) to a genitourinary medicine (GUM) clinic and offering syphilis screening if it has not occurred in the reception centre (D26Nat, D31Nat).

The source of an intervention, including whether it is centralised or decentralised (47) is suggested to be important for implementation in the international literature. In contrast to the decentralised establishment of the services, national level decision making and coordination was reported in relation to the development of the guidelines.

6.4.2 The ‘soft-periphery’ of the unadapted intervention

6.4.2.1 Follow-up, providing advice and the model of service provision

Recommendations concerned with the onward steps after screening are conceptualised in the ‘soft-periphery’ of the intervention. These include the offer of the hepatitis B, VZV and BCG vaccines, alongside the administration of immunoglobulins (HBIG and VZIG) and LTBI treatment.

Health promotion or protection advice in the guidelines and recommendations regarding contact tracing and accommodation if an infectious disease is suspected or
identified, are included in the ‘soft-periphery’. Recommendations to offer screening in the reception and dispersal phase and for standardised data collection at a regional and national level are also conceptualised here.

Follow-up is referred to in the guidelines in several ways, including the importance of the prompt transfer of information to the dispersal areas and the transfer of information to the GP. The use of a standard four part form is included in the guidelines, where one part is a hand held record for the asylum seeker and the other three parts are for the screening services and the GP.

While the coverage of HCPs in order to implement the screening programme is viewed as an essential requirement, the model of service provision through which the service is implemented is conceptualised as an adaptable element in the ‘soft-periphery’. The model of service provision was not explicitly detailed in the guidelines.

6.4.2.2 Inclusion of implementation recommendations in the guidelines

It has been suggested that including implementability information in guidelines could assist with implementation in place of extensive implementation strategies (386). Suggested implementation information includes resource implications, local planning, promotion, monitoring of guideline use and advice for interacting with the patients (386). A lack of local applicability has been identified as a barrier to guideline implementation (386, 544, 545).

There are several caveats in the guidelines regarding the implementability of the guidelines. The guidelines state that Mantoux testing should only be commenced if the provider is ‘certain that the result can be read within 48-72 hours’ and not to start LTBI treatment if it cannot be ensured that appropriate measures are in place to monitor adverse reactions. Also acknowledged are the implementation difficulties in obtaining immunisation records.

However, overall the national screening guidelines contained very little implementation information and are poor when assessed against the applicability domain of the AGREE instrument (390). Barriers and facilitators to implementation and implementation recommendations are only included in a few places, the resource implications are not stated and there are no monitoring or auditing criteria presented in the guidelines (390). In the literature, it is noted that more evidence is still needed as to how this implementability content may influence the use of the guidelines (386).
In the recent Canadian guidelines for immigrants and refugees (236) the integration of recommendations into primary care were considered (10). Implementation considerations were also contemplated during the development of a set of guidelines for refugees in Minnesota, where expert knowledge from local HCPs was employed and the advantages and disadvantages of different models of service provision were considered (261).

This may reflect more recent developments in guideline development, as other authors writing in 2001, when one of the Irish sets of communicable disease screening guidelines for asylum seekers were produced, stated that the resources, skills, equipment and staffing consequences relating to the guidelines were mainly not considered in the development of guidelines (394). However, the most recent Irish national TB guidelines only state that there should be appropriate staff and mention resources more broadly (546), whereas in the UK TB guidelines more precise recommendations are made (359). The scope of the guidelines may also influence whether staffing considerations are included.

6.4.3 The ‘hard-core’ and ‘soft-periphery’ of the adapted guideline

Adaptability is a feature of an intervention positively associated with implementation (47) and several of the guideline developers discussed the expected adaptation of the guidelines in practice. This was in part due to the nature of guidelines in general, where it would be expected that they would be followed to the extent possible, but flexibility was needed to adapt them to the local situation and clinical circumstances.

"to be adopted or adapted as appropriate because I mean you do need flexibility to maybe...change something if needs be depending on the clinical circumstances that are faced yeah, and that would always be the case yeah, it's not a rigid protocol" (Professional stakeholder A14)

Key points raised in relation to the adaptability of the guidelines included:

• anything tighter than a guideline would not have been desirable;
• an acknowledgement that local policy could be formed from the guideline, but particular recommendations relating to this were not recalled;
• the creation of regional guidelines from national guidelines, which could include more information on who should be doing what (see Chapter 8).
Expected adaptation was discussed in relation to the Mantoux testing recommendation which was reportedly written so that it was not too prescriptive; the views of the frontline providers on this are explored in Chapter 8. Some flexibility in the implementation of the guidelines is included in the content of the guidelines, as the guidelines state that arrangements as to whether Mantoux tests should be performed before or after the clinic can be determined locally.

Adaptation of the screening guidelines and programme in practice is a core theme examined throughout the results chapters and therefore it is interesting to have captured the guideline developers’ perspectives on this. The finding that it was anticipated that there would be adaptation of the intervention in practice, at least according to some of the guideline developers, again supports the use of a more bottom-up approach to fully understand the implementation process (39, 51, 376, 383, 454).

6.5 Process: the process of knowledge to action in the development of the guidelines

6.5.1 The evidence base for the guidelines

As discussed in Chapter 3, evidence can encompass a wide range of sources of data, information and knowledge. Therefore, a broader definition of evidence was used to explore the evidence informing the development of the guidelines. Bowen and Zwi’s categorisation of the sources of evidence for policy makers (see section 3.4.2) (49) assists in identifying and disaggregating the sources of evidence involved. This chapter focuses on research, knowledge and information and the capacity to implement and the relative influences of the different types of evidence, as discussed by respondents in the guideline development study, are explored below. This clearly also relates to the content of the guidelines.

Respondents predominantly identified the international epidemiology of infectious diseases, international guidelines in the field and advice from international organisations as sources of evidence influencing the guidelines. This was supported by a set of written answers to Dail Eireann in 2004 in the document review (547). Specific influences on the guidelines were highlighted, including the recommendations from the WHO in relation to voluntary screening and the eradication of polio. In one of the earlier sets of regional guidelines a reference is provided for a paper from a working group on TB in Europe; this included a reference to the WHO policy that ‘an HIV test is not warranted as part of screening for foreigners’ (548).
**Table 24. Sources of evidence discussed**

<table>
<thead>
<tr>
<th>Source of knowledge</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>International infectious disease epidemiology and international organisations</strong></td>
<td>- International epidemiology of diseases in asylum seekers’ country of origin influential &lt;br&gt; - International publications e.g. figures published by the WHO &lt;br&gt; - International recommendations &lt;br&gt; - Issues of concern globally</td>
</tr>
<tr>
<td><strong>Guidelines and evidence from other countries</strong></td>
<td>- Original health board guidelines informed by guidelines from other countries &lt;br&gt; - Canadian cited as particularly influential and American, Dutch, UK, Australian and French guidelines also mentioned &lt;br&gt; - Canadian, New Zealand, CDC and UK TB guidelines discussed</td>
</tr>
<tr>
<td><strong>Research evidence</strong></td>
<td>- Lack of research evidence &lt;br&gt; - International guidelines a secondary source &lt;br&gt; - Use of guidelines from the health boards &lt;br&gt; - Little discussion of Irish data &lt;br&gt; - Screening figures collected in some areas and monthly and annual reports &lt;br&gt; - RIA monthly figures &lt;br&gt; - Audit of the service not conducted until 2003/2004 &amp; primarily focused on the Eastern Region &lt;br&gt; - Limited ongoing collection and synthesis of Irish data &lt;br&gt; - Report on asylum seekers in the Eastern region &lt;br&gt; - Little experience due to rapid influx of asylum seekers &lt;br&gt; - National immunisation guidelines incorporated (D04Min)</td>
</tr>
<tr>
<td><strong>Other sources of evidence</strong></td>
<td>- Other sources of evidence were discussed more infrequently: &lt;br&gt; 1. information regarding the needs of the clients &lt;br&gt; 2. needs assessment in one region in 2002 (94) &lt;br&gt; 3. mentioned didn’t remember discussions about cultural considerations &lt;br&gt; 4. a number of respondents discussed how cost-effectiveness would not have been a major influence &lt;br&gt; Or were identified from the document review: &lt;br&gt; 1. input from TB advisory committee (D02Min) &lt;br&gt; 2. input from one of the main laboratories (D02Min) &lt;br&gt; 3. UK document (D02Min)</td>
</tr>
<tr>
<td><strong>Best practice</strong></td>
<td>- Best practice was discussed by respondents</td>
</tr>
</tbody>
</table>
Although multiple respondents highlighted the influence of these sources of evidence, the extent to which the prevalence of infections and disease were influential was contested by another respondent.

Other sources of knowledge identified are detailed in Table 24 and included the infectious disease knowledge of those involved in developing the guidelines, which was highlighted as a source of evidence by a number of respondents. International guidelines were cited as influential in both the guideline development process and broader policy context, for example the focus on acute conditions. It was also reported that different health boards previously used various guidelines which were influenced by guidelines from different countries and these were used to inform a draft which was subsequently modified.

“I think the biggest source of evidence were existing guidelines definitely that was, that was our starting point and they were just taken and modified and tweaked and chopped and changed”

(Professional stakeholder A16)

The need to assess the relevance of recommendations in international guidelines and adapt them was highlighted by several respondents due to differing contexts, for example land borders in other countries. Attempts made to identify guidelines, reported by respondents, included literature searches at various stages, internet searches and contacting other European institutions in the area, although the response indicated a lack of guidelines.

Despite literature searches a lack of research evidence to inform the guidelines was particularly highlighted (see section 6.5.3). International guidelines were highlighted as secondary sources of research evidence and it was mentioned that members of the guideline group would bring in information if a test wasn’t working in another country. Other respondents were unsure about the evidence base and felt that others in the group would have looked at this.

Irish evidence was not mentioned frequently by respondents. Although infectious disease prevalence figures were referred to by some respondents and a high uptake of screening was cited, another respondent couldn’t remember any Irish evidence or being asked to look for it. Irish evidence was reported in relation to numbers screened in some of the local areas and a database was reported in one area. Another respondent discussed monthly and annual reports and that they would have had some
idea of the effectiveness of screening due to these statistics, which would have been available to inform the guidelines. Local statistics were only identified infrequently in the document and literature review.

It was noted that it may be useful to collate the figures for screening at a national level. Although RIA collected monthly statistics it was discussed how the figures probably had more of an influence on the frontline sHCPs, as they had not seen any information from RIA. It was pointed out that there was no evaluation of the numbers. Plans for an audit were mentioned (D04Min), but Doyle’s audit was the only audit identified in this thesis; this was conducted just before the HSE was established and was primarily focused in the Eastern Region, but also collected some data from screening services in the dispersal areas. Although it was not raised as a major source of evidence by the respondents, in the grey literature review, a detailed report on the impact of asylum seekers in the Eastern Region was identified (175) and it is likely that this would have been available for those developing at least the second two sets of guidelines.

The chaotic and busy nature of service provision initially was highlighted as a reason why no one was able to examine or audit the service. Furthermore, it was pointed out that nobody had the role to audit the statistics within the health service and so the figures may end up sitting on a computer. A possible explanation was offered for this where the medical service in Ireland was reactive, rather than gaining an overview of what was occurring and this was an aspect of a broader problem.

Irish guidelines are also a source of evidence and knowledge and as aforementioned the initial draft of the national guidelines was reportedly based on previous guidelines in the health boards and was similar to a set of regional guidelines produced in 1997. In contrast, the national TB guidelines were reported to be less influential than international TB guidelines, as they were developed prior to the influx of asylum seekers.

6.5.2 The extent to which the guideline development group considered the capacity to implement

Considering implementation during the development of guidelines has been suggested to improve the quality (390) and implementability of guidelines in the international literature (386). Implementation issues and the capacity of the health system to implement the recommendations in the guidelines in practice can be conceptualised as a wider source of evidence or knowledge. The concept of ‘capacity to implement’
(see section 3.3.1) was adopted from Bowen and Zwi's framework (49) to examine the extent to which implementation was considered in the guideline development group.

### 6.5.2.1 The role of the group in relation to resource issues and best practice

Differences in opinion between respondents regarding the importance of considering the capacity to implement were clearly evident and while several respondents thought this was a priority in guideline development, others perceived this as a role outside of the guideline development group.

A demarcation between those developing the guidelines and implementing them was noted by several respondents. It was discussed how strict instructions were given to the group that implementation was not part of their remit, therefore when resource issues were raised certain members stuck to this rigidly. The group were advised to “ignore resources unless it’s an absolutely ridiculous thing” (Professional stakeholder A16). There was therefore a perception that the group were in place to produce guidelines and it was the role of other individuals to arrange the resources.

> “the function of this group as I remember it was alright to decide what's the screening guidelines and ok it's up to you to implement them and we don't really care how you do it” (Professional stakeholder A19)

It was suggested that discussions around implementation would have taken place elsewhere and that implementation wouldn’t be the responsibility of a group such as this. The document review supported this (D05Min), although it demonstrated that the resource implications for the implementation of the guidelines were recognised (D04Min, D05Min) and were highlighted by the group to the DoH (D15Let). A comment was made that it would be useful to have someone who dealt with resources in the group.

A possible explanation was offered for this finding, as it was highlighted that as it was not a multidisciplinary group and so they could only deal with the development of guidelines, which was within their remit, and so were not looking at what was needed to put a service in place for asylum seekers. The perception that implementation is distinct from the role of the group is not unusual, as other authors have noted that many guideline developers perceive that the users of the guidelines should be responsible for implementation (386).
The influence of resource issues and the capacity to implement during the
development of the guidelines was highlighted as a contentious issue by some
respondents, although a contrasting comment was made that they hadn’t noticed any
dissent. Differences were reported in the group between those who stated that the
guidelines should represent best practice and others who attempted to adapt the
guidelines to make them more practical; this divide in opinion reportedly existed
between the public health and community doctors, but it was noted that the public
health doctors did concede on some issues and in the end a compromise was
reached.

Although several professional stakeholders perceived guideline development and
implementation as separate steps, this is perhaps an artificial concept in reality. As
identified in section 6.3 guidelines and screening programmes were clearly already
established in some locations prior to the development of the guidelines, albeit in an
ad hoc and varied manner. An appreciation of the historical context is therefore
needed to understand the case-study.

6.5.2.2 The role of individuals in the group to input on the implementation in
practice

Several respondents stated that they were included on the group in order to input on
the practical issues, in addition to the content of the guidelines. For example, in one
case practical issues were cited as the reason for a respondent joining the group as:

“reading the guidelines it seems very straightforward, practically on
the ground it’s anything but straightforward what happens”
(Professional stakeholder A20).

A range of representatives, primarily from public health and community health were
included on the group, however, there were mixed views on the extent to which those
implementing the guidelines were engaged in the process. Respondents reported
being able to input on practical issues as they were involved in establishing the
screening in their local area and implementing guidelines, or in a more secondary
manner where they fed back information from the frontline sHCP or from a local
committee. Those involved in establishing screening in the local areas were included
in some cases, but this was appeared to be more at a higher level than those actually
offering the screening tests.
Representatives were also invited onto the group to input on particular issues and could be invited to one meeting for a particular viewpoint or to feedback on one section of the guidelines; this included GP, laboratory and referral specialist representation. The lack of a formal consultation process was raised, but it was noted that representatives on the committee performed this function. From the document review, input and feedback also appeared to come from several other sources (D03Min)(D04Min), for example, a question was posed by one of the health boards (D04Min).

Certain respondents cited the benefits of being able to raise local problems at the national level and the inclusion of representatives from different regions so that individuals were not simply handed the guidelines and told to implement them. However, this viewpoint was not shared by all the respondents as inadequate input from frontline providers was also noted and that more attention should be paid to involving those on the ground. Additionally, another view was that the group did not seek information from the frontline providers as they would not have the specialist knowledge and were not conducting research.

Specifically, there were also mixed views among the respondents as to the extent to which they felt the practical issues they were raising influenced the group. While a couple of respondents stated that they did feel listened to, it was also raised that the group did not seem interested in what was happening locally. It was discussed that although issues were fed back, the group’s purpose was to produce a minimum set of guidelines and was not a mechanism for addressing these issues as “it was a way of feeding back, it wasn’t necessarily a way of doing anything about it, but it was a way of somebody listening to your difficulties” (Professional stakeholder A20).

A comment was made that although broader screening was being implemented on the ground, this did not feedback at the national level and it was suggested that this may have occurred due to the multidisciplinary nature of service provision on the ground and so problems were coming in to different disciplines. Involving multidisciplinary members and those who will be using the guidelines has been recognised as best practice for implementation for some time (389) and was highlighted as a deficiency in the set of guidelines through the use of the AGREE instrument (390) as the guidelines performed poorly when assessed against the stakeholder involvement domain. The most conspicuous absence is the lack of service user involvement in the guideline process, although the fact that the guidelines were developed a number of years ago must again be recognised. More recent immigrant health guidelines in Canada have
included service user involvement, for example through including ethnic minority community representatives and considering the values of migrants (10, 236).

Without a wide range of user involvement adoption may be less successful (371) and implementation may be less effective (41, 47) and is suggested to be particularly true for implementation if guidelines are predominantly spread through central mechanisms or if decisions are taken by those at an elevated position in the hierarchy. Early involvement of all stakeholders in the implementation process has been found in the international literature to be positively associated with successful implementation and routinisation (41, 47). The possible consequences of this are explored in subsequent chapters.

6.5.2.3 The extent to which practical and implementation issues influenced the development of the guidelines

A tension between the extent to which the guidelines were based on best practice and evidence, or implementation issues, was evident within the respondents’ discussions. Opposing views were expressed by respondents, where some viewed the guidelines more as a best practice set whereas others felt they were more based on implementation considerations and were a practical tool. Specific implementation difficulties were discussed (see Table 25) and there appeared to be differences in the extent to which they influenced the guidelines. For example, as the following quote demonstrates, from one perspective the guidelines were viewed to be based more on resources alongside political influences than best practice:

“the fact that the guidelines weren't developed to best practice, my feeling is that it has to have been driven by a participation or concern with service delivery” (Professional stakeholder A03)

Exclusion of HIV from the main recommendations for screening was suggested not to be best practice by them. The lack of inclusion of HIV screening was suggested to be influenced by implementation and contextual issues, rather than just best evidence and public health as the following quote highlights:

“there was a fear that that would open a massive hole in our asylum screening process, which would lead everybody who is likely to be HIV positive to come to Ireland for treatment, our services would be completely destroyed by that so we didn't test for HIV…in public health terms was that the right decision? I think that is a good..."
question to ask, but you can understand pragmatically why that decision was arrived at, but that was a fairly contentious discussion”

(Professional stakeholder A15)

Resource implications arising from the guidelines were also proposed to result in the guidelines not being signed-off after they were developed by the group, for example, due to the need to have sHCPs in place around the country. However, from the document review a version of the guidelines with the DoH logo was identified (D30Nat). Several explanations were given as to why implementation considerations were influential, including the purpose of the guidelines to be practical, professional guidelines for frontline HCPs, the newness of the area, the lack of available evidence and the need for the guidelines to be based on the diseases asylum seekers were likely to have and those they could do something about.

However, other respondents felt that implementation considerations were not so influential. For example, although some respondents noted there was an awareness of the staffing difficulties on the ground several individuals commented that this would not have been considered in the development of the guidelines as, for example, it was difficult to plan the workload as the numbers of asylum seekers was dynamic. It was mentioned that staffing recommendations were made at one stage but were not in these guidelines. Furthermore, despite the practical difficulties, Mantoux and polio testing were included which suggests the decision was taken based on best practice and this was commented on in relation to Mantoux testing.

The process of guideline development, including evidence use, is an important consideration in determining their quality (390) which may consequently impact upon the implementation of the guidelines (47). The process component of the conceptual framework for this thesis was therefore expanded to include the guideline development. This is in line with more of a bottom-up perspective from the policy analysis literature (50, 51, 454).

Throughout the thesis the retrospective nature of the respondents’ reflections needs to be taken into consideration. While the guideline development occurred prior to the economic crisis in 2008, respondents’ views on resources and the capacity to implement may also reflect their current perspective. As mentioned elsewhere the field of guideline formation has also developed during this time (549) and respondents’ views may also in part reflect more recent changes.
### Table 25. Specific implementation and practical issues raised in the guideline development group

<table>
<thead>
<tr>
<th>Practical difficulties</th>
<th>Further detail</th>
</tr>
</thead>
</table>
| Mantoux testing        | • Highlighted as a contentious issue.  
                        | • Issues included who had responsibility for ensuring the necessary infrastructure was in place.  
                        | • Logistically difficult & guidelines not too prescriptive about onward steps as difficulties interpreting Mantoux tests.  
                        | • Viewpoint that inclusion in guideline based on best evidence. |
| HIV screening          | • Highlighted as a contentious issue & viewed that from a public health perspective would be expected to be included.  
                        | • Suggested resources and contextual issues influenced decision including: deportation of asylum seekers with HIV, resources for HIV counselling, willingness of HCPs to offer HIV screening and having the infrastructure in place for treatment. |
| Polio testing          | • Difficulties transporting samples raised but mentioned that it was not their responsibility to determine the transportation of samples. |
| Comprehensive guidelines| • Reported that a more comprehensive health assessment was considered but limits on what could be offered and depended on who was offering the screening. |
| Dispersal              | • Difficulties with dispersal, follow-up after screening and record transfer raised, although not all respondents recalled this and stated it would be discussed afterwards.  
                        | • Four-part form, including client hand held screening record, introduced to assist. |
| Cost of screening      | • Different viewpoints as to whether it was a major issue in relation to implementation. Noted that financial considerations may have been considered more outside the guideline meetings. |
| Staffing               | • Whether areas had sufficient staff to implement screening. |

### 6.5.3 Views on the sufficiency of the evidence

A couple of key points were identified during respondent’s discussion about the evidence which are highlighted below: firstly the extent to which respondents' perceived the evidence was sufficient and secondly respondents' perceptions of the scope of the evidence and the value of different types.

Views on the sufficiency of the evidence for the guidelines were mixed. As highlighted in section 6.5.1 one critique was of the sufficiency of evidence available at the time and this appeared to refer primarily to research evidence. A comment was made that: “there was a dearth of evidence and it's not as if we didn't try to get it” (Professional stakeholder A10).

“of course what you would have liked to find is what policies were in place in other countries, and how effective the screening was, and
then how cost effective it was…but there was little or none of that evidence” (Professional stakeholder A10)

Other respondents however didn’t share this view and reported that they were not aware of a feeling of a lack of evidence. It was emphasised from one perspective that they were practical guides for frontline HCPs and reported that they were less academic. A more peripheral member of the group commented that the knowledge of prevalence and incidence data was sufficient to make a decision about which diseases to screen for and other sources of evidence were not needed.

Several limitations were noted by respondents in relation to the use of international guidelines, for example, their focus on TB or threats to the host population rather than the broader health needs of the asylum seekers. However, from another perspective it was reported that due to the fact that Ireland was one of the last countries to receive refugees, guidelines from other countries were available and it was raised that there would have been a consensus around screening in other countries. Views on the evidence base behind the international guidelines also differed; they ranged from a perception that the sources of evidence were often referenced and a view that they were happy with the logic and so didn’t need to look up the evidence, to the view that the evidence-based behind them may be limited.

Furthermore, respondents held different views on the extent to which evidence was prioritised. For example, contrasting views were expressed in the quote above and by another respondent who was involved in an early stage in the guideline development. The latter discussed how in 1999 evidence-based was not a term that was commonly used and they suggested that while it was not completely “knee-jerk” (Professional stakeholder A09), factors other than evidence influenced the guidelines. This view is also not compatible with the report that literature reviews were conducted.

Interestingly, a more general criticism of the medical profession in relation to broader screening in the health system was raised, that they were trained to perceive certain processes as valuable, for example screening and so didn’t necessarily audit them to examine their effectiveness. An interesting comment was also made that it was determined prior to the establishment of the expert group that screening was needed but that the evidence was needed to justify it and it was also mentioned that they were looking at the evidence to support what was being recommended.
The AGREE (390) instrument highlighted the lack of evidence and presentation of evidence in the guidelines. Under the domain of rigour the guidelines did not include a description of the criteria for selecting the evidence for example or the methods for forming the recommendations. However, as aforementioned, it needs to be recognised that the last set of guidelines was developed a number of years ago in 2004. The findings highlight that it needs to be acknowledged that sufficient evidence may not always be available for guideline developers and it has been suggested in the international literature that there can be incorrect assumptions about the evidence-based nature of guidelines and the sufficiency of evidence (389). As discussed by Ferlie and Dopson, evidence can also be contestable (397) and differing views in one guideline development group on the evidence base highlights the complexity.

Although the strength of the evidence is an important consideration, even if strong evidence informs the guidelines or intervention this is not enough in itself to ensure effective implementation (47). Other influences on implementation are explored in subsequent results chapters.

6.5.4 Multiple sources of evidence and perceptions of the scope of evidence

The findings from this study support the argument by Bowen and Zwi for the need to recognise different and broader sources of evidence to understand knowledge translation (49), even in the development of one set of clinical guidelines. For example, although research evidence was reportedly limited, other forms of evidence were evident, including expert knowledge within the group. This supports the proposal by Kitson that guidelines can include a ‘bundle’ of different knowledge types, including expert opinion and the argument that the different types of knowledge in guidelines may need to be valued instead of considering them as something to exclude (39). Both the multiplicity and diversity of sources of knowledge appear therefore to be important in order to understand and get knowledge into action. Interestingly, intervention uptake is also proposed to be positively associated with a higher number of sources of evidence (47).

Although different sources of evidence were identified in the analysis, a narrower perception of evidence was observed among several of the respondents. For example, some respondents were satisfied with prevalence figures and international guidelines. As discussed in section 6.5.2.2 from one perspective it was also reported that evidence was not purposively sourced from frontline HCPs as they were not viewed as having particular expertise. Certain respondents may therefore not attribute value to the more tacit forms of knowledge or evidence about implementation.
A narrow view of evidence in addition to a sub-optimal evidence base could restrict the scope of evidence-based guideline development and potentially have negative implications if evidence-based decision making is highly valued among guideline developers. For example, if the evidence primarily relates to TB, this may be the focus for screening. This would further build the evidence base around TB and potentially perpetuate the focus, at the neglect of the broader health needs of migrants.

6.5.5 The signing off of the guidelines, lack of implementation plan and passive dissemination of the guidelines

Passive dissemination of the guidelines was described by a number of respondents, where the guideline development group sent the guidelines to the DoH and they were circulated to the health boards and disseminated through the public health networks.

“well they were handed out essentially and it was there you go do that” (Professional stakeholder A18)

Channels for the dissemination of the guidelines and instructions for screening between the DoH, the health board chief executive officers (CEOs) and the Departments of Public Health were identified during the document review (D06Let to D14Let, D04Min, D05Min) and in the interviews; involvement of the Department of Justice and Equality was also mentioned, although a role for them is not clear. It was noted that at least in one case the respondent was emailed the guidelines and were not aware of any hard copies. It was raised that they would have distributed the guidelines to those involved in screening.

A point was raised that they could not remember any publicity about the guidelines but that they thought the guidelines were posted on the National Disease Surveillance Centre (now the HPSC) website. In line with this it was mentioned that there wasn’t an implementation plan, but perhaps there should have been. Not all of the respondents were clear how the guidelines were disseminated, but not all members of the group were core members and respondents were involved at different stages. Not all of the respondents in the group had seen the documents arising from the process, although they were not a frontline sHCP or GP.

“I may be wrong but that, it seemed to die a death a bit with the guidelines, the discussions, it seemed to come to a termination quite
quickly and nothing much seemed to happen” (Professional stakeholder A12)

Little information was provided about how the guidelines were disseminated to the GPs. Although a couple of respondents stated they were sent to all the GPs, they did not elaborate on the mechanism. From the document review it was recorded that the guidelines would be submitted to the DoH and then circulated to the Departments of Public Health and GPs nationally (D04Min).

As mentioned in section 6.5.2.3 the point was raised that the guidelines were never signed off and so were perceived to be still “in limbo” (Professional stakeholder A08) resulting in partial implementation. However, a copy of the 2004 guidelines with the DoH logo on them was identified during the document review (D30Nat).

“submitted that report to two areas to the board of EHRA and to the Department of Health and neither signed off on the guidelines they sat in limbo and they're still in limbo. But in practice what has happened is on the ground people have put these guidelines into operation in partial bits and pieces” (Professional stakeholder A08)

Interestingly the prolonged guideline development process was alleged to have influenced the implementation of the guidelines due to people being “fed up” (Professional stakeholder A08) with the process once it was completed and so the report got forgotten about. It was suggested that this was due to frequent changes of individuals on the committee because of movement between roles at the time and the formation of the HSE and changes in the responsibility for infectious diseases between public and community health. It was also posited that although the DoH sought the guidelines in 2002, by 2004 their priorities had changed.

“I think it impacted on the adoption of the or the non adoption of the guidelines at the end of the process because I think so much time had passed that it had lost if you like lost its original dynamism and it had gone off the agenda quite a bit” (Professional stakeholder A08)

Although implementation may not have been perceived as the remit for the guideline development group (see section 6.5.2.1), there appeared to be an absence of the planning stage for implementation. A detailed implementation plan, including for
example a budget, was not identified for the guidelines or programme and the lack of an implementation plan was raised during the interviews.

A centralised driving force or facilitation stage also appeared to be absent as the implementation was then devolved to the individual health boards; this needs to be considered in relation to the broader health service structure discussed in sections 6.2 and 6.3. This is more in line with a ‘let it happen’ approach to implementation as described by Greenhalgh et al. (41, 47). Damschroder et al. point out that more research is needed on the influence of planning on implementation (47).

Passive dissemination approaches are commonly employed (386) but are suggested to be ineffective in isolation (412, 433). However, it is acknowledged that they may improve cognisance of the desired behavioural changes, even if they do not cause them (550). The necessity of active implementation strategies has however been questioned in the international literature. Concerns have been identified among guideline developers around the feasibility of implementation strategies such as feedback and reminders due to resource considerations (45). Grimshaw et al. acknowledged the deliberation by decision makers regarding the choice of guideline development and dissemination strategies in the context of limited resources and termed this ‘policy cost-effectiveness’ (45). The authors proposed that extensive implementation strategies are not always necessary depending on the relative costs and benefits and priorities for dissemination need to be assessed (45). In the context of limited resources the authors suggest that engaging and coordinating with other stakeholders may aid with this (45).

Interestingly, the dissemination of the guidelines through the public health networks was mentioned, as the spread of information through networks is proposed to be positively associated with implementation; this can be through horizontal, informal, peer networks or more vertical, formal networks (41, 47).

6.6 Discussion and conclusion

The structural aspects of the health system in which the screening programme is situated were therefore highly influential in the initial decentralised establishment of the screening programme. This highlights the need to consider the context when examining programme implementation, as suggested by previous authors (367, 368). The influences of this decentralised structure and process on the implementation of the programme and guidelines are explored further throughout the thesis. This decentralised implementation and understanding of the context lends support for the
inclusion of the guideline development in the process domain of the conceptual framework and for a more bottom-up perspective of implementation to be considered.

This thesis approaches the implementation of the guidelines and programme from a knowledge to action perspective. Different types of evidence were reported to influence the development of the guidelines and the findings support the arguments put forward in the guideline development literature that the value of other types of evidence in guidelines should be considered (39). However, the influence of service users in relation to asylum seekers and refugees was lacking and this would now be best practice.

The use of the AGREE instrument (390) highlighted the limitations of the guidelines, as they were poor when assessed against the domains of the AGREE instrument and there was a lack of information relating to the rigor of the development of the guidelines. As mentioned previously, it must be recognised that the guidelines were developed a number of years previously and recommendations relating to guideline development have evolved over the past decade. Whether this influenced the perceptions of the evidence strength and quality of those using the guidelines is explored in subsequent chapters (47).

A passive dissemination strategy was identified, with distribution of guidelines through the public health networks and the consequences of the passive dissemination strategy are examined in Chapter 8 where the awareness of both sHCPs and GPs are explored.
Chapter 7: The national coverage of the screening services and the influence of responsibility, coordination and service structure

7.1 Introduction

In Chapter 6 a lack of sufficient national or international research evidence available during the guideline development process was raised. The guidelines appeared to be based primarily on epidemiological public health knowledge, previous national and international guidelines and expert opinion. The decentralised establishment of the screening services was also highlighted and the influence of this context on implementation is explored throughout the thesis.

This chapter addresses the following aims:

Thesis aim 2: To examine the extent to which the guidelines and screening tests and services are implemented or enacted and modified in practice.

Thesis aim 3: To explore the influences on the implementation or enactment of the guidelines and screening tests and services in practice.

This chapter examines the coverage of screening services nationally, in order to understand the extent to which screening is offered through dedicated services. Findings from the mapping study and in-depth interviews on the coverage are presented (see Appendices IV, VIII IX and X for a full description of data sources and themes explored in each results chapter).

During the interviews and analysis, responsibility, coordination and the structure of the service arose as a key influence on the coverage of the screening service and this interaction is explored below. Findings from the implementation and integration studies on responsibility are discussed and although the interaction between responsibility and coverage is focused on, broader findings relating to responsibility are explored to understand the context and provide a more in-depth analysis. Responsibility included concepts of governance, leadership and management and these are explored further in the discussion. Other influences on the coverage of the screening service are also examined.
7.2 Intervention characteristics (the ‘hard-core’ of the adapted intervention): coverage

7.2.1 The mapping of the coverage of the dedicated screening services

Whether port of entry screening was implemented in Ireland was examined in the mapping report; only three out of the ten airports approached provided information and all reported that routine screening was not implemented.

Post-arrival, the presence of a dedicated screening service for asylum seekers varied across Ireland. A dedicated screening service was in place in under half of the LHO areas (44%, 14/32) which equates to 54% (14/26) of the LHO areas with RIA accommodation (see Figure 16). Three screening services covered multiple LHO areas. The sHCPs providing the service varied extensively nationally (see Table 26). Staff included medical officers (AMOs and senior medical officers (SMOs)), Public Health Nurses (PHNs) and specialists in asylum seeker and refugee health. The service was predominantly staffed by a combination of sHCPs working part-time on the service and screening was only one component of their job role. sHCPs reported back to a variety of job roles.

Figure 16 compares the number of asylum seekers in RIA accommodation at the end of May 2010, to the presence of a screening service. Asylum seekers in private accommodation in the community are not included in the RIA accommodation figures. The presence of a screening service was not directly related to the numbers of asylum seekers in the LHO areas; Galway and Dublin received some of the highest numbers of asylum seekers, yet no screening services was in place at the time of the mapping study (with the exception of the reception centre in Dublin). The mapping findings on coverage and the model of service provision are presented here and the findings relating to the tests offered are presented in Chapter 8.

Table 26. sHCPs providing the screening service nationally

<table>
<thead>
<tr>
<th>sHCPs providing the service</th>
<th>% LHO areas with a screening service (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical officer and nurse offered the screening part-time</td>
<td>50% (7/14)</td>
</tr>
<tr>
<td>Screening team composed of a full time nurse and a part time medical officer and nurse offered the screening</td>
<td>21% (3/14)</td>
</tr>
<tr>
<td>Nurse offered the screening working closely with the GPs</td>
<td>14% (2/14)</td>
</tr>
<tr>
<td>Full time medical officer provided the screening</td>
<td>7% (1/14)</td>
</tr>
<tr>
<td>Nurse offered the screening part time and a medical officer managing the service and ordering the tests and referrals</td>
<td>7% (1/14)</td>
</tr>
</tbody>
</table>
A. Presence of a dedicated* screening service in Ireland (May-August 2010)

B. Occupancy of RIA accommodation for the end of May 2010**

* The term ‘dedicated’ is used to describe a service where the primary focus is communicable disease screening for migrants.

** North Tipperary/East Limerick does not have any asylum seekers dispersed to RIA accommodation and therefore during the mapping period no screening service was functioning. If asylum seekers were dispersed, the Limerick and Clare screening service would cover it.

Figure 16. Comparison between (A) the presence of a screening service and (B) the occupancy of the RIA accommodation centres by LHO area. (Figure drawn by the researcher (GS))
Coverage in this thesis refers to whether communicable disease screening is offered to asylum seekers and refugees across Ireland. The mapping study and the findings in this chapter primarily examine whether a dedicated screening service is in place to offer screening, but the in-depth interviews also explored whether screening may be offered through GPs and the detection of certain health conditions through GPs. Coverage also relates to the need for a screening service and so LHO areas with RIA accommodation for asylum seekers were used as a more relevant denominator for the mapping study, than solely the total number of LHO areas. Coverage also relates to the model of service provision, the number of hours a service is provided and number of staff to provide screening. The model of service provision for screening is explored in Chapter 10.

Whether this heterogeneity in service coverage impacted upon the implementation of the national screening guidelines and programme was explored further in the in-depth interviews and the findings are presented below.

7.2.2 The views of key HCPs on the coverage of the screening service: “fragmented” service and decreasing workforce

The in-depth interviews built on the cross-sectional snapshot of the programme provided by the mapping study. Concerns were raised by numerous respondents regarding the reduction in screening services provided nationally. The reduction was particularly noted over the last few years and it was raised that areas may now have ‘minimal medical input’ (Respondent B4; HCP; Past). Greater reductions in the dispersal areas were reported by respondents, although only one reception centre was in place at the time of the mapping study.

Transient pauses in service provision were also reported, with “waxes and wanes” (Respondent B21; HCP; Current) described. Respondents were included from services which had been halted temporarily, enabling an examination of the factors contributing to the interrupted service provision. A lack of cross-cover by another HCP if a sHCP was unable to provide the screening service was also cited. In addition to the reduction in services, the nature of the service coverage had reportedly altered, including a reduction in allocated hours where “people have really only a very passing slot in their timetable anymore to look in on asylum seekers in hostels” (Respondent B6; HCP; Current). It was also raised that screening may not be a priority for those where screening was only an “add on to what they’re doing, their core job” (Respondent B16; HCP); and that those newly working on the service may not have the same enthusiasm for working with the population group as those initially recruited.
From the document review it was clear that there was recognition that screening was not operating efficiently at the time the guidelines were produced in 2004 (D15Let) and the group highlighted the resource implications for the guidelines to be implemented fully (D15Let). In the guideline development interviews respondents mentioned that they thought the same screening service was in place now, albeit slightly less intensive. A respondent’s experience of individuals coming through the health service who had not been screened supported the reports of fragmented coverage.

Variation in service provision nationally was therefore a major finding. A number of respondents involved with the screening service raised the variation in the model of service provision and coverage.

“There’s no uniformity around the country as to who looks after asylum seekers and it really does as I say fall down to the individual services to do their bit” (Respondent B14;HCP)

It was notable that some sHCPs were unaware of the screening in place in other locations around the country. This finding echoes the description of variation historically in Chapter 6 (see section 6.3.4). Causes of variation identified included: the initial chaotic context; ad hoc responses and decentralised establishment of the screening service; the lack of a national coordinator or clear responsibility for the screening; asylum seeker numbers varying between areas geographically (see section 6.3.4); and external events, for example the H1N1 pandemic, where staff were taken off the screening service to work in this area.

7.2.3 Possible consequences of the incomplete coverage of the screening service

Concerns raised by sHCPs and line-managers, arising from the fragmented coverage, referred primarily to either the initial access to screening or the continuity and follow-up after screening. These concerns related to the risks for asylum seekers and the general population, alongside difficulties in service provision for the sHCPs. For example, one of the impacts cited of the reduced cross-cover by another HCP if sHCPs were unable to provide the screening service was on the continuity of service provision. An increased workload was reported in one case in the screening service but reduced continuity due to the decline in dispersal screening services.
One of the concerns raised by respondents was that without screening in the dispersal areas asylum seekers may “slip through the net” (Respondent B5;HCP;Current) and that the needs of the asylum seekers may not be met, as illustrated by the quote below:

“I'm just worried that the service is fragmenting so much that we're not going to be offering the care that people need” (Respondent B5;HCP;Current)

These concerns were corroborated by a GP who provided examples where individuals had fallen through the gaps. Some sHCP also suggested that more health conditions can be detected in the dispersal phase, as screening is easier to implement.

Several respondents discussed how screening would fall to the GPs in areas where dedicated screening services were absent. This was not viewed as ideal from a sHCP perspective and frustration was expressed when GPs were unavailable to contact. From a GP perspective a comment was made that although their role was to pick up those who missed screening, this was not ideal. This is explored in greater depth in Chapter 10.

However, while some respondents strongly advocated for the importance of dispersal screening, other respondents were less certain of the benefits or perceived that reception centre screening was important and the optimal strategy for a high uptake of screening. This is discussed in detail in Chapter 10. Respondents’ views also differed as to whether the speed of the reception phase impeded the uptake of screening and the extent to which asylum seekers were missed.

Concerns about the fragmentation of the screening service nationally, were also especially raised in relation to the follow-up of screening results or explaining results after screening. Difficulties were reported by respondents in relation to the transfer of results, for example where centres had closed and concerns were raised that the results may be just sitting in a drawer. Even when asylum seeker had hand-held results, it was reported that asylum seekers may think they had their results, whereas it may be just a blank first page of the form.

Facilitating access for asylum seekers to continuing medical care in the dispersal areas was also reported as an important role for dispersal screening services by respondents; this is discussed in Chapter 9. The lack of follow-up was raised as a
serious concern, and it was discussed that screening shouldn’t be offered if appropriate follow-up wasn’t in place.

7.3 **Inner setting: leadership, responsibility and coordination and human resources**

7.3.1 **Suitable and sufficient human resources**

Human resource constraints were identified as a major barrier to the sustained coverage of the screening services. An insufficient number and combination of HCPs were discussed by sHCPs as a reason for interruptions in service provision. A need for two sHCPs to work on the service in order to offer vaccinations, take blood and for chaperoning purposes was raised by some respondents and was also cited as a concern for future sustainability of the service. Occasions where two sHCPs were not in post, or a HCP was sick, were reported to have interrupted service delivery. In addition the need for a combination of suitable HCPs was discussed, as an example was provided where without an AMO, Mantoux tests were not undertaken by the GPs and the nurse was unable to take bloods or vaccinate alone.

One of the perceived barriers identified to sufficient staffing of the screening service and coverage was the proposal that the screening service may not be an attractive service for HCPs to work on. Reasons cited included the difficulties of the role, lack of support and comparative poor pay for medical officers in comparison to GPs and the fact that other HCPs may not be interested in working on the service. Difficulties recruiting staff to work on the screening service around 2001 were reported in the grey literature (175) and initial difficulties relating to the staffing of the service were discussed in Chapter 6 (see section 6.3.5). The sufficiency of human resources is highly interlinked with the influence of the broader health system (see section 7.5). This finding is in line with the recognition of the importance of resources for effective implementation in the international literature (47).

7.3.2 **The structure of the screening service and acknowledgement of the screening service and job role**

**Acknowledgement of the service and job role in relation to coverage**

A lack of acknowledgement of the screening service and sHCP role was reflected in comments from those working on the screening service; for example it was discussed that it was a “service people seem to get borrowed from” (Respondent B6;HCP;Current) and that they were “being pulled from other places” (Respondent B22;HCP;Past). Respondents had been pulled off the service to work on the H1N1 vaccination campaign, highlighting the fuzzy boundaries between the inner and outer
settings. Some respondents were particularly informative about why services had ceased either temporarily or permanently. One of the contributory influences proposed was the fact that screening did not necessarily fit with their broader job role, as for a number of sHCPs, screening was only one part of their job role in community or public health.

“I think a lot of it is down to you know what is our job description and it doesn't really fit in even through we've been doing it” (Respondent B22;HCP;Past)

An acknowledgement of the service, including a more formal acknowledgement in the HSE service plan, was advocated for so that if sHCPs were asked to do another job they could state that they were working on the asylum seeker clinic. Furthermore, it was discussed how the exclusion of the screening service from the service plan and associated lack of acknowledgement of the service contributed to the need for “begging and scrimping” (Respondent B22;HCP;Past) by the sHCP for resources, including staff.

“it's kind of grey at the moment is my opinion anyway...some people are doing some things in some areas and some are doing others in the other areas, they all mean well but it's it can be difficult to fight for resources if it's not in the plan” (Respondent B22;HCP;Past)

Acknowledgement and structure of the screening service in relation to responsibility

The need for a greater acknowledgement and improved structure of the service was also discussed in relation to responsibility and coordination and this was interlinked with coverage. A need for support for those working on the service was raised.

“the bigger picture is that you know the clinical guidelines aren't that much of a problem really I don't think, it's to get the support of the structures there, like the management structures” (Respondent B22;HCP;Past)

The need for the support of the management structures in relation to coverage was raised. These points are interlinked with the views of the managers and the frontline providers discussed in section 7.4.
A number of points were highlighted by respondents around the need for a clearer structure for the screening service. For example, it was discussed how a clearer structure was needed for the involvement (if any) of other HCPs in the centres in screening. The structure, or lack of structure, in the screening service was reported to influence onward referrals and communication between HCPs and a need for clearer pathways was raised. Respondents working on the screening service discussed how effective referrals could depend on personal contacts and more formal protocols needed to be in place as without them there were difficulties if a shHCP was away. Consequences of gaps in the structure of the service were also raised including losing information and allowing room for error. Acknowledging that services needed to be provided for the asylum seekers, having services in place and having a structure around it were proposed as reasons why links between providers worked well in one location.

7.3.3 A lack of responsibility and coordination within the screening programme

In addition to acknowledgement and a clearer structure, a need for clear responsibility, leadership and coordination of the screening programme was raised by numerous shHCPs and the line-managers. This was identified as one of the influences on the coverage of the screening service. Responsibility more broadly in relation to the screening service is explored in greater depth below. Some respondents highlighted that responsibility and leadership were needed at the local, regional and national levels.

“a lack of consistent informed leadership that can coordinate from one point the services for asylum seekers and health screening and public health, to me that’s the overall piece that’s missing and that’s even missing locally too” (Respondent C14;HCP;Current)

Historically it was reported that it was clearer when the responsibility lay with the Principal Medical Officer (PMO) in community care and Director of Public Health Nursing. Previously it was noted that there were leaner management pathways, involving individuals with clinical and healthcare knowledge, whereas now uncertainty was expressed about where screening fitted within the new HSE structures. The introduction of the HSE was intended to provide more national level integration (302), however, lack of involvement and management by the HSE was also raised in relation to the asylum seekers services in the centres. In 2004 the DoH stated that they were satisfied that there were appropriate management structures at the regional and local level for the screening programme (551). Asylum seeker health was reported to fall
within the remit and budget of the social inclusion unit of the health service. However, although social inclusion within the HSE were involved at a higher strategic level, it was suggested that there was a need for someone who was medical to manage the service.

In line with this ambiguity, HCPs not working on the screening service were unclear about where the responsibility lay for the screening programme, including referral specialists and those in public health. A lack of willingness among departments to take on the screening was discussed, including for example a reluctance of public health to deal with LTBI. A reported lack of willingness to take responsibility for the screening is highlighted in the quote below, describing how the responsibility difficulties extended beyond a lack of clarity:

“everybody’s saying it’s not theirs, it’s not, it’s kind of worse than not clear it’s everybody saying it’s not theirs then leaving it with somebody else” (Respondent C15;PH)

It was reported that the lack of anyone with responsibility meant that nobody would be under pressure to provide or replace the services. A requirement for greater coordination in relation to the screening service was discussed by GPs, SHCPs and line-managers, where several GPs stated that they were unaware of any overall coordinator.

Coordination may however have occurred at a more local level, as a group was identified in the document review which discussed having a coordinator appointment at the level of the CCA or region to ensure service provision for asylum seekers was not fragmented; this was broader than screening (D18MinL). This is in line with the discussion in Chapter 6 where it was reported that a group for the implementation of the screening programme had been established at a more local level (see section 6.3.3). It was pointed out that the Department of Justice and Equality held ultimate responsibility for the asylum seekers.

The consequences of the lack of responsibility and coordination
Broader consequences of the sub-optimal ownership of responsibility, coordination, service structure and leadership on the implementation of the service were also discussed. These included:
the hindering of the enacting of change in relation to the screening service and the resolution of issues such as the medical card delays

the detrimental impact on continuity of care

deviation from the guidelines with regards to CXR screening

variation in screening around the country and particular problems during a chickenpox outbreak, where neither public health nor community health wanted to take responsibility

referral specialists needing to know who to contact and who was responsible for the service

a negative impact upon the transfer of records nationally as since the structural health service changes unclear who has responsibility within the organisation and people may not want the responsibility in the dispersal areas

a lack of clarify around the indicators to collect on the screening service and the need for a national database and link person

risks associated with a lack of responsibility and asylum seekers potentially falling through the gaps, although it was also argued that the lack of coordination impacted HCPs and not asylum seekers

This was also raised as a problem in the guideline development interviews and the following quote demonstrates the interlinked nature of their discussion around coverage and responsibility for the screening service:

“where it was all falling down was when the people, the asylum seekers were moved down the country, and the follow-up on the results then in certain areas of the country. There was nobody allocated to follow-up on these results and nobody had responsibility for the asylum seekers” (Professional stakeholder A08)

In order to improve the situation it was raised by a line-manager that someone just needed to take responsibility. They noted that the situation had been ongoing for a number of years, but stated that if something [negative] were to happen people would take notice. Several respondents discussed the need for a liaison post, which had previously been provided by RIA but was no longer in place. They stressed that this needed to be someone at the same national level and with the involvement in health as before. The need for a greater multidisciplinary structure was also discussed and it was proposed that policy could learn from practice and that intercultural health groups could aid with this.
A lack of national coordination, leadership and responsibility has previously been suggested nationally (62) and internationally (30, 142) in respect to screening and IHAs. However, it had not previously been explored in detail.

Establishing strong leadership, defining roles and responsibilities and ensuring effective management for implementation have been recognised as key components of effective implementation for communicable disease control programmes internationally (552) and for the implementation of clinical guidelines in other contexts (553). Effective leadership and management are viewed as necessary to create a receptive context (47). The need to engage leaders as part of the receptive context demonstrates the active role of context and highlights that it should not be conceptualised as a static variable (383). The findings therefore resonate with the broader implementation literature in this field.

7.4 Individual characteristics: views, priorities and motivation

7.4.1 At the level of the managers

The influence of the views and priorities of managers on coverage

The influence of the priorities and perspectives of the managers in the regions was highlighted by some of the sHCPs and the line-managers. The point was made that a lot depended on whether doctors were given the time to offer screening. The enthusiasm and commitment from managers appeared to differ geographically and over time; for example, changes in the interest of the management were reported in one location where screening was no longer in place. This was evident from the various responses from respondents and is discussed directly in the following quote:

“there seems to be different attitudes where some would encourage it, some wouldn't encourage or wouldn't discourage it, I haven't come across anyone who, that would actively discourage it, but I'm just saying that some say would have more of an interest in seeing it done that others” (Respondent B22;HCP;Past)

The personal views of the managers were reported to be influential, as it was reported that if the managers perceived that asylum seekers should receive mainstream services it would be the first service to be pulled. The prediction was made that there would be “less and less formal screening of asylum seekers” (Respondent B19;HCP;Current) due to the perception by senior staff that it should be offered by GPs. This indicates problems with the compatibility of the intervention with the values
and norms of key stakeholders, which could undermine effective adoption and assimilation (41, 47). Compatibility is conceptualised within the inner setting of the CFIR highlighting the interaction between domains.

Different priorities of the principal medical officer (PMO) combined with staff reductions meant that in one example they were unable to provide the screening service; it was discussed how screening tests were still offered to the clients but how the screening service was to be staffed was left in limbo. Furthermore, the broader policy context appeared to be influential as it was discussed that managers are “prioritising the stuff that we have a statutory obligation to provide” (Respondent B22;HCP;Past). The relative priority of an intervention is suggested to be predictive of the effectiveness of the implementation (47).

Diversity and difficulties with leadership engagement and the lack of more formal, higher level responsibility for the screening service were therefore evident. One of the requirements of effective implementation is the process of engaging key stakeholders to ensure the service is provided and this relates both to the characteristics of the individuals and the process of implementation (47). Engagement is associated with opinion leaders, external change agents and ‘formally appointed internal implementation leaders’, who can also act as coordinators, in the international literature, yet these facilitative roles were not identified at a formal, national level (47). They may need to be considered further as they can act as facilitators to implementing change (47, 554, 555).

It is important to note that the views reported are from a small sample and Doyle’s previous audit found supportive senior staff in the reception centres were viewed as a strength of the service (62). This again may be a reflection of the diversity nationally, or changes in staff over time. Many of the points were only the perspective of sHCPs and line-managers on the views of other managers, but these perceptions can offer valuable insights.

**Responsibility at the level of the line-managers and PMOs**

The difficulties reported in relation to responsibility at the level of the line-managers of the sHCPs and Principal Medical Officers (PMOs) are explored in further detail below. Links between the lack of responsibility and sub-optimal coverage are evident as concerns were also raised from a sHCP perspective about the precarious nature of the service if their line-manager left. Uncertainty about the future of the service is illustrated in the following quote:
“in some ways the caring of asylum seekers, whose life is in a very precarious situation, in some ways ours is too, because we don’t know what’s going to happen in the system” (Respondent C07;HCP;Current)

Other difficulties relating to the line-managers and responsibility were raised. Some sHCPs discussed how their line-managers may not be experienced in the screening work to the extent that in one case the statement was made that they were basically autonomous. A situation was described where a sHCP, previously involved in screening, felt screening was just “a tag on thing” for their manager and that each time their manager infrequently visited the screening service they seemed to be “walking backwards out of the place” (Respondent B25;HCP;Past). The sHCP discussed how they had wanted more support from their line-manager and to feel like they cared. Therefore, for some sHCPs there appeared to be a gap between the knowledge and interests of the line-managers and the sHCPs working on the programme.

Furthermore, sHCPs and HCPs in centres reporting back to differing line-managers, with no overall coordination was reported as a problem. It was raised that this was risky as there may be an asylum seeker in the middle of it not receiving services and so it was proposed that cross-service protocols were required.

“it’s not coming together and in the middle of it you have an asylum seeker who needs a service and may not be getting it” (Respondent B14;HCP)

This relates to both the characteristics of the individuals and the inner setting, again highlighting the interactive nature of the different influences on implementation.

7.4.2 At the level of the frontline providers

Motivation of the frontline providers and certain line-managers

Difficulties in establishing and sustaining the service provision were raised by some of the frontline providers. It was discussed how there were moves to close down other centres and that services were being reviewed. A comment was also made that “administration are looking at us closely” (Respondent B8;HCP;Current).

The motivation of the sHCPs appeared to be instrumental in maintaining the service coverage in a decentralised manner at a local level, as a comment was made that the
service had been established “by trial and struggle” (Respondent B18;HCP;Current) through the years due to the interests of those working on the service. The idea of a struggle was raised in relation to a need to be “all the time fighting your corner just to be able to keep it going” (Respondent B22;HCP;Past). Concerns were expressed about the future of the screening service provision:

“so by trial by struggle down through the years we have been setting this place up and trying to make things work but basically it is the people that are working here are interested in it you know but if we were not here tomorrow I don’t know” (Respondent B18;HCP;Current)

Several decentralised and informal responses of the line-managers and sHCPs in the regions were evident in maintaining service provision, despite the pressures on the service (see section 7.6.2). For example, it was reported that sHCPs who were no longer working specifically on the screening service accessed results for other sHCPs, as there was no other mechanism to access them, highlighting the role of informal networks. This was placed in a broader context during the guideline development interviews when a respondent was asked if the responsibility for screening moved with the sHCPs when they moved into the Departments of Public Health:

“that's a flaw of the whole health services…this argument that if x who has been in one, comes into another department that they should continue on the job that they have just left. I mean you wouldn't expect if of somebody was a train driver and suddenly turned to becoming a bus driver you wouldn't expect them to do both” (Professional stakeholder A20)

Previously in Ireland it was noted that the sHCPs were ‘committed professionals that have, with limited support, developed this service’ and built links with other professionals (62). Health and social care providers proactively and informally responding to the needs of asylum seekers was also identified by Pieper et al. in a rural area in Ireland, demonstrating the motivation of the frontline providers (350). The motivation and capacity of individual practitioners has been identified as an influence on the routinisation of innovations elsewhere (371).
Responsibility at the level of the frontline providers

Responsibility at the level of the frontline providers for screening is discussed in more detail below as it was identified as an influence on coverage above. A number of respondents discussed the role of the frontline HCPs in implementing the screening in the context of a lack of national and higher level coordination and responsibility, as demonstrated by the following quote:

“somebody coordinating healthcare provision to this group there does not appear to be anyone in that role nationally within the organisation. It happens locally on the ground anyway because, by virtue of the fact that we’re all doing our professional roles”  (Respondent B1;HCP;Current)

Other non-sHCP respondents commented on the motivation of the sHCPs to implement the screening programme, including the fact that a sHCP was left providing the service in the absence of anyone taking responsibility which they did not perceive as a good situation. These findings were in line with the following quote from the guideline development interviews:

“I don't think the Department of Public Health got terribly involved in it and I don't think the Department of Health did either……I think the Department of Health had light touch management of this problem and just let people on the ground get on with the job”  (Professional stakeholder A08)

In line with the discussion about coverage of the screening service above, examples were also provided where frontline HCPs advocated for services to be established more broadly, such as psychiatry services and an example was described where this was due to the motivation of frontline HCPs rather than the organisation of the HSE. Local groups were also initiated in one case by a HCP to try to deal with the situation on the ground.

However, several negative connotations were highlighted as a result of implementation at the level of the frontline providers, in the absence of national leadership, coordination and responsibility, including the variation around the country and ad hoc service provision in some locations. Furthermore, GPs may be left with dealing with
situations such as chicken pox outbreaks which are not their responsibility. The need for someone to manage it was raised:

“where you have people that it’s only an add on to what they’re doing, their core job, they mightn’t see it as a huge priority, it’s a bit ad hoc. But that’s why there’s a need for someone to manage it”

(Respondent B16; HCP)

A comment was made that the knowledge and interest relating to the screening service was contained within a small group of people; this would logically impact therefore upon service provision if sHCPs left. In the context of the lack of more formal delegation of responsibility and leadership and a separation with line-managers in some cases, national meetings between sHCPs, were perceived as important for peer support by some respondents and it was suggested that the RIA meetings should re-start (see section 8.3.5).

Responsibility and leadership at a local level was therefore insufficient according to some of the respondents who discussed the need for more formal leadership and coordination. Due to the national level of the service, the need for higher level, centralised governance is not necessarily surprising and both informal and formal responsibility and leadership need to be considered for successful implementation, including service coverage.

Any facilitation for implementation therefore appeared to occur at the level of the frontline providers and selected line-managers; this could be compensating for the lack of more formal responsibility and management, although it could reduce the perceived need for higher level responsibility and leadership and therefore be a contributory factor to the lack of more formal responsibility and management.

A strong stance on the importance of leadership has been adopted by some authors in the international literature; Damschroder et al. (47) referenced Repenning (556) as stating that unless leadership fully supports the implementation of the intervention, it will fail (47). In this case study, mixed support from management and a lack of central responsibility was reported, yet the implementation of the guidelines and programme in practice was certainly not a complete failure and so bottom-up implementation seemed to in some cases compensate for higher level failures. Therefore, the importance of more bottom-up approaches (51) and the role of the motivation of the frontline providers in ensuring implementation should be recognised.
7.5 **Outer setting: Migration trends, funding, broader health system policies and the restructuring of community health and public health**

7.5.1 **Asylum seeker trends and numbers**

Migrant numbers were cited as an influence on coverage by a number of respondents either currently or previously involved with the screening service, as there were significant reductions in the number of applicants for asylum in the eight to nine years preceding the study (see Chapter 6). Variation in coverage geographically would be expected to a certain extent, as at the time of the mapping study, six LHO areas did not have any asylum seeker accommodation and it was suggested by a respondent that the magnitude of the service response in different areas was due to need. However, as discussed in section 7.2.1 the mapping report identified that the presence of a screening service did not solely reflect asylum seeker numbers geographically and so this does not sufficiently explain the variation.

As detailed in Chapter 6 initial screening service coverage and implementation was determined, in at least certain locations, by local areas making a business case to a central fund and establishing how the service would be staffed and run at a local level. For example, it was reported that in one area the numbers of asylum seekers meant they could advocate for a medical officer and so higher migrant numbers had a positive influence on implementation. The influence of the historic process of the establishment of the screening services nationally, detailed in Chapter 6, is therefore also likely to influence coverage, for example through the decentralised determination of the staffing of the service. This is also related to the process of implementation.

In contrast the decline in asylum seeker numbers could have a negative impact on implementation as a concern was raised that the decline in numbers had resulted in asylum seekers having "gone off the radar" (Respondent B19;HCP;Current) from the perspective of management, potentially impacting upon their priority level within the health system. Furthermore, it was proposed that the problem with coverage would remain the same, as the decline in asylum seeker numbers would be paralleled by a decline in sHCPs.

> “but you see the other thing is that as the numbers go down they’re going to start pulling people out so…the problem may not decrease”

(Respondent B14;HCP)
7.5.2 Funding and broader health system policies & restructuring

Broader health system policies were reported as an influence on coverage by several respondents. For example, difficulties were reported due to the recruitment embargos as sHCP numbers were reduced and when an individual retired, resigned or were on leave they were not replaced. An example of the difficulties was provided, where the HSE recruitment moratorium impeded the filling of positions even though a budget was in place. The screening post was then lost, due to a subsequent HSE decision that where positions weren’t filled they were lost. At the time of the interviews there was a moratorium on recruitment and promotions in the public service (557), including policies relating to recruitment in the health system due to financial constraints (558) and a decline in human resources in the health system (559).

Financial constraints within the health system were discussed as a reason for the reduction in services, including in the guideline development interviews, demonstrating the interactions between financial constraints and human resources; however, the related reduction in staff hours was not universally reported as a problem by respondents. From a GP perspective, it was raised that an AMO would not be employed in the periphery without a lottery win, even though screening in the periphery would be ideal. It needs to be noted that the majority of the respondents in the implementation and integration interviews were not necessarily budget holders and therefore if more interviews had been conducted with managers funding may have been raised more frequently.

7.5.3 The restructuring of community health and public health

In order to understand the influences on the lack of responsibility for the service, the restructuring of community health and public health is discussed in greater detail below. Numerous respondents discussed the impact of the division between community health and public health on the implementation of the screening programme and a number of sHCPs reported a negative impact on the screening service.

Throughout this thesis attempts were made to elucidate the community health and public health structures and changes historically, but this proved difficult and it was reported that there was confusion, due to the changes in the HSE. Respondents did however provide insights into the restructuring, from the guideline development, implementation and integration interviews. It was discussed how originally community and public health were together and individuals would have had a common background. Then with the setting up of the Departments of Public Health in the
1990s, it was reported that public health gradually moved away to do policy and that this was accelerated by the separation in 2007, where the responsibility for infectious diseases transferred with public health. A divide was also discussed after the public health strikes in 2003 and reforms in 2002/2003.

Confusion was reported by those involved either previously or currently with the screening service with regards to which department was and should be responsible for the screening after the restructuring. Prior to the reforms it was noted that the Director of Community Care would have held the responsibility. It was reported that previously there were concerns that the responsibility for screening would be allocated to public health, who are non-clinicians and that the situation evolved rather than was resolved. Screening was perceived to have: “fallen between two stools, is it public health or is it community health?” (Respondent C15;PH). It was noted that the service fell under both community and public health, but that the service was more streamlined when they were only under one. The lack of clarity was in part attributed to infectious diseases falling within the remit of public health, but asylum seekers under the remit of community health.

“we were still a kind of under the umbrella of both I mean it would be better like if we were only under one umbrella…when you are trying to go under two different ones it’s very difficult” (Respondent B10;HCP;Current)

“this was the old age story of chicken and egg, we look after infectious diseases when they’re notified about but you have responsibility for those people in the community to follow-up and tracing and all of that” (Respondent B16;HCP)

An overview was provided in relation to the differing remits, where the Department of Justice would state that their policy is to set up the reception centres, the DoH would state that their policy was to set up a health service in the centres, they would look to public health to develop guidelines for the service and in turn they would then look at community health to implement the service.

Problems resulting from the lack of clear responsibility between public and community health, reported by respondents, included negative consequences for the coverage of the screening services. It was discussed how, after the establishment of the HSE, the movement of some of the medical officers offering the follow-up screening into the
Departments of Public Health meant that “this whole service kind of broke down” (Professional stakeholder A20). Furthermore, it was suggested that senior staff now had less interest in asylum seekers in some cases.

“I suppose the managers in the various Community Care Areas didn’t see…the need for asylum seekers to have such a service and they didn’t understand that while in public health where we’re responsible for infectious disease, we weren’t responsible for the screening of asylum seekers and we hadn’t been resourced to do that” (Professional stakeholder A20).

There were major changes in the health service structure around this time and the responsibility would have passed from the health boards to the HSE for implementation and for asylum seeker screening more generally. However, respondents primarily specifically raised the public health and community health changes. This study provides a useful lens through which the impact of health service restructuring on responsibility can be viewed. The structure of the health service more broadly may not necessarily be conducive to integrated policy and service development. For example, during the thesis, the findings from the mapping study were presented at two national groups: the first held the remit for updating the recommendations for communicable disease screening and was organised by the HPSC and the second was an intercultural health group under the remit of social inclusion. Leadership and direction at a national level for asylum seeker screening and health therefore appears to be divided between different elements of the organisation.

7.6 Understanding the underpinning social and work processes

Sub-optimal coverage of the screening services was therefore identified and barriers were identified at the level of the intervention characteristics, the individual characteristics, the process and the inner and outer setting; for example, the motivation of frontline providers, lack of clear national and local level responsibility and broader influences, including migration trends.

The findings reported above from the analysis using the adapted CFIR component of the conceptual framework indicate barriers relating to coherence, cognitive participation, collective action and reflexive monitoring (see Figure 17). The incorporation of the NPT into the conceptual framework can offer additional insights and could be used to design a coherent, theoretical strategy to improve the longer term normalisation of the intervention. In order to limit duplication only the main
Figure 17. The major findings related to addressing coverage and responsibility mapped to the constructs and sub-components of collective action in the NPT component of the conceptual framework. Figure drawn by the researcher (GS)

concepts from the NPT which added value to the analysis using the adapted CFIR component of the conceptual framework are discussed below.

### 7.6.1 The collective and social influences on normalisation

One of the major hindrances identified above to the implementation of dedicated screening services is the lack of engagement of some managers (see section 7.4) in the health service in comparison to the motivation of some of the HCPs. Collective understanding and perception of value of the intervention is required, according to the NPT, for the normalisation of the screening. There is a need for coherence across a network of stakeholders and so interventions purely targeted at the level of the frontline providers may not be successful in ensuring implementation and normalisation. This highlights the need to consider the social nature of implementation.

In order to influence and sustain change and achieve routinisation considering the views of and involving stakeholders at multiple levels has been found to be important in the communicable disease programme literature (560) and broader diffusion of innovation literature respectively (371). Coherence as a concept also helps to explain the suggestion for an acknowledgement of the service in the HSE service plan as it may facilitate the more collective aspects of coherence.
Cognitive participation requires individual and collective ‘buy in’ to the intervention (441) and this was clearly required from multiple stakeholders in the hierarchical organisational structure to enable frontline providers to offer the service. Problems with this were highlighted as demonstrated by the point that this was a service people tended to get borrowed from and that a lot depended on whether individuals were given the time to do it. The broader innovation literature also recognises that the continued support of top management and leadership is important for routinisation (371). Difficulties with obtaining sustained support from managers would also fall under the support of the organisation, highlighting the multiple influences across the domains of the NPT.

7.6.2 Reflecting on practice and dynamic responses (reflexive monitoring)

Reflexive monitoring (441, 443) highlights the dynamic nature of the process of implementation and normalisation and enhances the analysis of the barriers identified above. The reflections and dynamic responses (reflexive monitoring) of the sHCPs and certain line-managers to service implementation was identified as an influence on the normalisation of the service. Examples were provided where this had occurred, including where sHCPs looked up screening results for sHCPs in another area, even though their job description had changed, due to a lack of staff creating implementation difficulties (see section 7.4.2). Similarly, where there were difficulties staffing the screening service, an example was provided where HCPs and line management responded by putting in place different models of service provision to ensure screening was in place. These examples demonstrate informal responses at a local level to overcoming barriers to implementation. These findings support a more bottom-up policy implementation perspective where those who the policy are targeting are viewed as more active influences on implementation (454), or adoption, as highlighted in Greenhalgh’s review (41).

Reflections by HCPs and line-managers on the implementation of the intervention could also have a negative impact on implementation. An increase in the proportion of asylum seekers screened in the reception centres was one of the reasons provided for sHCPs being taken off the service. Several respondents mentioned the high uptake in the reception phase and whether screening was needed in the dispersal areas was questioned:

“maybe you could use those resources and deploy them in better ways…in terms of I suppose supporting the wider health needs of
The perception that dispersal screening is unnecessary, due to high coverage in the reception centres, could impede evidence-based coverage and practice if this is not the case. A perception that screening was the role of screening teams in the reception phase was previously provided as a reason for a lack of screening services (62). Differing perceptions of coverage may be due to changes over time; from 2002 to 2007 the uptake of screening ranged from 56 to 79% in one reception centre (61). However, a comment was made in the interviews that only partial screening may have been undertaken. The views on the importance and presence of dispersal screening in some cases also appeared to be linked to the contextual influences of resources and finances.

The extent to which reflexive monitoring occurs at a more formal individual or collective level, or informal level, is important to consider for the normalisation of the intervention and for evidence-informed decision making. The consequences of the reflections on practice and reconfiguration locally may not impact directly on coverage, if it is true that screening coverage in the reception phase has increased. However, if this is just the informal perceptions of sHCPs and line-managers, it may impact upon the screening and follow-up of asylum seekers and they may not be screened through primary care services. This suggests that the service may need to be formally reviewed to examine whether the perceptions are evidence-based. These findings and those from the previous audit (62) would also need to be more actively be fed back to the HCPs. Monitoring and evaluation of the programmes and interventions detailed in the NIHS was one of the recommendations for the implementation of the strategy (60).

Reflexive monitoring and the reconfiguration of the intervention support the point made by Ferlie and Dopson that implementation is not a discrete event (397) and so examining the process over time is key. It also emphasised the dynamic nature of the process of normalisation.
7.7 **Discussion and conclusions**

Heterogeneous and sub-optimal coverage of the screening services nationally were identified in this thesis, supporting a previous report in the NIHS consultation document of ad hoc screening and fragmented follow-up (542). Coverage is however difficult to evaluate as no standard or requirement for the coverage of the services was identified during the thesis. Doyle’s previous audit found screening was not offered in almost 40% of the CCAs, suggesting incomplete coverage has persisted over time (62).

Detrimental consequences of the sub-optimal coverage of screening services for asylum seekers, the public and the health services were cited by respondents, although this viewpoint was not unanimous. As a result of the heterogeneous coverage asylum seekers may receive a different service depending on where they are dispersed. Previous estimates suggested only 35-40% of asylum seekers were screened in reception centres (62) and so may be missed without dispersal screening. Screening may not be offered and this would be based on the barriers identified in this study to the coverage of the services rather than an evidence-informed decision. Therefore, if the guidelines and service are evidence-informed and there is a desire for sustainability of the service provision then these broader elements need to be considered in addition to the production of high quality guidelines.

The detrimental consequences discussed by respondents were aligned with concerns in the international literature relating to sub-optimal coverage and uptake of screening tests (34) and inadequate follow-up and loss to follow-up after screening (28, 214, 217, 308); for example, in the UK Pareek et al. found that in primary care only just over a third of the PCOs in the survey screened new-entrants for TB through new patient registrations (35).

Effective follow-up and continuity of care for asylum seekers and refugees after screening is also essential and difficulties with this were previously identified in the NIHS (60). Sufficient follow-up needs to be in place ethically for a screening programme to be in place (329) and so this is a serious consideration. For example, in the UK only a quarter of the new entrants screened in the port of entry TB services were known to make contact with a GP or chest clinic in the dispersal area (14).

Understanding the multiple influences on the sub-optimal coverage is essential for effective implementation of the screening guidelines and programmes. Influences extend beyond the characteristics of those implementing the screening, to for example
the wider asylum seeker trends which need to be considered to understand and improve implementation. Service provision in primary care in the areas where dedicated screening services are not in place is examined in detail in the following chapters. A lack of formal, national responsibility for the service was identified alongside a lack of structure and coordination and a number of negative impacts on the service were reported, including on the coverage of the services. Where the responsibility lies for the screening services needs to be determined. Ambiguity and variation in where the responsibility lies for migrant screening programmes has also been identified previously nationally (62) and internationally (31, 32, 181, 214).

An audit performed prior to the establishment of the HSE recommended the appointment of an ‘Asylum seeker Screening Programme Medical Coordinator’, situated within Primary, Community and Continuing Care (PCCC) at the time, but with strong links to GPs and public health (62). They would have responsibility for the daily running of the programme and implementation of the guidelines, would provide professional support for the providers and act as a liaison (62).

Over half a decade later, there is still a clear need for a coordination role such as this and roles such as a refugee health coordinator in the US (252) should be considered. The previous audit also proposed certain responsibilities at the level of the health service management, including: providing appropriate resources and high quality IT systems, supporting the medical coordinator, providing interpretation services and ensuring access to GPs where required (62). Although the context had changed with regards to the numbers of asylum seekers and health service restructuring, the findings indicate this is still required and that greater responsibility and leadership of the screening programme at a higher national level is needed. The loss of a previous liaison from RIA was highlighted by respondents as a barrier and re-introducing a liaison role such as this one needs to be considered in relation to the future normalisation of the service.

Consideration of the compatibility of the intervention with societal values may also be required and this could potentially be explored using the NPT construct of coherence. Additional services for asylum seekers can be a political issue and can be perceived negatively both internationally (561) and in Ireland; in 2011, a Teachta Dála (TD) (an elected member of parliament), speaking on behalf of the Department of Justice and Equality, stated that ‘all asylum seekers are offered free medical screening on arrival in the State which provides access to health services for asylum seekers on the same basis as for Irish citizens’ (562). While there are very important aspects of providing
health services on the same basis as Irish citizens, such as limiting stigma and ensuring equal rights, this can neglect the concepts of vertical and horizontal equity.

The concerns of the sHCPs regarding coverage and responsibility need to be addressed as the service fragmentation and sub-optimal continuity of care could have consequences for public health and health services but also critically for meeting the health needs of asylum seekers.
Chapter 8: Implementation of the guidelines and tests in the screening programme

8.1 Introduction

Chapter 6 explored the initial establishment of the screening service and the process of guideline development and dissemination in order to provide a foundation for further analysis. A passive dissemination strategy for the guidelines was identified, alongside the decentralised establishment of the screening services. Chapter 7 explored the fragmented coverage of the screening services nationally and influences on the coverage were examined, including the lack of responsibility for the screening programme. This chapter builds on these findings to address the following aims:

Thesis aim 2: To examine the extent to which the guidelines and screening tests and services are implemented or enacted and modified in practice.

Thesis aim 3: To explore the influences on the implementation or enactment of the guidelines and screening tests and services in practice.

Findings are primarily presented from the implementation in-depth interviews (see Appendices IV, VIII, IX and X for a full description of data sources and themes explored in each results chapter).

In addition to the extent to which the guidelines are used and the tests implemented in practice, the views of the respondents’ on the guidelines and the importance of the screening service are focused on. Multiple influences on implementation were identified and they are discussed below under the domains of the adapted CFIR component of the conceptual framework. These include: perceptions of the clarity and flexibility of the guidelines; the need for the guidelines to be reviewed; sufficient human resources for implementation; multiple sources of guidance; and respondent’s reflections on the implementation of the screening tests and guidelines.

Although the findings are presented under the adapted CFIR domain headings below, often barriers and levers fall under multiple domains and it is the dynamic interactions between the influences (440) which are also of interest. In the latter part of the chapter, the findings are explored where the use of the NPT component of the framework offers additional insights. Particular difficulties were identified with Mantoux
testing and polio screening and so barriers to their implementation are explored throughout the chapter.

8.2 Intervention characteristics: adaptation of the guidelines, variation in the tests implemented and views on the unadapted intervention

Adaptation and reinvention of the guidelines and the programme was a major finding and insights were gained into the nature and causes of the adaptation and variation in implementation. An examination of the adaptations of the intervention in practice is important in order to understand the enacting of the intervention. Adaptation or reinvention of the intervention is conceptualised in the conceptual framework as a component of the intervention, but is also a reflection on the process of implementation including the response to implementation in practice and is also highly interlinked with the individuals involved and context of implementation.

8.2.1 The adapted intervention: adaptation of the guidelines in practice

“protocols were made up really by public health specialists, ourselves, our seniors, all that kind of thing so it varied enormously, so we ended up with a kind of a kernel of things which we did”

(Respondent B4;HCP;Past)

Local adaptations of the guidelines were used in practice including a quadruplicate form, consent forms, standard operating procedures, holistic health interviews, history sheets and TB questionnaires. The extent to which respondents reported they were based on the national guidelines varied across the country. For example, a respondent who collated their own local guidelines early on in the screening programme stated that “we didn't just pick them out of the sky like, they were the Department's recommendations” (Respondent B26;HCP;Past) and they compiled them with other sources of guidance. However, another respondent reported that they were not aware of the national guidelines and that the previous HCP devised the guidelines off their “own bat” (Respondent B2;HCP;Current). The screening questionnaire was however similar to other guidelines in the region, suggesting they may have influenced the formation of the guidelines.

Guidelines were adapted by a combination of sHCPs, local Departments of Public Health, senior medical officers (SMOs) and a GP. Despite the adaptations, the communicable diseases included remained similar across the services and the adaptations reported were predominantly additions, such as questions about their
medical history, mental health or trauma. Broader questions and a more holistic health assessment are discussed in detail in Chapter 9.

Reasons cited by respondents for the adaptations included the need for a broader perspective of the health of the asylum seeker, the need to make the guidelines more relevant locally and to expand or simplify them for GPs. The four-part form (see section 6.4.2.1) was intended to assist with national standardisation. As mentioned above, an example was provided where a lack of knowledge of the national guidelines necessitated the formation of local guidelines.

From the document review a number of sets of screening questionnaires and consent forms were used in practice (D44Form to D51Form, D52TB to D53TB, D54Con to D55Con). Hepatitis C was widely included (D44Form, D45Form, D48Form, D49Form, D50Form, D51Form, D52TB, D53TB, D54Con) and syphilis was included in several sets of the guidelines (D42Reg, D26Nat, D31Nat, D69Nat, D39Reg, D42Reg). Neither are included in the 2004 communicable disease national screening guidelines (D30Nat). Hepatitis C was included in certain guidance prior to the development of the national guidelines (see section 6.4) (D33Reg, D34Reg). The communicable diseases included varied both over time and between the national or regional sets of guidelines as identified in Chapter 6 (see Table 23). Regional similarities were noted between several of the sets of screening questionnaires (D46Form, D47Form, D48Form, D49Form, D50Form). Guidance from the local Departments of Public Health and the adaptation of the national screening guidelines locally were also raised in the guideline development interviews. Local protocols were also identified by Doyle in just over half of the CCAs surveyed (62) supporting the findings.

As discussed in Chapters 3 and 4, a range of characteristics of the intervention are proposed to influence implementation; of these the adaptability of the intervention is particularly relevant to the findings. Intervention characteristics are highlighted as an influence on implementation and change (47, 563) and are the primary focus of some implementation research (386). Developing protocols from guidelines has been proposed as one method to improve the use of guidelines (166). The guidelines are clearly amenable to adaptation, a characteristic of interventions more broadly proposed to be associated with effective implementation (47) and routinisation of an innovation (371). However, this raises important questions regarding the paradox and tension between fidelity and adaptation in implementation (39) and the findings suggest that more attention needs to be paid to the fidelity and adaptation of the guidelines at this stage (394).
Internationally, adaptations and local screening guidelines were reportedly produced in response to insufficient national guidance in the US (253). Local guidelines were produced in the US for refugee health assessments which combined the Centers for Disease Control and Prevention (CDC) guidelines with practitioner experience (290); the findings in this thesis therefore have broader relevance.

8.2.2 The adapted intervention: variation in practice in the tests implemented

8.2.2.1 Diseases screened for in each LHO area by dedicated screening service

The mapping study identified that all screening services covering 14 LHO areas offered a screening test for TB (TB questionnaire and BCG scar check), hepatitis B and HIV (Figure 18). The majority of screening services offered screening for immunity to VZV and rubella (13/14), hepatitis C screening (12/14) and could offer a Mantoux test (11/14). Screening for syphilis was offered in just over half of the LHO areas (8/14) whereas polio screening was only offered in one location (1/14). Services in two LHO areas reported that polio could be screened for if needed but it had never been performed in practice.

If the denominator used is the number of LHO areas with RIA accommodation (26) nationally, then only just over half (14/26) of these LHO areas were found to have a screening service which would offer a TB screening questionnaire, BCG scar check and hepatitis B and HIV screening through a dedicated screening service. Of these LHO areas, half screen for immunity to rubella and VZV, while under half screen for hepatitis C (12/26) or offer a Mantoux test through a dedicated screening service (11/26). Under a third would screen for syphilis (8/26) and polio (1/26). Hepatitis C and syphilis were not included in the 2004 guidelines but were screened for by a number of services and screening for HIV and hepatitis C appears to have occurred for some time (62). Other authors have advocated for targeted hepatitis C screening in primary care for high risk populations, including migrants from South Asia and eastern Europe (564).

Heterogeneity was identified within these findings, with regards to both tests and service provision. For example, in certain areas screening tests may be explained and arranged through the dedicated service but performed in combination with the GPs.

Adaptations in the implementation of the programme in practice were identified alongside variation in the in-depth interviews; the nature of the variation and possible explanations are examined below.
Clare and Limerick: A TB screening questionnaire and BCG scar check would be done although referrals for Mantoux and CXRs would be through GPs.

**Donegal:** Screening for hepatitis B, hepatitis C, VZV, rubella, HIV and syphilis would be explained and organised but some tests done through the GPs.

*Clare and Limerick: A TB screening questionnaire and BCG scar check would be done although referrals for Mantoux and CXRs would be through GPs.

**Donegal:** Screening for hepatitis B, hepatitis C, VZV, rubella, HIV and syphilis would be explained and organised but some tests done through the GPs.

Figure 18. Mantoux testing and screening for hepatitis C, polio and syphilis reported to be offered by LHO area in the mapping study. (Figure drawn by the researcher (GS))
Diversity was noted in the clients offered screening tests. For example, the 2004 national guidelines recommend CXR screening for individuals over 15 years, however age limits of 12, 15 and 16 years were reported, including differences within the same location. Further heterogeneity was identified in whether CXRs were offered just to asylum seekers and refugees from high incidence countries. Variation was also identified for Mantoux testing, the extent to which children were offered screening and the gender and childbearing age for rubella and varicella screening. Variation in who was offered the intervention has similarly been conceptualised as part of the ‘soft-periphery’ of the intervention by other authors (437).

**8.2.2.2 Implementation of the screening tests**

Implementation difficulties were particularly identified by respondents in relation to polio screening and Mantoux testing. For polio screening, it was acknowledged that this was an area where guidelines were not followed routinely, even to the extent that the statement was made that “the polio screening seems to me to have died a death” (Respondent B21;HCP;Current). Contextual influences included logistical difficulties in the transport of the polio samples to the designated laboratories. Difficulties in obtaining faecal samples were also reported. Practical difficulties with Mantoux testing and polio screening were also raised by certain respondents in the guideline development interviews.

The majority of LHOs with dedicated screening services reported in the mapping study that they could offer Mantoux tests (Figure 18). However, the in-depth interviews highlighted significant variation between the services. Four broad types of service provision for Mantoux testing were identified within the sample (see Figure 19). Clearly, further variation may exist outside of the sHCPs included in the sample and over time.

Variation was identified even within the sub-group implementing Mantoux testing routinely; for example, Mantoux tests may be offered to any child over three months or just to certain sub-groups and this was not always clear. The extent to which they were discussed in relation to BCG clinics also varied. Reasons provided by the group which facilitated the integration of clients into other services for this included greater simplicity and because they could not organise the subsequent vaccinations. More ad hoc testing was identified in the group not offering Mantoux testing routinely, where individuals were offered tests if they were “under the weather” (Respondent B8;HCP;Current) or in emergencies.
Figure 19. A typology of the four types of service provision for Mantoux testing offered within the sample. (Figure drawn by the researcher (GS))

A range of barriers and levers to implementation were identified and the classification of service provision in Figure 19 facilitated an examination as to why implementation differed. This is discussed further below. Few problems were reported by sHCPs and HCPs in implementing the screening tests for the blood borne infections (HIV, hepatitis B and hepatitis C), the TB questionnaire and CXR referrals or in screening for immunity to varicella and rubella.

Several levers were identified in the respondents' discussions for the effective implementation of screening, including the contact between the sHCP and asylum seeker over the course of the hepatitis B vaccinations, the provision of a more holistic health assessment (see Chapter 9) and asylum seeker numbers declining.

However, respondents identified a number of varied barriers to the implementation of the ‘hard-core’ and the ‘soft-periphery’ of the intervention and these are listed in Table 27; barriers were identified at both the client and provider level and across a number of domains of the adapted CFIR. Of note is the diversity of the barriers and levers and the fact that they relate not only to the ‘hard-core’ of the intervention but also the ‘soft-periphery’. Interactions between the motivation of the providers and the more structural and organisational elements were clear; examples were provided where respondents had to train themselves in relation to HIV testing and counselling and
Table 27. Varied implementation difficulties relating to the ‘hard-core’ and ‘soft-periphery’ of the intervention

<table>
<thead>
<tr>
<th>Implementation difficulties</th>
<th>Relating to the ‘hard-core’ of the intervention</th>
<th>Relating to the ‘soft-periphery’ of the intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Possible client reluctance to take up CXRs</td>
<td>• Dealing with the social factors and health promotion e.g. the use of condoms associated with a positive result</td>
<td></td>
</tr>
<tr>
<td>• Difficulties in understanding hepatitis B screening results</td>
<td>• Insufficient training around HIV counselling</td>
<td></td>
</tr>
<tr>
<td>• The honesty of TB screening questionnaire responses</td>
<td>• Lack of onward pathways to associated services related to HIV</td>
<td></td>
</tr>
<tr>
<td>• Keeping track of individuals in a mobile population when there were previously high volumes of asylum seekers</td>
<td>• Difficulties identifying clients who had not turned up to referral HIV appointments</td>
<td></td>
</tr>
<tr>
<td>• HCP reluctance to offer HIV tests</td>
<td>• Inability to commence hepatitis B vaccinations in the reception phase</td>
<td></td>
</tr>
<tr>
<td>• Amending implementation of tetanus vaccine due to severe reactions</td>
<td>• The need to convince clients of the need for the hepatitis B vaccine</td>
<td></td>
</tr>
<tr>
<td>• Mantoux screening</td>
<td>• Views that GPs should offer the VZV vaccine</td>
<td></td>
</tr>
<tr>
<td>• Polio screening</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The need to have appropriate and sufficient HCPs in place</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

establish the onward referral pathways, indicating that the motivation of the providers was key in the absence of a suitable infrastructure to support them.

The findings suggest that elements of the ‘soft-periphery’ require greater attention in order to effectively implement the “‘hard-core’” of the intervention. Difficulties were reported initially with the implementation of HIV counselling and follow-up, yet these are essential requirements for a screening programme (71). These elements of the ‘soft-periphery’ are particularly salient when offering HIV screening to migrants, as the importance of increased social support for immigrants in relation to HIV has been highlighted internationally (167, 297).

The complexity of the intervention is one of the intervention characteristics highlighted as an influence on implementation and change (47, 563). It is of note that tests implemented by the majority of sHCPs, such as those for the blood-borne infections were perceived as relatively simple to implement. In contrast the complexity of the Mantoux testing, due to the testing and reading of the result after two days, and transportation of polio samples appeared to contribute to the non-implementation of these tests.

8.2.2.3 GPs and screening in areas with no sHCPs

The mapping report identified that there was an absence of sHCPs offering screening in just under half of the areas where RIA accommodation was present. Some GPs had
been involved in screening in locations in a more formal manner, but GPs who were included in the sample were those who would receive asylum seekers from the centres, but not formally offer the screening as part of the dedicated screening service. Screening and testing appeared to be offered in a more ad hoc manner by these GPs, if offered at all and it was reported by a GP that screening falling back to GPs was “a real, real, real issue which needs to be addressed” (Respondent B12;GP).

Barriers to screening were highlighted and for certain GPs it was not so much implementing the tests themselves (with the exception of the Mantoux test) or the fact that screening wasn’t feasible in theory but performing screening routinely in practice which was difficult. For example, due to inadequate resources and limited capacity certain GPs reported they would need to recruit additional staff (see section 10.3.3.3). Furthermore, GPs may be offering testing in response to symptoms rather than true screening and may not know how to screen for all the infections. For example it was reported by a GP that they wouldn’t know how to screen for polio.

“as it stands I would be uh quite opposed to offering screening services” (Respondent B7;GP;Small)

The lack of screening guidelines was reported as a barrier for some GPs. Some GPs mentioned that they would not have a TB screening questionnaire and the one GP who was aware of the questionnaire stated they didn’t use it. Furthermore, some GPs discussed how GPs would not offer Mantoux tests routinely and it was raised that TB was within the remit of public health. Barriers to implementation of screening through mainstream GPs were identified in relation to polio and Mantoux tests and this is discussed further in Chapter 10.

8.2.2.4 Reinvention, rather than a simple top-down implementation gap

As discussed in Chapters 3 and 4, continuous adaptation can be viewed as an integral part of getting knowledge into action, in contrast to conceptualising variation in practice as a simple top-down implementation gap. Conceptualising the ‘reinvention’ rather than ‘spread’ of the guidelines may be useful (403). Berwick suggests that in successful implementation ‘the original innovation itself mutates into many different but related innovations’ (403). The importance of the adaptation of the intervention by frontline providers has long been recognised by proponents of a bottom-up perspective of policy-making (51) and is also recognised by Ferlie and colleagues in relation to knowledge into action (383, 397).
While variation may reflect positive adaptations to the context and the client, it also raises concerns over the extent to which service provision is evidence-informed and of high quality. Whereas some adaptations, for example, in respect to which HCPs deliver the Mantoux test, may not affect the fidelity of the intervention, differences nationally in the sub-groups offered testing would impact upon effectiveness, cost-effectiveness and possible equity. Particularly in the context of resource constraints, cost-effectiveness of interventions is a critical consideration. TB screening therefore needs to be based on evidence-informed recommendations on who to screen and the variation in practice may not be cost-effective. Non-evidence based screening may result in unnecessary referrals with negative consequences for both the client and onward services. In the context of declining sHCPs and coverage of services nationally (see Chapter 7) this needs to be addressed as equity concerns are raised if asylum seekers are receiving different services, depending on their dispersal destination.

Variation in the implementation of screening and IHA guidelines has also been identified internationally (15, 33-35, 74, 166, 173, 214, 255, 256). Where guidelines were not followed in Norway, it reportedly impacted upon follow-up after LTBI testing for asylum seekers (217). Deviation from TB screening for migrants has also been identified internationally (256), and this finding is concordant with reports of variation in who was offered LTBI screening in the UK (35) and Australia (200). Barriers to LTBI screening, identified from this study, are highlighted below and have previously been identified at the patient, provider and institutional levels internationally (10, 123).

8.2.3 The unadapted intervention: views on the intervention (the guidelines) characteristics

8.2.3.1 Perceptions of the clarity, sufficiency and validity of the guidelines

Some respondents either previously or currently involved in the screening service reported that the guidelines were “fairly succinct” (Respondent B6;HCP;Current) and “straightforward” (Respondent B25;HCP;Past) or that they were happy enough with them. Other respondents requested further and clearer guidelines and the diversity of the range of issues surrounding the guidelines was notable. Clearer guidance was requested around certain elements of the ‘hard-core’ of the intervention, for example CXR screening for children and Mantoux testing.

“probably the most confusion was around x-raying……the messages seemed to be always different” (Respondent B4;HCP;Past)
Clearer guidance was requested in relation to Mantoux testing and this was identified as a major problem across the groups outlined in Figure 19, including sHCPs who stopped screening, those who weren’t screening and those who offered screening routinely.

“there was no clear guidance on the Mantoux testing…….who we should do it on. Should it be done on every child? Should it be done on everybody?” (Respondent B4;HCP;Past)

Guidance was primarily requested in relation to interpretation and the follow-up steps, but also whether Mantoux tests should be provided and if so who should provide them and whether they should be provided by an outreach service, in reception or dispersal settings and whether they should be delivered by public health. A lack of clear recommendations has been identified as a barrier to implementing guidelines in other contexts (565).

Even within the group offering Mantoux tests routinely, there were differing viewpoints ranging from the perception that there were “not very clear guidelines or protocol for the service nationwide” (Respondent B20;HCP;Current) to the praising of the algorithms in the national TB guidelines and reporting that it was “pretty much foolproof” (Respondent B27;HCP;Current). A request was made for “clarification from high authorities” (Respondent B20;HCP;Current). Local support appeared to be particularly influential in the case where screening was unclear. The guidance used and informal networks differed within the groups implementing Mantoux testing routinely; some respondents were unaware of the national screening guidelines and used the immunisation, local or TB guidelines instead. Although influential, the guidelines were therefore not sufficient in isolation to explain the variation between the subgroups.

The need for clearer guidance and further guidance was often discussed in relation to diverse issues surrounding the screening in the ‘soft-periphery’ of the intervention including VZV outbreaks, medical letters for asylum applications, HIV counselling, adherence to TB medication and structural aspects such as onward referrals.

“telling a person that they have HIV is a miniscule part, you have to make sure they have a way of getting to the hospital, if they can’t speak English they have to have an interpreter and this was all ignored…I felt before I tell someone they have HIV I have to make
A situation was described by a sHCP where initially training was insufficient for HIV counselling, as it was an ad hoc situation where they had to almost train themselves. A comment was made that they felt “a bit at sea and worried that I wasn’t doing it correctly” (Respondent B23;HCP;Current).

Ambiguity in the national guidelines and differences between guideline sets could have contributed to this variation in implementation highlighted in section 8.2.2. While the guidelines clearly detailed the ages for screening for TB, they were more ambiguous with regards to HIV and hepatitis B. The different sets of guidelines varied in their recommendations; the 2001 set recommended CXRs to all asylum seekers from areas of high TB incidence, whereas the 2004 set only recommended CXRs for children over 15 years. Discussions around who should be offered CXRs were also evident within the national guideline development group from the document review (D02Min, D03Min).

The sufficiency of the guidelines was also questioned and it was raised by a sHCP that they were “not sure what role the guidelines had in sorting out the busyness when we started” (Respondent B25;HCP;Past). Not all staff working on the screening service were aware of the guidelines and further guidance was requested:

“there was no kind of outside guidance you know it would be nice to have a folder with a, b, c, d in this case do this do you know so that you know that you’re doing the right thing” (Respondent B2;HCP;Current)

Criticisms were primarily directed towards the practical implementation of the guidelines and incongruence between the guidelines and practice rather than their content and underlying evidence (see section 8.3.4). However, some sHCPs questioned the inclusion of polio and in one case clinical opposition to performing a Mantoux test on children was cited. From a GP perspective, the evidence behind the TB questionnaire was queried in passing. Frustration was also expressed that the service and guidelines did not learn from other areas such as traveller health. The diversity of the criticisms of the guidelines is evident. HCP perceptions of the evidence-strength and quality of guidelines are one influence on implementation (47, 202
Mantoux testing and polio screening were the only tests where questions were explicitly raised by respondents about their value.

8.2.3.2 Views on the flexibility and adaptability of the guidelines and of the guidelines as a "grey area"

Different levels of adherence to the guidelines were reported by sHCPs and HCPs. A desire to "stick to them as best we could" (Respondent B22; HCP; Past) was expressed by several sHCPs and syphilis screening had or was being stopped in a few locations in order to adhere to the programme. However, even where it was reported that they followed "exactly what it says on the sheet" (Respondent B27; HCP; Current) for the TB guidelines, deviation in who was offered CXRs was identified. As highlighted in section 8.2.1, sHCPs may be following locally adapted protocols rather than the national guidelines. Furthermore, some sHCPs perceived the guidelines as flexible as demonstrated by the following quote:

"it ended up that we worked broadly to a protocol, broadly, but each place then worked that according to what they felt themselves" (Respondent B4; HCP; Past)

As discussed in section 6.4.3 some of the guideline developers discussed how the guidelines would be expected to be adapted in practice and so flexibility was needed so that they could be adapted to the local circumstances. See section 8.3.4 for respondent’s views on the incongruence between the guidelines and practice.

Certain respondents involved in the screening service either currently or previously thought the guidelines were only issued in draft form, with a comment made that they had "only ever seen draft written on it" (Respondent B11; HCP; Current) and another comment that the guidelines fell into a "grey area" (Respondent B22; HCP; Past). This is demonstrated in the quote below which refers to a discussion among the Principal Medical Officers (PMOs), where some Principal Medical Officers (PMOs) also felt the guidelines didn’t go far enough:

“some of them felt that we should be following those guideline and others felt that they were just guidelines that didn't necessarily have, weren't obligatory. And that's where they came, kind of fell into a grey area, they weren't, they were never really finalised is my understanding of it. And that's why things are different in some areas,
This perception is likely to influence the adaptation of the guidelines and service in practice. One of the contributory factors to this was suggested to be the lack of acknowledgment of screening in the HSE service plan as discussed in Chapter 7 in relation to coverage (see section 7.3.2). As discussed in Chapter 6 the guidelines were passively disseminated (see section 6.5.5), which could also have influenced this perception. Debates and discussions regarding the relative weight given to the importance of practical difficulties, clinical judgement or following the guidelines rigidly are evident in the international literature (39).

8.2.3.3 The need for the guidelines to be reviewed

One of the criticisms of the guidelines was that they were out of date; the need for a review of both the structure and content of the screening programme was expressed, alongside the need for the establishment of reviewing mechanisms and it was proposed that the guidelines needed to be reviewed in a centralised or formal process. This related to accountability and it was expressed that the programme needed to be agreed and then “tightened up” (Respondent B22;HCP;Past). Reasons provided for a national level review of the guidelines and programme are detailed in Box 15.

A requirement for cross-service protocols was also discussed. In the proposed review of the guidelines it was suggested that practice would inform policy and the need for the involvement of the views of the sHCPs and clients was stressed. However, a lack of optimism regarding a review in the context of the recession was expressed. When the guidelines were produced in 2004 the intention was for the national group to continue as a standing committee if any further issues arose (D05Min). A group led by the HPSC are in the process of developing new guidelines (D68ToR).

Box 15. Reasons provided for a national level review of the screening guidelines and programme

- changes in the structure of the health system in the interim period
- the need to examine whether screening is beneficial in the current format, including from the perspective of the asylum seekers
- the need to ensure standardised guidelines across the screening service and other services such as GPs
- the workload involved in updating guidelines locally
- the need for assurance that they are screening correctly
- the development of a more multidisciplinary service
- the need for the collection of data to learn more about health of the asylum seekers as although data collection occurred locally, it was raised that this should be “feeding into something” (Respondent B16;HCP).
8.2.3.4 Perceptions of the evidence-strength and quality and views on the evidence-source

Ambiguity surrounding the guidelines and a perception that the guidelines are not current are likely to attenuate positive perceptions of the evidence strength and quality. Furthermore, as discussed in Chapter 6 there was a perception that the guidelines remained “in limbo” (see section 6.5.5). Internationally, consequences of a lack of up-to-date guidance reported included HCPs devising their own pragmatic strategies in the follow-up after TB screening in the UK (214) and uncertainty among those implementing the screening in France (76).

Questioning of the evidence source of the intervention is also recognised as a potential influence on implementation (47). Separation between themselves as frontline sHCPs and those developing the guidelines was raised infrequently, this did not emerge as a major issue and mistrust in the guideline source was not raised, in contrast to other findings internationally looking at guidelines more broadly for GPs (566). This may be due in part to some sHCPs commencing their role after the development of the guidelines. Mixed views were expressed, as while, for example, a lack of ownership of the guidelines as they came from “other people” (Respondent B25;HCP;Past) was discussed, satisfaction with the central development and dissemination of guidelines was also cited and there were differing opinions on whether further input into the development of guidelines was desired.

Centralised and formal guidelines were requested by several of the respondents and a distinction needs to be made between centrally produced, external ideas and authoritative decision making (47), and national facilitation (432) of the implementation which respondents may be referring to. This area is an area for further investigation and clarification as in the implementation literature the situation is complex (41, 47, 432).

8.3 Inner setting: resources, capacity, infrastructure and multiple sources of guidance

8.3.1 Human resources

The reported need to have two sHCPs and the suitable professions in place in order to offer screening and vaccinations was highlighted in Chapter 7 (see section 7.3.1), including an example where a nurse was unable to offer vaccinations or take blood when the AMO was not longer in post. Nurses were reported not to be able to perform certain tasks, for example giving positive results. Staff shortages were also reported as a problem more broadly in the NIHS consultation report (542).
Human resources were reported as a barrier to Mantoux testing specifically as demonstrated in the following quote: “it is not possible to actually read the Mantoux, so that's a practical difficulty” (Respondent B19;HCP;Current). Insufficient human resources to administer and read the result of the Mantoux test after two to three days were identified as a major problem by those not implementing Mantoux testing.

This is a problem if services and sHCPs are only in place part-time and difficulties have been identified with this internationally, where clinics are only open on certain days (307). Compensatory mechanisms in response to the lack of human resources were identified, as an example was provided where a GP read the Mantoux tests in an emergency. However, it was noted that this was not ideal due to the lack of familiarity of GPs with reading Mantoux tests.

Within the other sub-groups it was raised that only doctors and not nurses could read the Mantoux tests. In the context of declining HCPs, this is an important consideration. Human resources also impacted on services which reported offering Mantoux tests routinely, as some sHCPs had encountered interruptions in the provision of the whole screening service. Nurses perform the Mantoux testing in Montreal, Canada for refugee claimants (295) and considering the reported reductions in HCPs in Ireland in Chapter 7, further training of nurses and a consideration of appropriate work allocation needs further attention. Additional training may also have been required in the case discussed above, so that a nurse could continue to offer screening in the absence of an AMO. Human resources form part of the receptive context for implementation (47).

8.3.2 Other feasibility and practical difficulties in implementing Mantoux tests and polio screening

Practical difficulties with implementing Mantoux tests in a busy clinic and the volume of work were also identified as barriers by sHCPs and HCPs not routinely implementing testing (Figure 19). It was suggested that a public health or a mobile clinic should perhaps offer the tests.

“The whole issue of Mantoux testing we did not pursue that according to the guidelines because logistically it became very, very difficult…So we kind of ignored that” (Respondent B8;HCP;Current)
The barriers were interlinked as it was noted that even if the resource difficulties were addressed clear guidance would still be required in one case. Client level barriers were also raised with regards to the need to ensure clients returned for their results.

Practical difficulties and feasibility were raised by individuals in other sub-groups (see Figure 19), even those implementing the tests routinely, but not to the same extent. An example was provided where Mantoux testing was offered routinely but feasibility issues, alongside clinical opposition, resulted in Mantoux tests only being offered to a subset of children. Feasibility issues in certain cases were addressed through coordinating with referral specialists, or waiting until they had a certain number of asylum seekers.

The lack of capacity of the follow-up services was also one of the reasons provide for why Mantoux testing was stopped. Considering the capacity of services outside the immediate context of the intervention may therefore be important to ensure effective implementation, particularly in the case of screening where appropriate follow-up is essential. Funding, resources and capacity have also been suggested as barriers to the implementation of LTBI screening in the UK (35, 214, 300) and Norway (217).

Operational difficulties were also the primary reason identified for the lack of polio screening, due to the complexity of the intervention (transporting the samples within a short space of time), coupled with the infrastructure in place (the need to transport samples to a national laboratory). These difficulties were acknowledged by the guideline development group and a number of years previously in Doyle’s audit (62). Difficulties were also reported with obtaining faecal samples for polio screening, highlighting the interacting influences of the complexity of the intervention, the inner setting and characteristics of the individuals. Although the infrastructure is likely to be situated within the inner setting this is not clear in the CFIR (47).

The practical difficulties detailed here relate to specifically implementing the screening tests. Practical difficulties encountered in relation to other aspects of service delivery which would be included within the conceptualisation of the ‘soft-periphery’, such as setting up the facilities for screening practically and arranging the transport of blood samples and asylum seekers to ongoing appointments, were deemed more general and not specific to screening and so are not discussed in further detail here.
8.3.3 Structural barriers

Contextual factors were influential, including the structure of the screening services, as at the time of the mapping report Mantoux testing was not offered in the reception centre; the transient nature of the population impeded Mantoux testing in this phase. Similar difficulties were identified in Norway (217) and in the UK Harling et al. suggested that TST could be offered in an integrated manner after asylum seekers are dispersed (19) and Breuss et al. in Switzerland suggested it could be offered by the physician who will also offer the treatment (256). Hepatitis B vaccinations were also not initiated, due to the transient nature of the reception phase.

It was noted that screening in general was easier in a more stable population. As recognised by Greenhalgh et al., it is clear that it is the interaction of the characteristics of the intervention with the context and individuals influencing implementation (41). Contextual factors are therefore clearly influential and the influence of the broader health system influences on the implementation of communicable disease programmes has previously been highlighted (458).

8.3.4 Incongruence between the guidelines and practice

Incongruence between the guidelines and the reality of screening in practice was identified as a major difficulty in the implementation of the guidelines by sHCPs. sHCPs discussed how they ended up with a kernel of things because “a lot of the protocols weren’t even practical” (Respondent B4;HCP;Past) and how it was not “black and white” (Respondent B5;HCP;Current) in practice.

“I have to admit it wasn’t that clear I would have preferred it to be clearer but practical as well. It’s not practical to Mantoux everybody so I would have preferred more guidelines on that” (Respondent B4;HCP;Past)

Contextual factors clearly influenced the practical difficulties, including accommodation and logistical limitations with regards to VZV outbreaks and the deportation of asylum seekers. Furthermore, responding to the characteristics of the individual client and the use of clinical judgement in practice were discussed (see section 8.4). From a GP perspective, it was highlighted that if the guidelines didn’t fit with their usual practice, they may be discarded, highlighting the impact of this incongruence on guideline use.

Some sHCPs perceived that the guidelines represented a “very medical disease model” (Respondent B1;HCP;Current) and noted the disparity between this and the
more holistic needs of the asylum seekers in practice. For example, it was discussed how in practice it could be hard to divorce the infectious disease screening from the broader health issues affecting asylum seekers and that infectious diseases may be linked to other complex health issues, such as rape. Possible additions to the guidelines were discussed and included syphilis, the varicella vaccine, child health and cervical checks, however, there were mixed views as to whether mental health guidelines would be useful. Mixed views were also expressed as to whether a more holistic service should be provided and whether sHCPs should be involved in this. This is discussed further in Chapter 9.

Problems therefore appear to exist with compatibility; the concordance between the meaning and the value attached to the intervention, how it aligns with the individual’s norms and values and how it fits with existing workflows (47). This forms part of the receptive context (47). The reported disparity between guidelines and practice is of concern for implementation, as clinical guidelines aim to practically assist providers (389). Compatibility difficulties were also identified by some of the GP respondents, which influenced in some cases their perceptions of the usefulness of the guidelines. Incongruence between the guidelines and practice is a much wider issue; for example, difficulties have been reported in implementing diabetes guidelines for low-income patients with a low level of education in the US (567) and difficulties can be encountered implementing guidelines for a single health condition when multimorbidity needs to be considered (568).

8.3.5 Multiple sources of guidance

A number of different sources of guidance were used by respondents (Figure 20). Other GP guidelines were discussed by some HCPs, including national ICGP guidelines and several local sets. Local policies were also referred to by respondents, for example, nurses administering but not reading Mantoux tests and accommodating those with hepatitis B in a single room. The use of the national immunisation guidelines (569) were cited by several respondents and influenced for example Mantoux testing. In some cases sHCPs were only aware of the national TB or immunisation guidelines, while others used them to cross-reference the guidelines and keep them up-to-date. New national TB guidelines for Ireland were produced in 2010 (546), replacing the previous 1996 guidelines (570), and include a section on TB screening in new entrants. Other guidelines used but mentioned infrequently by sHCPs are also included in Figure 20. Continuing with the guidance and programme already in place when they commenced the job role was reported as a major influence on the use of guidelines by sHCPs.
Advice from other HCPs was a prominent source of guidance reported by respondents and the relative influence of different HCPs appeared to differ between services. Advice from sub-national Departments of Public Health was especially discussed among respondents, although their involvement appeared to be considerably higher in some locations. Their reported role varied but included the provision of more immediate advice, in relation to positive cases or VZV outbreaks and in some locations the modification of the screening guidelines initially or in subsequent meetings. Similar advice from senior medical officers (SMOs) was also reported, for example in relation to LTBI screening. Local expert knowledge was also recognised as an influence at a sub-national level in the US alongside national guidelines (261).

The reported influence of referral consultants on the screening programme was mixed; at times their advice resulted in a deviation from the guidelines, whereas it was not followed for sickle cell or LTBI screening and was overturned in the case of hepatitis C.
A few sHCPs reported line-managers as a key influence; in one case their advice was more influential than the national TB guidelines. It is perhaps surprising that line-managers were not discussed by more sHCPs.

Other sHCPs were identified as sources of advice by respondents involved with the screening service either currently or previously; this included in the screening teams and at national meetings held by RIA, attended by the sHCPs. The meetings were reported by sHCPs to be useful for discussing issues which arose in practice and establishing a consensus, for example in relation to Mantoux testing. The meetings were discussed by several sHCPs as a way to discuss common issues and it was mentioned that it meant they all had a common goal and facilitated the sharing of practices; this appeared to occur more informally among the sHCPs. However, the view was also raised that the meetings became less useful as RIA were less able to address concerns relating to health. It is interesting that the sHCPs highlighted the RIA meetings during the interviews but not the broader local committees raised by a number of respondents in the guideline development study (see section 6.3.3).

Isolation at work was previously reported as a problem by HCPs in the reception centres (62) and access to groups for clinicians has been found to be an important mediating factor in enacting change through learning and sharing experiences (420). A network such as the Refugee Health Network of Australia could provide a forum for communication and support between sHCPs (247).

Confusion between the sources of guidance was only reported in one case in relation to conflicting advice with regards to offering children CXRs. From another perspective it was felt that they were complementary and essential for change:

“they're different things aren't they? I mean guidelines, you always need guidelines, you always need something formal that's written and I mean that's from kind of I suppose a medical legal point of view apart from anything else. I suppose the other is more kind of a peer support…but the thing is…if two aren't coming together you're not really affecting any change” (Respondent B6; HCP; Current)

Other key influences were the knowledge, experience and clinical judgement of the service providers, alongside the need to adapt to the needs of the client in practice. In the US the expertise of practitioners was recognised as an influence alongside
national guidelines at the sub-national level (290). Intersectoral policies and the NIHS were also mentioned but are not included in detail in this analysis.

The multiple sources of guidance may therefore have influenced the heterogeneity in the implementation of the screening identified in section 8.2.2., for example the national immunisation guidelines influencing Mantoux testing alongside the local guidelines identified in section 8.2.1., which did not all include the full complement of tests, such as polio.

Numerous sources of guidance in practice are important contextual influences to consider, but are not included explicitly in the CFIR; networks however are included. Certain sources of guidance provided updated recommendations, such as the national immunisation guidelines (569) or national TB guidelines (546) which could explain some of the variation. However, the new national TB guidelines were only produced at the time of the first set of interviews and are similar (546), as are the national immunisation guidelines (569) and so are unlikely to have influenced this variation. Local policies and protocols were also often supplementary. Other sources of guidance may impact upon the fidelity of the intervention, for example, if the recommendations are for screening in the wider population, rather than specifically asylum seekers and refugees.

The diversity of the sources of influences in the informal networks identified is notable, which may aid in explaining the diversity in implementation and perspectives of the sHCPs. Reports of both complementary and conflicting advice from individuals in the informal networks were discussed by sHCPs and examples provided where these sources of advice led to deviations from the guidelines. In some cases this was in response to difficulties encountered in practice, for example, through peer support at the national RIA meetings or through advice from public health. Informal networks between different HCPs to deal with the challenges of providing care to asylum seekers in direct provision were also identified by Pieper et al. in one area of Ireland (350). The networks reported in this thesis could function as a more responsive form of knowledge, where the guidelines are negotiated and adapted (47), and may require greater attention in order to understand and achieve effective implementation and the sustainability of the intervention.
8.4 Individual characteristics: experience and provider autonomy

Experience in practice was identified as a lever during the analysis and a comment was made that they were “pretty slick” (Respondent B14; HCP) at screening now, due to the length of time the service had been in place.

“we had no idea what we were heading into, and for the first few years, I mean if we had chicken pox there was absolutely consternation because we didn’t know how to deal with it. And I mean positive HIVs, all of those Hep Cs…where do we get the counselling you know? Whereas now…it just runs” (Respondent B14; HCP)

Experience was identified as a lever by a certain respondents offering Mantoux tests routinely and some respondents reported that the actual implementation of the tests was not problematic. However, technical difficulties and clinical opposition to offering Mantoux to children were still raised within the group offering Mantoux testing routinely and so it is not a simple situation. The level of knowledge of HCPs has been identified as a barrier to initial targeting (10) and follow-up (123) of screening for LTBI internationally.

In the implementation literature, the ‘skilled and enthusiastic’ use of the intervention is suggested to positively influence implementation (47). With regards to enthusiasm, an initial reluctance to offer HIV tests was mentioned in relation to the screening service and this has also been recognised as a barrier to testing in the international literature (10). From a GP perspective, a reluctance to ask a patient about their sexual orientation in relation to HIV testing was raised alongside the fact that they would not think of offering migrants an HIV test.

Provider characteristics and the autonomy and judgement of the shCPs were also influential in some cases, in line with the discussion around evidence-based medicine in Chapter 3. For example, it was described by a shCP how they would use their own discretion for whom to screen but they did request clearer guidance and were unaware of the national guidelines. This would also include the aforementioned clinical opposition to Mantoux testing of children. An example was provided where hepatitis C was screened for selectively as it was not in the guidelines, demonstrating the interaction between the clarity of the guidelines and the autonomy of the provider. The balance between the autonomy of the HCP and guidelines and evidence-informed practice is well recognised in the international literature (412). Other studies have
identified threats to clinical autonomy as a barrier to implementation (560) at the level of the individual, but this did not arise as a major issue in this study.

Other aspects relating to individual characteristics are discussed in other sections and so are not examined here, including the views of HCPs on the usefulness of the guidelines for screening (see section 8.7.1).

8.5 Process of knowledge-to-action: contact with those developing the guidelines and adaptation of the intervention

Adaptation of the guidelines and programme in practice is a reflection on the process of implementation, alongside the characteristics of the intervention and the contextual influences. Adaptation was discussed in section 8.2.1 and responses to implementation in practice are discussed in section 8.7.2. Due to the time period between the development of the guidelines and this study, the process of continued implementation and adaptation was examined in greater detail than the initial adoption of the guidelines in this study. A deficiency in the implementation process is evident as there was a lack of awareness of the guidelines among GPs and certain sHCPs. This suggests a lack of engagement of frontline HCPs in some cases and is discussed further in sections 8.7.1. Certain elements of the process in the CFIR were not identified in the study, such as a facilitator or audit or feedback on the intervention, which are suggested to positively influence implementation. Contact with those developing the guidelines is also part of the process and was discussed in section 8.2.3.5.

8.6 Outer setting: migration trends and movements, resource and financial constraints and broader policies

Influences within the outer setting are discussed through their interactions with other factors in the other sections of this chapter, including: the transient nature of some of the migrant population (see section 8.3.3), declining asylum seeker numbers as a lever for implementation (see section 8.2.2), competing demands on asylum seekers, resource and financial constraints (see section 8.3) and the suggested need for screening services to be included in the health service plan (see section 8.2.3 and section 7.3.2). Regional similarities were noted between certain sets of local guidelines and therefore the influence of the decentralised structure of the screening services and health services at the time of the guideline development (see Chapter 6) needs to be considered as an influence on this adaptation; this again demonstrates the interaction between the characteristics of the intervention and the broader context.
External policies and incentives can potentially contribute to implementation success (47). The NIHS (60) is a major policy in this field but was only discussed briefly by a couple of respondents and so was not identified as a major influence during the interviews. Patient needs are also included in the outer setting and the broader health needs of the asylum seekers were raised as an important consideration. This is discussed further in Chapter 9 alongside the suitability of positioning this within the outer setting.

8.7 Understanding the underpinning social and work processes

In order to limit duplication only the major findings where the use of the NPT in the conceptual framework adds to the above analysis using the adapted CFIR are highlighted below. As illustrated in Figure 21 the findings indicate barriers to normalisation relating to coherence, cognitive participation, collective action and reflexive monitoring. Of these, barriers relating to understanding and valuing the guidelines and screening and reflecting on practice and dynamic adaptation particularly offer new insights and are discussed in detail below.

Relational integration, a sub-component of collective action is also particularly useful for examining trust between HCPs and clients. This was discussed in this chapter in relation to the lack of trust in the responses of individuals to the TB screening questionnaire in some cases, which would hinder effective implementation and the normalisation of the intervention. Trust is focused on in detail in Chapter 9 (see section 9.6.2).

8.7.1 Understanding and valuing the screening and guidelines (Coherence)

Barriers to implementation were identified both in relation to the understanding of the intervention and the perceptions of the value of the intervention. The multifaceted nature of coherence is clear from the findings, as there was a need for individual and collective coherence across multiple stakeholders, including line-managers, frontline HCPs and clients. Examining coherence enhances the analysis as it incorporates the social aspect of implementation and the need to consider multiple stakeholders and networks. It also brings together a number of different findings and assists in understanding how and why they may influence implementation. Coherence has been identified as key for understanding the extent of implementation of guidelines in other contexts (463).
Figure 21. The major findings relating to the implementation of the tests and guidelines mapped to the constructs and sub-components of collective action in the NPT component of the conceptual framework

8.7.1.1 Awareness and understanding of the guidelines

Although versions of the national guidelines were produced for both sHCPs and GPs, a clear divide was found in the awareness of the guidelines between the two groups. While the majority of the sHCPs and the line-managers interviewed mentioned the national guidelines either spontaneously or were aware of the guidelines when prompted, a major finding was the lack of awareness of the guidelines among the GPs.

Only one GP in the sample was aware of the guidelines, although another GP referenced a form for screening. Some GPs noted that guidelines may be in existence but the comment was made that “it’s not in the forefront of my mind and I don’t know if it’s in the forefront of too many GP’s minds” (Respondent C19;GP;Large). Although a GP was aware of a TB screening questionnaire they reported not using it and commented briefly that they didn’t know the evidence behind it. Another GP reported that they had developed a more standardised set of questions, including asking about the location of family members for example, they acknowledged that other GPs may not routinely ask about mental health issues:
"you could skim you could just... take a brief medical surgery history and not get into the psychosocial stuff of it all" (Respondent C03;GP)

This was in relation to broader GP consultations, rather than screening. It was raised by a GP that they could offer screening if they were given the guidance however, there were clearly mixed views on this. The provision of screening services and detection of health issues through a dedicated specialist service or mainstream GP service provision are compared in Chapter 10. As sHCPs were more aware of the guidelines than the GPs, a comparison of the networks for the dissemination of the guidelines may merit further examination.

The lack of awareness of the guidelines by the majority of the GPs interviewed and some of the sHCPs is a clear barrier to their understanding of the intervention (47). This suggests that passive dissemination of the guidelines was insufficient to ensure universal knowledge or use of the guidelines, which remain the main national document detailing the screening. Although only a small number of GPs were in the sample (see section 5.3), follow-up interviews also confirmed this finding and it had previously been suggested by sHCPs. It can therefore not be assumed that the production of guidelines will result in GPs offering screening routinely.

This has a broader relevance as a lack of awareness among HCPs of the guidelines has been suggested as a problem for follow-up of Mantoux tests in Norway for asylum seekers (217) and has been identified as a barrier in the guideline implementation literature more broadly (571). A lack of awareness among frontline providers of policies in other areas has also been identified in Ireland (572).

Coherence also requires an understanding of the scope of the intervention. Certain respondents’ perceptions of the guidelines as flexible, a draft or ambiguous and the requests for clarity and further guidance may blur the boundaries, although other respondents felt the guidelines were clear for communicable disease screening (see section 8.2.3.1). Even though some individuals felt they were clear about the guidelines, variation was still identified in practice, demonstrating the need to consider the other constructs of the NPT for normalisation. The adaptation of the guidelines in practice (see section 8.2.1) may also influence the coherence of the intervention; for example, the use of a more holistic screening sheet may blur the boundaries. Although sHCPs may be clear about the remit of the screening programme, in practice some
sHCPs reported difficulties in focusing solely on communicable disease screening. This is discussed further in Chapter 9.

Multiple sources of guidance within the inner setting were identified and discussed in section 8.3.5. This emphasises the importance of considering the collective and social nature of the use of knowledge in action. The multiple sources of guidance impacted both positively and negatively on respondents’ coherence; although in one case the numerous sources of guidance created confusion, from another perspective it was reported that the more informal sources of guidance, such as the RIA meetings, enhanced the sense of value of the guideline and screening programme.

8.7.1.2 Understanding around the programme and tests

Barriers to the implementation of the actual tests were also identified with difficulties identified with the individual and collective ‘sense making’ (442) around the intervention. For example, confusion was expressed by some of the respondents regarding the interpretation of the Mantoux test results and decisions about the next step and clearer guidance was requested in certain cases. In one case where confusion was present, the support of local professional stakeholders appeared to be influential in increasing the perceived value and therefore coherence of the intervention. Confusion and variation has also been identified in the UK for LTBI testing where guidelines are in place (35).

8.7.1.3 Views on the value of the guidelines

A number of respondents working either previously or currently on the screening service perceived guidelines in general as useful: GPs reported more mixed opinions. Reasons provided by sHCPs for the usefulness of guidelines for the screening service included the need for a baseline, so that sHCPs were aspiring to the same service, to ensure clients received the same information and because “it gets you up to speed quickly” (Respondent B13;HCP;Past). A number of the sHCPs requested further guidance, although this was not universal as from another perspective it was viewed that screening was relatively simple, even though they did not have the national screening guidelines.

GPs reported mixed views as to whether further guidance would be advantageous, with their views existing along a spectrum. At one end, the view was expressed that guidelines would be useful, with one even stating they would be able to offer the screening “provided we were given the guidance” (Respondent C19;GP;Large). In the middle of the spectrum, it was discussed how guidelines would be useful, but with
caveats, as GPs were “getting inundated with paperwork” (Respondent B12;GP) and so if GPs were not directly involved in the work, guidelines may be discarded.

“we’re getting these for all sorts of situations all of the time and it is, so it would be one of many” (Respondent B7;GP;Small)

At the other end of the spectrum was the view that “there’s an awful lot of people writing an awful lot of rubbish” (Respondent B28;GP;Small); they were neither enthusiastic about paper or electronic guidelines. This suggests differing perceptions of the usefulness of the guidelines could assist in explaining the divergence in awareness of the guidelines between GPs and sHCPs. Clinicians feeling ‘inundated’ (573) or ‘bombarded’ by recommendations, guidelines and other sources of evidence has been identified internationally (46) and in Ireland (573). Negative attitudes towards the numerous sets of guidelines were also identified by GPs in relation to refugee IHAs in Australia (249). Cabana et al. distinguished between the influence on implementation of the views of HCPs on guidelines per se and the specific guidelines of interest (571). This is highly relevant to this example where a GP directed their initial objections to guidelines towards paper forms, but later expressed resistance to electronic copies, indicating a possible more fundamental resistance to guidelines.

Guidelines could therefore potentially be a lever to implementation but this may only work for some GPs. Additional or alternative methods were suggested for disseminating information to GPs, including training practice meetings for Continuing Medical Education (CME) points and the findings lend support for an identification of the optimal methods to ensure coherence among GPs. A need for alternative strategies to target different professions was also identified by Damschroder et al. (47).

8.7.1.4 Perceptions of the value of the tests, programme and screening

Support for communicable diseases screening in general was evident among most of the sHCPs who discussed it and a GP respondent particularly for TB, HIV, hepatitis B and C screening, as demonstrated by the following quote: “all those tests, they need to be done, they are very, very important” (Respondent B19;HCP;Current). Reasons cited, by GPs and sHCPs, included the protection of the health of the asylum seeker and the host population, prevention of transmission in a hostel situation, to integrate asylum seekers into the health system, meet their broader health needs and to map “what infections are being brought in” (Respondent B3;GP;Large).
“It’s important both for Ireland and the Irish indigenous population and maintaining good public health standards and…… good health of the population as a whole. As well as meeting the needs of people, certainly from a health rights perspective……So I think we have an ethical responsibly, as well as a political and social responsibility to provide health screening to asylum seekers” (Respondent B1;HCP;Current)

Individual’s knowledge, beliefs and attitudes about the intervention can be a positive influence on implementation (47). However, some sHCPs were uncertain of the value of screening and the need for an audit and review was raised to determine what diseases were picked up and at what cost. It was also commented that they did not detect large numbers of positive results for the screening tests more broadly; this also relates to reflexive monitoring (see section 8.7.2).

The tests in the guidelines were perceived as important by those who discussed this, with the exception of Mantoux testing and polio screening. Perceptions of the value of the intervention may have impacted on the normalisation of Mantoux and polio screening. Mantoux testing and polio screening were the major tests which were not implemented routinely by respondents and were also the tests where the importance of screening was questioned most or clarification was requested (internalisation). It was questioned whether LTBI screening should be performed more actively and clarification was requested. Different schools of thought were pointed out and not all respondents were clear on their views as it was discussed how Mantoux tests would be useful but that there were resource and practical problems. Polio screening was also questioned by several sHCPs due to a perception that it was universally eradicated, an academic exercise, not relevant to the asylum seekers and its value was questioned in comparison to other screening tests.

It was difficult to identify clear patterns at the individual or collective level, as this was hampered by the heterogeneity in Mantoux testing and the relative absence of polio screening nationally. The value of Mantoux tests is also debated internationally (136, 574) and the perception that LTBI screening may be of little benefit and take resources from other services is proposed as one of the reasons for variation in LTBI screening in the UK (35); this may therefore merit further exploration. Coherence may therefore vary for different elements within the screening programme, which may in part assist in explaining the variation in their implementation.
Detecting broader health issues and facilitating the integration of asylum seekers into the health system were viewed by some shCPs as a major contribution to the importance of the service. Integrated service provision was also discussed positively by one of the GPs. However, a line-manager questioned the merits of a holistic health assessment due to the fact that they perceived asylum seekers as young and healthy; the healthiness of asylum seekers was discussed by other shCPs. Respondents’ views on the importance and detection of the broader health needs offer insights into the alignment of the purpose of screening with their views (see section 8.3.4) (this is discussed further in Chapter 9). Respondents’ views on the importance of screening in the dispersal areas were reported in section 7.2.3.

Relative priorities and financing also appeared to influence the views of at least some of the respondents, who discussed how screening resources could be reallocated; from a GP perspective this could be to chronic care plans and from a line-manager perspective to other services for asylum seekers. Another line-manager included in this study however strongly advocated for additional service provision. The influence of the perceptions of managers of the importance of the service on service coverage and relative priorities was discussed in Chapter 7 (see section 7.4.1). Coherence is highly relevant to the implementation of screening through the GPs and this is discussed further in Chapter 10 (see section 10.3.1).

8.7.2 Reflecting on practice and dynamic responses (reflexive monitoring)

Both informal and formal aspects of reflexive monitoring were relevant to the findings. The response of the shCPs to the client in practice was notable as an influence in shCPs accounts and was discussed explicitly by a shCP. Considering reflexive monitoring added to the analysis as it assisted in capturing the dynamic nature of the adaptation of the guidelines and programme and the influence of the responses of the HCPs to implementation in practice.

8.7.2.1 Informal reflexive monitoring

Reflexive monitoring was apparent at the individual level as reflections on the number of infections detected and the broader health needs of asylum seekers were discussed by respondents. For example, it was commented on that a steady but not large number of HIV cases were detected and it was mentioned that an increase in LTBI would be evident at this stage and respondents reported that cases of polio were not detected. These reflections are likely to impact on the perception of value of the intervention. Reflections by respondents on the importance of dispersal screening
based on the numbers of asylum seekers screened in the reception phase would be another aspect of informal monitoring as discussed in section 7.6.2.

Reflexive monitoring can also assist in understanding the adaptation. For example, professional stakeholders’ reflections on the identification of a large number of hepatitis C cases led to an increase in hepatitis C screening in response. An informal positive feedback loop was also identified where the initial reluctance of a sHCP to offer HIV tests was abated after the positive response from asylum seekers to the screening offer. This relates to clinical autonomy and responding to the individual client, which was discussed more generally by a couple of sHCPs. Furthermore, an example was provided where the implementation of the tetanus vaccine was amended due to the severe reactions among some clients.

The sub-group of sHCPs who had previously offered Mantoux screening routinely, but stopped or amended their approach was particularly insightful and demonstrated the influence of sHCP responses to implementation in practice. The ceasing of the offer of the test was due to the high number of positive reactions and concerns were raised about the capacity of the referral services. Some sHCPs stopped offering Mantoux tests due to the severe reactions of asylum seekers to the tests, including blistering and ulcers.

“I stopped doing the Mantoux testing, people were coming in holding their arm and saying what was I after doing to them?...So I stopped doing Mantoux in conscience I couldn’t do it” (Respondent B25;HCP;Past)

As discussed in section 8.3.5. it was noted that this was raised at the RIA meetings where sHCPs could come to a consensus and so the more informal sources of guidance may have compensated for the deficiencies in the formal sources. The guideline development group were aware of the difficulties with the Mantoux test reactions and were looking into it, although a resolution to the situation was not identified from the document review (D04Min, D05Min).

8.7.2.2 More formal reflexive monitoring

The need for more formal reflexive monitoring in the form of a review of the guidelines and programme was highlighted by a number of sHCPs as mentioned in section 8.2.3.3. The need for this to be at a centralised, higher level was raised by some sHCPs. The need for a review appeared to be linked to the perceptions of the value of
the service by certain respondents. More formal systematisation and communal appraisal therefore appears to be required.

There appeared to be a lack of ongoing feedback mechanisms at a national level or national measurable or relevant objectives for the screening programme and services, which are suggested to be a positive influence on effective implementation (47). There may be a number of barriers to this as a comment was made that they didn’t know what they were counting. It was reported in the guideline development interviews (see Chapter 6) that in certain areas implementation was monitored and numbers produced, but this appeared to be a more decentralised approach. This is relevant to other screening programmes in Europe as the screening units in one study by Coker et al. did not all audit the outcomes of screening against local policies (33). Other authors have emphasised the need for regular reviews, re-evaluations and updates of screening programmes (204, 279).

8.8 Discussion and conclusions

Although extensive variation and implementation difficulties were previously identified in the migrant health screening and IHA field (14, 34, 35, 200, 214, 308), there was relatively little research examining the barriers and levers to implementation from the perspectives of HCPs. Previous studies have described the structure, process and outcome of a number of screening units in Europe but the authors recognised that these units may be examples of ‘good’ practice which could be used to inform other services (33). A significant amount of the information in the previous literature was from the discussion section of articles or from research where an examination of implementation was not the primary objective. Much of what was covered on these issues in the literature could be used to form propositions to explore in future studies rather than empirical research evidence. The findings from this thesis add to the previous literature by providing empirical findings on the national screening programme and the context, including a more detailed conceptual and theoretical understanding.

Where screening services are in place the screening tests offered were found therefore to vary slightly by service. Incomplete coverage of the offer of screening tests and variation in who were offered the tests was previously identified in one area in Ireland (62) and these findings highlight variation at a national level. Multiple implementation barriers were identified, particularly for Mantoux and polio screening. This finding is consistent with other authors reporting variation in who was offered LTBI screening in the UK (35) and Australia (200). Implementation of only certain parts
of guidelines is also not uncommon. In an outpatients clinic in Australia for refugees even within one set of screening guidelines compliance was found to be higher for certain infections, as the recommendations need to be adapted to the population being screened (106). Previous studies have also highlighted that different barriers may be applicable to different recommendations in one set of guidelines (575). Barriers to LTBI screening were highlighted in this study and have previously been identified at the patient, provider and institutional levels internationally (10, 123).

Fragmented service coverage was one aspect of the variation (see Chapter 7), raising concerns over access to Mantoux tests and the follow-up after screening, for example for hepatitis B vaccinations which are not offered in the reception phase (62). Therefore, in areas where screening services are absent, other models of service provision may be required to ensure equitable access to screening and sufficient follow-up. Concerns have been raised over interruptions in the continuity of care between specialist and mainstream services for migrants (262) in that there may be duplication (30) or migrants may fall through the gaps (261). Difficulties specifically with ensuring follow-up in primary care after hepatitis B screening have been identified elsewhere (109) and these gaps are concerning as there can be a large burden of hepatitis B within the migrant population (111, 159).

The fact that GPs may not be screening routinely for the communicable diseases included in the screening guidelines is a concern. Difficulties for GPs in offering screening to migrants has been identified internationally (249, 259); this is discussed further in Chapter 10. Mantoux tests could be offered by referral services if adults have a negative CXR and no BCG scar, as in the guidelines, but there may be barriers to offering a service for all asylum seekers through referral services, for example due to capacity limitations. The key new findings in this chapter are highlighted below:

- **Guidelines are not a panacea**

Previous authors attributed variation in screening and IHAs at least in part to the lack of consensus guidelines (31). However, the study findings demonstrate that guidelines should not be perceived as a panacea for implementation difficulties. Even where national guidelines exist, in practice they may not reach all of those intended, may be adapted and negotiated to varying extents and may not be sufficient for addressing the complexity in practice. The need for multiple strategies has been identified in relation to IHAs for refugees in Australia (30).
The need to consider multiple influences, including the context

The findings clearly provide evidence to support the need to consider the ‘multiple challenges operating at different levels of the health system’ (40) for effective implementation. Multiple factors were identified across the domains of the adapted CFIR and in line with previous reviews of the implementation literature, barriers were identified at the level of the individual and context, including the organisation (39, 45) and system (38, 41, 45, 424). The dynamic interplay between the factors was clear. Multiple contextual factors were particularly evident in influencing implementation, as previously identified with other complex communicable disease control programmes (560) and in the broader evidence and guideline implementation literature (43, 427).

Increased reporting of contextual barriers (45) has been promoted in the international literature and they have been highlighted in this chapter. A receptive context has been suggested to be a key influence in other contexts for communicable disease screening programmes (560). A greater emphasis on the context would be supported from these findings, although the more traditional characteristics of the intervention and the characteristics of the individuals should not be neglected.

Adaptation in practice

A major finding was the adaptation of the guidelines in practice and these findings support the idea of a re-evaluating the conceptualisation of guidelines, where they are not perceived as ‘literal objects’ but interpreted and adapted in practice (39). Furthermore, the non-linear process of implementation is evident and the fact that normalisation is not a permanent state, for example, in relation to Mantoux testing. Therefore, adopting a perspective from the policy implementation and organisational and knowledge to action literatures, where there is a perception of continued adaptation of the guidelines, may be more useful in understanding the implementation than the perspective from implementation science of a top-down implementation gap.

Other authors have suggested that guideline development and implementation may need to consider the adaptation of the intervention more thoroughly (39). Some indication of the extent to which frontline sHCPs can adapt the guidelines was included in a couple of places in the national screening guidelines, for example, with the recommendation not to initiate a Mantoux test if it cannot be read in the timeframe but this may need to be given greater consideration.
The findings therefore highlight practical barriers to implementation in Ireland which, if the screening strategy is evidence-informed, need to be addressed to ensure sustained and equitable coverage for asylum seekers if the service is to continue.
Chapter 9: Adaptable elements of the intervention: holistic service provision in practice

9.1 Introduction

One of the major criticisms of the national guidelines was the incongruence between the biomedical screening model in the guidelines and the reality of screening in practice, as detailed in Chapter 8. This chapter focuses on the provision of more holistic health care in practice, which is conceptualised as one of the aspects of the ‘soft-periphery’ and enables an analysis of the adaptation of the intervention.

The chapter addresses the following aims:

Thesis aim 2: To examine the extent to which the guidelines and screening tests and services are implemented or enacted and modified in practice.

Thesis aim 3: To explore the influences on the implementation or enactment of the guidelines and screening tests and services in practice.

More holistic service provision in some cases emerged as an issue during the implementation interviews and was examined further in the integration interviews; findings from the two studies are discussed together below. See Appendices IV, VIII IX and X for a full description of data sources and themes explored in each results chapter.

This chapter primarily focuses on the screening services and Chapter 10 addresses the detection of broader health needs through the GPs. The aspects of more holistic service provision identified are reported first, followed by an examination of the influences on this service provision in practice. The analysis in this chapter furthers our understanding of the enacting of the screening service in practice with a particular focus on the adaptation of the intervention.

9.2 Intervention characteristics: aspects of the broader health service provision, outreach and adapted guidelines

9.2.1 The ‘soft-periphery’ of the adapted intervention: the aspects of the broader health service provision in practice

The national screening guidelines focused on communicable diseases, yet a number of sHCPs reported dealing with the broader health needs of the asylum seekers.
Additional roles undertaken by the sHCPs and HCPs in the centres were identified in four main areas (see the dark green boxes in Figure 22). It was also raised in the guideline development interviews that sHCPs dealt with a broader range of health issues in practice, supporting this finding. A previous audit (62) noted that the majority of the sHCPs included stated that they provided a more holistic service, but due to the focus on communicable diseases in the audit, this was not elaborated on.

9.2.1.1 Detecting and dealing with broader health needs and facilitating integration into the health system

Detection of the broader health needs and use of adapted guidelines

In some cases the more holistic focus taken by sHCPs or HCPs in the centres was intentional and proactive. Adaptations of the guidelines into operationalised forms, often with additional questions, were identified in Chapter 8. A high proportion of the screening questionnaires in the document review included a broader medical history, with questions including whether the client are with their family unit or around depression (D44Form, D45Form, D46Form, D47Form, D48Form, D50Form, D51Form). Some screening questionnaires were more comprehensive than others (D44Form to D51Form, D54Con to D55Con).
Earlier regional guidelines stated that additional screening may be required (D32Reg, D33Reg, D34Reg), for example for STDs (D32Reg, D33Reg, D34Reg). The cover letters attached to the guidelines also need to be taken into consideration as from the document review instructions were given that other investigations may be necessary dependent on clinical or public health grounds (D07Let, D08Let). This was also stated by Mr Martin, the Minister for Health and Children at the time, in written answers in Dail Eireann in 2004 (D22Wa) (547).

If more holistic questions are being posed it is logical that the broader health needs of the asylum seekers will be detected. As the following quote demonstrates, it was reported that a broader picture of the health of the asylum seeker could be built up through the questionnaire and how a more holistic health interview facilitated the building of a rapport, which could lead to more honest responses from the asylum seeker:

“that can help with maybe developing a rapport with the people if you take a more general interest in how they are rather than to just home in immediately on something…they come in the door, right sit down do you know what TB is? Because that suggests immediately that I'm suspecting that… you are bringing you know. So I think that hopefully we get maybe a more honest response and other things that might come up that might warrant attention as well” (Respondent B6;HCP;Current)

The idea that the more holistic questions assist with the screening interview and therefore adaptation of the guidelines and service benefiting the ‘hard-core' of the intervention would be interesting to examine further. Although the more holistic questionnaires are a feature of the ‘soft-periphery' of the adapted intervention, they can also influence the more holistic service provision, in relation to the embedding and normalisation of the intervention. For example, if a new sHCP starts working for the service and uses the adapted form, which is already in place, this is likely to influence their provision of a more holistic service.

Dealing with the broader health needs of the asylum seekers was also reported by sHCPs in a more reactive manner, where “other things have crept in” (Respondent
For example, it was discussed how additional screening was offered on the basis of clinical symptoms and need and that asylum seekers are not a homogenous population.

The diversity of roles enacted by respondents in the centres is noteworthy, including dealing with drug addictions, diet and nutrition and social and family problems, alongside screening for malaria, helminth infections, sickle cell and thalassemia. These roles were mentioned infrequently, whereas STDs and mental health problems were particularly discussed by respondents. STD screening was the main area where respondents reported initiating additional screening tests and referrals and several respondents reported detecting high yields, for example for syphilis. However, several sHCPs discussed how syphilis screening would be or had been stopped, as syphilis was not included in the national guidelines.

Detection of mental health problems and facilitating onward access

Dealing with the mental health needs of the asylum seekers and the complexity of these needs were highlighted by several sHCPs and it was suggested that this should be paid greater attention. The detection of mental health problems and facilitation of onward referrals was particularly raised by respondents and it was noted that asylum seekers may not disclose this information to their GP. Mental health problems only emerging as an aside during the consultation was perceived as a gap between the guidelines and practice. Detection of mental health issues could also come through the route of the reception staff in the centre alerting the HCPs.

HCPs in the centres facilitating onward referrals for psychology, psychiatry, counselling or alternative therapies for problems such as anxiety, post-traumatic stress disorder (PTSD) and psychosis was cited by a number of the sHCPs, either directly to mental health services or through the GPs; this was also identified in the document review (D49Form, D58Form). A high volume of mental health referrals in comparison to infectious diseases was cited and it was discussed how the sHCP role in certain cases now involved dealing with a lot of mental health issues, including individuals who had suffered trauma.

“it's mostly psychological problems is what we deal with an awful lot now……we would have a lot of psychiatric referrals and people who basically just need sometimes just even a listening ear“ (Respondent B23;HCP;Current)
Levers and barriers to the detection and referral of mental health problems were raised by respondents and barriers included human resource shortages in the psychology services, prohibiting the referral of all but the most severe cases. The importance of being able to refer to psychiatry from the screening services was emphasised, but the lack of a formal structure for psychiatric referrals was raised as a negative point. In contrast the importance of informal contacts for fast-tracking appointments was highlighted and other respondents also discussed the contact between HCPs in this situation. Other proposed levers for mental health referrals included having multiple professional disciplines in a centre and adopting a more holistic approach.

This type of service provision through the screening services may be important as recent Canadian guidelines discuss how asking for details of traumatic events routinely can be harmful (10). Therefore this kind of more informal support may be more beneficial than investigating details in a more routine manner. A set of refugee health assessments in the US also included the detection of mental health problems as it was perceived as a suitable setting to facilitate onward care (261).

Asylum seekers may disclose experiences of trauma to HCPs in the centres and it was raised that this could be a source of stress for the HCP as it was necessary to wait until the client was ready to provide their permission for an onward referral. A comment was made that a respondent would not necessarily encourage the asylum seekers to talk too much, due to their lack of training. A lack of support for HCPs in the centres in dealing with these issues was raised during the interviews and a lack of adequate training for sHCPs around counselling and mental health issues was previously reported in the reception centres in Ireland (62). In addition to the stress this may cause the HCPS this also raised questions over the quality of care provided.

Broader health needs

A wide range of broader health needs were raised by some HCPs, even if they did not deal with them, including intestinal parasites, malaria, sickle cell and cervical screening.

“screening constitutes a very small amount of the health needs of asylum seekers, a minute amount” (Respondent B21;HCP;Current)
The value of screening for malaria or intestinal parasites was debated during the interviews and logistical difficulties and the lack of resources to implement additional tests were raised by respondents. As discussed in Chapter 8, respondents held differing views on the value of more holistic service provision and whether it should be offered through the screening service. It was discussed that there was a limit to what the screening programme could offer and that they would not have the knowledge to screen for everything.

“other things have crept in around it... but I think in terms of screening, I mean really our core business is to screen for the infectious diseases” (Respondent B21;HCP;Current)

“I think that we should continue to screen asylum seekers and that in the process of that you come across lots of other stuff that you can make an impact, although I think also it depends on the people doing it” (Respondent B8;HCP;Current)

Whether respondents raised the broader health needs during the interview may also be a reflection on the extent to which they followed the main structure of the topic-guide on communicable diseases.

Assisting with access and integration into the broader health system

Assisting with the initial integration of asylum seekers into the health system was one of the functions discussed by sHCPs, primarily in relation to facilitating access to a GP. This has been advocated for internationally as part of a re-evaluation of the conceptualisation of migrant screening (362). Certain GPs and sHCPs reported a delay in asylum seekers obtaining a medical card after dispersal. Discretion was afforded to individual screening services in practice and therefore while asylum seekers may attend screening services before a GP with the sHCP highlighting information to the GP, another sHCP reported waiting to offer screening until they were settled.

sHCPs facilitated access to GPs in a number of ways, including assisting with the initial medical card applications and following them up, making temporary arrangements for access to a GP, linking both asylum seekers and programme refugees in with GPs and organising interpreters to attend the GP with the asylum seeker.
“the role I found that was probably of the most benefit was to see them as soon as they came in, just tell them who we are, to tell them about the screening but also to get them into the medical system, to get their details and to get them to apply for a medical card…once they’re registered with a GP they have access to 24 hour medical care…and I thought that was probably the most important thing I can do for them you know rather than the screening as such” (Respondent B22; HCP; Past)

Where GPs were not in place, taking asylum seekers to accident and emergency was reported by one sHCP. sHCPs and HCPs in the centres also reported linking asylum seekers in with maternity services and with GPs or clinics for vaccinations. However, an example was given where due to staffing restrictions for the screening they no longer reported other complaints and advised asylum seekers to contact their GP.

HCPs also reported dealing with medical emergencies, due to the nature of the outreach service on site. As a consequence of medical card delays, which were reportedly due to the centralisation of the Primary Care Reimbursement Service (PCRS), respondents stated that there was a need to refer asylum seekers to A&E inappropriately. However, asylum seekers may be referred back to their (non-existent) GP which left the HCPs in the centre to deal with the medical issue. It was reported in one case this was taking up more of their time than providing the screening. The medical card delays were also reported to impact upon the work of related HCPs, primarily PHNs. The major medical card delays were only discussed by a small sample of the sHCPs in the follow-up and integration interviews as the initial interviews were conducted before this occurred.

Dealing with some primary care needs was also discussed, where the provision of some GP work might be necessary, or the provision of condoms or basic medicines such as Calpol.

“you do a lot of GP work here too in the actual screening process” (Respondent B18; HCP; Current)

The role of the sHCPs and HCPs in the centre in facilitating the integration of asylum seekers into the health system is an interesting finding in relation to the historical context, as it was discussed how when the screening services were established
getting asylum seekers linked in with a medical card and a dedicated doctor was the most important thing. Furthermore, it was also raised in the guideline development interviews that the screening was a way to connect asylum seekers with the health services and for them to get to know the HCPs. The findings are supported by a previous audit in the eastern region (62) where the screening services were reported to provide a positive introduction to the health system.

A need for this type of role has been identified in Australia, as difficulties have been raised by GPs in dealing with this, due to the time constraints (249, 260), including the time needed to explain the health system (31, 201, 249) and work burden outside the consultation (249) (see Chapter 10). Also in Denmark the lack of an introduction to the health system for programme refugees and family-reunited immigrants has been criticised (7). Previously the presence of an asylum seeker support nurse was identified as a facilitator to GP registration in Scotland (338) and the outreach screening services could be fulfilling a similar role in some cases.

However, although the sHCPs and other HCPs in the centres may be playing an important role in facilitating access and integration into the system, the role could be fulfilled through other models of service provision, for example: collaborations with community organisations (349), NGOs or nurses rather than doctors (249, 352), working with recent migrant volunteers (325), link workers (576) or peer-led approaches as recommended in the NIHS (60) and suggested by asylum seekers in the NIHS consultation report (542). In the UK, initiatives are in place in some locations where specialist clinics, volunteers or outreach nurses facilitate access into the health system (349) and dedicated primary care services have taken on this role in certain locations (1). In Australia it has also been suggested that NGOs could fulfil this role instead of GPs (249). Nurses are also used as gatekeepers to primary care in place of physicians in Switzerland for asylum seekers (352) and perform more holistic IHAs (305).

Although alternative strategies may need to be considered, it is imperative that high quality and equitable care is provided for migrants and that if additional, specialist services are employed they increase access and equity of care for asylum seekers and refugees rather than provide a sub-optimal service in comparison to the rest of the population. Specific strategies such as peer support also need to be considered carefully and aspects such as confidentiality considered. Decisions regarding alternative strategies require input from the migrant population themselves.
Links with NGOs were mentioned infrequently, but appeared to be highly valued by respondents when discussed. Liaising with NGOs and organisations such as rape crisis was discussed and examples of the sHCPs and HCPs in the centres connecting asylum seekers to NGOs were provided, including HCPs driving asylum seekers to appointments in a couple of cases. However, it was raised that these links could be more seamless:

“it's very disjointed where it would be nice if it was more involvement that everyone could come together and work together as a group rather than the client dealing directly with rape crisis and then we dealing separately” (Respondent B10;HCP;Current)

9.2.1.2 The provision of some follow-up care after the initial encounter

Some follow-up work was discussed by certain sHCPs. An example was provided where they might receive the referral letters, rather than the GP, as asylum seekers may not have a GP at the time of the referral. Linking in with GPs and hospitals for follow-up was also reported as it was reported that a GP would not have the time. Furthermore, it was discussed how the asylum seeker may continue to follow-up with them as they have been identified as the first point of contact, even though after the referral it would have gone from the work base of the sHCP. A role in coordinating the different providers of psychological and psychiatric care, alongside voluntary groups was also discussed.

A need for greater social support for asylum seekers was discussed. In some cases this was a role the sHCPs or HCPs in the centres were fulfilling; for example, the provision of a "listening ear" (Respondent B23;HCP;Current) even though they reported they felt they were not meant to. The support included offering reassurance before asylum seekers were moved between centres, counselling, social support when in isolation, assisting with their understanding of the medication and advice on daily living, diet and nutrition, finance or transport issues or if asylum seekers were unsure about information received from the hospital.

“there's a lot of counselling we'll say like, and like we kind of run an open clinic that if like if we screen you and if you have any questions at any time you can always come back to us” (Respondent B10;HCP;Current)
NGO involvement in providing these more social aspects of support was mentioned infrequently, but again appeared to be highly valued when discussed. Value was also placed on other services in the centres where available such as a community welfare officer (CWO), family support workers, HIV related NGOs and voluntary organisations which can provide information on screening and accessing GPs.

9.2.1.3 Service provision roles associated with working with asylum seekers and the screening service

Health promotion and preventative advice is aligned with the screening for some conditions such as HIV or hepatitis B and therefore it is perhaps not surprising that the provision of family planning advice was reported by sHCPs. As noted above this may be more long-term advice as it appeared that in some cases due to the client-HCP relationship established, clients might return to ask advice in this area. It was highlighted that dealing with the broader social issues, relating to the transmission of conditions, required greater attention:

“there’s no problem with the screening but with, social behaviour of those people can be a huge problem, in counselling them and making sure they use the condoms or that they follow the infection control guidelines” (Respondent B14;HCP)

Writing legal letters for asylum seekers was mentioned as a role by several of the respondents, both by GPs and sHCPs.

9.2.1.4 An advocacy role and dealing with interagency interactions

A role in dealing with intersectoral interactions was discussed, for example linking in with RIA for parenting advice. In some cases this involved an advocacy role and primarily appeared to centre around accommodation. sHCPs having an advocacy role was discussed in the interviews and was mentioned in an information leaflet for one of the centres:

“I think our role would be important there as well...it's not all down to how many diseases you pick up and whether you are cost effective or not, I think you can have a, just a general I suppose advocacy role as well for them” (Respondent B22;HCP;Past)

An advocacy role was also evident at the end of the interviews as respondents frequently advocated for asylum seekers with regards to the detrimental effects of
direct provision and the length of the application process. A struggle in trying to get the appropriate mental health services in place was also reported. An advocacy role has also been discussed internationally in relation to refugee healthcare (30, 577).

### 9.2.1.5 Other roles

There were also roles related to the screening; for example the majority of sHCPs discussed dealing with chicken pox outbreaks for example, with varying roles between the sHCPs and public health in dealing with the outbreak. For a number of the sHCPs this was reported as a difficult situation to deal with. Also several sHCPs mentioned organising a single room for those who were given a positive screening result, for example for hepatitis B. Other aspects mentioned by respondents included performing some public health work, problems with other non-screening health related problems when asylum seekers are moved and sHCPs providing advice for other HCPs.

Adaptation of the intervention was therefore evident and the recognition of the broader health needs of asylum seekers in practice and more holistic service provision identified in this thesis is aligned with some of the thinking in the international literature. More comprehensive, holistic health assessments have been advocated for internationally (25), primarily in relation to refugees (28, 30, 201, 292), in line with a re-evaluation of the conceptualisation of migrant screening (13, 30, 201).

For example, it has been suggested that TB screening should be offered in the context of a holistic approach (25, 28, 271) and this may be happening in Ireland informally, more than is represented in the national screening guidelines. More comprehensive health assessments have also been reported in some locations internationally (32, 166, 181, 290, 292), some guidelines are more holistic (10, 205, 237, 261) and Lifson et al. in the US suggested that the tests in the guidelines for refugee health assessments should be the minimum and additional tests determined by patient need, epidemiology and HCP judgement (110).

### 9.2.2 The ‘soft-periphery’ of the adapted intervention: the influence of the characteristics of the intervention on implementation

The following sections in this chapter examine the possible influences on implementation which result in the adapted intervention in practice. Outreach services in the accommodation centre were identified as an influential characteristic of the intervention.
sHCPs and HCPs dealing with broader health needs was partly attributed to the outreach nature of the model of service provision. It was discussed how without this, asylum seekers may “fall between two stools” (Respondent C02;HCP;Current).

“without being too invasive but it’s good to get an idea of what’s been going on for them, or if they’ve had mental health issues in the past, or any other illnesses. So I think maybe if that wasn’t here on site it possibly would fall between two stools” (Respondent C02;HCP;Current)

It was also described how asylum seekers may not be ready to disclose problems to anyone else, but may confide in them as they are present in the centre. This was not necessarily perceived as beneficial by all the respondents as it was mentioned that asylum seekers may become more independent if the HCPs were not present.

In some cases the role of a ‘gateway service’ appeared to be provided; this is in place in other contexts where there are nurses (578), refugee health teams and nurse led clinics in the hostels which link clients into GP services (349), or nurse practitioners performing a gate-keeping role (352). Targeted outreach has been highlighted as important for access to health care for migrants across Europe (246).

9.3 Individual characteristics: views, attitudes and knowledge of the HCPs

9.3.1 Views & attitudes of the HCPs

In Chapter 8 differences were identified in the extent to which respondents focused on the more holistic aspects of the health of the asylum seekers and refugees and the value they perceived in more holistic service provision. The motivation of the HCPs appeared to be highly interlinked with the provision of more holistic care.

“I felt that people coming for the first time to the country maybe a new country they mightn’t even have the language... they might not have met many friendly faces in the whole of the country and then so I think the health service is one area where they can be given something positive” (Respondent B22;HCP;Past)

For example, trying to work towards more of a community development model was mentioned, through the involvement of NGOs and the voluntary sector. It was suggested that those who had worked in the service for some time were recruited specifically for asylum seekers jobs, whereas those who were more recently allocated
to the service, as one component of their job role, may have less of an interest in asylum seekers and refugees. However, these differences may be due to other factors, such as the time allocation within their job role for the service provision.

The motivation and personality of the sHCPs were reported to be influential in several ways. For example, the patience needed when working with translators was discussed and difficulties were raised with the personality of a sHCP in one case, where they felt there were circumstances where they could have dealt with the clients in a more sensitive and culturally competent manner. An example was provided where a sHCP assisted asylum seekers in getting to appointments financially as they couldn’t have it on their conscience if the asylum seeker didn’t attend. The perception that it was cost-effective to offer some of the broader tests is also likely to influence service provision. The motivation of the sHCPs was also raised in the guideline development interviews and a comment was made that they felt the sHCPs dealt with it well, for example through explaining to the client that screening was for the good of the individual. These findings also relate to the compatibility between the intervention and the professional stakeholder’s values and norms.

“the screening guidelines were very much from the point of view of how we could protect our population, rather than how we could necessarily help the asylum seekers, and a lot of the people working in the asylum seeker screening service were actually working there because they wanted to help these people, and so they would have gone beyond the limits of the guidelines in terms of screening”
(Professional stakeholder A05)

9.3.2 Knowledge and experience of the HCPs

Knowledge and experience were discussed by respondents in relation to both communicable diseases and cultural competency. A number of sHCPs had worked abroad and it was reported that this experience assisted with the screening. It was also raised that their experience on the screening service meant they had a broader awareness of what migrants may have experienced in the countries they had arrived from. Examples of this included raising awareness about the housing of victims of trafficking in direct provision and offering vaccinations in the evenings during Ramadan. Experience seemed to be key in some cases, for example, where there was a lack of training for counselling for HIV tests initially (as discussed in Chapter 8).
“you garner a lot of information yourself as well by meeting people from certain places. You become aware that in certain places a, b or c happens which may be relevant…over time you have a certain sense of some people coming, what things they might be more at risk at” (Respondent B6;HCP;Current)

Examples of cultural competency were therefore included in the conceptualisation of the more holistic service provision in this thesis. Internationally the importance of cultural competency has been recognised (362) as negative attitudes of HCPs are a known barrier to access for migrants (1). However, a comment was made that the medics didn’t take on board the difficulties encountered by asylum seekers when they were placed in isolation. This raises the possibility that there may be differences between professions as well as individuals.

Specialist infectious disease knowledge was also discussed, more by the doctors than the nurses. There were differences again between providers, as it was mentioned that this helped in dealing with more unusual diseases, but in another case it was discussed how they would not want to expand the screening as they would not know how to screen for other diseases. As mentioned in section 9.2.1.1 a lack of training or support for sHCPs and HCPs in the centres in dealing with mental health problems was noted.

In line with the discussion of the different knowledge types in Chapter 3, cultural competency, specialist knowledge and experience therefore need to be recognised as different sources of knowledge which could potentially influence the screening service. In France, Kehr identified the importance of ‘know how’ knowledge for sHCPs in comparison to official objectified knowledge but noted that this primarily stayed local with localised initiatives and meant there was no systematic screening of vulnerable migrants (76). Specialist knowledge of sHCPs in comparison to GPs is examined further in Chapter 10.

9.4 Inner setting: networks, clarity and boundaries of the job role, language and cultural influences and the building of a HCP-client relationship

9.4.1 Networks between sHCPs

Networks between sHCPs were raised as an influence on service provision. The national meetings in RIA were cited as a source of influence. An example was provided where a talk given by a consultant prompted increased screening for sickle-cell disease. However, this referred more to programme refugees.
Networks and the formation of interpersonal links also influenced the holistic provision through facilitating onward referrals for the mental health problems and enabling referrals to be fast-tracked (see section 9.2.1.1). Networks were only mentioned by a couple of respondents but in the international literature are known to be important influences on effective implementation (41, 47) and so may also merit further exploration.

9.4.2 Clarity and boundaries of the job role

Structural and organisational influences such as the job role boundaries were also discussed. It was generally reported by sHCPs that their role was well defined for screening and so anything arising outside their remit would be referred to the GP.

“depending on the actual interview other problems may manifest themselves and...maybe we would do other tests, which would be for syphilis, but that's about as far as we can go our mandate”
(Respondent B18;HCP;Current)

However, although this clear demarcation in the role between communicable disease screening and dealing with other health issues was discussed, this distinction appeared to be difficult to navigate in practice. Job role boundaries also appeared to be difficult for asylum seekers to elucidate in certain cases. It was discussed how the structure between the sHCPs and GPs was not official and the process was not streamlined and so this contributed to asylum seekers returning to sHCPs as their first point of contact. Patterns were investigated between different job roles and the nature of the roles, for example, part-time provision of services in the analysis. However, due to the diversity of the responses there were no clear links between the job role and the perceptions of more holistic service provision.

Screening was only part of the job role of some of the respondents. Medical officers and nursing professionals therefore potentially had a range of other roles, which are likely to influence the additional roles performed in the screening service and therefore the adaptation and implementation of the intervention. The associated PHNs primarily have other roles and duties but assisted with certain elements of screening. The nature of the role of the senior medical officers (SMOs) and AMOs may also influence this as they may have a number of roles, the role can span a number of areas (579, 580) and public health doctors may have other postgraduate training, for example in general practice (581). This may assist in explaining why some aspects of more
mainstream primary care were provided. Therefore, the complexity of the roles of
those offering the screening and the possible dynamic and changeable nature of these
roles needs to be acknowledged. Further work on how multiple roles influence
screening would be useful.

9.4.3 Language and cultural influences

Language barriers and facilitators were identified in general in the findings, but are
only discussed when they intersect with the major themes discussed in each chapter.
Access to interpreters in the screening service was perceived as particularly beneficial,
for example, enabling a fuller psychological history to be taken in the screening service
and the information passed on to the GP(s), where the GP(s) did not access
interpreters. Language and cultural barriers were reported by certain GP respondents
and this is discussed in Chapter 10. Greater access to, or perhaps more appropriate
use of interpreters was reported by a couple of the sHCPs in comparison to GPs. This
difference has also been identified in the international literature between specialist and
mainstream services (30, 201, 349). Significant work has been undertaken by other
authors examining language barriers for migrants in Ireland (60, 350, 573, 582-585),
for example in relation to the use of interpreters by GPs (582) (see section 10.3.3.1.3)
which is why it was not initially selected as one of the major focuses of this thesis.

9.4.4 Compatibility between the intervention and key stakeholder’s values and
norms

As identified in Chapter 8, the viewpoint that the guidelines were based on a narrow,
medical disease model was one of the main criticisms of the guidelines expressed by
several sHCPs. This incongruence may be due in part to the implementation of the
screening through individuals working in community care, whereas the guidelines
adopted a more public health approach. Similar difficulties defining boundaries were
highlighted by a study using the NPT in primary care where divisions were identified
between GPs as to whether they perceived physical and emotional problems together
(468).

The alignment of the intervention with the values and norms of key stakeholders, in
this case HCPs who are likely to have a specific set of values and norms, has been
proposed to influence the extent to which individuals will implement the intervention
(47). The fit with the experience and ‘professional mission’ of the individuals is also
positively associated with implementation (47). Although in a different context, a focus
on the communicable disease aspect of TB with directly observed therapy, short
course (DOTS) has been identified as a problem in Russia where stakeholders may
traditionally take a more holistic perspective including the social aspects of TB (560). This forms part of the inner context but overlaps with the views, attitude and knowledge of the HCPs.

9.5 Outer setting: propping up other services, medical cards, medications in the GMS scheme and the historical context

9.5.1 Propping up services that aren’t there

More holistic provision through the sHCPs or HCPs may be compensating for barriers to detection through other services. The outreach nature of the service in the centres appeared to be more accessible for asylum seekers in some cases than the GP service and therefore, sHCPs may deal with issues out of hours when GPs were not available, such as minor ailments. Patient, provider and structural level barriers to accessing GPs and the detection of health issues were identified, both by sHCPs and GPs and are discussed in Chapter 10.

The point was raised that services more broadly were being cut back to the bare minimum for asylum seekers. Reductions in associated services such as family support workers, alongside the lack of a community psychiatric nurse (CPN) for example, meant that sHCPs were dealing with these broader roles and coordinating different providers.

“we kind of fill a gap there that we’re not fully satisfied with”
(Respondent C14;HCP;Current)

One of the HCPs in the centre suggested that a befriending or mentoring scheme be put in place for those who are diagnosed with HIV. As highlighted in section 9.2.1.2 difficulties referring to psychology services in some cases were reported. Previously sHCPs have reported that asylum seekers’ needs were not being met by the psychology and psychiatric services in the eastern region (62).

Correspondingly, negative consequences for the screening service were identified in some cases, including a greater, perhaps inappropriate workload for sHCPs in the centres, and increased inappropriate referrals to A&E. Furthermore, as one line-manager pointed out the roles of the HCPs in the centres or sHCPs “become less appropriate” (Respondent B14;HCP).

“their jobs become less appropriate...they're propping up other services that aren't there” (Respondent B14;HCP)
This highlights the dynamic nature of implementation and dynamic responses in practice (459-461).

The detection of mental health issues through the screening service compensating for access barriers to other services could be important as health needs may not otherwise be detected. For example, mental health issues may not be detected through mainstream providers. In the US one study found providers would not always consider the history of the individual refugee, with regards to issues such as torture or consider health promotion (347). Asylum seekers may also not be aware of the services available as in the UK one study identified a lack of available services for anxiety or sadness among asylum seekers and a perception that it was inappropriate to discuss these issues with their GP; asylum seeker support nurses were useful in dealing with this (338).

9.5.2 Medical card delay and basic medications not included in the GMS scheme

Structural and organisational barriers were influential, particularly with regards to the reported delays in asylum seekers obtaining a medical card discussed in section 9.2.1.1. This impacted on the burden of work in the screening service alongside the provision of broader care in some cases and access to medication. It was also reported as a source of stress for the asylum seekers. Certain basic medications were reported not to be included under the GMS scheme and this was raised as one of the reasons for asylum seekers attending HCPs or sHCPs in the centres for basic primary care needs.

9.5.3 Historical context

This more holistic focus could also be a reflection of a more multi-disciplinary context on the ground. As discussed in Chapter 6, the broader nature of service provision on the ground and the setting up of local groups historically was discussed, which may have included input from multiple disciplines, alongside the discussion of more major problems at a local level for which they did not have guidelines. Issues considered at a local level included the management structures to ensure that service provision was not fragmented.

“we had a committee here which dealt with wider than just the screening” (Professional stakeholder A18)
To provide a historical context, from the document review it was identified that there was a discussion at the national level during the development of the national screening guidelines about the establishment of a group to look at non-communicable diseases for asylum seekers (D02Min, D03Min, D04Min); however, a group was not identified during the course of the research. Non-communicable diseases were perceived as outside the remit of the national group.

The decentralised implementation and critical views of the guidelines may have contributed to the influence of the individual HCPs as in Denmark it was suggested that the caseworker and GP were influential in determining the initial health provision during resettlement of refugees due to the lack of policies across all the municipalities (202).

9.6 Understanding the underpinning social and work processes

Multiple influences on the adaptation of the screening service in practice were identified and the major findings are illustrated in Figure 23 in relation to coherence, collective action and reflexive monitoring. The use of the NPT in the conceptual framework and analysis provided particular additional insights in relation to the individual and collective understanding and perception of value of the intervention, the HCP-client relationship and reflections on practice and dynamic adaptation and these are discussed below.
Figure 23. The major findings in this chapter mapped to the NPT constructs and sub-components of the collective action construct.

9.6.1 Understanding and perceiving value in screening and the guidelines (coherence)

Coherence encompasses several different influences on the adaptation of the screening service and guidelines (see Figure 23), relating to the characteristics of those involved in implementing the screening and the immediate context. Clarity is required in relation to the individual understanding of their tasks and responsibilities for effective normalisation according to the NPT (443). As discussed in relation to job role clarity, although the sHCPs and HCPs may be clear about the definition of their roles in some cases, in practice they are recognising and dealing with the broader health needs of the asylum seekers. Adapted, more holistic forms of guidelines are also likely to blur the boundaries and understanding of the screening service. Perceptions of the sHCPs of the value of the intervention may also be affected by the adaptation in practice, as several sHCPs discussed how the main benefits of the screening programme may be in relation to dealing with the asylum seekers' broader health needs. This was also reflected in the criticisms raised by certain sHCPs of the incongruence between the medical model of the guidelines and the reality in practice in Chapter 8 and proposed lack of compatibility with stakeholder values and norms discussed in section 9.4.4.
9.6.2 Maintaining trust in each other's work and the intervention (Collective action: relational integration)

One aspect of trust is the dynamic relationship between the client and HCP. Some of the sHCPs discussed the building of a relationship with the clients and while this was noted in one case to aid with the uptake of screening, it was primarily discussed in relation to the broader health needs of the migrants. sHCPs mentioned offering practical support or acting as a confidante if an asylum seeker was lacking friends.

It was suggested in the interviews that greater time in the consultation setting contributed to the building of a relationship between the sHCP and the asylum seeker or refugee. Flexibility in the timing of the visits and the need for multiple visits has been recognised as important for building trust between HCPs and refugees in Australia (248). Time constraints in relation to the model of service provision are discussed in Chapter 10 and so are not examined here.

An interplay between the building of the relationship and getting to know the asylum seekers over time was noted in the respondents' discussions; it was discussed how this may take time as initially asylum seekers may perceive that they work for the Department of Justice and Equality. A number of respondents also discussed how asylum seekers may disclose health issues that they wouldn't necessarily initially after a time, such as providing hints that they have been trafficked or a history of rape or abduction.

“after a while when they go to know you they might tell you things that they wouldn't at the start maybe about certain things that may have happened to them…some of them might have been raped or tortured” (Respondent B22;HCP;Past)

Facilitators to the contact between the asylum seeker or refugee and the HCP included administering the doses of the hepatitis B vaccine. However, in another case it was noted that they see people in the centres who may be depressed but they would have no contact with them unless they have a relationship with them. Therefore, the building of a relationship may be more due to the informal interactions and motivation of providers than the structural aspects of the system and the interaction with the motivation of the sHCPs and HCPs is evident.

The outreach nature of the service was also reported to influence this relationship as a couple of sHCPs discussed the benefits of asylum seekers seeing a familiar face and
the regularity of contact. This is interesting in light of the comments made in the guideline development interviews about how the system was designed so that the teams in the centres could befriend asylum seekers in the centres and build confidence in the screening service (see section 6.3.5). This finding resonates with the broader guideline implementation literature as the importance of maintaining the doctor-patient relationship was identified as an influence on the implementation of guidelines in a systematic review and broader meta-synthesis of guideline implementation (575).

A lack of trust is proposed as a barrier to access and uptake of screening for migrants internationally (10, 235, 294, 586) and the building of a relationship and trust has been recognised as important in relation to addressing refugee children’s health needs in Australia (30). More broadly the building of a positive relationship with HCPs has been identified as a component of best practice in the provision of migrant health care; consistency of care with a steady HCP was another element (587).

Relationship building between the HCP and asylum seeker specifically is important to consider in relation to the model of service provision. A relationship may be established with the sHCP at the screening visit but perhaps this initial relationship should be built with the asylum seeker's ongoing mainstream HCP. In the international literature one of the main advantages to the mainstream model of service provision cited was this building of a relationship (261) and concerns were raised that this may be missed with specialist services (260) in part due to their short-term nature (30). Familiarity with mainstream services was one of the reasons why the migrants in the study by Brewin et al. felt safer attending primary care services for screening (258).

However, a lack of trust and confidence in their GP has been identified among some asylum seekers, in part due to the fact GPs are not perceived as specialised enough to deal with their health issues (357). Furthermore, difficulties in building a relationship with a GP have been identified for asylum seekers in the UK, due in part to dispersal and attending different GPs in a surgery (340).

Bischofberger (167) conducted interviews with migrants from sSA and advised focusing on the physical symptoms at initial visits and psychosocial problems later as a relationship may need to be established. This idea is supported by a discussion by Marchal et al. who state that integrated care, where frontline HCPs respond to individual's 'felt needs', will gradually build up trust (588). While they say this is an important outcome in itself, it then means that other more preventative services will then be better accepted from these trustworthy and responsive HCPs (588). A more
holistic health assessment may also assist with the communicable disease screening element, through improving the honesty of the responses of the asylum seeker, as raised during the interviews for this thesis. Support for this can be found in the international literature, where holistic health assessments may reduce barriers to HIV testing for migrants (10). The adaptable holistic element may therefore act as a lever to implementation of the ‘hard-core’ of the intervention (the screening tests).

In New Zealand HCPs providing primary care for members of the indigenous Maori population, who experience health inequities, reported that clinical guidelines on reducing cardiovascular risk, were perceived as only one set in the more comprehensive health care approach they were taking (456). Furthermore they stated that the building up of a relationship with the patient and patient centred care was important in influencing implementation (456). In addition, the specific dedicated Maori healthcare providers had more active relationships with the population, as GPs reported they only saw the clients for acute services (456); this is discussed further in Chapter 10. Continuity of care with a HCP is also an important consideration for vulnerable groups more broadly, for example those with a lower level of education (589). Cross-cutting issues with other vulnerable groups arising from this thesis are discussed in Chapter 11.

For asylum seekers the formation of a relationship and the building of trust with the HCP may also have broader connotations in facilitating integration. The trust literature indicates that this trust can have importance beyond the inter-personal relationships, in relation to social capital and the building of trust in the broader health system and society (590).

9.6.3 Reflecting on practice and dynamic responses (reflexive monitoring)

The construct of reflexive monitoring assisted in capturing the more dynamic and social processes of implementation and normalisation. sHCPs appeared to be responding to the needs of asylum seekers in practice, influencing the more holistic service provision. Some of the views expressed regarding the broader health needs of the asylum seekers suggest the patient needs may not be fully understood or met by the ‘hard-core’ of the screening service. Although the guidelines were only intended to focus on one aspect of asylum seeker health, if asylum seekers are presenting with complex health needs and their more immediate needs are not met in practice this may hinder implementation of communicable disease screening by the sHCPs who are faced with confronting these needs.
The complex nature of the health needs of the asylum seekers was raised by a number of respondents, including the psychosocial aspects and links between the communicable disease screening and mental health problems.

“I think that while the guidelines are there and certainly I don’t think they represent necessarily all that happens in screening is one thing because I think it’s very hard to divorce somebody’s general health from just a specific interest in infectious diseases” (Respondent B6;HCP;Current)

A positive screening result may be as a result of a traumatic experience, for example a diagnosis of HIV may be linked to other issues such as forced prostitution, trafficking or drug addiction. Importantly however, the heterogeneity between asylum seekers was stressed by one respondent and that not all the cases would be complex. Some refugees are accepted for medical reasons and those with major health issues were also discussed during the interviews. The complex needs of some asylum seekers and refugees is well established in the international literature, which may be related to traumatic events (101) and mental health (10, 102, 344, 591).

From the guideline development study, the complexity of practice in relation to the relative simplicity of the guidelines was highlighted and it was discussed how at the time of the development of the guidelines “the bigger issues were other things I suppose for which there were no guidelines” (Professional stakeholder A18), for example, health information packs, funding and translation. The complexity of practice was highly interlinked with the discussion of time for some respondents, as it was noted that it can take time to find out the health needs of asylum seekers and so it was not a case of meeting someone for ten minutes and performing a blood test.

Although not linked explicitly by the respondents the provision of condoms or basic medication may be another response to the needs of the asylum seekers, as adults only receive €19.10 a week and the medical card only covers certain medications. According to the RIA website, exceptional needs payments can be made at the discretion of the community welfare officer (CWO) but the nature of these payments is not expanded upon (592). The cost of over the counter medications has also been identified as a difficulty for asylum seekers in the UK (338).

Responding to the needs of clients in practice and adapting the implementation of the screening guidelines and programme is more aligned with a bottom-up perspective
and it is recognised that ‘people are not passive recipients of innovations’ but they often try to improve or redesign them (41). Instead of becoming more routinised, like Lipsky’s ‘street-level bureaucrats’ (51), the HCPs report providing more care in practice. The NPT in the conceptual framework is useful in highlighting the influence of the responses of the HCPs in practice to the clients and implementation and the influence of this on the more holistic provision of care. This is likely to be due in part to the more informal mechanisms of accessing information about the effectiveness of the intervention and the value of the intervention, through systemisation and individual appraisal. SHCPs may subsequently modify their practices in line with the concept of reconfiguration. Where teams are in place this may also be influenced by communal appraisal. Although this would fit within the process domain of the CFIR component of the conceptual framework it only identifies the more structural influences and doesn’t capture the dynamic nature of the process.

It is acknowledged in the knowledge to action and evidence-informed practice literature that the evidence will be combined with the clinical knowledge of the provider and the response to the individual clients in practice and this is fundamental to the EBM debate, as discussed in Chapter 3; for example the needs of the clients were found to influence whether GPs followed guidelines in Norway (566).

9.7 Discussion and conclusions

One of the major findings in this thesis was the more holistic service provision enacted by some of the SHCPs in practice and the recognition of the broader health needs of the asylum seekers by some of the respondents. This is an interesting finding as comprehensive health assessments have been discussed and proposed in the international literature for migrants (25, 28, 30, 201, 271, 292) and in Ireland. The findings from this study suggest that a more holistic approach is taken by some SHCPs in practice, even if this is not reflected in the national guidelines. Different types of knowledge, such as explicit and tacit forms appear therefore to be influencing implementation and it is important to consider how to capture these forms of knowledge in the future.

This finding could inform future policy making and guideline development and should be investigated further. As discussed in Chapter 8, respondents’ held mixed views on whether a holistic health assessment was necessary and SHCPs were not necessarily supportive of expanding the remit of the screening service. As discussed in Chapter 6 a more multi-disciplinary group would need to be convened to formally examine the provision of a more holistic health assessment, rather than a group whose remit is
restricted to forming communicable disease recommendations. The needs of the asylum seeker and refugee population also need to be clearly established (see section 11.3.2).

Secondly, if a more holistic service is to be provided, for example, broader IHAs then the model of service provision needs further consideration (see Chapter 10). Although there may be benefits to the provision of a broader service, this is not necessarily the optimal strategy for meeting the health needs of the asylum seekers. The burden on the sHCP needs to be considered, alongside the fact that the sHCPs may be compensating for deficits in the provision of other services and the quality of the care provided, for example, if sHCPs are dealing with the disclosure of traumatic events, for which they are not adequately trained. Therefore, although the sHCPs in some cases may be attempting to meet the more holistic needs of the asylum seekers presently, this is unlikely to be a satisfactory long term solution and needs to be examined further. Access to other services also needs to be addressed where sHCPs are compensating for the lack of access to other services. If other models of service provision are introduced, for example ancillary services or more official gateway services (349, 577), the impact on the benefits of the screening service in building trust and a relationship with the client and detecting the broader health needs must be considered (see section 9.6.2).

Furthermore, in order to enable the successful normalisation of new communicable disease screening guidelines the potential difficulties with coherence and views of some HCPs may need to be overcome. sHCPs who are more concerned with the broader health needs may not see the value in using the narrow guidelines for screening for communicable diseases.

In relation to the implementation literature, the findings highlight the need to consider the adaptation of the intervention in practice in order to understand the implementation. The adaptation is also clearly influenced by the actions of the individuals, context and process and not just isolated variables and so the findings support the need to focus on multiple layers of influence on implementation (41).

It is also important to capture the more dynamic, social processes related to implementation and a more dynamic, bottom-up process of implementation was identified in addition to the influence of the response of the HCPs to the clients. The findings support a re-evaluation of the conceptualisation of guideline implementation and the knowledge-gap. They also support a focus instead on how guidelines are
adapted and interpreted in practice (39) and perception of implementation as a more
dynamic, emergent process (383, 420). It also facilitates the study of what actually
happens in practice and the emergent perspective in order to fully understand the
situation.

Meeting the health needs of the vulnerable asylum seekers is vital and high quality
service provision is essential; the broader health needs of the asylum seekers were
strongly raised by the HCPs. Whether a more holistic service provision is required
merits further attention and currently may be provided due to the initiative of the HCP
and other influences, without the structured support of a system. The
comprehensiveness of the service an asylum seeker receives may therefore vary
according to their dispersal location. This needs to be considered in a review of the
guidelines and services.
Chapter 10: Adaptable elements of the intervention in practice: model of service provision

10.1 Introduction

This chapter examines the levers and barriers to screening and the detection of TB, HIV/AIDS and depression through mainstream GPs, in comparison to a dedicated screening service and the advantages and disadvantages to the differing models of service provision.

The following aim is addressed in this chapter:

Thesis aim 4: To explore the views of professional key stakeholders on a mainstream GP model of service provision in comparison to a dedicated screening service, in relation to the detection of health issues and facilitating access and integration into the health system (including screening and IHAs) in order to meet the needs of asylum seekers and refugees.

Increased fragmentation of the dedicated screening services was reported in Chapter 7, alongside respondents’ concerns about screening service provision in areas where dedicated screening services were absent. It was raised by a GP in Chapter 8 that the screening falling back to GPs was “a real, real, real issue which needs to be addressed” (Respondent B12;GP) and other respondents raised concerns about screening service provision through GPs. Difficulties were also reported by GPs in implementing the screening tests in Chapter 8 and GP respondents were predominantly unaware of the national screening guidelines. The findings indicated that GPs may not be offering screening routinely in the dispersal locations.

If dedicated screening services are fragmented nationally, whether IHAs and screening are currently offered by GPs and barriers and levers to the detection of HIV/AIDS, TB and depression, need to be considered. Furthermore, whether screening and IHAs should and could be offered by GPs in the future and the advantages and disadvantages of specialist or mainstream service provision needs to be explored to inform future policy and practice.

Findings are presented from the implementation study which examined the implementation of the screening programme through GPs or a dedicated screening service and the integration study in which the detection of specific health conditions
(HIV/AIDS, TB and depression) and integration into the health system were focused on. A broad perspective of access is explored in this chapter, as there is a need to consider aspects of access beyond just access to providers and utilisation of services. Access also encompasses the detection of health issues and onward access to other services and the integration of asylum seekers into the health system. Detection of depression, alongside HIV/AIDS and TB, was included in the integration study and is also discussed in this chapter in order to offer insights into meeting the more holistic health needs of asylum seekers and refugees. See Appendices IV, VIII IX and X for a full description of data sources and themes explored in each results chapter.

Chapter 9 and this chapter both examine aspects of the adaptation of the intervention. The more holistic adaptation described in Chapter 9 can be viewed as relating to adaptation through the lens of the programme and the process of implementation, whereas the model of service provision can be perceived as an adaptable element through a more structural, systems lens.

### 10.2 The adapted CFIR and identifying influences on implementation

Barriers and levers to the implementation of screening and detection of certain health issues through the GPs were highlighted through the use of the adapted CFIR component of the conceptual framework at multiple levels and in relation to both the demand and supply side, as illustrated in Figure 24. The barriers and levers related to both access to the GPs and the detection of health issues and screening within the consultation. Interactions were evident between the barriers and levers, for example, the time and flexibility of consultations reportedly influenced both the detection of health issues in the consultation and the demand side access and uptake.

As identified in the previous chapters, in this research the adapted CFIR did not adequately capture the more dynamic aspects of the process of implementation and the responses of those involved in implementing the screening and guidelines in practice. Therefore, the main barriers and levers identified to the detection of HIV/AIDS, TB and depression and the implementation of screening which would need to be addressed for the normalisation of the intervention were categorised and are discussed under the NPT constructs below.
1. Understanding and perceiving value in screening and the guidelines (coherence)
   Including: GPs lack of awareness of the guidelines and the need for a clear understanding of screening in this context, rather than testing in response to symptoms.

2. ‘Buying in’ and continuing to offer screening and use the guidelines (cognitive participation)
   Including: a lack of willingness of some GPs to participate in screening and the perception that screening is not the remit of the GPs.

3. Organising and enacting the screening work and use of the guidelines in practice (collective action)
   Including: time limitations in the consultation, language barriers, the need for appropriate training and skills among GPs and difficulties with delays in asylum seekers receiving a medical card.

4. Reflecting on practice and dynamic responses (reflexive monitoring)
   Including: informal perceptions of the uptake of screening influencing respondents’ views on whether screening should be delivered through a mainstream or specialist service and a lack of formal monitoring and feedback.

Previous studies have used the NPT to examine the implementation of new models of care in primary care for depression (468, 593).

10.3 Understanding the underpinning social and work processes

This chapter builds on a number of findings identified in previous chapters and Figure 25 illustrates how these findings feed in to the NPT analysis in this chapter. To avoid duplication previous sections are referenced below and findings which contribute new insights to the analysis relating to the model of service provision are discussed in detail.

10.3.1 Understanding and perceiving value in screening and the guidelines (coherence)

Coherence relates to individual and collective understanding of the nature of asylum seekers and refugee screening and IHAs and the construction of the potential value of screening, IHAs and screening guidelines, which would be needed by GPs for the intervention to be normalised (441, 468).
Figure 24. Aspects of the detection of TB, HIV/AIDS and depression and implementation of screening through mainstream GPs and the influencing factors according to the adapted CFIR framework (47). (Figure drawn by the researcher (GS))
10.3.1.1 **Lack of awareness, understanding and perceived value of the intervention at the level of the HCPs**

Screening appeared to be more ad hoc in the case of some of the GPs. A lack of awareness of the national screening guidelines among the majority of GPs in the sample was identified in Chapter 8. In the absence of guidelines or protocols for screening the awareness and interest of GPs appeared to be important. Awareness among the GPs in the sample was mixed. While a comment was made that they would be more aware of TB if an asylum seeker presented with symptoms, another GP mentioned that while HIV and hepatitis B may be more at the forefront of their minds: “to tell you the truth it wouldn’t we wouldn’t think about asking about TB but if somebody had a recurrent chest infection or whatever and we were worried” (Respondent C21;GP;Large). However, even with regards to HIV the GP commented that “I wouldn’t automatically think of checking them for HIV/AIDS” (Respondent C21;GP;Large).

A range of the professional stakeholders interviewed highlighted that the detection of health issues through GPs may currently be in response to a suspicion of TB or symptoms and so testing rather than screening. Certain GPs did not distinguish between testing in response to symptoms, in comparison to true screening in their
discussion, indicating a blurring of the boundaries. Detection of diseases may therefore potentially occur at a later stage through GPs and there needs to be a greater understanding of screening in this context.

The need to raise awareness among GPs has been recognised internationally, with regards to who to screen and screening programmes (123, 591). This extends beyond migrants, as GPs having a low clinical suspicion of TB, atypical presentations and problems with continuity of care can contribute to delays in TB diagnosis among the broader population and so GP awareness is key (594). HCP awareness is also vital for other conditions, as HCP endorsement can be a predictor of HIV testing (304) and appears to influence hepatitis B screening (311, 595). HCP awareness of relevant guidelines has been associated with an increased likelihood of hepatitis B screening in the US (154).

Some GPs were unaware of the screening programme, held misperceptions or were unsure about aspects of the screening programme, which is likely to impact on the offer of screening.

“I wouldn't know where immigrants are assessed, what doctors assessed them and I wouldn't know to what extent they're assessed”
(Respondent C19;GP;Large)

A perception, for example, that asylum seekers are universally fully screened on entry to the country would logically preclude the offer of screening by GPs in dispersal areas. In Norway it was found that some primary care providers perceived all screening was completed in the reception centres (308) and in the UK other authors suggested a lack of knowledge of TB screening among GPs (259) reflected the lack of effectiveness of the programme (591). This lack of knowledge was not confined to the GPs as certain sHCPs were also unsure about who was screening in other areas. A feeling of isolation was also raised and that other colleagues would not know what they were doing. HCP’s knowledge of the programme is not explored in detail in this thesis but needs to be acknowledged as it is relevant to the model of service provision.

National screening guidelines in themselves could be one lever to enhance the understanding of the screening programme among GPs. However, the simple production of guidelines appears to have been insufficient in targeting coherence among the GPs in the sample and other interventions may therefore be required.
Barriers were also identified in relation to the perception of the value of the guidelines and programme among GPs. For example, the GPs did not universally perceive that further guidelines would be useful (see section 8.7.1.3).

Beliefs in relation to screening may also need to be addressed in the broader network of stakeholders. For example, controversy and mixed views over the importance and feasibility of LTBI screening were evident in the interviews among public health respondents, referral specialists and respondents involved either previously or currently with the screening service. Specific views on Mantoux testing were discussed in section 8.2.2.3. Opinions for example were divided between those who advocated for LTBI screening in principle and those who suggested CXRs or the detection of active cases through GPs should be the focus. The need to ensure capacity and current lack of capacity were raised.

“we don’t have the resources to do it but I think it is a huge priority”
(Respondent C08;RS)

The findings suggest therefore that there are different aspects of HCP’s beliefs which need to be elucidated and addressed for normalisation before it becomes part of a routine work process and is normalised, for example, HCPs’ viewpoints on the importance of LTBI screening.

Particular coherence difficulties were noted where a GP demonstrated multiple layers of opposition to screening, although with the caveat that this was from their experience and in other situations it may be warranted. They questioned the value of screening asylum seekers, based on their perception that asylum seekers were generally healthy, highly educated and good at attending and that if individuals were symptomatic conditions would be detected. They highlighted that their “GMS contract states that I see people who have an illness not those who are well” (Respondent B28;GP;Small) and that Ireland is not “a nanny state” (Respondent B28;GP;Small). Therefore, they stated that only specific groups of migrants, such as “boat people” (Respondent B28;GP;Small) should be screened. How widespread these beliefs are would be worth exploring in further studies.

Language barriers to seeing patients and in the consultation setting (see section 10.3.3.1.3) were raised strongly by some GPs, although mixed views were expressed. For example, even though some GPs recognised that they had access to interpreting services they found them unsatisfactory and so did not use them (see section
10.3.3.1.3 below). It was not clear to what extent this was based on preconceptions or experience and therefore how much of this was due to the appraisal of the intervention (reflexive monitoring). Innovative methods of interpretation may need to be considered to address these barriers, which take into account the current economic context, for example interpretation via Skype (596), although quality of care must be ensured.

Also in relation to the model of service provision, broader contextual aspects influenced the perceived value of an outreach or specialist service by other non-sHCP or GP respondents, who felt that it depended on migrant numbers.

10.3.1.2 Barriers and levers for the clients – HCPs’ views

Barriers and levers to the implementation of screening and the detection of the specific health issues, were proposed in relation to clients attending GPs, taking up screening and reporting health issues from the perspective of the HCPs.

- Barriers to attendance at the client level

Understanding the nature and value of screening and attending the GP may be problematic for some asylum seekers. Acute and “ad hoc” (Respondent C21;GP;Large) presentations by asylum seekers to GPs were identified as a barrier to screening and detection of the health conditions by several of the GPs. Demand or supply side influences could contribute to this. For example, the provision of more of a “fire brigade service” (Respondent C01;GP;Large) was described in an area where screening services were in place, which was attributed to the unfamiliarity of asylum seekers with the type of service and the difficulties experienced by GPs.

“what we seem to be doing mainly is providing a fire brigade type of service rather than the full ongoing family doctor service…that would normally be provided” (Respondent C01;GP;Large)

A lack of familiarity of some asylum seekers, and migrants and ethnic minorities more broadly, with the role of a GP service (357) or attending for preventative care (306, 317, 585) rather than solely when sick (339) in addition to a lack of understanding of the health system has been recognised in the international literature (60, 354). This unfamiliarity of asylum seekers with a preventative and primary care GP service may impact upon their understanding of the need to attend a GP and their perception of the value of attending.
Respondents discussed how some asylum seekers did not attend GPs regularly or only attended for acute problems, particularly in the case of single men. Male migrants and asylum seekers and refugees were also found to be less likely to be registered with a GP after screening in the UK (597). It was also raised that asylum seekers may not “bond” (Respondent C21;GP;Large) with the GP.

“it's going to be very episodic, and you know every so often you have somebody coming, it's very, very difficult to offer a consistent service in those circumstances” (Respondent B7;GP;Small)

A reluctance of asylum seekers to attend their GP was raised, alongside asylum seekers frequently complaining about their GP by a SHCP, however, the heterogeneous nature of the asylum seeking population was discussed and was reflected in the responses of the different respondents. An understanding of personal responsibility in relation to their own health and attendance is also a potential barrier for some refugees and asylum seekers, as an overreliance on the community welfare officer (CWO) in obtaining a GP and a lack of motivation to follow up with GPs by certain asylum seekers were also raised. GPs provided examples of how the lack of follow-up by the asylum seekers resulted in them falling through the gaps and an example was discussed where a client was not motivated to follow-up their own HIV positive status. However, from another non-GP perspective, it was also discussed how the majority of asylum seekers were capable of taking responsibility for their own health.

Although this is also likely to occur in the non-migrant population, migrants may face additional barriers. Similarities between asylum seekers and other clients were however discussed by GPs for example while asylum seekers might turn up an hour late or with their whole family, this also occurs with Irish clients.

Difficulties may also be encountered due to asylum seekers' lack of understanding of health conditions. In relation to screening specifically it was raised that asylum seekers might not be aware of the dangers of chicken pox and therefore the need for VZV screening.

Barriers suggested by respondents to attendance at GPs included competing priorities and the relative priority of their asylum application, the attitudes and motivation of some asylum seekers, the gender of the GP, a distrust of authority and the lack of transport for sick individuals to attend GPs.
“it does appear to me to be like…the vast majority of these people, certainly refugees, are distrustful of authority at the best of times, so there is a slowness to get them” (Respondent C19;GP;Large)

Stigma and fear in relation to TB was also discussed by some public health respondents and stigma towards TB screening has been identified internationally (82) in addition to HIV (306, 317) and infectious disease screening and testing more broadly (10). Language barriers, are discussed in section 10.3.3.1.3. and would also relate to the understanding and perceived value.

If asylum seekers and refugees do not have a GP and encounter barriers to access this would significantly hinder the offer of screening and detection of health conditions routinely through the GPs. Barriers to accessing GPs (60, 94, 542) and the need to ensure asylum seekers are registered with a GP in dispersal locations (175) have previously been identified in Ireland. Although high service utilisation by asylum seekers was identified in Galway City in Ireland (345), barriers to access were also reported and a higher number of consultations could result from poor quality consultations necessitating repeat visits (598).

Migrants not having a GP (24, 84) and barriers to GP registration for migrants are internationally relevant as in the UK only approximately a third of migrants screened through the port of entry system were found to be registered with a GP (597), corroborating previous findings from referrals to a new entrants clinic (83). Internationally no consistent pattern of differences between immigrants and non-immigrants in the use of primary care services for physical problems was identified in a recent systematic review (334).

- **Levers to attendance and the model of service provision**
  Several levers were identified under coherence and were proposed by respondents which could address these barriers, for example: combining screening with attendance for social welfare or child health issues, for which attendance was reportedly good. Investments in education and counselling, were suggested, for example, informing asylum seekers that screening did not influence their asylum application, due to the voluntary nature of screening. Broader educational campaigns regarding HIV and TB were also suggested.
Strengths and levers of specialist or outreach services in relation to access and uptake were also raised. These included sHCPs having more time to explain the screening, building a relationship, offering counselling, reduced language barriers and outreach. Improving the understanding of screening among clients therefore appears to be linked to the building of trust (relational integration) and the enacting the work in practice (interactional workability) (see section 10.3.3.1) in order to improve normalisation.

“I learnt from day one bring the service to the people, if I sit in the health board and wait for them to come I will always be number 10 on the list and with the best will in the world they’ll never arrive” (Respondent B13; HCP; Past)

Further facilitators to access and uptake in the specific screening services, cited by respondents, included taking a more holistic approach and an example was provided where the sHCP rang asylum seekers to attend. However, to put this in context barriers were also cited in relation to the screening service. These included: poor attendance, slow uptake, misinformation and a lack of understanding, and the withdrawal of an outreach NGO (which is also linked to the support of the organisation (contextual integration) (see section 10.3.3.3) and asylum seekers and refugees ‘buying in’ to the screening (cognitive participation) (see section 10.3.2)). Therefore, although the model of service provision requires greater attention, simply changing the model is unlikely to be enough to resolve barriers to access.

Sporadic attendance was part of the reasons why some GPs suggested the need for an outreach service in the accommodation centre, staffed by a public health doctor. Outreach services were proposed as a lever and an example was provided by a HCP in a centre where they assisted with following up attendance at the GPs. sHCPs facilitating onward access to GPs, lends support for the viewpoint that some form of outreach may be required (see Chapter 9). However, an example was also provided where a GP had financed and provided transport for an asylum seeker.

Levers and barriers from the perspective of the clients merits further attention because the consequences could include for example late presentations for HIV (167) which are a known problem among foreign-born individuals (599). Levers for attendance at the GPs could therefore target barriers identified in this section, for example, attendance for their children or social welfare payments alongside the screening or a more holistic health assessment through GPs or a screening service may improve the
perceived value of the service (coherence) and ‘buy in’ (cognitive participation) by the clients (441).

Viewpoints differed between providers on the ideal model of service provision to ensure a high uptake. Moving beyond the dichotomous viewpoint of mainstream and specialist services, multiple models of service provision may be required for different individuals, as in Chapter 2 the study by Brewin identified that different settings were preferred by respondents who were migrants in their study (258).

In order for screening and IHAs and the detection of HIV/AIDS, TB and depression to be normalised through mainstream primary care, GPs would need to have a greater understanding of the screening service, perceive value in both screening and screening guidelines and have a greater understanding of screening in this context. Awareness-raising is also needed to ensure that GPs realise not all asylum seekers will have been screened in the reception phase and that health issues may occur years after migration, for example, LTBI potentially reactivating after a number of years. Recent national clinical guidelines could assist with improving the understanding and perceived value of screening among GPs at an individual or collective level, but if guidelines are not perceived as valuable in themselves this will be problematic. Methods other than the passive dissemination of guidelines may therefore need to be explored for example, Continuing Medical Education (CME) sessions alongside the other constructs of the NPT.

Strategies would also need to be targeted at the clients to ensure that they understand the health conditions, screening and the need to attend the GP and the health system more broadly and that they perceive value in it. The optimal model of service provision to facilitate this needs to be considered including whether a specific service with more time to explain the screening, a more holistic health assessment or combining screening with welfare payments is needed. Ad hoc attendance will otherwise hinder routine screening and this needs to be explored more with the clients themselves.

10.3.2 ‘Buying in’ and continuing to offer screening and use the guidelines (cognitive participation)

Embedding the screening programme requires an individual and collective recognition that screening should form a component of the HCP’s work and requires respondents to ‘buy in’ to the intervention (441).
10.3.2.1 Screening and the remit of the GPs

Several respondents, including both GPs and sHCPs, discussed how screening was not perceived to fall within the remit of GPs. For some respondents this was linked to a perception that it should not be the responsibility of the GPs and that it was a public health role; a GP also reported that they had not been instructed to offer the screening.

“I think it has been put onto the shoulder of the GP to find out if they have been screened or not which is not an ideal situation” (Respondent B24;GP;Small)

“I think we would know what to do kind of but as I said it’s not really in our area of work” (Respondent C01;GP;Large)

There was not necessarily a perception by the GP respondents that they are involved in, or should offer screening. Some GPs mentioned that they would be opposed to offering screening in the current circumstances and a statement was also made that by a GP that their GP contract meant that they should only see clients who are sick. Clarification of the role of the GPs in the initial months after the arrival of an asylum seeker was previously called for in 2001 (94).

The boundaries around the remit extend to specific tests, as certain respondents reported that public health were responsible for offering Mantoux tests and GPs would not offer them; however, as identified in Chapter 8, Mantoux tests were also not offered by all screening services. It was also raised that GPs would not be typically or particularly involved in aspects of TB control. Professional barriers may need to be addressed in order for collective ‘buy in’ (441) for GPs to offer screening. Contextual barriers may compound these barriers to Mantoux testing by GPs, as in the guideline development interviews it was discussed that if a GP makes a referral for a Mantoux test to the LHO clinic, it may only be once a month and so it can be difficult for an individual to attend.

The viewpoint that screening may not be concordant with current practice for GPs, as discussed in Chapter 8 would also hinder ‘buy in’ (441) to offering the screening. In the international literature it was identified that GPs may be unwilling to build new aspects into their practice if they only provided services for a few asylum seekers (249) and this may also need to be considered in Ireland.
10.3.2.2 Willingness of GPs to participate

One of the barriers identified was a reluctance to offer screening by some of the GP respondents, but this was not universal. Certain GPs reported that they would offer screening if asked, but in one case this was contingent on the provision of guidelines. The majority of GPs interviewed, however, raised multiple and varied barriers to their willingness to provide screening, including the need for a new GP contract, incentives and resources alongside capacity constraints and language and time barriers. These barriers are discussed in greater detail below under the relevant NPT constructs and sub-components.

The views of GPs more broadly on screening may also be a barrier to implementation; for example in the case of the GP who was opposed to the idea of a “nanny state” (Respondent B28;GP;Small). A comment was also made that “I don’t think that GPs are going to go looking for, to do, extra screening” (Respondent B3;GP;Large).

In addition to the views of the GP respondents, a reluctance of GPs to provide screening and to deal with asylum seekers more broadly was also proposed by sHCPs and line-managers and difficulties for GPs in dealing with asylum seekers more broadly in Ireland had previously been identified when a new accommodation centre opened (350). As discussed in Chapter 6, a historic reluctance of GPs to take on asylum seekers led to the establishment of specific services in certain locations. Remuneration and the apportioning of asylum seekers to GP practices were highlighted as further responses to this reluctance by GPs. In relation to screening specifically, an example was described where GPs were even reluctant to become involved in providing liver function tests during TB treatment. Reasons proposed by sHCPs for the reluctance by GPs echoed those discussed by the GPs above, and included the busyness of GPs; these are explored under the relevant NPT constructs and sub-components below.

A reluctance of GPs to engage in screening is concordant with findings from Australia; difficulties such as complex consultations meant GPs perceived they should not be the frontline for providing IHAs (249) despite financial remuneration (249). Furthermore, the GPs did not necessarily want to become specialists (249) and it was discussed how GPs may be reluctant to take on IHAs without the resources in place to support them (249). Complexity of the consultations for GPs has been identified as a difficulty by other authors (31) as has a potential reluctance by GPs to take on patients with complex needs and language barriers (266). In the UK although the majority of GPs in
one study supported screening for asylum seekers the majority thought screening should be offered on entry to the country and by specialist services (259).

10.3.2.3 The ideal model of service provision: mainstream or specialist services

Whether professional stakeholders ‘buy in’ to the intervention would logically be influenced by their views on which model of service provision should provide the service. Differing views were identified between professional stakeholders as to whether ideally screening should be offered through a specialist service or mainstream GPs and these differences in opinion are paralleled in the international literature (19, 30, 83, 249, 258, 260, 261). A level of uncertainty around the ideal model of service provision was evident among respondents as for example, certain respondents cited both advantages and disadvantages to either service.

- Mainstream GP screening model of service provision

Although multiple concerns and barriers were raised by HCPs either previously or currently involved in the screening service regarding screening in areas where it may fall back to the GPs, there was a perception among some respondents that screening should ideally be provided by mainstream GPs. This included respondents from public-health, GPs and the screening service. Reasons cited by respondents included SHCPs in centres being inundated with other health issues, the high coverage of screening being achieved in the reception centres and the reduction in asylum seeker numbers. Perceived benefits included greater integration, the fact that GP surgeries were a “safe place” (Respondent C21;GP;Large), client-HCP relationship building, reduced stigma, GP training, for example in mental health, and a more holistic approach to the health of the individual, potentially improving uptake.

However, even among those who perceived that ideally screening should be provided by mainstream GPs, numerous caveats and barriers were raised which would need to be overcome to ensure ‘buy in’ (441) from respondents, including those discussed in section 10.3.2.2. It was reported that an outreach service and a specialist service was needed at present due to the medical card delays.

“If the GPs are going to take over the screening they need to be supported it’s not fair just to dump it on them” (Respondent B14;HCP)

While a couple of respondents felt that it would be feasible for GPs to offer screening, as the preceding section demonstrates, this view was not shared by all the GPs.
Similar views regarding the provision of IHAs for refugees in Australia were expressed, where there was moderate support for the GPs to offer them, but there was a view that high quality support was required or GPs would burn out or close their books (260). Authors in Australia suggested that supports such as refugee health nurses, specialist clinics, training or voluntary organisations would be needed for GPs to offer IHAs (30, 249).

- **Outreach**
  It was suggested that an outreach service would also be needed if the service moved to GPs. Outreach services in this context refer to sHCPs or GPs offering screening in the asylum seeker accommodation centres. However, the barriers discussed in the preceding sections also need to be addressed, as while a GP commented that GPs and an outreach service could be the perfect setting, they still noted that it was not really their remit. The model of an outreach nurse was reported to have been successful in one case, but limitations were highlighted, as nurses may be unable to enact certain job roles. It has also been discussed in Australia that if the GPs were to offer screening some form of outreach service and links with specialist refugee health nurses and clinics would be necessary (30).

Although GPs could potentially offer longer consultations, as has been implemented for socially disadvantaged groups in the UK (600), the outreach nature (see section 10.3.1.2) and flexibility of the screening programme may be more conducive to the IHA and this was suggested by several respondents. Outreach services were viewed as important by several respondents, with benefits including the building of a client-HCP relationship, needing psychological and nursing support in the centres and filling the gap during the medical card delays. It was suggested by a GP that the outreach services could extend to providing information on broader welfare issues.

“having a dedicated unit on site, there’s a much more positive opportunity for developing a relationship with people……So it’s a very different level of service” (Respondent C14;HCP;Current)

However, disadvantages were also raised, such as outreach services compensating for the lack of other services and an overdependence of asylum seekers on the HCPs. Certain respondents also recognised that while outreach in the periphery may be optimal, migrant numbers were needed to justify it and the economic climate may render it unrealistic.
- **Specialist service model of service provision**

Clearly it is not a dichotomous choice and there are numerous manifestations of the model of service provision. Even within the provision of screening through a specialist service there are multiple different facets to the provision of screening, including outreach teams to the centres, dedicated GPs offering screening and screening in a centralised reception phase. Specifically contracted GPs are another model and have been employed historically. However, from a GP perspective it was reported that it may not be an attractive position and may be filled in a more transient manner, impacting on the continuity of care of the service provision. A role for medical officers to still manage the service if it moved to mainstream GPs was also suggested, alongside the importance of having GP service provision offsite for integration.

Mixed views were expressed by respondents as to whether a specialist service should be in place. Numerous advantages were cited by some respondents including the access advantages discussed in section 10.3.1.2., the building of the client-HCP relationship, previous services functioning well, standardisation, higher quality service provision with more motivated staff, detection of health issues at an earlier stage and time and language levers to service provision. A needs assessment in Cork and Kerry in 2001 suggested that a dedicated primary care service to deal with initial health issues for asylum seekers should be considered and they describe it as a potential gateway to mainstream GP and health services (94). From the findings in Chapter 8 it appears that some sHCPs may be functioning in a similar role.

Screening in the reception phase was preferable for some GPs in comparison to screening through mainstream GPs and reception centre screening, rather than dispersal location screening, was particularly supported by a sHCP. Reasons cited by respondents included improved standardisation and uptake and reducing duplication, as has also been discussed internationally in relation to reducing duplication and individuals falling through the gaps (261). A suggestion was also made that screening should only either be offered in the dispersal or reception phase to reduce duplication. In addition, it was proposed that screening at entry should be in place for TB for migrants more broadly.

In contrast other GPs advocated for screening in the periphery by a dedicated service, again citing the benefits of standardisation, alongside the need for individuals to be directed to the GPs and the willingness of a GP to offer HIV tests. Some referral specialists predominantly supported the need for a specialist service to ensure early detection of health conditions and it was proposed that this could form more of a
holistic health assessment. However, from a referral specialist perspective the caveat was levied that migrant numbers were needed to justify it and there were still limitations and mixed views about service provision through a specialist service more generally.

GPs will also therefore need to be encouraged to ‘buy in’ to the intervention in order for screening and IHAs and the detection of HIV/AIDS, TB and depression to be normalised through mainstream primary care. This interacts with a number of the other constructs and sub-components in the NPT; for example, the need for a new GP contract (see section 10.3.3). Clarification of the role of the GP in relation to asylum seeker and refugee screening and IHAs is also needed. The perspectives of what type of model of service provision should provide the screening is also likely to influence this.

As demonstrated by the findings, levers and barriers differed even within the GPs included in this study and so levers and barriers under contextual integration would need to be targeted to improve the willingness of GPs to offer screening. From a client perspective it needs to be ensured that clients can access and register with a GP and this may require outreach or specialist services alongside an awareness among GPs, nurses, receptionists and other HCPs of the barriers asylum seekers and refugees face in accessing health services and their entitlements.

10.3.3 Organising and enacting the screening work and use of the guidelines in practice (collective action)

Barriers to the detection of health issues during the GP consultations were identified in relation to the organisation of screening work and enacting the screening work in the consultation setting which would need to be addressed if screening were to be offered routinely through mainstream GPs. These included language barriers, time constraints and delays in asylum seekers receiving a medical card.

10.3.3.1 Performing the screening and using the guidelines (interactional workability)

10.3.3.1.1 Ad hoc screening

As discussed in section 10.3.1 the acute and potentially ad hoc nature of the GP service provided is one of the main barriers to enacting the screening in practice. Screening and testing appeared to be offered in a more “ad hoc” (Respondent C21;GP;Large) manner by the GPs, if offered at all, in comparison to the more proactive, structured approach to screening and the detection of specific conditions
through the dedicated screening service. GPs may therefore not be offering screening routinely in areas where screening services are present and absent.

“If you start sort of sending person A to me and person B to somebody down the road they may get a very different service from the two of us” (Respondent C13; GP; Large)

The lack of awareness of the screening guidelines among GPs discussed extensively in section 10.3.1 would also indicate that they were not used routinely in the consultation setting and so could hinder routine screening. Furthermore, not all GPs perceived guidance as useful, for example, due to the fact it was not perceived as their work. In the absence of an awareness and use of national screening guidelines, the attitudes of GPs may also be important as it was raised by a GP that they wouldn’t automatically think of asking individuals about HIV and it was discussed how they were reluctant to ask the sexual orientation of an HIV positive patient. There appeared to be barriers for this GP to discussing HIV/AIDS with their patients. A referral specialist commented that screening was not technically complicated and so with protocols GPs would be capable of providing the tests.

Ad hoc screening through GPs resonates with other suggestions in the international literature as it has also been reported in the UK (591) and other authors have voiced concerns about the inconsistency of screening and detection of health issues if offered through GPs (263, 348). Furthermore, low screening, immunisations and non-adherence to guidelines were identified in a study in primary care in the US (166). Levers and barriers were also identified to whether clients would raise issues in the consultations and heterogeneity between asylum seekers in relation to raising mental health issues.

10.3.3.1.2 Time limitations in the GP consultation

The greater flexibility and length of time afforded to the screening service to spend with asylum seekers was discussed in Chapter 8 in relation to the more holistic provision of care (see Figure 25). This is also relevant to the model of service provision as the greater time and flexibility was cited by respondents either previously or currently involved in the screening service, as a major advantage in comparison to mainstream GP provision as discussed in Chapter 9. Benefits reported included a higher quality of consultation due to the ability to: deal with language barriers, discuss issues such as health promotion (see Chapter 9) and go into greater depth, for example, in relation to psychological issues. Improved uptake of screening was also
proposed as screening services could encourage individuals to return, provide time for individuals to consider the screening and explain that screening was not linked to their asylum application (see section 10.3.1.2).

Greater time and flexibility was also perceived by respondents to facilitate the client-HCP relationship building and trust, in part due to the outreach nature of the service (see Chapter 9). Some sHCPs suggested that GPs may not have the time to offer the same service and it was discussed how GPs were more constrained with their time and so there may not be the same opportunity to build a relationship.

“I think they'd miss a lot of people to be honest because they wouldn't I feel that they wouldn't have the time to kind of encourage them and come back to them” (Respondent B23;HCP;Current)

This is important to consider as certain respondents and authors in the international literature (260) suggest that holistic service provision would be facilitated through the GPs; however, these findings indicted that there would be multiple barriers to this in practice. Whether the client-HCP relationship should ideally be formed with the GPs to facilitate continuity of care from the outset has been discussed internationally (261) and the findings in this study help to explain why this may not necessarily occur in practice. Several sHCPs suggested that time would be a barrier to GPs offering the service and this was confirmed by some of the GPs.

“from a GP point of view we’re under ferocious time pressure as it is and with the best will in the world with current staffing levels it would be extremely difficult to give adequate time to it” (Respondent B7;GP;Small)

Feedback loops are also likely to exist, where the lack of time to explain screening in short consultations may impact upon the clients’ perceptions of the value of the service and subsequent ‘buy in’ (441). The implications of these aspects need to be considered if screening is provided by mainstream GPs as the consequences on the trust and continuity of care for asylum seekers may not necessarily have been predicted.

Consultation time constraints were highlighted as a barrier by both GPs and sHCPs in the study, but were not universally perceived as a barrier. In the NIHS consultation report GPs reported that the assumption that it took more time to deal with ethnic
minority groups was not always the case (542); differences may however exist between a more long-standing ethnic minority population and recent asylum seekers and refugees.

Possible levers to overcome the difficulties related to time were suggested by respondents including repeat consultations, improved health education of asylum seekers to reduce unnecessary visits, greater support for GPs and financial incentives for GPs, including for longer consultations. Time influenced respondents’ perceptions of the ideal model of service provision (see section 10.3.2.3) as a referral specialist preferred a specialist service as they stated that GPs would be busy with other things.

In the NIHS it was recognised that GPs can be working in busy situations, under pressure and feelings of frustration and helplessness were reported around communication with patients from ethnic minorities in the consultation report (60). This has a broader relevance as time limitations for GPs in dealing with migrants have been identified internationally (31, 201, 249, 341, 343, 349, 591), including in relation to IHAs (249). The increased time burden in some cases for GPs in dealing with asylum seekers or ethnic minorities has also previously been reported in Ireland (94, 175, 573) and for a combination of HCPs (94). This is an important area, as sufficient time and organisational flexibility have been identified as components of best practice in the provision of health care for migrants (587).

Time constraints in primary care are a wider issue as they were also reported as a barrier to guideline and policy implementation for GPs more broadly (575) and to diabetes service provision in Ireland (572, 601). Resources such as time are recognised as positively associated with implementation, but inadequate in themselves (47), which would fit with the need to address the other constructs in the NPT.

Innovative methods to reduce the time constraints for mainstream GPs may need to be considered if GPs are to offer screening more widely, for example, the use of medical students for IHAs as employed in Canada (577). However, it would need to be ensured that this is supplementary and that the quality of the programme was ensured.

In Chapter 8 the distinction was made between whether GPs could offer the actual tests for screening (with the exception of Mantoux tests) and whether they could enact the screening routinely in practice, which appeared to be the major difficulty in some cases. Therefore, although the actual venipuncture or discussion of TB symptoms may
not be problematic, it may be the more contextual factors which influence the ability to be able to offer screening routinely.

10.3.3.1.3 Language and cultural levers and barriers

As alluded to in previous sections (see Figure 25), language barriers were a significant concern for a number of GPs but not for others. Heterogeneity in the asylum seeking population in relation to English language proficiency was clear from the respondents' responses. The major findings in relation to language and cultural barriers for GPs are highlighted below:

A. Language barriers

1. Particular language barriers were reported in relation to mental health issues

The inclusion of depression in the integration study design offered insights into the perceptions of language barriers among respondents. Language was raised as a particular barrier in relation to mental health issues by respondents and for several HCPs the infectious disease aspect was not so problematic. This raises concerns about cultural competency, as although taking blood samples or detecting TB symptoms may not require advanced language skills, the understanding of the tests from the client perspective is essential.

“I think communication is the biggest problem between doctor and patient, that’s not the case for the other things you’re talking about but for mental health issues that really is the biggest problem” (Respondent C13; GP; Large)

2. Variation among GPs in interpreter use and views on the interpreting service

Variation in interpreter use was reported among GPs, from a statement that they “never looked for a translator” (Respondent C21; GP; Large) to a comment that they use them “sparingly and very briefly” (Respondent C03; GP). A statement was made that they didn't really have access to translators, as while they did on paper, in practice informal interpreters were used. GPs held differing views on the interpretation services ranging from good, to difficult but adequate, to “useless” (Respondent C13; GP; Large). A GP stated that they didn’t use the service as they thought the service was inadequate, due to the need to have the interpreter in the room. Concerns relating to interpretation were raised by GPs, including the quality of informal interpretation methods, which GPs reported using. The ad hoc use of interpreters and more specifically the use of informal interpreters, concurs with
previous studies in Ireland (582, 584) and the UK (583, 585) and although this may not always be concerning for the GP, it may be from the client perspective (584).

3. **Formal and informal barriers were identified to interpreter use**

Other barriers to interpreter use highlighted by respondents, including GP, HCP, line-manager and referral specialist respondents included cost, the fixed per capita payment to GPs, difficulties in obtaining interpreters in dispersal areas, time constraints and the need for repeat appointments. The need for language support for GPs was raised. Language barriers were highly interlinked with the length of consultations in the findings from this study, as recognised in the international literature (349).

“I can access interpreters but I suppose what everyone doesn’t realise is that because time pressure is much bigger at the moment that means you are much more reluctant to use a translator, because a translator would, could easily triple the time of the consultation”

(Respondent C04;GP;Small)

Other GPs did not report longer consultations and others stated that they could fit a lot into a short consultation, offer repeat visits or allow more time for the appointment and hope the subsequent consultation is short.

4. **Consequences were identified of sub-optimal interpreter use**

Consequences resulting from the language barriers identified during the interviews included one case where asylum seekers with language barriers were not being referred by a GP to psychology or counselling. The GP proposed that asylum seekers should only be resettled in sufficiently resourced locations, although they held mixed views on this in relation to integration. This is consistent with the international literature as fewer referrals to psychological care when language barriers were present was identified in Switzerland for asylum seekers (305) and this has been reported by GPs in Denmark (348). Certain GPs also reported having to turn asylum seekers away until they returned with an interpreter. Language barriers impacting on the willingness of GPs to accept asylum seekers was also identified as an influence on the need to establish specific services.

5. **Interpretation in the dedicated screening service**

As highlighted in Chapter 9 greater access to interpretation services for some HCPs in comparison to GPs was discussed. This difference between specialist and
mainstream services has been identified internationally (30, 201, 349). However, to put the situation in context, in the screening service an example was provided where a HCP thought another sHCP should use an interpreter more and the decision came down to the personality of the sHCP. Difficulties were also raised with using interpreting services over the phone, alongside the need for more training and leaflets. However, it was raised by a sHCP that they had got better at using the interpretation services over time. This was not discussed frequently by respondents involved in the screening service.

This easier access to interpreter services for sHCPs may also have been more in the past and the time difference may influence this perception, as some sHCPs are referring to past services and it was raised that since the recession obtaining an interpreter now has to go through a line-manager. The greater language barriers for the detection of mental health issues discussed above may also help to explain differences between the sHCPs and GPs in their perception of language barriers. However, the views within the groups varied.

B. Cultural barriers
6. Clients may be reluctant to challenge GPs

Cultural difficulties were also reported by some GPs and the point was made that asylum seekers may be reluctant to challenge the GP if they have misunderstood, highlighting the link between cultural and language barriers. However, this is only the views of the respondents on language and cultural barriers for asylum seekers and refugees and this needs to be explored with the clients themselves.

Language barriers are recognised as a major difficulty for migrant health care provision internationally (30, 155, 200, 261, 339, 340, 343, 353, 354, 587, 591) and for GPs and service users in Ireland (60, 350, 582, 584, 585). In comparison to previous studies which have found a lack of knowledge about interpreters by GPs (249), including one study in Ireland (582), other problems were mainly raised by GPs in this study including: not necessarily looking for interpreters, finding them unsatisfactory, using them sparingly or using informal interpreters.

Language barriers are an essential consideration for screening and IHAs, as Bischoff et al. in Switzerland found fewer important symptoms were reported when language concordance was inadequate (305). Language barriers would also relate to the understanding of the service and value of screening for clients. However, as GPs in a previous study pointed out, communication is more than language (348) and multiple
barriers need to be considered as Ma et al. found Vietnamese immigrants in their study had not discussed hepatitis B with their doctor, even when they spoke the same language (153).

If IHAs and screening are to be provided by GPs it is essential that the language barriers are addressed. Payments for GPs to use interpreters may not be enough to overcome these barriers as GP uptake of free interpreting services was low in a pilot by the HSE in 2005. An evaluation of the service found that greater commitment to using interpretation services was needed from GPs, alongside greater resources allocated, training for GPs and training and accreditation of interpreters (573).

10.3.3.2 *Appropriate allocation of the work of screening (collective action: sub-component skill set workability)*

As discussed in previous sections there were mixed views on whether screening should be provided by a mainstream or specialist service and advantages, disadvantages, levers and barriers to both were highlighted. Respondents’ views on this in relation to the specialist knowledge, experience and interest of HCPs are discussed below.

Respondents’ discussions relating to specialist knowledge extended beyond infectious diseases, to knowledge relating to mental health and cultural competency (Figure 26). These different forms of knowledge are important to consider in the enacting of the guidelines and programme and both the perspectives of individuals and actual skills may need to be addressed in order to embed screening within a mainstream GP setting.

Concerns were discussed about the HIV knowledge of rural GPs. From a GP perspective it was suggested that screening should be offered by experts who are trained in the area and a GP commented:

> “they have the malaria bug and they have dengue fever and they’ve all of these things and it’s all just winging it” (Respondent C21;GP;Large)

As mentioned in Chapter 8 it was raised by a GP that they would not know how to screen for polio. In contrast advantages of the specialist service cited by respondents included sHCPs attending additional courses and an awareness for example of the
Figure 26. Types of specialist knowledge identified in respondents’ discussions (Figure drawn by the researcher (GS))

descriptions clients may use for previously taken TB medication when asylum seekers may be reluctant to reveal a TB history. Concerns were raised in relation to the knowledge base not being built among GPs, due to the apportioning of asylum seekers to different practices, and the loss of the knowledge base around immigrant health if screening is transferred to mainstream GPs. It was discussed how if GPs were not part of a primary care team they may not have specialist knowledge, for example around asylum seeker health seeking behaviour and entitlements.

Experience was raised as an issue by respondents and while some GPs stated that they would see high numbers of asylum seekers, several respondents mentioned that GPs may not experience many cases of HIV or TB. In contrast the experience of the screening service over time was cited as one reason why it functioned successfully.

As discussed in section 8.2.2.3 GPs may not offer Mantoux tests and although more training may be required for GPs around TB screening, this may be due to the perception of their job role. In the UK it was suggested that GPs could offer screening through a TB questionnaire, rather than Mantoux tests, as the reading of the tests may be sub-optimal if performed infrequently (266).

The concerns raised by respondents echo those raised internationally about the ability of mainstream HCPs to detect issues such as HIV (98) as authors have proposed that GPs may see some issues infrequently (30) and so have less experience than specialist services; one of the perceived advantages of a specialist service is the
availability of specialist knowledge and expertise (336). HCPs lacking knowledge about hepatitis B and who to test has been identified as a barrier to the detection of hepatitis B in migrants and ethnic minorities internationally (155, 164, 353, 602).

However, several respondents felt GPs could offer the screening and it was suggested by a GP that they would bring different expertise to the screening to those in public health. A lack of specialist knowledge around malaria was also not perceived as a major issue by a GP, as if an individual was symptomatic and seriously ill they would be referred to the hospital. Expertise in dealing with mental health issues was cited as an advantage of the GP mainstream provision of screening from the perspective of a referral specialist. Stress in dealing with mental health problems was reported by sHCPs. However, mental health issues can also be problematic for GPs and it was reported that this was particularly the case where cultural differences existed.

Varying interest in service provision for asylum seekers by GPs was suggested by a couple of non-GP respondents and this overlaps with the discussion in section 10.3.2. Varying interest among GPs has been identified in the international literature (591) and other authors have suggested that it can be difficult to recruit interested GPs for refugee IHAs (30). A lack of interest by HCPs more broadly was however also raised as a barrier to the provision of care for asylum seekers and refugees and that cultural awareness training may not sufficient to overcome this.

“one big barrier is the attitude, and that is the attitude of people who are challenged by working with asylum seekers” (Respondent B14;HCP)

In contrast the interest of the sHCPs was commented on by certain referral specialists and from a sHCP perspective was cited as a lever in overcoming language barriers. This did not necessarily have a direct positive impact on implementation, as it was proposed by a referral specialist that the interest of the sHCPs in the health of the asylum seekers was a barrier to the offer of a Mantoux test, as they were trying to protect the asylum seekers.

Ensuring appropriate training and skills are vital considerations if screening moves to mainstream primary care providers. Previous studies in Ireland found that HCPs felt they did not have the skills to respond to the needs of asylum seekers (350) and that GP registrars perceived training was inadequate in this area (585). Communication
with GPs and education about the screening was reported by certain public health and referral specialist respondents.

Based on the findings in this thesis and the previous literature, GPs may therefore require further education, specialist training and improved links with specialist services (30, 336, 349), including training around the needs of asylum seekers (591) and cultural competency (261) in addition to disease specific training. For both models of service provision, further training for sHCPs or GPs may be required around dealing with the trauma and broader health needs of asylum seekers and refugees and of HCPs.

Additional training may be required if nurse-led clinics are enacted, as limitations on the tasks which could be performed by nurses were identified in some cases during the study, for example providing positive results. Nurse-led outreach clinics for refugees and asylum seekers have been discussed as a possible mechanism to reduce the burden on mainstream providers in primary care (349) and nurse practitioners were found to be suitable gatekeepers in Switzerland for asylum seekers in primary care, but additional training may be required (352). Training is not necessarily a simple lever, as in Australia GPs reported that they did not want to become specialists, due to concerns they may become overwhelmed (249) and this would be worth exploring in future studies. The stage of training is also an influence, as if it is not prior to the implementation the intervention may be unlikely to be implemented (47).

10.3.3.3 Adequate support from the host organisation (contextual integration)

Organisational and structural influences, in relation to the support of the host organisation, were also identified which could potentially impact upon the normalisation of screening and detection of health issues through the GPs and are discussed below. These included asylum seekers having a GP and a medical card, GP contracts and payments.

- Asylum seekers having a GP and medical card
  As discussed in Chapter 6, asylum seekers are entitled to a medical card while living in direct provision, in line with means testing, which enables free access to GPs. Outreach GPs are in place in certain accommodation centres. Differing views on the extent to which asylum seekers were linked in with GPs were expressed by respondents; some respondents pointed out that asylum seekers may not have a GP, particularly after they had first arrived in the dispersal centres. Easy access for asylum
seekers to GPs was reported by several GPs, although their viewpoint must be taken into consideration as they would only see asylum seekers who are accessing GPs.

Significant concerns were raised strongly by some respondents about asylum seekers losing their medical cards if they move to private accommodation and it was referred to as “a disgrace” (Respondent C04;GP;Small). Difficulties for asylum seekers in private accommodation in accessing GPs were reported as far back as 2001 (175). The reported loss of a medical card if asylum seekers move to private accommodation is a major structural barrier, not just to screening, but primary health care. This may have a broader relevance as in Australia asylum seekers living in the community also face barriers to healthcare as they do not necessarily have access to Medicare (200, 341).

Concerns about structural barriers to access were also raised in relation to medical card delays, which were particularly attributed to the centralisation of the PCRS in July 2011 in the later interviews (see section 9.2.1.1). The quote below illustrates how the delay in the processing of the medical cards reportedly influenced the accessibility of GPs:

“GPs are very accessible, but the government has caused trouble now because they’re not servicing the medical cards” (Respondent C21;GP;Large)

Delays in issuing medical cards to asylum seekers were also reported a number of years previously in 2006 and 2007 in the NIHS consultation report (542). Consequences for the asylum seekers, HCPs and health service were described by respondents; for asylum seekers this included increased anxiety, delayed mental health referrals and GPs only providing emergency care and advising asylum seekers to return when they had their medical card; for outreach HCPs this included the increased workload discussed in section 9.5 as they were compensating for the lack of access to other services; and for the health services increased inappropriate use of the A&E department was reported. Medical card delays were discussed in relation to the dispersal locations, as in the reception phase specific arrangements are in place.

Levers and barriers to the resolution of the medical card delays were highlighted by respondents, including a lack of control locally inhibiting the previous ability to fast-track medical cards and the lack of anyone with higher level responsibility for the service to advocate for the asylum seekers. The role of a key worker to facilitate asylum seekers obtaining a medical card was described as a lever, however, even
then they noted “it’s often a bit fraught at the start” (Respondent B3;GP;Large). As discussed in Chapter 9, sHCPs assisting asylum seekers to access a GP in some cases was also a lever as:

“they may not get to a GP for months, they may not even apply to go to a GP” (Respondent B22;HCP;Past)

Further structural and organisational barriers were also identified by respondents at the stage of asylum seekers obtaining a GP and accessing an appointment. Barriers reported included GPs not accepting asylum seekers as their books were full and asylum seekers previously requiring three written refusals before a GP was allocated. Difficulties in GPs not having room on their books for asylum seekers were also reported in the NIHS consultation report (542). This is relevant internationally, as barriers to access were identified in the UK for African migrants included GP surgeries stating they were full and migrants being asked for documentation (86). Awareness of frontline HCPs and receptionists of migrant access to healthcare is therefore essential (86).

An example was provided, by a sHCP, of an asylum seeker being turned away by the GP surgery until they had their screening results, creating stigma and a delay. As discussed in section 10.3.3.1.3, having to turn asylum seekers away until they had a suitable interpreter was also reported by a GP:

“I said I cannot see this patient unless there’s a proper interpreter with her……it’s very serious you know, it’s a minefield, you know, communication is very important” (Respondent C01;GP;Large)

However, several GPs in the study stated that anyone could arrange an appointment, although it was reported that language barriers would be “a stumbling block” (Respondent B3;GP;Large) to the acceptance of asylum seekers for other GPs. Payment for TB treatment for example is not a barrier as it is free; however, as some respondents noted asylum seekers may not necessarily be aware of this and may fear hospital bills.

Levers proposed by respondents included assigning asylum seekers automatically to a GP’s medical card ‘list’ in the dispersal areas and linking asylum seekers in with a GP. At the level of the asylum seeker, emphasising personal responsibility was proposed, as it was suggested that there can sometimes be an overreliance on the Community
Welfare Officer (see section 10.3.1.2). In some areas from the document review it was clear that Community Welfare Officers (CWOs) assisted in linking asylum seekers in with GPs (D39Reg) but this may not have occurred in all areas. In some locations asylum seekers are distributed among GPs or there are certain GPs allocated to asylum seekers in the centres. Distribution of asylum seekers among GPs was also highlighted as beneficial by a GP for integration due to the sharing of the burden among practices, although as aforementioned in section 10.3.3.2 it was suggested by a referral specialist that this hindered the formation of a knowledge base. Not all providers were clear as to the arrangements with GPs for asylum seekers.

- **GP payments and contracts**
  Additional payments and the negotiation of a new contract for GPs were raised by some GPs as a requirement for them to offer screening; this was also acknowledged by a number of other respondents.

  "If it was to be encouraged within the health system I think that would have to be looked at in the overall context of a new GP contract"

  *(Respondent B7;GP;Small)*

This was one of the reasons reported for the reluctance of GPs to offer screening as they did not perceive they were adequately resourced and in some cases would need additional HCPs. While this was a particularly important lever for some GPs, it was also stated by a GP that even with financial incentives, capacity would remain a major problem. Another GP commented that the lack of payment was a problem, but if asked they would still offer screening. A context of increased work following the recession in dealing with chronic care and inadequate reimbursement and providing services for which they are not paid was also outlined by GPs. From the document review it was clear that at least in certain areas arrangements were in place for GPs to be paid for a one off screening (D39Reg).

Organisational level influences therefore appear to impact upon the willingness of GPs to offer screening. This is not necessarily surprising or confined to asylum seeker and refugee screening as remuneration has been identified as a potential method to improve diabetes care in Ireland (601) and the implementation of coronary heart disease policies (572). Incentives have previously been suggested by GPs for longer consultations involving interpreters for ethnic minority clients (573). GPs, at least previously, received a fee when an asylum seeker joined the practice; however, this was only identified as related to screening in one area. Ad hoc measures, where GPs
accepted asylum seekers for free prior to them obtaining a medical card, were reported in a previous study (350). Additional payments were discussed (343, 591) and identified (349) in the UK for refugees and asylum seekers and additional payments are in place in Ireland for other programmes, for example, the cervical screening programme (603, 604).

Although financial incentives and resources are suggested to increase implementation effectiveness internationally (47), the evidence is uncertain as to whether they improve the quality of primary care provision (605). Incentives and payments should not be regarded as a panacea, as awareness is needed of the multiple interacting nature of the barriers. In Australia, difficulties persisted for GPs in offering refugee IHAs, despite having additional payments in place (249) due to barriers such as the need for training, the willingness of the GPs and administrative burden of using the Medicare number (201, 249). Difficulties with the payments were also reported as it was suggested they were insufficient (30) and that the fee per service payment was inappropriate considering the number of missed appointments and workload for GPs outside the consultation (249). This would need to be considered if incentives were implemented in Ireland.

- **Capacity and resources**

Capacity and resources reportedly impacted upon the ability to detect the specific health issues and implement screening through GPs and were highlighted as major barriers to the provision of screening by several GPs, including particularly certain GPs from smaller practices. Capacity was raised as a concern even if financial incentives were offered as more staff would need to be hired to provide screening.

> “it’s just capacity I mean it’s not about extra money it’s about capacity” (Respondent C04;GP;Small)

For another GP from a smaller practice the lack of resources meant they would be opposed to offering screening and they also discussed the need for a new GP contract and financial support if it were to be offered, as again they would need to hire more staff. Among those from larger practices, certain GPs stated they would offer screening, but GPs differed on whether they would have the resources. Limited resources due to the economic context in Ireland were raised by several respondents and need to be considered.
Capacity impacted upon the views of respondents on the future model of service provision, with a suggestion put forward by a GP that there should be a focus therefore on active rather than latent TB. Another GP stated that although a specialist service was preferable “things are being pulled on all sides” (Respondent C21;GP;Large). As mentioned in section 9.5 an increased workload due to medical card delays for screening services was also reported, but it was raised by a GP that there were possibly excess services currently in one of the accommodation centres.

Logistical barriers, the burden for GPs and limited human resource capacity have been identified as barriers to GPs offering IHAs internationally (31, 249). Capacity considerations for onward referral services are also vital in relation to screening and this was raised as a barrier in relation to psychology services by a couple of respondents. A large amount of paperwork was also mentioned and other influences would fall under contextual integration but have been discussed under other constructs and sub-components, including support for GPs in dealing with language barriers (see section 10.3.3.1.3).

Adequate support for the intervention by the host organisation is a clear barrier to the normalisation of screening through the GPs (441). In the NIHS consultation report, asylum seekers and refugees recommended that there was a need for an increased number of GPs to provide care for asylum seekers in direct provision and that there should be a specific GP allocated (542). A lack of organisational support was also reported in Australia for GPs, where managers stated they were unable to support the GPs with resources as refugee health assessments were not a priority area and so they did not receive funding (249). Institutional barriers have also been identified as a barrier to mainstream TB screening for migrants internationally (141) and have restricted free care for refugees in the US (85).

**10.3.4 Reflecting on practice and modifying practices accordingly (reflexive monitoring)**

The influence of respondents’ reflections on the implementation of screening and providing services for asylum seekers and refugees was evident (reflexive monitoring) and specific examples are highlighted in Figures 27 and 28. Respondents’ perceptions of the ideal model of service provision were influenced by their views on the uptake of services by asylum seekers. Perceptions of a low uptake of screening led to a suggestion that screening should be offered through GPs. However, other HCPs reported mixed views on the uptake and benefits of dispersal screening.
Figure 27. Examples of influences on service provision identified under reflexive monitoring relating to informal respondent reflections on a specialist or mainstream service
Figure 28. Examples of influences on service provision identified under reflexive monitoring relating to a lack of knowledge to reflect formally on the screening service and informal reflections proposed at the client level.
It was also reported by some GP and referral specialist respondents that TB, HIV or depression may be missed through primary care and this led to the view that a screening service was needed. In Australia it was also found that GPs perceived that certain issues, more unique to refugees, would have ‘slipped through’ (249).

“GPs would not do Mantoux testing here and they wouldn’t routinely do chest x-ray so they really need to come through a screening programme to have it done otherwise it won’t be done” (Respondent C11;RS)

These informal reflections by professionals on the model of service provision (individual appraisal) would feedback to perceptions of the value of screening (coherence) and ‘buy in’ (441) to the intervention (cognitive participation). There appeared to be a lack of more formal reflexive monitoring (systemisation).

From a client perspective reflexive monitoring and responding to practice could also be important. For example, it was emphasised by a sHCP that the barriers extended beyond language and could be created in response to a negative interaction with the GP practice, such as with a GP receptionist or being told to return with an interpreter (see section 10.3.3.1.3). This has previously been reported in Ireland (584). A proposed overreliance of some of the clients on the sHCPs, including those offering an outreach service can also be perceived as reflexive monitoring (443) at the client level in response to implementation, as if the clients experience additional help from the sHCP this could function as a positive feedback loop (606).

The influence of the reflections of respondents on the current screening service and GP service provision influenced their perceptions of the ideal model of care. This is then likely to impact upon coherence and cognitive participation. More formal audit and evaluation is also needed of the proportion of asylum seekers screened in the reception phase and this can then be used to increase the awareness of this among GPs and other HCPs.

Individual GP’s experience and reflections, for example, that screening is not necessary would also need to be challenged if screening was to be normalised through GPs. Reflexive monitoring is also important for the clients and initial negative experiences which impede asylum seekers returning and accessing the GP would need to be targeted in order for normalisation to occur through GPs. This more dynamic process is captured well
in the NPT component of the conceptual framework and indicates that there is a need for more formal data to inform these perceptions of the screening service.

10.4 Discussion and conclusions

Significant barriers were identified to the provision of an IHA or screening through mainstream GPs and the detection of certain health issues at an early stage. Decisions on moving screening to GPs is an important issue for debate, particularly in the areas where screening services are no longer in place. The analysis in this study indicates that it cannot merely be assumed that GPs will be able to offer screening routinely. A proactive effort would be required, beyond the production of clinical guidelines to address the multiple barriers and engagement of GPs, if normalisation is to occur. As identified in Chapter 8, the majority of the GPs in the small sample were unaware of the national screening guidelines, indicating that passive dissemination strategies were insufficient to engage the GPs in the sample.

As discussed above, the findings in this thesis support the previous international literature discussing ad hoc, sub-optimal and inconsistent screening and detection of health issues through mainstream primary care (166, 263, 348, 591). Although difficulties have previously been identified in relation to screening and IHAs and mainstream service provision this study is the first to analyse this in detail with a theoretical perspective and therefore provides a greater understanding of the barriers and levers.

A number of the difficulties identified by GPs in relation to asylum seekers and refugees support the barriers to the provision of care for clients in deprived areas reported in the literature. These include competing priorities for clients, literacy and language barriers, the lack of time for GPs to deal with individuals with complex health and social needs and the volume of workload for GPs (600, 607-609). Parallels also exist with some of the literature on GP consultations for those who are experiencing homelessness, including communication difficulties and a lack of specific training and knowledge of GPs (610). Throughout the thesis it needs to be acknowledged that not all asylum seekers and refugees will encounter the barriers identified. Asylum seekers and refugees are a heterogeneous population and a number of barriers will relate more to other social determinants of health, resulting in a number of parallels with other populations. However, specific barriers exist for migrants.
Whether screening and IHAs are and can be offered through GPs is an important consideration, both in Ireland and internationally. GPs may need to offer screening to asylum seekers and refugees who are missed by dedicated screening services (611, 612) or didn’t take up screening initially, or other migrants, and adapted national guidelines were produced for this purpose. For example, migrants from the EU have free movement rights within the EU (613) and would not be offered screening in Ireland. However, a number of countries within the EU have high rates of TB, including MDR-TB (614) and so detection of TB through GPs would be important. The findings raise concerns about the extent to which communicable diseases and other health conditions will be detected through GPs if detection is based more on presentation with symptoms and passive detection. A significant burden of health issues and asymptomatic infections has been identified in the migrant population (174). Migrants may not be aware they are infected (152), therefore passive detection may not necessarily be sufficient to ensure the health needs of the individual are met.

In health systems such as Ireland where GPs play a pivotal role as gatekeepers, consideration of the detection of health issues and integration of asylum seekers and refugees into the health system through GPs is vital. Authors have suggested that individuals should be empowered to use mainstream services (260) and that primary care could be the most suitable location for the early detection of TB and HIV (98).

Longer term detection of health issues in asylum seekers and refugees is also essential through GPs. For example, the risk of reactivation of TB is elevated for the first 5 years after arrival (123) and beyond (223). These findings also offer insights into possible barriers to the detection of communicable diseases which may occur some time after arrival. In the literature this is primarily discussed in relation to the risk of reactivation of LTBI (9, 13, 226) but is also important for malaria, including \textit{P. falciparum} (615). These findings are also highly relevant to the passive detection through GPs of communicable diseases among migrants other than asylum seekers where a formal screening programme may not be in place, both in Ireland and internationally (162).

A paucity of evidence exists in the international literature in relation to in-depth analyses of the domestic models of service provision for screening and IHAs for asylum seekers and refugees, with the exception of certain articles (30, 260). Few studies have examined the perspectives of HCPs on the models of service provision (249); the findings in this thesis
offer insights into the views of professional stakeholders on the advantages, disadvantages, levers and barriers to offering screening and the detection of HIV/AIDS, TB and depression through mainstream GPs in comparison to specialist services. In the implementation, innovation and sustainability literature there also appears to be a lack of specific attention to the whole model of service provision. The model of care needs greater consideration at the point of guideline development and in relation to implementation and normalisation of the screening intervention.

The model of service provision is also important to consider in relation to a re-evaluation of screening towards a broader, more holistic focus (see Chapter 9) and meeting the health needs of asylum seekers and refugees. If screening is to be provided for the benefit of the client and migrant it may need to be embedded within a more comprehensive health assessment and holistic service provision (see Chapter 9). While it may be assumed that this type of service should be provided by GPs, these findings highlight that this may require further consideration as it may not be that easy to enact in practice.

The need for differing models of service provision was recognised and is likely that different models of service provision will suit differing contexts within Ireland; this necessary variation has also been recognised internationally in relation to refugee IHAs (30, 260). As discussed in Chapter 7 the service has been delivered through a number of different models of service provision and therefore the adaptability of the intervention has been demonstrated, a characteristic of the intervention associated positively with implementation (47). Other model of service provision ideas were mentioned less frequently, such as a mobile outreach TB screening service and linking GPs in with the former structures of the HSE through primary care teams and networks.

A combination of services may be required as recognised in relation to asylum seeker and refugee primary health care more generally to reduce the burden on mainstream providers (349). It has also been recognised that a combination of strategies may be required to improve the uptake of TB screening in the UK (266). The need for additional services for asylum seekers was also raised in this study. Feldman’s tripartite framework for primary care services for refugees and asylum seekers (349) could be useful in service planning (349). Clearly models of service provision are multifaceted and the conceptualisation of a simple dichotomy between mainstream and specialist services is artificial. Numerous advantages to service provision through a specialist service were identified and caution
should be taken in halting these services, particularly, as identified in Chapter 9, they may offer additional benefits.

Meeting the health needs of asylum seekers is essential, both for the individuals and when health problems of public health importance exist. For this to occur, access to services and the detection of these health needs must be assured. At present screening may not be offered routinely in areas where dedicated screening services are not in place and this raises access and equity concerns for asylum seekers and refugees. The findings indicated that the ‘soft-periphery’ of interventions and the model of service provision specifically must be addressed more proactively, as it is a major influence on the enacting of screening and detection of health issues in practice.
Chapter 11: Discussion

11.1 Introduction

Evidence-informed policy, guidelines and practice for communicable disease screening and IHAs for migrants are essential in order to ensure the health needs of individual migrants and the broader population are met. Migration and migrant health more specifically are political topics and it is necessary that evidence, rather than politics, informs policy and practice in this area (see Chapter 2). The in-depth case-study in this thesis provides a conceptual and theoretical analysis of the development and enactment of the communicable disease screening guidelines and services for asylum seekers and refugees in Ireland. The findings facilitate a greater understanding of getting knowledge into action in this area and potentially have wider applicability for the implementation of complex interventions in other contexts. Key findings and implications arising from this thesis are highlighted below, followed by recommendations for policy, practice and research, a discussion of the strengths and limitations of the research and then final conclusions are drawn.

11.2 Main conclusions and implications

11.2.1 Sub-optimal implementation of the communicable disease screening guidelines and programme

Implementation of the communicable disease screening guidelines and programme for asylum seekers and refugees in Ireland was varied and sub-optimal. Screening service coverage was fragmented and it cannot be assumed that GPs are offering screening routinely in areas where no dedicated screening service is in place. This concurs with previous findings in other contexts suggesting that GPs may not be offering screening or IHAs routinely (249, 259). The findings from this thesis elucidate the nature of some of the variation and adaptation of the guidelines and programme in practice; for example, variation was identified at the level of the implementation of the screening tests, particularly in relation to Mantoux testing and polio screening.

Although variation at a sub-national level may reflect adaptation to differing contexts, asylum seekers and refugees may receive a different service depending on where they are dispersed, with implications for access, quality, continuity of care and the comprehensiveness and equity of service provision. Inadequate early detection and treatment of communicable diseases can result in serious, detrimental consequences for
the individual and the population, due to increased transmission, and for national and international communicable disease control. For example, at the level of the individual migrant and the community, late diagnosis of HIV is an important problem (304, 616, 617).

The findings are concordant with the decentralised, varied and sub-optimal implementation of migrant health screening policies and programmes identified internationally (14, 34, 35, 125, 200, 214, 308, 618, 619) (see Chapter 2) and the findings potentially have particular relevance to other countries with decentralised health systems. However, up until now the issues researched here had primarily been raised in the discussion sections of articles and opinion pieces and at a sub-national or local level. Previous studies were also predominantly disease specific, primarily focusing on TB screening, whereas this thesis analysed a multidimensional screening programme at a national level.

Difficulties with the coverage of screening services had been identified internationally, however, this research adds to the existing literature as it provides an in-depth understanding of factors influencing the coverage of the screening service in Ireland. This thesis therefore provides a novel contribution to the research literature in this field by providing primary, rigorous, qualitative research evidence, alongside an in-depth conceptual and theoretical understanding of the nature of this variation at a national level and the factors contributing to why this is occurring.

11.2.2 Adaptation of the intervention in practice

One of the major findings in this thesis was the enacting of a more holistic health assessment by some sHCPs and recognition of the broader health needs of asylum seekers and refugees by others. This demonstrates further adaptation of the screening programme in practice, in addition to the variation in the coverage and screening tests detailed above.

While adaptation of the intervention in practice can be beneficial and a natural process in response to differing contexts, concerns voiced by stakeholders included the fact that HCPs who are not trained in these broader areas may experience stress and that the vertical screening service is not necessarily the ideal mechanism to provide high quality broader services. Furthermore, fidelity of the screening programme to evidence-informed guidelines is required to a certain extent, to ensure service provision is evidence-informed.
While the provision of a more holistic service could potentially enhance the effectiveness of the programme, adaptations relating to who is offered a Mantoux test for example (see Chapter 8) could affect the fidelity and therefore effectiveness of the screening intervention.

The findings support a perspective from the organisational literature that ‘evidence becomes ‘real’ by being enacted in micro clinical settings by local actors’ (383). This viewpoint diverges from a focus on a top-down implementation gap, towards an emergent and bottom-up perspective (383), more aligned with complexity science (455) and certain elements of the policy analysis literature (51) (see Chapter 3). While an emergent bottom-up perspective of enacting evidence and knowledge in action has been discussed in the theoretical and conceptual literature (383), this study adds to this body of literature by providing primary research evidence for this more dynamic, adaptive implementation process in a new context.

The findings are particularly relevant to the suggestions in the international literature for a re-evaluation of the conceptualisation of migrant screening towards a more integrated and holistic approach (13, 23-25, 271) (see section 2.5.3). The findings suggest that this is occurring in some locations in Ireland in practice and so screening programmes may focus more on the health of the individual, even if this is not necessarily reflected in higher level policy documents. More holistic screening at a sub-national level has also been identified in the US (166, 261, 290). The WHO World Health Report on Primary Care in 2008 discussed how the primary care team has to be responsible for assisting individuals to navigate the complex health system, as it can build trust and ensure early detection of conditions (620). These aspects may in some regards be met by the outreach screening services at present. Previously, holistic health assessments have been reported and advocated for in the literature (see section 2.5.3), but primarily in relation to individual clinics or at a local level. This is the first study to examine this conceptually and theoretically at a national level in Ireland in the literature to date.

11.2.3 The model of service provision is a key consideration for implementation

The findings in this thesis demonstrate that the model of service provision for screening and IHAs requires greater attention in Ireland. This is particularly pertinent due to the fragmented coverage of the screening service, as it cannot be assumed that GPs are offering screening routinely in locations where dedicated screening services are not in
place. Again this raises concerns over the detection of communicable diseases and the equity of service provision for asylum seekers and refugees. A number of barriers to normalisation of the offer of screening through GPs were identified and these are detailed in relation to future recommendations in section 11.3 below.

The findings concur with previous literature, reviewed in Chapter 2, which identified sub-optimal screening and detection of health issues through primary care (166, 263, 348, 591). A number of the advantages and disadvantages of mainstream and specialist service provision proposed in the literature (see section 2.3.3) were also relevant to screening and IHAs in the Irish context, including the advantage of the experience and knowledge of the specialist providers. In particular, there were a number of parallels between the findings in this thesis and the views of GPs in Australia on implementing IHAs for refugees, including the willingness of GPs to provide them, the time constraints in consultations and the lack of resources in place to support them (249) (see section 2.3.3). This also points to difficulties with the constructs of GPs perceiving value and buying in to offering IHAs (coherence, cognitive participation) and the support of the organisation (collective action: contextual integration) in the NPT. The concept of the ‘soft-periphery’ could be used to conceptualise and explore this further in Australia alongside the NPT in the conceptual framework; specific recommendations based on the NPT analysis are discussed in section 11.3.

However, the in-depth analysis in this thesis highlighted the complexity of the differences between mainstream and specialist models of service provision. For example, while previous literature suggested that the provision of a more holistic service (30) and the building of a relationship between the client and GP (260, 261) would be an advantage of a GP model of service provision, the findings in this thesis indicated that this may also occur with a dedicated screening service. Furthermore, the ad hoc and acute nature of GP service provision may mitigate against some of the proposed benefits. Any transition of screening to GPs needs to be balanced against the benefits of a specialist service that were reported in this thesis, which could otherwise be lost, for example, the reported greater time and flexibility afforded to the asylum seekers and specialist knowledge of HCPs.

In the UK it has been suggested that GPs could offer screening and case finding interventions could be enacted through GPs (83, 597). Bothamley et al. suggested that
screening for TB was feasible through practice nurses as without a tuberculin skin-test the addition of TB screening added one minute to a new patient consultation (83). However, this does not account for the length of time of the new patient consultation, including the possible use of interpreters and the findings in this study suggest that the other NPT constructs including for example, GPs perceiving value in the screening (coherence) and effective monitoring and feedback (reflexive monitoring), may need to be addressed for normalisation to occur.

Similarly, in Denmark, concerns were raised about the lack of policies for GPs to offer IHAs to refugees in a high number of municipalities (202). The findings from this thesis suggests that although policies or guidelines may be useful, more strategies are needed to ensure GPs can and do offer IHAs (202), including those which address the barriers under the other NPT constructs in the conceptual framework.

Previous literature in this area is primarily from opinion pieces and non-systematic reviews, with a few exceptions (30, 33, 151, 183, 230, 249) (see Chapter 2). A number of the elements relating to the model of service provision had previously been discussed in relation to migrant health, but this thesis provides the first conceptual and theoretical analysis of the model of service provision for screening in Ireland, using primary data from frontline providers from rigorous qualitative research.

11.2.4 Multiple interacting influences were identified on the enacting of the screening guidelines and programme

The research findings support the need to consider influences on implementation at multiple levels, beyond individual behaviour change, and importantly the interactions between these differing influences. The characteristics of individuals were still important; for example the holistic focus of some of the sHCPs and the value of motivated staff and their knowledge base, including more tacit knowledge, were highlighted in the findings. This is recognised in the international literature as a cross-cutting theme, which extends beyond migrant health. Furthermore, the characteristics of the intervention were also important, for example the need to update the guidelines.

However, the influences extended beyond this, as suggested in the implementation literature (38-43) (see section 3.4.4), and the case-study approach assisted in identifying the numerous influences across the domains of the adapted CFIR in the conceptual framework. A number of barriers to the enacting of the screening guidelines and
programme concurred with those identified in other contexts in the international literature, including language, cultural and social barriers (10, 100, 123, 141, 155, 164, 235, 294, 304, 305) (see Chapter 2). While the need to recognise the multiple levels of influences on implementation has previously been advocated for (39, 42, 373, 426) (see Chapter 3), this is the first analysis of how the multiple interacting influences on implementation contribute to the variation exhibited by screening programmes in practice in Ireland using a conceptual and theoretical analysis. Previously, influences on the implementation of screening guidelines and programmes had primarily been identified from the discussion section of articles and opinion pieces.

11.2.4.1 The context

Authors have advocated for greater attention to be paid to context and process in relation to implementation (38, 40, 44, 47, 426, 427) (see section 3.4.5); the findings from this thesis support their importance. Contextual influences on implementation were particularly prominent and extended beyond the specific screening programme, to the health system and broader context, as previously identified in the programme implementation literature (367, 368) (see section 4.5.1). Influences included fundamental issues, for example, human resource constraints alongside wider contextual factors including the influence of the H1N1 pandemic on priorities within the health system.

The findings from this study support Dopson, Fitzgerald, Ferlie and colleagues’ (46, 383) suggestions for a more sophisticated view of the context (see section 3.4.5), which includes the need to consider the contextual influences as multidimensional forces, which interact in complex ways and are not static.

Dopson and Fitzgerald (46) discuss the work of Pettigrew in the organisational change literature who discussed the need for a broader view of the context, including the social, economic and political influences. Although more indirectly referenced by respondents in the thesis, there is a need to acknowledge the economic context in which the findings are situated as the data collection took place between 2010 and 2012, after the start of the 2008 global financial crisis, when the recession in Ireland had begun.

This broader view of the context also requires a consideration of the historical context and process and this has been recognised as important by other authors (621) (see section 3.4.5). For example, in this thesis the historic reluctance of the GPs to offer screening was
identified in Chapter 6 as one of the reasons for the establishment of the dedicated services. Similarly, in Australia it has been suggested that the establishment of specialist services for refugee health assessments was in response to the lack of support for GP based provision (260).

A complexity perspective may assist in capturing these broader influences and importantly the dynamic interactions and relationships between influences (459-461) which are also recognised as important in sustainability science (440). This is important as although recognising the influence of the resource constraints and migrant trends for example is vital, it is the individual, collective, social and system response to these which enact or hinder change.

Previously, evidence on the influence of environmental variables was identified as ‘sparse and heterogeneous’ (371) in the diffusion of innovation literature. The conceptual framework in this thesis built on the CFIR, NPT and previous programme implementation literature to provide a more structured conceptualisation of the broader context, which could be used in future studies.

11.2.4.2 The process

The findings in this thesis support the perspective that getting knowledge into action is neither a linear or rational process (378) (see section 3.4.5) and the use of the NPT and adapted CFIR in the conceptual framework assisted in analysing the findings without taking a linear perspective.

Multiple aspects of the process were identified which need to be considered for effective implementation. The dual consideration of both the development of the guidelines and the implementation of the guidelines as part of the process (added to the amended process domain of the adapted CFIR) is aligned with more of a policy analysis approach (454) (see section 4.5.2) than with the original CFIR. This offered a number of insights, for example, the perceived separation between the guideline development and implementation by a couple of respondents is illuminating. Considering implementation when developing guidelines is current best-practice (395), yet professional stakeholders held differing views on the extent to which implementation considerations should and did influence the development of the screening guidelines.
Furthermore, a narrow perspective of evidence was also adopted by several respondents and a greater appreciation of the wider sources of knowledge by guideline developers could facilitate knowledge to action. Although some respondents perceived the guidelines as best practice, evidence-based guidelines some respondents discussed the insufficient evidence-base, demonstrating that the evidence for clinical practice is not necessarily irrefutable (397) (see section 3.3.1). With regards to the process of implementation there was a lack of a national driving force for implementation and the lack of awareness of the screening guidelines among some GPs suggests inadequate engagement.

The use of the NPT in the conceptual framework particularly assisted in highlighted the dynamic and social nature of the process of enacting the guidelines and screening service in practice and a more bottom-up view of implementation moving beyond the perception of a top-down implementation gap; this is discussed in further detailed under section 11.2.5 below. This is the first in-depth case-study examining both the development and implementation of guidelines for asylum seeker and refugee screening in Ireland and internationally in the literature.

11.2.5 Contributions of and reflections on the conceptual framework

11.2.5.1 Contributions

Certain authors in the peer reviewed implementation (45, 429) and knowledge translation (430) literature have called for a greater use of theory and coherent theoretical basis for implementation (45), including theories which address the multiple levels of implementation (see section 3.4.4). This thesis incorporates insights from a range of disciplines and the combined use of the adapted CFIR and NPT in the conceptual framework facilitated this. The findings therefore support the use of the conceptual framework, including the adapted CFIR and NPT in further studies, as it can assist in contributing towards a coherent theoretical basis for implementation, away from an ‘expensive version of trial-and-error’ (431). Grol (373) highlighted the fact that implementation theories are not necessarily supported by robust scientific research and this thesis provides primary data to support the use of the adapted CFIR and NPT in the conceptual framework.

Specifically the conceptual framework added value in relation to understanding the importance of the:
• **Adaptation of the guidelines and programme:**
The conceptual framework captured different aspects of adaptation of the guidelines and programme. Using the CFIR concepts of the ‘hard-core’ and ‘soft-periphery’ of the intervention was highly useful in understanding the findings, but they were insufficient alone in capturing the dynamic responses to implementation in practice (459-461) and feedback loops. The concepts assisted in clarifying the nature of the adaptation, but the limited detail of the concepts in the CFIR hindered their use. Within the conceptual framework, it was the construct of reflexive monitoring in the NPT which enabled the dynamic responses of those implementing the guidelines and screening to be captured and the influence of this on the normalisation of the intervention.

The NPT was also useful in capturing the more collective and social influences on implementation, including the responses of HCPs to the needs of asylum seekers and the dynamic interactions. Using the CFIR alone in the conceptual framework would not have adequately captured the influence of the needs of the clients, including the interactions between the clients and HCPs, as the needs of the clients are relegated to the outer setting, yet these interactions are integral to implementation.

• **Model of service provision**
The adapted CFIR in the conceptual framework was highly useful in elucidating the numerous influences on normalisation. Conceptualising the model of service provision as an adaptable element in the ‘soft-periphery’ of the intervention was useful as it assists in clarifying a complex situation and highlighted the influence of the model of service provision as part of the organisational structure required for implementation (41). Clearly, it also forms part of the process of implementation, through the need to engage key stakeholders. The model of service provision is a distinct concept from the more holistic service provision discussed in Chapter 9. Therefore whether these should both be conceptualised in the ‘soft-periphery’ is a point for further research, discussion and analysis.

The NPT in the conceptual framework was particularly useful for the analysis of the model of service provision findings and for the development of recommendations in this area (see section 11.3). Insights from the NPT constructs not only furthered the understanding of the barriers to normalisation of the intervention among the GPs retrospectively, but can
be used prospectively to highlight the underpinning social and work processes which need to be addressed if mainstream GPs are to offer IHAs or screening more widely.

- **Multiple interacting influences including contextual**
  The adapted CFIR assisted in elucidating the multiple influences in a complex situation. For example, the inner setting of the CFIR assisted in highlighting the influence of the lack of human resources, leadership and management which have been recognised as necessary for routinisation to occur (371). This multiplicity of influences therefore suggests that a simple increase in resources, for example, may not be sufficient to ensure the long-term implementation of the intervention; this has been previously acknowledged in the international literature (47). The NPT constructs also enabled influences to be identified at multiple levels, for example, the trust between the HCP and client (relational integration within collective action) and human resources as a broader health system influence (contextual integration within collective action).

  Greater attention to the broader context (see section 11.2.3) is provided in this conceptual framework as the outer setting domain in the CFIR and contextual integration sub-component of the collective action construct of the NPT needed to be expanded to incorporate the influence of migration trends for example. The inner and outer settings in the adapted CFIR component of the conceptual framework go beyond the definitions by Damschroder et al. (47) to include the broader influences, which is more in line more with the definition by Pettigrew described by Dopson and Fitzgerald (46). While the NPT does recognise the influence of the broader context, it appears to focus primarily within the boundaries of the organisation in which the intervention is embedded. The NPT fits with the perception by Dopson, Fitzgerald, Ferlie and colleagues that the context is socially perceived and enacted (46, 383).

- **Dynamic collective and social work processes**
  The conceptual framework enabled the identification of the more static influences on implementation through the use of the adapted CFIR component, as well as facilitating an examination of the more dynamic collective and social work processes involved in enacting the guidelines and screening through the use of the NPT component.

  The construct of coherence was useful in capturing several disparate influences identified using the adapted CFIR and in bringing them together to understand why they may
impede normalisation, therefore adding more meaning to the influences identified. For example, it was useful in highlighting how it is not only the lack of awareness of the guidelines that is a barrier to normalisation among HCPs, but also that HCPs may not be aware of the screening programme, may not appropriately distinguish testing from screening and may not necessarily perceive value in the screening guidelines specifically, guidelines more generally and the screening service.

One of the major theoretical insights from the inclusion of the NPT in the conceptual framework was the importance of both the individual and collective influences in the social context and moving beyond a simple examination of the characteristics of individuals. For example, the construct of cognitive participation was relevant to the coverage of the screening services and assisted in understanding why it is not just single practitioners, but their networks which need to be targeted. Previously, there has been a focus on strategies targeting individual HCP behavioural change, in order to implement evidence into practice (410). The findings support the need to address communities of practice and a broader range of key stakeholders for future implementation, including managers, frontline HCPs and clients. While the CFIR mentions networks the NPT gives greater prominence to this more social element of implementation, which is highly relevant to the findings in this study.

A more explicit recognition of the dynamic interactions between the different influences in the conceptual framework through the inclusion of the NPT facilitated a focus on the dynamic processes involved in actually enacting the work. These included, for example, the interactions between the language barriers and time limitations in the consultation setting.

The construct of reflexive monitoring in the NPT was particularly valuable in capturing the dynamic nature of the adaptation of the guidelines and programme and the influence of the responses of the HCPs to implementation in practice and is in line with a complexity perspective (459-461) and the conceptualisation of the health system as a complex adaptive system (367, 455). This is in line with the viewpoint by Gruen et al. (440) who highlighted how programmes can be conceptualised within complex adaptive systems and that dynamic interactions, such as how users respond to new programmes and services and adaptation, are important in understanding the sustainability of programmes. Crucially, the findings and analysis using the NPT component of the conceptual
framework emphasise the need to consider the dynamic responses (459-461) at the individual, collective and system levels to the implementation and adaptation in practice. For example, the perception that screening was primarily completed in the reception centre was identified as an influence on the coverage of the screening service.

Although adaptation, reinvention and feedback are included in the CFIR and feedback is recognised in the review by Greenhalgh et al. as important for routinisation of an innovation (371), the NPT captures this as a dynamic, social process. The ability to capture these dynamic responses in practice may be due to the emphasis of the NPT on normalisation, rather than initial adoption or implementation which appears to be more dominant in the CFIR. One of the major strengths of the NPT for the analysis in this thesis was the focus on the longer term normalisation of the intervention. The construct of reflexive monitoring and the feedback loops to coherence and cognitive participation are particularly useful in examining the longer term implementation, as the intervention must have been implemented. For example, the informal reflexive monitoring of the respondents who stopped providing Mantoux tests due to the large reactions. Therefore, the inclusion of the NPT constructs in the conceptual framework enabled the capturing of this dynamic social process and highlighted the need to consider both the informal and formal reflections and responses of those implementing the service for normalisation (reflexive monitoring). This supports the point made by Ferlie and Dopson that implementation is not a discrete event (397) and so examining the process over time is key.

11.2.5.2 Reflections

Duplication between the constructs and domains was one of the main difficulties with the use of both the adapted CFIR and NPT in the conceptual framework. Certain influences are difficult to situate within a single domain of the adapted CFIR or NPT, for example, in the adapted CFIR responsibility can be positioned in the characteristics of the individuals, inner setting and process domains. This overlap, alongside the interactive nature of the domains, frequently renders the distinctions between the constructs as artificial. There were also interactions between the influences, for example, the relative influence of the context in comparison to the characteristics of the intervention on the adaptation of the guidelines and screening service can be difficult to determine.
Certain influences were not adequately captured within the adapted CFIR, for example, the additional sources of guidelines, but they were positioned within the inner context for this analysis. The contact between the guideline developers and those implementing the guidelines could not be positioned within the NPT but it is likely to relate to coherence and cognitive participation.

A complexity perspective and ‘systems thinking’ (622) could assist in understanding the findings further in future research, including the adaptation of the guidelines in a bottom-up manner (623) and the more holistic service provision which could be viewed as an unpredictable outcome from a specialist screening service. The concept of shadow systems (606, 624) in the complexity literature could also be used to examine systems influencing patients in clinical encounters (625). For example, this could be in relation to competing priorities, and could also assist in understanding the influence of other systems at a more macro level, for example migration trends and the H1N1 pandemic.

One point regarding the knowledge base in the communities of practice was not adequately emphasised in either the adapted CFIR or the NPT component of the conceptual framework. This was discussed under skill set workability in chapter 10, but may require a greater emphasis. The knowledge base around asylum seekers, in relation to both communicable diseases and cultural competency was cited by some respondents, which may include more tacit knowledge. Concerns were raised regarding the lack of a knowledge base being built among GPs due to the distribution of asylum seekers and the loss of the knowledge base if there was a migration to a mainstream model of service provision. The relatively small number of sHCPs and changes within the screening service could impact upon the sustainability of this knowledge. The importance of these communities of practice in relation to knowledge management and implementation (372) requires further attention. The conceptual framework also did not capture the influence of the nature of the problem the intervention is targeting as an influence on implementation. This is included in frameworks in the programme implementation literature (367, 368) and also needs to be recognised as a potential influence.

11.2.6 The implications of the findings for the methods used

The combination of methods and conceptual analysis in this thesis is unique in the field of migrant health screening in the literature to date and offers greater in-depth insights into the implementation of migrant health screening in Ireland than previous studies. A case-
study approach, employing predominantly qualitative methods assisted in capturing the variation in practice and emergent findings, such as the provision of a more holistic service in some cases. The use of the vignette in the integration study proved a useful starting point for discussion, given the complexity of the health system and could be used in similar future studies. One of the strengths of the studies was the use of the framework analysis method which enabled a systematic approach to be taken to the analysis and this could be used in similar studies in the future.

11.3 Strengths and limitations of the research

11.3.1 Interviewee and recall bias

Interviewees may be reluctant to reveal their true thoughts in an interview situation and social desirability bias (626) may affect the validity of the interview, as HCPs are likely to want to present their healthcare provision in a positive light. The confidentiality of the interview data was ensured and this was re-iterated prior to the commencement of the interviews to enable respondents to discuss their true views. The use of funnelling in the topic-guide was also employed so that more contentious topics were covered in the middle of the interview where greater trust may have been developed between the interviewer and interviewee. As it was primarily a qualitative case study, the aim was to gain an in depth understanding of the phenomenon in the case study in this thesis from multiple perspectives, including common and contradictory viewpoints and patterns and associations were sought in the analysis (517).

The differing motivations of the respondents need to be considered throughout the analysis, as this is likely to influence their perspective. For example, sHCPs may be motivated to report negative views on the possibility of mainstream GP service provision of screening, in order to keep their job role. However, some of the GPs also confirmed barriers to service provision, such as their willingness in some cases to offer screening and these propositions can be tested in larger scale studies with GPs and importantly the clients. This was addressed by indicating which group was responding in quotations in the results chapters from the implementation and integration studies.

A limitation with the retrospective study design is the possibility of recall bias particularly if the case study is over a substantial period of time (469, 522). However, the secondary document review and multiple interviews assisted with the richness of the data in the case study.
11.3.2 Sampling

Care was taken in the design of the sampling frames (479) and the sample was reviewed during the fieldwork and the follow-up interviews to allow any perceived imbalances to be addressed. One of the core findings was the diversity between the services and individuals, which could not be anticipated from the initial sampling frame. Sampling was not a major problem, as a wide range of respondents were recruited and a high number participated. GPs were more difficult to recruit than other HCPs, particularly female GPs. However, GP practices recommended or associated with accommodation centres may have had a larger proportion of male GPs. Furthermore, a higher proportion of female GPs work part-time in Ireland (627) which may have influenced recruitment. Certain referral specialists were also difficult to recruit, but this was not a major problem for the study.

Those agreeing to participate were likely to have had more of an interest in migrant health, resulting in a sampling bias; however, those experiencing difficulties may also be more likely to participate. The characteristics of those declining are included in Chapter 5. GPs who would receive asylum seekers from the accommodation centres were purposively sampled. Their experiences may have been different from GPs who may encounter very few migrant patients. A follow-up study with a wider group of GPs would clarify this. The views of middle or higher level managers would have been useful, but due to the lack of central or more formal responsibility, individuals were not identified through snowballing. The research findings therefore limited the sampling frame.

11.3.3 Depth of the telephone interviews

The brevity of the telephone interviews in the mapping study meant a compromise was required regarding the depth of the data collected. This was necessary in order to ensure coverage and a high participation rate was achieved. The coverage was one of the strengths of the mapping study and in comparison researchers have encountered difficulties with response rates using questionnaire surveys examining TB screening in the UK, where just over a third of the PCOs responded (35). Furthermore, the discussions with the individuals involved in the mapping study helped the primary researcher to gain a greater understanding of the national context, prior to the in-depth interview studies.
11.3.4 Predominance of qualitative methods

A pragmatic approach was adopted to the research and so methods were selected which were most appropriate to the research questions. Therefore, this lack of quantitative methods is not necessarily a limitation. However, a combination of an analysis of screening data and examining the effectiveness of the screening service in addition to a qualitative analysis may have been useful for informing policy makers and guideline developers. As this was a PhD project this could not be pursued as it would have resulted in a significant time and resource investment with little academic return.

Quantitative methods would not have been appropriate for the research questions addressed, with the exception of the mapping study, due to the need for an inductive approach. The richness of the data would not have been obtained using quantitative methods, for example, it is unlikely that the richness of the holistic findings would have been identified using purely deductive methods.

Authors have previously suggested that methods which examine the complexity of the context will be useful in understanding organisational change as clinical trials and systematic reviews may not be sufficient (39). The relatively inductive approach taken in this thesis did highlight a number of barriers which are unlikely to have been identified through the literature search or more quantitative measures.

Caution was taken not to audit the service as if the researcher was perceived to be ‘checking up’ on individuals it would have been a barrier to recruitment for in-depth interviews and could have hindered the honesty of the responses. A previous audit and evaluation had also already been conducted (62). The position of the researcher outside of the health service appeared to be advantageous in gaining more honest responses, however, this could also have worked the opposite way.

It would have been useful to have data on the throughput of asylum seekers in each of the screening locations rather than more static capacity and occupancy figures. These more quantitative and ‘audit’ elements were however beyond the scope of the thesis and could be explored in future research, which may require the involvement of the health service.
11.3.5 The use of categories to examine the provision of health care for migrants

Migrant terminology and categorisation can hide the heterogeneity present within the migrant population. Furthermore, focusing the research around sub-populations of migrants and examining the differences between refugees and asylum seekers and the Irish population may mask underlying commonalities. This is a difficulty encountered by other researchers working in this field (348). For example, a lower socioeconomic status may better explain the health care needs of an individual and health care provision rather than their migrant status. Throughout this thesis it also needs to be acknowledged that asylum seekers and refugees are not a homogeneous population.

11.4 Recommendations

Recommendations are made below, based on the conclusions discussed above. Table 28 provides a summary of the recommendations. Practice and policy recommendations are outlined first, followed by recommendations for future research.

11.4.1 Recommendations for practice and policy

11.4.1.1 Effective implementation of the new communicable disease screening guidelines and improved enacting of the dedicated screening service

If a dedicated screening service is to continue and the new guidelines for new entrant screening in Ireland are to be implemented and normalised, a number of key areas highlighted by the use of the conceptual framework need to be targeted. The identification of barriers and levers across multiple levels has been identified as a starting point for the design of effective intervention strategies, alongside a coherent theoretical basis (45). This thesis demonstrates that the conceptual framework, including the adapted CFIR and NPT components, can effectively be used to understand and examine interventions retrospectively and they could be used to develop a targeted strategy for implementation prospectively, building on the findings in this thesis. Agreement with regards to where the responsibility lies and acceptance of responsibility for the implementation of the guidelines and the dedicated screening service would need to be one of the first steps in the development of a targeted implementation strategy; this is discussed further below.
Table 28. Recommendations based on the conclusions in this thesis

<table>
<thead>
<tr>
<th>Policy &amp; practice recommendations</th>
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<tbody>
<tr>
<td>1. The conceptual framework could be used to design a targeted strategy for:</td>
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<tr>
<td>• the implementation of the new communicable disease screening guidelines in Ireland and;</td>
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<tr>
<td>• improving the enacting of the dedicated screening service.</td>
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<tr>
<td>Including: greater responsibility for implementation, a more bottom-up approach (including encouraging coordination and links between sHCPs, GPs and other HCPs providing screening) and more formal monitoring and appraisal of the service.</td>
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<tr>
<td>2. Moving forward there needs to be a greater consideration of whether:</td>
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<tr>
<td>• a more holistic health assessment should be provided for asylum seekers, refugees and migrants more broadly</td>
</tr>
<tr>
<td>• there should be a move towards GPs offering screening, particularly in areas where dedicated screening services are in place</td>
</tr>
<tr>
<td>3. The conceptual framework and findings would be useful to inform a strategy for the implementation of IGRAs for TB screening.</td>
</tr>
<tr>
<td>4. The barriers and levers to implementation and normalisation identified could also be useful in improving the understanding of issues relating to other vulnerable populations, as there are a number of cross-cutting implications.</td>
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<tr>
<td>5. The findings provide in-depth information on broader health service issues, including fragmented primary care in this area. They could be used to inform improvements to fragmented care in the Irish health service more broadly, for example, in relation to the need for a more bottom-up approach. The findings and the conceptual framework could also be used to inform a strategy for the normalisation of the new primary care teams.</td>
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<table>
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<tr>
<th>Research recommendations</th>
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<tr>
<td>The findings and conceptual and theoretical analysis in this thesis could be built on to inform future research examining:</td>
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<tr>
<td>a) the views of asylum seekers and refugees on screening and IHAs (further exploring the barriers and levers which were proposed by the professionals in this study and building on the analysis in Chapter 10)</td>
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<tr>
<td>b) the perspectives of a larger sample of GPs on screening and IHAs being offered by GPs (the analysis in Chapter 10 can be used as the basis for this)</td>
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<td>c) the influence of peer support and meetings in the absence of national responsibility</td>
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<tr>
<td>d) continuity of care, coordination and follow-up within the system</td>
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<tr>
<td>e) whether screening and IHAs should be provided for other migrants</td>
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<tr>
<td>f) a comparative analysis of different models of service provision internationally for migrant screening programmes.</td>
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</table>
Recommendations relating to three main areas are made below for effective implementation and normalisation of the new screening guidelines and improved enacting of the dedicated screening service:

1. There is a need to determine where the responsibility lies for the screening service

One of the main findings from the thesis was the lack of more formal responsibility for the screening service and coordination at a national level; this was identified as one of the aspects needed for implementation and normalisation of the service. Responsibility for the screening programme needs to be clearly established and the optimal governance mechanism requires further consideration; for example, it could be facilitated by the engagement of clinical opinion leaders (383) and the formation of an implementation sub-group or management team. The need for sustained support by management has been recognised in other studies (420) and this needs to be explored further with managers at different levels of the health service. The conceptual framework could be used to design strategies for engaging managers prospectively in addition to assisting in understanding historically why this engagement may not have occurred in all cases.

This is highly linked to the lack of a formal programme structure at a national level and as recommended in the NIHS there is a need to align the screening services with the structural changes in the health system (60). In light of the number of changes in the structure of the health system over the past decade and continuing change, it would be appropriate to ensure a mechanism is in place for an ongoing review of the screening delivery to ensure the programme is responsive to broader health system changes. As suggested in the study, the inclusion of the screening service in the national service plan as a key performance indicator could make the screening more likely to be enacted and this also needs to be considered for improved data collection.

Following on from the findings highlighting the importance of the motivation of frontline providers and decentralised structure of the health service, greater consideration is needed of a more bottom-up approach to implementation. This approach could be enacted through strengthening local implementation and building networks between providers, alongside more formal responsibility, leadership and coordination at a national level. Funding and encouragement for the meetings between sHCPs to restart could assist with the formation of a network, as suggested by several respondents. This would
also require the support of their line-managers, even if it is only one component of the
sHCP’s role. Frontline providers received a copy of the mapping report produced as part
of this thesis and one of the objectives of this was to identify who else was involved in
providing the service to facilitate communication between HCPs.

2. A bottom-up approach to implementation should be considered, including an
appreciation of the context

In line with this discussion, more fundamentally, the findings in this thesis support a more
bottom-up approach to be taken to the implementation of the screening service and
guidelines, with a recognition of the importance of the context. Greenhalgh et al. caution
against universal recommendations for the diffusion of innovations, due to the importance
of contextual influences (371) and Ferlie supports a focus on the local assessment of
contextual influences and context specific action as opposed to generic interventions
(383). This would be aligned with a more bottom-up perspective to implementation in
supporting local actors to enact change. An understanding of the current situation into
which new interventions are being introduced has been identified as an important stage
prior to change interventions (468, 628) and this study provides an understanding of the
historical and current context for communicable disease screening for asylum seekers and
refugees in Ireland.

Although there are differing contexts over time and in different locations nationally and
internationally, certain commonalities were observed, for example, the difficulties with the
willingness of GPs to provide screening and the use of the conceptual framework
facilitated this. A more bottom-up approach could therefore be taken in the future, where
the local context is explored and network formation is encouraged, while using the
conceptual framework as a guiding framework. Mechanisms would need to be in place to
capture the emergent knowledge and review the approach.

3. In order for normalisation to occur, there is a need to:

- assist those involved in implementation to understand and perceive value in the
  service and guidelines both collectively and individually (coherence);
- encourage those involved in implementation to ‘buy in’ initially and in a sustained
  manner to the guidelines and service (cognitive participation);
• ensure organisational support, trust, the appropriate skill-set and that the work can be enacted in practice (collective action);

• improve the appreciation of importance of adaptation and implement formal monitoring and reflections on the service and guidelines (reflexive action).

Multiple barriers and levers to implementation were captured in a more structural manner by the adapted CFIR (47) component of the conceptual framework and it was particularly useful in highlighting the importance of responsibility and other contextual influences, as discussed above. The NPT constructs included in the framework assisted in understanding the value of the influences and the more dynamic processes involved in actually enacting the work. The conceptual framework could be used prospectively to design a more coherent strategy for implementation and normalisation.

In order for the dedicated screening services to continue there are a number of barriers across the constructs of the NPT in the conceptual framework which would need to be addressed. A range of stakeholders need to understand the nature of screening, IHAs and the guidelines and perceive value in them, including frontline providers and line-managers. ‘Buy in’ (441) is required from the range of stakeholders (cognitive participation) alongside organisational resources to support the screening, including appropriate national level responsibility and coordination, appropriate human resources, guidelines and checklists to enable frontline providers to enact the work routinely (collective action).

The concept of reflexive monitoring included in the NPT component of the conceptual framework was particularly useful and it supports the recommendation for more formal reflexive monitoring of the coverage and effectiveness of screening so that evidence-informed decisions are taken in relation to coverage and Mantoux testing for example, rather than decisions based on the more informal reflections of those involved in screening. An evaluation of the service is required and rigorous, valid, timely and accurate quantitative monitoring of the implementation of the screening programme in order to assess the effectiveness and cost-effectiveness of the screening guidelines and programme and to determine whether it should continue. While this could take the form of a single in-depth audit and evaluation, national ongoing consistent data collection would enable more responsive monitoring.
An evaluation and improved routine, national data collection can build on the findings from this thesis, including the mapping study and the audit conducted by Doyle (62). Consistent, standardised national data collection of a defined set of indicators will be required and the conceptual analysis of the complex intervention in this thesis could form a basis for the data collection. Table 29 provides an outline of specific outcomes for which targets can be set and screening reviewed against them. Other aspects of the service, which have been highlighted by the findings in this thesis also need to be considered in an evaluation, for example the more holistic service provision. A rich description of the context should be captured in any future evaluation of the screening service, alongside quantitative indicators.

It is promising that centralised monitoring of the outcomes of screening by the HPSC is included in the terms of reference for the new communicable disease screening guidelines for new entrants (358). Improving national data collection would in itself be an intervention, requiring resources and buy in and commitment from stakeholders at both policy and service delivery levels. Defining where the responsibility lies nationally for the implementation of the screening programme is likely to be required in order to ensure the collection of the data nationally. The conceptual framework and analysis in this thesis would be highly useful in designing the intervention, judging whether it is likely to become normalised and to review and analyse the process. A quantitative tool is being developed by Finch et al. (629) for the NPT which will assist in measuring progress in implementation.

Crucially there would be a need to provide timely and useful feedback to those implementing the screening and IHAAs to ensure normalisation. The mapping report produced during this thesis hopefully assisted in contributing to more formal reflexive monitoring at the level of the frontline providers. Although the guideline development group was meant to remain as a standing committee to review the service on an ongoing basis, this is likely to be difficult without responsibility and leadership for the programme, highlighting the interactions between the influences.
Table 29. The elements of the complex intervention and how they could be measured and assessed

<table>
<thead>
<tr>
<th>Element of the complex intervention examined in this thesis</th>
<th>Mechanism for assessing implementation of the complex intervention element</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Communicable disease screening guidelines for asylum seekers and refugees</td>
<td>• Ongoing, routine data collection building on the work of Doyle (62) to assess % locations using national guidelines, % using adapted guidelines and the differences between the national &amp; sub-national guidelines</td>
</tr>
<tr>
<td>2. Communicable disease screening tests and catch-up immunisations included in the guidelines</td>
<td>• Ongoing, routine data collection building on the work of Doyle (62) to assess % asylum seekers and refugees offered &amp; accepting screening, positive/negative, on treatment, completing screening for each screening test and % offered and accepting immunisations (can be assessed against national disease specific guidelines and international targets)</td>
</tr>
<tr>
<td>3. Other essential elements of the screening programme i.e. service coverage</td>
<td>• The ongoing, routine national data collection could build on the mapping study in this thesis.</td>
</tr>
<tr>
<td>4. Adaptable, additional elements related to the provision of the screening service</td>
<td>• The ongoing, routine national data collection could build on the work in the mapping study and extend it to capture the additional elements identified in this thesis</td>
</tr>
<tr>
<td>5. Follow-up steps after screening (if required)</td>
<td>• The findings in this thesis could inform questions for ongoing, routine national data collection about follow-up. Records could also be followed-up as in Doyle’s audit (62).</td>
</tr>
<tr>
<td>6. The model of service provision employed to implement the screening across Ireland.</td>
<td>• This could build on the mapping and findings in this thesis to incorporate questions in ongoing, routine national data collection or a larger scale study.</td>
</tr>
</tbody>
</table>

11.4.1.2 Greater consideration of the intervention and the model of service provision

Model of service provision

Despite fluctuations in migrant numbers, international migration is likely to continue and health system needs to be responsive to changing trends; this will require a real consideration of the model of care for screening moving forward in the evolving context. This could take the form of early detection of conditions through GPs, a dedicated screening service or a combination of different models of service provision, as it is not a simple dichotomy. However, the barriers identified in this thesis would need to be addressed. This is an important area for future service provision, as Woodland et al. suggest that improved models of care could reduce the gap between the needs of the refugees and the service provided (30). Detailed recommendations of barriers which
would need to be addressed if screening is to move to GPs were provided in Chapter 10 using the constructs of the NPT component of the conceptual framework and this is discussed in section 11.3.2 below. For example, the findings demonstrate that interventions to target GP awareness would need to consider the processes involved in implementing the guidelines, beyond the development and distribution of the screening guidelines.

**Adaptation of the intervention**
Adaptation of the programme and services in practice also requires greater consideration moving forward. In order to ensure the fidelity of the intervention and the use of evidence in practice, guideline developers, policy makers and those responsible for implementation should give greater consideration to the adaptation of the intervention at the stage of the development of the guidelines. The findings suggest that greater attention should be paid to the adaptable elements of the intervention and both the nature of the adaptations in practice and the process of adaptation, as proposed by Ferlie and Dopson (397), in relation to migrant screening and complex interventions more broadly. Kitson has previously advocated for a need to focus on the extent to which guidelines are and can be adapted in practice (39). Monitoring is also required to assess the adaptation and fidelity of the intervention.

**Holistic service provision**
Importantly guideline and policy developers can also learn from the implementation and adaptations in practice, in this case the more holistic service provision. Mechanisms need to be in place to capture this more experiential and tacit form of knowledge and to assess whether this evidence could improve the effectiveness of the programme and the health of migrants and the broader population. Gruen et al. (440) proposed a model which included the need for an evaluation system which captures ‘tacit knowledge and emergent research findings’. A more formal network between frontline providers, linked with those with overall responsibility for the programme could function as one mechanism to capture this form of knowledge. However, as highlighted in the thesis critically there is a need for responsibility to be allocated at a formal national level.

Further consideration needs to be given to more holistic service provision in practice at a national level, as vertical screening services are not necessarily the optimal mechanism to
provide this and they could be compensating for deficiencies in other services. A re-evaluation of the conceptualisation of screening requires further attention.

Primary care teams are being implemented in Ireland and if successful could offer a real opportunity for true interdisciplinary interaction and assist with some of the barriers identified to implementation. They could facilitate a more integrated approach to dealing with the broader health needs of asylum seekers and responding to their needs in practice. Primary care teams could provide a mechanism through which more comprehensive IHAs and integration into the health system could be enacted, thereby reducing the burden on sHCPs and ensuring that that the aspects of service provision are provided by appropriate service providers. Consideration needs to be given as to how the screening service can be integrated with the new teams and networks (630).

Similarly internationally screening and IHAs could evolve and function to provide more health promotion, prevention (362) and education, which at the moment can be a missed opportunity (82).

Clarity in job role boundaries is important for effective implementation (47) and the WHO recommends that in order for scarce resources to be used effectively HCPs are more productive with ‘clearly defined roles and responsibilities’ (631). If these clear role boundaries are to be maintained the sufficiency of associated services may need to be addressed and inter-organisational collaboration supported and strengthened.

11.4.1.3 Recommendations for the implementation of other guidelines and IGRAs

The successful use of the conceptual framework in this thesis incorporating the adapted CFIR and NPT indicates that its use should be explored in facilitating and understanding the enacting of other guidelines and interventions. For example, it could be used to inform the implementation of IGRAs, which are included in the recommendations for TB screening in the new Irish TB guidelines for new entrants with concomitant conditions which may increase the individual’s risk of reactivation of LTBI, or as a confirmatory test after a positive TST (546). This is also relevant to the UK, where IGRAs are recommended as a confirmatory test but in some cases are used solely to screen new entrants in practice (35). IGRAs could be beneficial for implementing screening, as they could overcome some of the capacity concerns in relation to the referral services due to
the increased specificity of the tests and subsequent reduction in false positives. They would also clearly prevent the unexpectedly large responses to the Mantoux tests.

The findings and analysis in this thesis highlight that while a one step IGRA test may be more likely to be implemented, as it requires fewer human resources over fewer days (one of the current problems with Mantoux tests), this will not necessarily ensure that they are normalised in practice as the multiple barriers identified in the other domains of the adapted CFIR and NPT constructs in the conceptual framework also need to be explored and addressed.

The principles could also apply to other complex interventions, including other screening programmes, for example, colorectal cancer screening, and a similar analysis could be undertaken using the conceptual framework, for example to examine whether there is sufficient reflexive monitoring for normalisation.

11.4.1.4 Cross cutting implications and recommendations for migrant health and other vulnerable populations

A number of the difficulties and influences on the implementation of the guidelines and screening services were cross-cutting issues, both in migrant health and across vulnerable and disadvantaged populations. While consideration has been given to cross-cutting issues relating to IHAs in Australia (30, 31), the screening literature has tended to focus on more vertical issues, such as TB screening, rather than areas such as access, with notable exceptions (32, 181) and greater attention should be paid to cross-cutting migrant health issues.

Difficulties relating to complex and longer consultations (600) and continuity of care with the HCP are relevant to other vulnerable and disadvantaged populations (589). Parallels also exist between the findings in this thesis and those in a previous study looking at the implementation of a cardiovascular health guideline for the Maori population, including the importance of the HCP-client relationship (456). The thesis findings could therefore have broader applicability and the NPT component of the conceptual framework in particular may be useful in examining knowledge to action in these associated fields.

11.4.1.5 Insights for the implementation of broader elements of the health system

Difficulties with fragmented primary health care provision extend far beyond the screening service in the Irish health service (59, 601, 632); for example, in relation to other groups...
where equity of access and care is a particular concern, such as individuals with a disability (633). The findings can therefore highlight more systematic difficulties in the Irish health system, The findings in Chapter 7 could have a broader relevance to these wider areas and the research on fragmentation could build on the findings in this thesis, for example the lack of responsibility and need for ‘buy in’ (441).

Insights from the findings, such as the importance of adaptation and the decentralised context could also have a broader relevance, for example in relation to establishment of new HSE national clinical programmes and associated development of guidelines (634, 635). The conceptual framework could be used to plan and evaluate their implementation. Potentially they could also be used to inform more macro level system change, for example the introduction of universal coverage.

The adapted CFIR (47) component of the conceptual framework in particular may be more suitable to informing larger scale system change as it was influenced by theories of change and the diffusion of innovation literature (41). The more dynamic interactive view of implementation could also be particularly useful, where implementation is viewed as a continuous, rather than discrete, event which is socially interpreted and influenced by the context, including the historical context and broader structure of the health system.

11.4.2 Recommendations for further research

11.4.2.1 Gaining the perspective of the clients

The main avenue for future research to follow-on from this study is the need to gain the perspectives of asylum seekers and refugees on the enacting of the guidelines and screening in practice; this is also required internationally. In Ireland, this would be integral to any evaluation of the screening service. The views of asylum seekers and refugees on whether they feel their holistic needs are being met by the current service provision and what the optimal mechanism for service provision would be are needed to inform any re-conceptualisation of screening. An in-depth analysis was required for the PhD thesis and therefore the views of those influencing the guideline development and frontline HCPs and line-managers were focused on.

Demand side influences on implementation, relating to the clients, were discussed by the professional respondents in this study and require exploration in future studies with the clients themselves. The barriers highlighted could be used to form propositions for future
research with clients. Insights can be gained from the HCPs in this study, as many of the key informants have significant experience with numerous asylum seekers. Some of the barriers discussed are echoed in the international literature, including competing priorities for the individual migrant (200, 261), health literacy in relation to hepatitis B (10, 81, 97) and trust between the HCP and client (10, 235, 294, 310), for example in relation to the honesty of responses in the TB questionnaire. The barriers proposed highlighted the importance of considering influences from the wider social environment on the health system, as has been noted for communicable disease programmes more broadly (560).

Further research can therefore build on the findings in this thesis as certain areas are highlighted in the analysis where it would be particularly useful to gain the perspectives of the clients, for example their understanding and perception of value of the screening (coherence, cognitive participation). Considering interactional workability (under collective action) is also key and difficulties in clients returning for the reading of the Mantoux tests were mentioned infrequently in this thesis. This has been noted as a problem in other contexts (19, 146, 307) and so could be explored in future research. The conceptual framework and particularly the NPT component could be used as a theoretical basis for a follow-up study and could also be used to examine this in other contexts; the use of the adapted CFIR alone would not adequately capture the influences of the clients. A recent study used the NPT constructs to examine the point of view of the patients in another area (636).

Potential difficulties in obtaining the views of asylum seekers and refugees could be addressed by employing methods such as participatory learning and action (PLA) as it can ensure that participation is also meaningful for the respondents. This method is being used in an EU funded project named Research into implementation Strategies to support patients of different Origins and language background in a variety of European primary care settings (RESTORE). This is examining how cross-cultural consultations can be optimised in primary care through the delivery of evidence-based health information, including guidelines, and interventions (464, 598, 637) and includes the views of service users (464, 584, 598, 637). The findings will be highly relevant to the language and access barriers highlighted in this thesis, particularly in the GP setting.
11.4.2.2 The model of service provision for screening and IHAs, including through GPs

The findings in this thesis offer a starting point from which a larger scale review of whether screening should move to GPs could be undertaken. As it is a national screening programme the views of a larger number of GPs across Ireland would need to be obtained, but a smaller scale trial could first be implemented in a sample area. A study which examines the views of the GPs, which some of the screening services link in with, would also be merited. The NPT can function as a 'trial killer' (465) to decide whether an intervention should be initiated or rejected. This component of the conceptual framework could be employed to determine whether screening and IHAs for new entrants is likely to become normalised through GPs.

Specific barriers were analysed in detail in Chapter 10 which would need to be targeted to increase the likelihood of normalisation. These included a perception that it is their remit and they are willing to offer it (cognitive participation), capacity constraints for GPs, ensuring asylum seekers have access to a medical card and GP (collective action: contextual integration) and a mechanism through which data on screening is collected and fed back to the GPs in a more formal manner (reflexive monitoring). While a quantitative survey could be employed, based on the findings, to explore the views of GPs more widely, the response rate from physicians in general (638) and GPs specifically to surveys (639, 640) may hinder this approach. Broader focus groups could assist in investigating these findings further.

The findings in this study could inform the design of related research studies in other countries. Previously, a multifaceted educational intervention strategy in GP practices in the UK was found to increase TB screening, but it had a modest effect on the detection of TB and LTBI (328). In the UK, it has been suggested that strengthening and expanding GP based screening for migrants may be feasible as long as this is alongside training and resources (13). However, the findings from this study suggest that while training and resources may be beneficial, they may not be sufficient to ensure successful implementation and normalisation.

Differing health system, political, migration and screening contexts internationally render comparisons between screening programmes problematic as discussed in Chapter 2. Methods which account for and embrace the complexity and differing contexts are
required in order to enact this and have been developed to conduct comparative analysis of the integration of communicable disease screening programmes (368). One exciting avenue for future research would therefore be to use the conceptual framework and findings from this thesis to form a framework for a comparative analysis of the differing models of service provision internationally for migrant screening programmes, which would be highly relevant to inform future evidence-based policy and practice. For example the concept of the ‘soft-periphery’ in the CFIR component of the conceptual framework was useful in clarifying a complex situation and could be used to examine the extent to which the ‘hard-core’ of the intervention is implemented in the context of differing models of service provision in the adaptable ‘soft-periphery’. This concept could also be used to further examine the fidelity and adaptability of interventions.

The findings in this thesis could also be used to inform the implementation of evidence-based guidelines in other contexts, for example PHE’s Migrant Health Guide in the UK or the screening guidelines developed by the Canadian Collaboration for Immigrant and Refugee Health (10). The rich description of context in the case-study and use of the conceptual framework enhance the transferability of the findings from this thesis.

11.4.2.3 Additional avenues for future research in the field of screening and IHAs

A number of additional avenues for future research were identified during this study including whether screening should be extended to other migrants who are at increased risk for communicable diseases, for example migrant workers who originate from countries with a higher incidence of certain communicable diseases than Ireland. This study also demonstrates that where screening programmes are complex interventions they need to be evaluated accordingly, for example if screening is implemented for both hepatitis B and HIV.

Further research is also needed into the follow-up after screening as although adequate follow-up is an essential requirement of a screening programme (71) it does not seem to be paid due attention by policy makers, practitioners, or researchers. Further research unpicking the influence of responsibility, leadership, management, coordination and accountability on the enacting of the screening programme and guidelines would be merited following on from these findings. The influence of peer support and meetings, particularly in the absence of formal national responsibility, would be interesting to explore further in future studies.
11.5 Conclusions

Evidence-informed policies, guidelines and practice are integral to meeting the needs of asylum seekers and refugees. Furthermore, they are essential for the control of communicable diseases internationally, in a context of increased globalisation. The findings in this thesis have a potential policy, research and service impact (641) both nationally and internationally. They highlight current sub-optimal implementation and barriers to transferring knowledge into action in Ireland for screening and the conceptual and theoretical analysis facilitates the transferability of these findings to other contexts and complex interventions. Furthermore, the findings support a view of implementation where multiple influences are considered, including dynamic responses in practice and a more bottom-up integrated approach to understanding implementation. Establishing where the responsibility lies for the implementation of the screening guidelines and service is required and the findings in this thesis need to be considered by those responsible if the new communicable disease screening guidelines in Ireland are to be successfully implemented and the dedicated screening service is to continue. An implementation sub-group could be established to inform this decision and initiate further research where required. Action is needed to ensure migrants’ health needs are met and the findings can be used to inform future evidence-informed policy, guidelines and practice.
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Appendices

Appendix I. Key definitions used in this thesis

Box 16. Key definitions used in this thesis

Accommodation Centre
‘Means any place used for the collective housing of asylum applicants’ (642). This term includes reception and dispersal centres.

Asylum seeker
‘people who have fled to another country where they have applied for state protection by claiming refugee status, but have not received a final decision on their application’ (643).

Direct provision
‘Full board basis which includes the provision of a bed and three meals per day. Residents are not allowed to cook their own food while living in an accommodation centre. They may be required to share their bedroom and bathroom facilities with other residents’ (592). A weekly allowance of €19.10 for adults and €9.60 per child is provided (592).

Dispersal Centre
In this report this term is used to describe the centres asylum seekers are accommodated in after dispersal from the reception centre. This includes all the accommodation centres apart from the reception centre. It includes centres operating within the direct provision system and self-catering centres.

Health service research definition
‘Research with the goal of improving the efficiency and effectiveness of health professionals and the health care system, through changes to practice and policy. Health service research is a multidisciplinary field of scientific investigation that studies how social factors, financing systems, organisational structures and processes, health technologies, and personal behaviours affect access to health care, the quality and cost of healthcare and ultimately health and well-being’ (644).

Migrant
‘A person undergoing a (semi-)permanent change of residence which involves a change of his/her social, economic and/or cultural environment’ (36). The term includes short and long term migrants in this thesis (36). Short term visitors, such as students, who reside in a country for under a year are not necessarily termed immigrants by some authors (80).
Refugee
The 1951 Convention Relating to the Status of Refugees defines a refugee as someone who ‘owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it’ (645).

Reception centre
‘A location with facilities for receiving, processing and attending to the immediate needs of refugees or asylum seekers as they arrive in a country of asylum’ (642). In Ireland there was one reception centre in Dublin in 2012. Asylum seekers are usually housed in the reception centre for between 10 days and 2 weeks immediately after entering the country, although there are some exceptions. This operates under the Direct Provision system.

Refugee (convention)
‘persons who qualify for refugee status under the criteria in Article 1 A of the 1951 United Nations (UN) Refugee Convention’ (36). If an asylum seeker’s application for refugee status in Ireland is accepted they become a convention refugee.

Refugee (programme)
‘In the EU context, a variation of this term, “Resettled Persons”, is used to cover any third country nationals or stateless persons who, on a resettlement request from United Nations High Commissioner for Refugees (UNHCR) based on their need for international protection, are transferred from a third country to a Member State where they are permitted to reside with one of the following statuses: (i) refugee status within the meaning of Article 2(d) of Directive 2004/83/EC; or (ii) a status which offers the same rights and benefits under national and Community law as refugee status’ (642). Programme refugees have refugee status prior to arrival in Ireland.
Appendix II: PhD education and training

The author of this thesis was a Health Research Board (HRB) PhD Scholar and the PhD was funded as part of a four-year PhD programme. The first year of the PhD programme involved taught modules, including population health, health policy and research methods alongside a work placement. The work placement involved informal consultations with key stakeholders working in the fields of migrant health and communicable diseases, including frontline workers and researchers, alongside a placement in the Health Protection Surveillance Centre (HPSC). In the fourth year of the PhD programme an international work placement was undertaken with the Canadian Collaboration for Immigrant and Refugee Health in Ottawa, Canada. Throughout the thesis courses and workshops were held by the programme including how to write a paper, the publication process and word for long documents. Additional training and workshops attended by the researcher (PhD student) are detailed below.

During the thesis the author worked as a demonstrator for the Department of International Health and Tropical Medicine and assisted in the fourth year with a set of psychology tutorials.

Training


4th Qualitative Research Summer School
Dublin City University, Ireland (June 2010)
### Appendix III. Detailed aims and objectives

#### Table 30. Detailed aims and objectives of the thesis

<table>
<thead>
<tr>
<th>No.</th>
<th>Aim</th>
<th>Objectives</th>
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| 1.  | To investigate the mechanisms behind the development and distribution of the guidelines and influence of different types of knowledge, with a focus on the evidence base for the guidelines and implementation considerations | The objectives were to ascertain the views of professional key stakeholders to and undertake a document review in order to:  
   a) describe the implementation context for the programme and guidelines;  
   b) analyse the content of the national screening guidelines and the use of knowledge and specifically evidence in the guideline development process;  
   c) report the extent to which implementation considerations influenced the development of the guidelines;  
   d) describe the guideline distribution process and the expectations of the guideline developers of the implementation of the guidelines in practice. |
| 2.  | To examine the extent to which the guidelines and screening tests and services are implemented or enacted and modified in practice. | The objectives were to conduct semi-structured telephone interviews and in-depth interviews to obtain the views of professional key stakeholders and to undertake a document review in order to:  
   a) map the dedicated screening service coverage cross-sectionally nationally;  
   b) investigate the views of professional key stakeholders on the screening service coverage nationally;  
   c) map the dedicated screening service provision cross-sectionally nationally;  
   d) report on and analyse the extent to which the guidelines and tests in the guidelines are implemented in practice;  
   e) examine any differences between implementation in the areas where the dedicated screening services are and are not in place;  
   f) to identify any modifications of the programme and guidelines in practice;  
   g) (if modifications are identified) to elaborate on the views of professional key stakeholders on why and how the guidelines, programme and services are modified in practice. |
| 3.  | To explore the influences on the implementation or enactment of the guidelines and screening tests and services in practice. | The objectives were to conduct in-depth interviews and to undertake a document review in order to:  
   a) identify the views of key professional stakeholders of the national screening guidelines and the importance of screening;  
   b) investigate the extent to which other factors influence implementation from the perspective of |
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</table>
| 4.  | To explore the views of professional key stakeholders on a mainstream GP model of service provision in comparison to a dedicated screening service, in relation to the detection of health issues and facilitating access and integration into the health system (including screening and initial health assessments) in order to meet the needs of asylum seekers and refugees. | The objectives were to conduct in-depth interviews with a broader group of professional stakeholders in order to:  
  a) describe the perceptions of professional key stakeholders of the extent to which the dedicated screening service and GP services can implement the screening programme and facilitate the detection of HIV/AIDS, TB and depression and integration into the health system;  
  b) examine the advantages and disadvantages of the screening service and initial health assessment provision through the aforementioned models of service provision, from the perspectives of professional key stakeholders;  
  c) report on and analyse the views of professional key stakeholders on the levers and barriers to screening service implementation [and normalization] through a mainstream GP service;  
  d) explore the views of professional key stakeholders on the ideal and future models of service provision for the detection of HIV/AIDS, TB and depression and implementation of the screening programme or initial health assessments. |
| 5.  | To consider the findings in relation to the international literature and to build a conceptual framework to address the primary aim of the thesis. | The objectives were to:  
  a) conduct a critical literature review of the relevant theories, models and frameworks in the field;  
  b) review the relevant literature in the field of migrant health screening and initial health assessments;  
  c) critically apply selected frameworks, theories and models to the findings;  
  d) develop a conceptual framework throughout the thesis.|
Appendix IV. An outline of the data sources used in each chapter

Table 31. An outline of the data sources used in each chapter

<table>
<thead>
<tr>
<th>Data source</th>
<th>Chapter 6</th>
<th>Chapter 7</th>
<th>Chapter 8</th>
<th>Chapter 9</th>
<th>Chapter 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document review</td>
<td>Data used in this chapter</td>
<td>Data used in this chapter</td>
<td>Data used in this chapter</td>
<td>Data used in this chapter</td>
<td>Data used in chapter</td>
</tr>
<tr>
<td>Mapping study</td>
<td>Not included</td>
<td>Data used in this chapter</td>
<td>Data used in this chapter</td>
<td>Not included</td>
<td>Not included</td>
</tr>
</tbody>
</table>
| Guideline development study – in-depth interviews | Themes included in this chapter:  
- Health service (certain sub-themes)  
- Capacity to implement  
- Evidence type  
- Views on evidence  
- Dissemination & implementation  
- Implementation (under category of responsibility) | Themes only included when triangulated with the main themes of interest in the chapter | Themes only included when triangulated with the main themes of interest in the chapter | Themes only included when triangulated with the main themes of interest in the chapter | Themes only included when triangulated with the main themes of interest in the chapter |
| Implementation study – in-depth interviews | Not included                   | Themes included in this chapter:  
- Coverage  
- Responsibility, coordination & service structure | Themes included in this chapter:  
- The extent to which the guidelines are used in practice  
- Implementation of tests in guidelines  
- Views on guidelines & content of programme  
- Views on the importance of screening & service  
- Variation in implementation | Themes included in this chapter:  
- Holistic needs & access | Themes included in this chapter:  
- Views on the model of service provision |
| Integration study – in-depth interviews  | Not included                   | Themes included in this chapter: (under the Category  
Response, coordination & service structure)  
- Overview & influence on access  
- Influence on the extent to which service provision is as seamless as possible | Not included | Sub-theme included in this chapter:  
- HCPs in accommodation centres dealing with broader health needs | Themes included in this chapter:  
- The five themes under the category of access & the detection of health issues through GPs or SS |

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Appendix V: Ethical approval for the mapping study, guideline development and implementation in-depth interviews

Royal College of Surgeons in Ireland
The Research Ethics Committee
121 St. Stephen's Green, Dublin 2, Ireland.
Tel: +353 1 4022873 Fax: +353 1 4022449 Email: recadmin@rcsi.ie

Dr. David Smith, Acting Chair
Ms. Stephanie O'Connor, Convener

Royal College of Surgeons in Ireland
Coláiste Rirseá na hÉireann

23rd April, 2010

Miss Gemma Smith,
Division of Population Health Sciences,
RCSI,
Room 3112, Lower
Merrion Street Lower,
Dublin 2

RE: REC SSI – Asylum seeker and refugee health screening.

Dear Miss Gemma Smith,

Thank you for your Research Ethics Committee (REC) application.

We are pleased to advise that ethical approval has been granted by the committee for this study.

This letter provides approval for data collection for the time requested in your application and for an additional 6 months. This is to allow for any unexpected delays in proceeding with the data collection. Therefore this research ethics approval will expire on 23rd March, 2011.

Where data collection is necessary beyond this point, approval for an extension must be sought from the Research Ethics Committee.

Yours sincerely,

[Signature]

PP Ms. Stephanie O'Connor (Convener)
Dr. David Smith (Acting Chair)
Appendix VI: Ethical approval for the extension for the mapping study, guideline development and implementation in-depth interviews

Royal College of Surgeons in Ireland
The Research Ethics Committee
151 St. Stephen's Green, Dublin 2, Ireland.
Tel: +353 1 4022978  Fax: +353 1 4022469  Email: research@rcsi.ie

Dr. David Smith, Acting Chair
Ms. Stephanie O'Connor, Convener

Royal College of Surgeons in Ireland
Golden Hill and King's Inns
Dublin 2

23rd May, 2011

Miss Gemma Smith,
Division of Population Health Sciences,
Royal College of Surgeons in Ireland,
Beauchie House,
Mercer Street Lower,
Dublin 2

<table>
<thead>
<tr>
<th>Ethics Reference No.:</th>
<th>RECS31b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Title:</td>
<td>Asylum seeker and refugee health screening</td>
</tr>
<tr>
<td>Researchers Name:</td>
<td>Miss Gemma Smith</td>
</tr>
<tr>
<td>Other Individuals Involved:</td>
<td>Professor Samuel McConkey, RCSI.</td>
</tr>
<tr>
<td></td>
<td>Professor Ruairi Brugha, RCSI.</td>
</tr>
</tbody>
</table>

Dear Miss Gemma Smith,

Thank you for your request for amendment to Research Ethics Committee (REC) application RECS31. We are pleased to advise that ethical approval has been granted by the committee for this amendment.

Content of Amendment:
1. Extension of 58 months.

Therefore this research ethics approval will expire on 23rd November, 2012.

Where data collection is necesssary beyond this point, approval for an extension must be sought from the Research Ethics Committee.

This ethical approval is given on the understanding that:
- All personnel listed in the approved application have read, understand and are thoroughly familiar with all aspects of the study.
- Any significant change which occurs in connection with this study and/or which may alter its ethical consideration, must be reported immediately to the REC, and an ethical amendment submitted where appropriate.
- Please submit this final report upon completion of your project.

We wish you all the best with your research.

Yours sincerely,

PP Ms. Stephanie O'Connor (Convener)
DP David Smith (Acting Chair)
Appendix VII: Ethical approval for the in-depth interviews for the integration study

23rd May, 2011

Miss Gemma Smith,
Division of Population Health Sciences,
Royal College of Surgeons in Ireland,
Belvoir Court House,
Mercer Street Lower,
Dublin 2

Ethics Reference No.: REG69
Project Title: Meeting the Health Needs of Migrants in Ireland: An Analysis of the Services for HIV/AIDS, TB and Depression.
Researchers Name: Miss Gemma Smith
Other Individuals Involved: Professor Samuel McCorkell, RCSI
Professor Ruairi Brugha, RCSI.

Dear Miss Gemma Smith,

Thank you for your Research Ethics Committee (REC) application. We are pleased to advise that ethical approval has been granted by the committee for this study.

This letter provides approval for data collection for the time requested in your application and for an additional 6 months. This is to allow for any unanticipated delays in proceeding with data collection. Therefore, this research ethics approval will expire on 23rd November 2012.

Where data collection is necessary beyond this point, approval for an extension must be sought from the Research Ethics Committee.

This ethical approval is given on the understanding that:
- All personnel listed in the approved application have read, understand and are thoroughly familiar with all aspects of the study.
- Any significant change which occurs in connection with this study and/or which may alter its ethical consideration, must be reported immediately to the REC, and an ethical amendment submitted where appropriate.
- Please submit this final report upon completion of your project.

We wish you all the best with your research.

Yours sincerely,

[Signature]

PP Ms. Stephanie O'Connor (Convenor)
Dr. David Smith (Acting Chair)
Appendix VIII. Thematic framework for the guideline development study

Guideline development study: An analysis of the process of guideline development using in-depth interviews with professional key stakeholders (initial and follow-up interviews)

Table 32. Thematic framework for the guideline development study

<table>
<thead>
<tr>
<th>Higher level category</th>
<th>Theme</th>
<th>Sub-themes</th>
<th>Chapters addressed in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actors</td>
<td>Influence</td>
<td>• Not explored further in this thesis</td>
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<td></td>
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<td>• Not explored further in this thesis</td>
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<td>• Not explored further in this thesis</td>
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<tr>
<td></td>
<td>Actors outside the guideline development group</td>
<td>• Not explored further in this thesis</td>
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<tr>
<td></td>
<td>Role</td>
<td>• Not explored further in this thesis</td>
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<td></td>
<td>Views on the composition of the expert group</td>
<td>• Not explored further in this thesis</td>
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<td>Context</td>
<td>Communicable disease</td>
<td>• Not explored further in this thesis</td>
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<td>Financial</td>
<td>• Not explored further in this thesis</td>
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<tr>
<td></td>
<td>Health service</td>
<td>• Attitudes of HCPs (not explored further in this thesis)</td>
<td>Chapter 6 - the sub-theme of the 'broader establishment of the screening service'</td>
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<tr>
<td></td>
<td></td>
<td>• Broader health service structure &amp; policy context (not explored further in this thesis)</td>
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<td></td>
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<td>• Broader establishment of the screening service</td>
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<td></td>
<td>• Guideline development (not explored further in this thesis)</td>
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<td></td>
<td></td>
<td>• Local groups &amp; other guidelines*</td>
<td></td>
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<td></td>
<td></td>
<td>• Situation in practice*</td>
<td></td>
</tr>
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<td></td>
<td>Mandatory or voluntary</td>
<td>• Not explored further in this thesis</td>
<td>-</td>
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<tr>
<td></td>
<td>Migration trends</td>
<td>• Not explored further in this thesis</td>
<td>-</td>
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<tr>
<td></td>
<td>Newness of the issue</td>
<td>• Not explored further in this thesis</td>
<td>-</td>
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<tr>
<td></td>
<td>Other non-health policies or law</td>
<td>• Not explored further in this thesis</td>
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</tr>
<tr>
<td>Higher level category</td>
<td>Theme</td>
<td>Sub-themes</td>
<td>Chapters addressed in</td>
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<tr>
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</tr>
<tr>
<td>Political context &amp; sensitivity</td>
<td></td>
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<td>Evidence</td>
<td>Capacity to implement</td>
<td>• Input on practical issues</td>
<td>Chapter 6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Consideration of resources &amp; implementation in the guideline group</td>
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<td></td>
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<td>• Implementable for asylum seekers (not explored further in this thesis)</td>
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<td>Evidence type</td>
<td></td>
<td>• Best practice</td>
<td>Chapter 6</td>
</tr>
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<td></td>
<td></td>
<td>• Client needs</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Economic analysis</td>
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<td></td>
<td></td>
<td>• Expert knowledge ID</td>
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<td></td>
<td></td>
<td>• Guidelines &amp; evidence from other countries</td>
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<td></td>
<td></td>
<td>• Influences language, cultural competency &amp; stigma</td>
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<tr>
<td></td>
<td></td>
<td>• International epidemiology</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Irish guidelines</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Local Irish evidence and experience</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Recommendation from international organisations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Research evidence</td>
<td></td>
</tr>
<tr>
<td>Evidence use (sourcing &amp; review)</td>
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<td>-</td>
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<tr>
<td>Views on evidence</td>
<td></td>
<td>• Sufficiency of evidence</td>
<td>Chapter 6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Views on and use of evidence miscellaneous</td>
<td></td>
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<tr>
<td>GP guidelines*</td>
<td></td>
<td>• Not explored further in this thesis</td>
<td>-</td>
</tr>
<tr>
<td>Guideline content</td>
<td></td>
<td>• Not explored further in this thesis</td>
<td>-</td>
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<tr>
<td>Process</td>
<td>Dissemination &amp; implementation</td>
<td>• Public health guidelines &amp; general</td>
<td>Chapter 6</td>
</tr>
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<td></td>
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<td>• GP guidelines</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Local adaptation</td>
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</tr>
<tr>
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<td></td>
<td>• Views on implementation in practice</td>
<td></td>
</tr>
<tr>
<td>Guideline review (after 2004)</td>
<td></td>
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<td>-</td>
</tr>
<tr>
<td>Initiation &amp; aim</td>
<td></td>
<td>• Not explored further in this thesis</td>
<td>-</td>
</tr>
<tr>
<td>Overview of the process of guideline</td>
<td></td>
<td>• Not explored further in this thesis</td>
<td>-</td>
</tr>
<tr>
<td>Higher level category</td>
<td>Theme</td>
<td>Sub-themes</td>
<td>Chapters addressed in</td>
</tr>
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</tr>
<tr>
<td>development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsibility</td>
<td>For the guidelines or at a policy level</td>
<td>• Not explored further in this thesis</td>
<td></td>
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</table>
|                       | Implementation | • Community and public health*  
|                       |             | • Department of Justice & RIA (not explored further in this thesis)  
|                       |             | • DoH, health boards, HSE & frontline providers  
|                       |             | • Other*                                                                   | Chapter 6              |
| Overview views        | Views on a more holistic policy or guidelines | • Not explored further in this thesis |                       |
|                       | Views on guidance and policy in general | • Not explored further in this thesis |                       |
|                       | Views on screening for other migrants | • Not explored further in this thesis |                       |
|                       | Views on screening | • Not explored further in this thesis |                       |
|                       | Views on the guideline content | • Not explored further in this thesis |                       |
|                       | Views on the guideline process | • Not explored further in this thesis |                       |

* These themes are only examined and points included where there are points of overlap with the main themes of interest in the thesis for triangulation.

For chapter 6 the evidence base was originally coded under a framework which was more aligned with policy analysis and therefore was perceived more as content than process, although it is also part of the process. In order to limit duplication and in line with the analysis using the CFIR it is however included under process in chapter 6.
Appendix IX. Thematic framework for the implementation study

**Implementation study:** An analysis of the implementation of the guidelines and screening programme employing in-depth interviews with frontline providers (initial and follow-up interviews)

Table 33. Thematic framework for the implementation study

<table>
<thead>
<tr>
<th>Higher level category</th>
<th>Theme</th>
<th>Sub-themes</th>
<th>Chapters addressed in</th>
</tr>
</thead>
<tbody>
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<td>Actors &amp; relationships</td>
<td>Client – HCP relationship</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>HCP knowledge &amp; experience</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>HCP views &amp; attitudes</td>
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<td>*</td>
</tr>
<tr>
<td></td>
<td>Knowledge of the screening service</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Migrant group or individual factors</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Broader contextual influences</td>
<td>Economic</td>
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<td>H1N1 pandemic</td>
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<td>Intersectoral (DoJ)</td>
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<td>*</td>
</tr>
<tr>
<td></td>
<td>Migration trends</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Guidance used &amp; diseases</td>
<td>The extent to which the guidelines are</td>
<td>Awareness and use of the guidelines</td>
<td>Chapter 8</td>
</tr>
<tr>
<td>screened for in practice</td>
<td>used in practice</td>
<td>Adaptation of the guidelines</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Other guidelines</td>
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<tr>
<td></td>
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<td>Non-guideline sources of guidance</td>
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<td></td>
<td>Implementation of tests in guidelines</td>
<td>‘pretty slick’ at screening – levers for effective implementation</td>
<td>Chapter 8</td>
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<td>Heterogeneity in implementation in practice</td>
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<td>Major implementation difficulties in practice</td>
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<td>Need for appropriate providers</td>
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<td>Other difficulties encountered with the ‘hard-core’ of the intervention</td>
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<tr>
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<td></td>
<td>Other difficulties encountered with the ‘soft-periphery’ of the intervention</td>
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<tr>
<td>Higher level category</td>
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<td>Sub-themes</td>
<td>Chapters addressed in</td>
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<tr>
<td>-----------------------------------------------</td>
<td>--------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>------------------------------------------------------------</td>
</tr>
<tr>
<td>Programme &amp; services in place</td>
<td>Related to diseases in guidelines</td>
<td>*</td>
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<tr>
<td></td>
<td>Access to screening or related services</td>
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<td>Holistic needs &amp; access</td>
<td>• Aspects of the broader health provision in practice</td>
<td>Chapter 9</td>
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<td>• Possible explanatory influences</td>
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<td></td>
<td>Follow-up, continuity &amp; coordination</td>
<td>*</td>
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<tr>
<td></td>
<td>Coverage</td>
<td>• Basic centres covered (not explored further in this thesis)</td>
<td>Chapter 7 – the sub-theme of coverage geographically &amp; over time</td>
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<tr>
<td></td>
<td></td>
<td>• Coverage geographically &amp; over time</td>
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<td></td>
<td></td>
<td>• Non-asylum seeker migrants (not explored further in this thesis)</td>
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<td>Variation in implementation</td>
<td>• Variation reported</td>
<td>Chapter 7*</td>
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<td></td>
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<td>• Causes of variation</td>
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<td>• Facilitators for more systematic application</td>
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<td>• Benefits of variation</td>
<td>Chapter 8</td>
</tr>
<tr>
<td>Views on guidelines, screening &amp; content of programme</td>
<td>Views on guidelines &amp; content of programme</td>
<td>• Usefulness of guidelines for screening</td>
<td>Chapter 8</td>
</tr>
<tr>
<td></td>
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<td>• Clarity, sufficiency &amp; validity of guidelines</td>
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<td>• Guidelines as a “grey area”</td>
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<td>• Flexibility &amp; adaptability of the guidelines</td>
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<td>• Incongruence between the guidelines &amp; practice</td>
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<td>• Need for guideline review</td>
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<td></td>
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<td>• Contact with guideline developers</td>
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<td></td>
<td>• Associated HCP guidelines</td>
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<td></td>
<td>Views on importance of screening and service</td>
<td>• Perceptions of screening and screening for the specific communicable diseases</td>
<td>Chapter 8</td>
</tr>
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<td>Higher level category</td>
<td>Theme</td>
<td>Sub-themes</td>
<td>Chapters addressed in</td>
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<tr>
<td></td>
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<td>• Importance of screening for the broader health issues&lt;br&gt;• Need for a review of the service&lt;br&gt;• Views on importance of screening in dispersal areas&lt;br&gt;• Views on importance for different migrant groups&lt;br&gt;• Viewpoint against screening in general&lt;br&gt;• Relative priorities and financing&lt;br&gt;• Management perceptions of importance of service</td>
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<tr>
<td>Sensitivity of diseases screened for</td>
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</tr>
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<td>Structural &amp; organisational</td>
<td>Responsibility, coordination &amp; service structure</td>
<td>• Community health and public health&lt;br&gt;• National coordination &amp; responsibility&lt;br&gt;• Acknowledgement&lt;br&gt;• Structure&lt;br&gt;• Responsibility at a local level &amp; motivation of frontline providers&lt;br&gt;• Broader HSE governance structures &amp; system&lt;br&gt;• DoJ responsibility</td>
<td>Chapter 7</td>
</tr>
<tr>
<td>HR numbers &amp; profession</td>
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<td>*</td>
<td></td>
</tr>
<tr>
<td>Language &amp; interpretation</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Practical aspects general</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Time &amp; workload</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Views on the model of service provision</td>
<td>• Ideal perspectives of the model of service provision&lt;br&gt;• Current GP screening&lt;br&gt;• Barriers &amp; levers to screening service provision through the GPs&lt;br&gt;• Barriers to dedicated service provision</td>
<td>Chapter 8</td>
<td></td>
</tr>
<tr>
<td>Higher level category</td>
<td>Theme</td>
<td>Sub-themes</td>
<td>Chapters addressed in</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------</td>
<td>------------------------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td></td>
<td>Voluntary screening</td>
<td>• Other ideas for models of service provision</td>
<td></td>
</tr>
</tbody>
</table>

* These themes are only examined and points included where there are points of overlap with the main themes of interest in the thesis for triangulation
Appendix X. Thematic framework for the integration study

Integration study: An analysis of service provision through a mainstream GP service and a dedicated screening service in relation to the detection of health issues and facilitating access or integration into the system (including through IHAs and screening) with a focus on meeting the health needs of asylum seekers and refugees.

Table 34. Thematic framework for the integration study

<table>
<thead>
<tr>
<th>Higher level category</th>
<th>Theme</th>
<th>Sub-themes</th>
<th>Chapters addressed in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access &amp; the detection of health issues through GPs or SS</td>
<td>Detection of health issues</td>
<td>• Detection of health issues through GPs</td>
<td>Chapter 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Medical assessment through the screening service</td>
<td>Chapter 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HCPs in accommodation centres dealing with broader health needs</td>
<td>Chapter 9</td>
</tr>
<tr>
<td></td>
<td>Client level influences</td>
<td>• Attendance, raising issues &amp; uptake of screening</td>
<td>Chapter 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Language &amp; cultural influences</td>
<td>Chapter 10</td>
</tr>
<tr>
<td></td>
<td>HCP level influences</td>
<td>• GP willingness &amp; perception of remit</td>
<td>Chapter 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HCP knowledge, experience &amp; interest</td>
<td>Chapter 10</td>
</tr>
<tr>
<td></td>
<td>Organisational &amp; structural influences</td>
<td>• Capacity &amp; resources</td>
<td>Chapter 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Clients having a GP or medical card &amp; payment perceptions</td>
<td>Chapter 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Payments &amp; contracts for HCPs</td>
<td>Chapter 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Time &amp; flexibility</td>
<td>Chapter 10</td>
</tr>
<tr>
<td></td>
<td>Broader contextual influences</td>
<td>• Health service restructuring</td>
<td>Chapter 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Migration trends</td>
<td>Chapter 10</td>
</tr>
<tr>
<td>Views on the model of service provision &amp; access &amp; the detection of health issues</td>
<td>Views on the model of service provision &amp; access &amp; the detection of health issues</td>
<td>• Ideally screening through mainstream GPs &amp; caveats</td>
<td>Chapter 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ideally screening through a specialist service</td>
<td>Chapter 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• MoSP &amp; LTBI screening</td>
<td>Chapter 10</td>
</tr>
<tr>
<td>Higher level category</td>
<td>Theme</td>
<td>Sub-themes</td>
<td>Chapters addressed in</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
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</tr>
</tbody>
</table>
|                                    | Views on the model of service provision & service provision which is as seamless as possible | • Other ideas & points for MoSP  
  • Outreach screening MoSP       | Chapter 10                                                                 |
| Responsibility, coordination & service structure | Overview & influence on access                                       | • Not explored further in this thesis  
  (analysis and discussion to be presented in a subsequent paper) | *                    |
|                                    | Responsibility in relation to public health & referral specialists   | *                                                                          | *                    |
|                                    | Influence on the extent to which service provision is as seamless as possible | • Community health & public health  
  • National coordination & responsibility  
  • Acknowledgement & structure  
  • Local & individual HCP responsibility  
  • Broader HSE governance structures & system  
  • DoJ responsible  
  • Responsibility other | Chapter 7                                                                 |
<p>| Other                              | Other migrants                                                      | Not explored further in this thesis                                    | -                    |
|                                    | HCP knowledge of AS, screening &amp; associated services*               | *                                                                        | *                    |
|                                    | Health needs of AS &amp; refugees                                       | *                                                                        | *                    |
|                                    | Referral specialists dealing with broader health needs              | Not explored further in this thesis                                   | -                    |
|                                    | The extent to which service provision is as seamless as             | Not included in this thesis – analysis and discussion to be presented in | Not explored further in this thesis |
|                                    |                                                                      |                                                                           | -                    |</p>
<table>
<thead>
<tr>
<th>Higher level category</th>
<th>Theme</th>
<th>Sub-themes</th>
<th>Chapters addressed in</th>
</tr>
</thead>
<tbody>
<tr>
<td>possible</td>
<td>subsequent papers.</td>
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<td></td>
</tr>
<tr>
<td>Basic context &amp; interviewees</td>
<td>Basic job role information</td>
<td>Just used for context for analysis</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Surrounding services</td>
<td>Just used for context for analysis</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Basic interaction mapping</td>
<td>Just used for context for analysis</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Interviewees</td>
<td>Used for the analysis</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Other health conditions or issues</td>
<td>Just used for context for analysis</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Context other</td>
<td>Just used for context for analysis</td>
<td>-</td>
</tr>
</tbody>
</table>

* These themes are only examined and points included where there are points of overlap with the main themes of interest in the thesis for triangulation. Findings related to the awareness of GPs of screening guidelines were all discussed in Chapter 8 to reduce duplication.

AS: asylum seeker; GP: general practitioner; SS: screening service.
Appendix XI: Literature search methodology

Search strategy for Pubmed-Medline

Search date: 8th March 2012 (update alerts were set up)

Filters:

- The human filter was not used as this can skew the results in pubmed.
- Title & abstract
- English
- Previous 5 years (from 8th March 2012 in revised strategy)

1. migrant*
2. immigrant*
3. immigration
4. refugee*
5. "foreign born"
6. foreign-born
7. "non national"
8. non-national
9. "new entrant**"
10. new-entrant
11. "asylum seeker**"
12. asylum-seeker*
13. Transients and Migrants[Mesh]
14. Emigrants and Immigrants[Mesh]
15. Emigration and Immigration[Mesh]
16. Refugees[Mesh]
17. 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16
18. Mass Screening[Mesh]
19. Mandatory Testing[Mesh]
20. Screening
21. "health assessment"
22. "medical assessment"
23. "new entrant screening"
24. "new-entrant screening"
25. "medical surveillance"
26. "health undertaking"
27. "health evaluation"
28. "medical screening"
29. 18 OR 19 OR 20 OR 21 OR 22 OR 23 OR 24 OR 25 OR 26 OR 27 OR 28
30. cancer
31. diabetes
32. 17 AND 29 NOT 30 NOT 31
**Brief overview of the development of the search strategy**

A narrative literature review was conducted in a systematic way to ensure the sensitivity of the search strategy. Three main literature reviews were conducted to examine migrant health screening: the first examined the policy and guidance in the field of migrant health screening and IHAs, the second the evidence base for migrant health screening and IHAs and the third the implementation of migrant health screening and IHAs. Short narrative literature reviews were also conducted examining the cross-cutting themes in migrant health and these are included in the literature review; these articles are not included in the record of the search results for the literature review below. Chapters 3 and 4 detail the conceptual and theoretical literature review.

A number of reasons led to the decision to not restrict the literature review to just to asylum seekers and refugees, but also to include new-entrant migrants more broadly where asylum seekers and refugees could be included in the migrant group. Firstly, this decision was taken to improve the sensitivity of the literature search as internationally the categorisation of different migrant groups varies extensively; for example, in Canada asylum seekers are termed refugee claimants. Secondly, in certain countries screening targets a broad group of migrant as it is necessary for visa applications and so restricting the search to solely asylum seekers may miss a significant amount of relevant literature. Furthermore, for a thorough understanding of asylum seeker screening and IHAs knowledge of the context for broader groups of migrants is required. Limits were still employed as the focus was on new-entrant migrants and therefore articles referring to long standing ethnic groups were not included in the main body of the review, with certain exceptions.

The initial search strategy was developed by the researcher (GS) after a training session on literature searching and a librarian was consulted in the development of a revised search strategy. The search strategy was re-examined during the thesis using 15 key articles to examine to what extent the search strategies were detecting these articles. A revised search was conducted between the 9th and 21st July 2011 and an extensive revised search was conducted in March 2012.

Initially communicable diseases terms were used to further refine the search strategy, but this restricted the search to the extent that certain key articles were not detected. Therefore, the search was expanded and articles which included communicable disease screening were filtered manually. Snowballing was used to identify relevant articles and supplement the search strategy from the references of key articles identified, the recommended article function in pubmed and google scholar was used to identify articles citing key papers. The results from the search in March 2012 are reported in Figure 29. Despite extensive efforts six articles were excluded as the full text could not be retrieved.

A checklist to use while reviewing the articles was developed and was used more initially to structure the review of the articles. This enabled the reviewer to assess the articles systematically initially. It became more natural for the reviewer to assess the papers using the criteria as the review progressed and so they were applied more flexibly. The checklist was primarily based on the advice of Wallace and Wrey (646) but other tools were also used in the development of the checklist including the BMJ editors’ quality appraisal criteria for qualitative studies (647) and a critical appraisal checklist for public health by Heller et al. (648).
The literature review examining the evidence base for screening was also conducted in a systematic way but only a short narrative section is included in this thesis and it is intended that the full review will be published in a future publication.

For the implementation literature review, information was frequently identified in the discussion sections of articles, letters and non-systematic reviews and so a broader perspective of evidence was adopted in the review than the inclusion and exclusion criteria for a systematic review. The inclusion and exclusion criteria for the literature reviews and record of articles identified are detailed below. National guidelines were only included in the review for English speaking countries and sparser information was available for countries other than Australia, Canada, the United States (US) and the UK.

In light of the emergent findings from the studies, literature reviews were also undertaken of theories and conceptual frameworks in the fields of access (493-499), primary care (500), models of care (349) and national and international models of continuity and integration of care.

**Box 17. The checklist developed for the literature review based on the advice of Wallace and Wrey (646)**

<table>
<thead>
<tr>
<th>1. Why am I reading this?</th>
<th>2. What are the authors trying to do in writing this?</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. What are the authors saying that is relevant to what I want to find out?</td>
<td>4. How convincing is what the authors are saying?</td>
</tr>
<tr>
<td>5. In conclusion what use can I make of this?</td>
<td>6. Any useful information from the introduction?</td>
</tr>
<tr>
<td>7. Any useful information from the discussion?</td>
<td>8. Comments on inclusion/exclusion criteria</td>
</tr>
<tr>
<td>9. Type of article</td>
<td>10. Disease specific?</td>
</tr>
<tr>
<td>11. Who are the subjects of the article?</td>
<td></td>
</tr>
</tbody>
</table>

**Inclusion and exclusion criteria for the literature reviews**

**Table 35. Inclusion/Exclusion criteria across all three international literature reviews**

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population: new-entrant, first generation immigrants (who themselves have moved country) including asylum seekers and refugees. The primary focus should be on articles looking at asylum seekers or refugees or migrant groups which could include asylum seekers and refugees unless highly relevant.</td>
<td>Second generation immigrants, ethnic minorities more broadly. Articles primarily focusing on international adoptees, migrants with irregular status, students, trafficked individuals, sex workers, migrant farm workers, Roma, migrant workers, travellers, internally displaced refugees, migrants from Latin America or Hispanic populations. Articles focused on specific cohorts such as the homeless. Articles which discuss several populations and migrants are not easily disaggregated (unless highly relevant to new entrant screening).</td>
</tr>
<tr>
<td>Migration to a high-income country from a low-income country. Only high-income</td>
<td>If the context is not relevant to Ireland e.g. migrant workers to Israel.</td>
</tr>
<tr>
<td>Inclusion</td>
<td>Exclusion</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>countries with a context relevant to Ireland are included (the World Bank Definitions from the 5th January 2010 and then the 8th May 2011 were used for the definition of high-income countries)</td>
<td></td>
</tr>
<tr>
<td>Intervention: Article must be related to immigrant screening or new entrant health assessments including presumptive treatment for refugees</td>
<td>Articles focusing on diagnostic test evaluation or laboratory techniques.</td>
</tr>
<tr>
<td>Articles which include communicable diseases</td>
<td>Articles primarily focusing on treatment</td>
</tr>
<tr>
<td>Articles published from 2007 to 2012 (unless a highly relevant article)</td>
<td>Case studies focused on an individual patients, outbreaks or which are used as learning exercises in medical journals. Law based articles. Conference or meeting abstracts or review of an article when the original is included in the search.</td>
</tr>
<tr>
<td>Articles in English</td>
<td>Other screening programmes including: dental screening, antenatal screening, transplant screening, blood donor screening.</td>
</tr>
<tr>
<td>Articles which don’t mention screening but are highly relevant to the diseases in the national communicable diseases screening guidelines for asylum seekers in Ireland</td>
<td>Pathogens, infections and diseases not highly relevant to the Irish context, including Chagas disease.</td>
</tr>
<tr>
<td>Articles focusing on pandemic or global acute events</td>
<td>If testing and not true screening (unless a highly relevant article for screening)</td>
</tr>
<tr>
<td>Articles focusing on immunisation</td>
<td>If the article doesn’t specifically include screening or new entrant health assessments</td>
</tr>
<tr>
<td>Articles based in a referral clinic where people may have been referred due to symptoms and so not true screening.</td>
<td>Epidemiological studies of the prevalence of communicable diseases in the population which don’t include specific information on new entrant or migrant screening</td>
</tr>
<tr>
<td>If relating just to detention in the US</td>
<td></td>
</tr>
</tbody>
</table>
### Table 36. International policies and programmes for migrant IHAs and screening literature review: additional inclusion/exclusion criteria

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Must refer to policies, guidelines or strategies for immigrant or new entrant screening or health assessments</td>
<td>If focused on broader migrant health policy (include if a highly relevant article for screening)</td>
</tr>
<tr>
<td>Qualitative and quantitative peer reviewed literature and letters published in journals including narrative reviews, systematic reviews, editorials, case-control, opinion articles, RCT, cohort (see main exclusion criteria)</td>
<td>Policy/guidance of individual clinics/health centres unless highly relevant</td>
</tr>
<tr>
<td>Grey literature for guidelines and policies if highly relevant in English speaking, high income countries with a similar context to Ireland</td>
<td>Disease specific strategies which are not focused on migrant or new entrant screening (except in Ireland)</td>
</tr>
<tr>
<td>If an article would not meet inclusion exclusion criteria but are highly relevant &amp; related to migrant health policy more broadly</td>
<td></td>
</tr>
</tbody>
</table>

### Table 37. The evidence base for migrant screening literature review: additional inclusion/exclusion criteria

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>If the article is a prevalence study but was conducted to answer the research question of whether screening should take place</td>
<td>Article which is the opinion and advice of health care professionals (include in the introduction or discussion)</td>
</tr>
<tr>
<td>Original research article, systematic review or narrative review performed systematically</td>
<td>Other types of articles, including: editorials, opinion pieces, non-systematically performed reviews</td>
</tr>
<tr>
<td>Letters published in the peer reviewed literature which continue a debate or comment on one of the original articles</td>
<td></td>
</tr>
</tbody>
</table>

### Table 38. The implementation of screening programmes literature review: additional inclusion/exclusion criteria

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles related to the implementation of screening policies, guidelines, services or programmes</td>
<td></td>
</tr>
<tr>
<td>Qualitative and quantitative peer reviewed literature and letters published in journals including narrative reviews, systematic reviews, editorials, case-control, opinion articles, RCT, cohort studies (see main exclusion criteria)</td>
<td></td>
</tr>
<tr>
<td>Grey literature for guidelines and policies if highly relevant in English speaking, high income countries with a similar context to Ireland</td>
<td></td>
</tr>
</tbody>
</table>
Figure 29. Record of the literature search results.
* guidelines from websites for screening and factsheets are also included but are not counted in these figures. † All with 5 year age limit where possible. Performed March 2012.
Appendix XII: A comparison between screening programmes in certain countries with a similar context to Ireland, where information is available.

<table>
<thead>
<tr>
<th>Communicable diseases</th>
<th>Non-communicable diseases or health examination</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>TB</td>
<td>HIV/AIDS</td>
<td></td>
</tr>
<tr>
<td>Hepatitis (B &amp;or C)</td>
<td>Syphilis</td>
<td></td>
</tr>
<tr>
<td>Parasites &amp; treatment</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Obesity</td>
<td>Diabetes</td>
<td></td>
</tr>
<tr>
<td>Heart disease</td>
<td>Arthritis</td>
<td></td>
</tr>
<tr>
<td>Physical examination</td>
<td>Serum creatinine</td>
<td></td>
</tr>
<tr>
<td>Mental examination</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Australia (the health requirement)**

Based on individual’s country of origin & intended length of stay & also depends on age, occupation & several other factors. Doctors are able to request additional tests. Includes a full medical examination (173). Guidelines are in place for the panel physicians performing the permit linked examinations in Australia (182, 233).

**Pre-departure fitness-to-fly assessment for refugees (to Australia)**

Tests offered are dependent on location & can include TB, malaria and intestinal parasites. Other: MMR vaccination (198-200).
<table>
<thead>
<tr>
<th>Belgium (port of entry)</th>
<th>TB</th>
<th>HIV/AIDS</th>
<th>Hepatitis (B &amp;/or C )</th>
<th>Syphilis</th>
<th>Parasites &amp; treatment</th>
<th>Other</th>
<th>Obesity</th>
<th>Diabetes</th>
<th>Heart disease</th>
<th>Arthritis</th>
<th>Physical examination</th>
<th>Serum creatinine</th>
<th>Mental examination</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>Canada (screening for visa &amp; residency applications)</td>
<td>TB</td>
<td>HIV/AIDS</td>
<td>Hepatitis (B &amp;/or C )</td>
<td>Syphilis</td>
<td>Parasites &amp; treatment</td>
<td>Other</td>
<td>Obesity</td>
<td>Diabetes</td>
<td>Heart disease</td>
<td>Arthritis</td>
<td>Physical examination</td>
<td>Serum creatinine</td>
<td>Mental examination</td>
<td>Includes a CXR for those ≥11 years old, an HIV test for those ≥15 years old, serum creatinine if the individual has hypertension and a test for syphilis (195). Guidelines in place for the medical surveillance for TB (195, 234)</td>
</tr>
<tr>
<td>Denmark (domestic)</td>
<td>TB</td>
<td>HIV/AIDS</td>
<td>Hepatitis (B &amp;/or C )</td>
<td>Syphilis</td>
<td>Parasites &amp; treatment</td>
<td>Other</td>
<td>Obesity</td>
<td>Diabetes</td>
<td>Heart disease</td>
<td>Arthritis</td>
<td>Physical examination</td>
<td>Serum creatinine</td>
<td>Mental examination</td>
<td>A physical and mental examination is offered systematically to asylum seekers but not to programme refugees or immigrants. Communicable disease screening is only included if symptoms are reported (7)</td>
</tr>
<tr>
<td>France</td>
<td>TB</td>
<td>HIV/AIDS</td>
<td>Hepatitis (B &amp;/or C )</td>
<td>Syphilis</td>
<td>Parasites &amp; treatment</td>
<td>Other</td>
<td>Obesity</td>
<td>Diabetes</td>
<td>Heart disease</td>
<td>Arthritis</td>
<td>Physical examination</td>
<td>Serum creatinine</td>
<td>Mental examination</td>
<td>Mandatory CXR screening at entry for immigrants from outside the EU who are intending to stay over 3 months. (76)</td>
</tr>
<tr>
<td>Communicable diseases</td>
<td>Non-communicable diseases or health examination</td>
<td>Comments</td>
<td></td>
<td></td>
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<td>TB</td>
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<td></td>
<td>Syphilis</td>
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<p>| Ireland (domestic)  | Offered on a voluntary basis to refugees and asylum seekers. Includes: TB, hepatitis B, immunity to VZV and rubella, immunisations and guidelines state that ‘HIV testing should be provided when requested and should be encouraged where indicated’ (229) |
| Netherlands (domestic) | TB screening tests used depends on the municipality (29, 65) |
| Norway (domestic)   | Domestic TB screening is compulsory for asylum seekers and screening is in place for immigrants from high-incidence TB countries intending to stay over 3 months (137, 216, 217, 222, 223) |
| Sweden              | For foreign born individuals from high incidence countries (82) |</p>
<table>
<thead>
<tr>
<th>Communicable diseases</th>
<th>Non-communicable diseases or health examination</th>
<th>Comments</th>
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<tr>
<td>TB</td>
<td>HIV/AIDS</td>
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<td>Hepatitis (B &amp;/or C )</td>
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<td>Syphilis</td>
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<td>Parasites &amp; treatment</td>
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<td>Mental examination</td>
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</table>

**Switzerland (at the border)**

A nurse administered interview based system is in place for TB. HIV screening is not mandatory. Hepatitis B screening and immunisations were included in 2003 (33, 138, 147, 148, 167, 305).

**UK (pre-entry)**

Policy now changed towards expanded pre-entry screening (211-213)

**UK port of entry**

See above (211-213)

**US mandatory visa screening**

Other inadmissible conditions include: selected sexually transmitted infections (STIs), HIV prior to 2010 (210, 282), Hansen’s disease, a physical or mental disorder with harmful behaviour, drug addiction or drug abuse problem, lack of vaccination documentation.

Centers for Disease Control and Prevention (CDC) guidelines are in place (126, 189, 194, 220, 231, 649, 650)
### Figure 30. A comparison between screening programmes in certain countries with a similar context to Ireland, where information is available.

Note: 1. Some tests are only offered to certain ages, for example in Australia a CXR is offered to those ≥11 years but a medical examination to those under 11 years. Tests offered may also depend on country of origin, intended length of stay and occupation for example. 2. Screening for additional conditions may take place in countries but this may not have been identified in the literature. 3. This is a dynamic situation and so recommendations may alter. 4. Other countries have pre-departure screening in place for refugees, for example Denmark, but are not included in this table as documents were not in English. 5. Please see source references for the detailed explanations. 6. VZV: Varicella Zoster Virus.
Appendix XIII: Topic-guide for the guideline development study

Overview of the interviewee’s role and the guideline development process

- In what way were you involved in the development of the guidelines?
- Could you describe the process of the guideline development?
- Who was involved at each stage in the process? How were they selected?

Initiating the guideline development

- As far as you were aware what was the impetus to formulate/review the guidelines?
- Why were guidelines formed, rather than a policy?

Actors, networks and the use of an expert group

- What are your views on the use of an expert group in the development of the guidelines?
- What were your views on the composition of the expert group?
- Were there any particular networks in the expert group?
- Do you think any individuals were more influential than others in the development of the policy?
- Was there any confusion, mixed views or conflicts during the development of the guidelines?
- Were there particular enablers or resistors to elements of the policy? (Names not essential)

Sourcing the evidence for the content of the guidelines

- As far as you are aware, how was the content of the guidelines decided?
  - Prompt: Different types of evidence, any frameworks/guides/tools used?
  - Probe: How was the evidence sourced, introduced, reviewed and evaluated?
  - Probe: Was any type of evidence prioritised? Or not prioritised?
  - Probe: Were lessons from other countries used?
    - Probe: Was there enough time to fully source the evidence?
    - Probe: Was the body of evidence sufficient?
- Were there any ways in which researchers could have made the research more useful or accessible to policy makers?
- Were there any plans to improve the evidence base underpinning the guidelines moving forward?

Specific guideline content questions

- How well do you think the balance was found between protecting the immigrant or host population or both?
- Why was Hepatitis C included in the 2000 guidelines but not in the 2001?
- Why were intestinal parasites not included in the main guidelines?
- Do you think the policy content should have been different in any way?
Assessing the capacity to implement and implementation

- Was resource availability taken into account in the content of the guidelines? For example: staff capacity, laboratory facilities, costs?
- Were the guidelines disseminated? How?
- Was there an implementation plan? Did perceived implementation problems influence the content of the guidelines?
- Was any plan put in place for monitoring, quality assurance or review?

Context

Specific guideline development context

- Were there any particular features of the context that influenced the content of the guidelines?
  - Prompt: Ireland having a lack of history with immigration
  - Probe: Were political implications discussed?
  - Probe: Was any evidence considered to be difficult politically?
  - Probe: Did wider policies such as the dispersal policy influence the guideline content?

Screening process context

- How was it decided that there would not be mandatory screening?

Screening structure context

- How was the current screening structure (at reception centres and dispersal centres) decided?
- Did the setting up of the HSE influence the screening structure?

Overview of own views

- What are your views on the main factors influencing the development of the policy? 
  (Note: they may already have made this clear in the interview)
- What are your views on the strengths and weaknesses of this process of guideline development?
- Did the process change any of your existing beliefs/assumptions?
- Why do you think there is a lack of policy for other migrant groups?

Overview

- Are you aware of any other people/organisations which may be useful for us to contact?
- Are you aware of any other policy documents/tools or research which may be useful for us to look at?
- Are there any other points you would like to talk about?
- May I contact you again to follow up specific points?
Appendix XIV. Main theories, models and frameworks which informed the thesis prior to the main analysis using the CFIR and NPT or which influenced the changes to the adapted CFIR component of the conceptual framework

<table>
<thead>
<tr>
<th>Theory, model, framework or literature</th>
<th>How it informed the thesis prior to the use of the CFIR and NPT and/or the adapted CFIR</th>
</tr>
</thead>
</table>
| A complexity perspective (455, 606, 624) | • The health system was viewed as a complex adaptive system in this thesis (367), which is unpredictable (606) and where the agents and the system are adaptive, leading to emergent phenomenon (455), for example greater trust between a HCP and client (455).  
  • Systems are perceived to be nested within other ‘shadow systems’ with which they co-evolve (606, 624).  
  • Dynamic interactions between individuals are key and so the focus is on the unit of the patient and the HCP, rather than solely a patient centred approach (652). |
| Programme implementation & integration | • Screening programme and guidelines are viewed as one element of a number of interacting communicable disease control guidelines in this thesis. Complexity of the context in which programmes are implemented and multiple interacting factors are emphasised (367, 368, 452, 453). Diffusion of innovation is influential (367). |
| Policy development & implementation | • The bottom-up perspective of policy development and implementation (51) influenced the analysis.  
  • Recognises multiple influences on policy development and implementation including context and process (439, 454). |
| Greenhalgh’s diffusion of innovations model | • This model informed the thesis analysis significantly, but was incorporated into the CFIR and so was used in combination with the other models, theories and frameworks which informed the CFIR (41, 371). |
| Gruen et al. model of health-programme sustainability (440) | • Proposed model incorporates the dynamic interactions between health, positive and negative drivers (for example, stakeholders) and the programme within a context and with certain resources (440).  
  • The importance of the dynamic interactions in understanding the sustainability of programmes was also examined in this thesis. |
| Dynamic response conceptual framework by McPake et al. (459) & Balabanova et al. (460) | • Explored the complexity perspective in relation to health systems research and informed the analysis.  
  • The framework explicitly includes the ‘dynamic responses’, involving multiple human interactions, which are between the *de jure* legislated services (e.g. organisational structures) and the *de facto* observed outcomes (e.g. access) which were viewed as the ‘emergent properties’ of the system (459, 460). |
Appendix XV. Consent form for the guideline development study

CONSENT FORM

Research title:

Communicable disease screening for asylum seekers and refugees in Ireland: a policy analysis

Please tick the appropriate answer:

I confirm that I have read and understood the attached Participant Information Sheet dated 25/05/2010 and that I have had an opportunity to ask questions, to which I have had satisfactory answers.

☐ Yes ☐ No

I understand that my participation in the study is entirely voluntary and that withdrawal is permitted at any time, without having to give a reason and without any personal consequence.

☐ Yes ☐ No

I understand that my identity will remain confidential at all times.

☐ Yes ☐ No

I understand that I can review and comment on my interview transcript up until 1st August 2010.

☐ Yes ☐ No

I have been given a copy of the Participant Information Sheet and this Consent form for my records.

☐ Yes ☐ No
Future use of anonymous data:
I agree that I will not restrict the use to which the results of the study may be put. I give my approval that unidentifiable data concerning my person may be stored or electronically processed for the purpose of scientific research and may be used in related or other studies in the future. (This would be subject to approval by an independent body, which safeguards the welfare and rights of people in research studies – the Royal College of Surgeons Ethics Committee.)

I consent to be a participant in the above research project.

To be completed by the participant:

Participant signature  Name in Block Capitals  Date

To be completed by the Principal investigator or his nominee (Gemma Smith):

I the undersigned, have provided an Information Sheet explaining the nature and purpose of the study in a manner he/she could understand. I have invited him/her to ask questions on any aspect of the study that concerned them.

Signature  Name in Block Capitals  Qualification  Date
Appendix XVI. Updated consent form for the follow-up guideline development interviews

CONSENT FORM

Research title:

Communicable disease screening for asylum seekers and refugees in Ireland: a policy analysis

Please tick the appropriate answer:

I confirm that I have read and understood the attached Participant Information Sheet dated 25/05/10 and that I have had an opportunity to ask questions, to which I have had satisfactory answers.

I understand that my participation in the study is entirely voluntary and that withdrawal is permitted at any time, without having to give a reason and without any personal consequence.

I understand that my identity will remain confidential at all times.

I understand that I can review and comment on my interview transcript up until an agreed date prior to the point of publication.

I have been given a copy of the Participant Information Sheet and this Consent form for my records.

Future use of anonymous data:

I agree that I will not restrict the use to which the results of the study may be put. I give my approval that unidentifiable data concerning my person may be stored or electronically processed for the purposes of scientific research.

I give my approval that unidentifiable data concerning my person may be used in related or other studies in the future, subject to approval by a Research Ethics Committee.

I consent to be a participant in the above research project.

Consent forms will be stored confidentially and kept separately from the interview transcripts.

To be completed by the participant:

Participant signature

Name in Block Capitals

Date

To be completed by the Principal investigator or his nominee (Gemma Smith):

I the undersigned, have provided an Information Sheet explaining the nature and purpose of the study in a manner he/she could understand. I have invited him/her to ask questions on any aspect of the study that concerned them.

Signature

Name in Block Capitals

Qualification

Date
Appendix XVII. Consent form for the implementation study

Royal College of Surgeons in Ireland
Coldistle Rioga na Mhainin in Éirinn
Beaux Lane House,
Lower Mercer Street,
Dublin 2
Ireland

TEL: +353 1 402 2720
EMAIL: gemmasmith@rcsi.ie
www.rcsi.ie

CONSENT FORM

Research title:

Communicable disease screening for asylum seekers and refugees in Ireland: a policy analysis

Please tick the appropriate answer:

Yes  No

☐  ☐ I confirm that I have read and understood the attached Participant Information Sheet dated 27/05/10 and that I have had an opportunity to ask questions, to which I have had satisfactory answers.

☐  ☐ I understand that my participation in the study is entirely voluntary and that withdrawal is permitted at any time, without having to give a reason and without any personal consequence.

☐  ☐ I understand that my identity will remain confidential at all times.

☐  ☐ I understand that I can review and comment on my interview transcript up until 1st August 2010.

☐  ☐ I have been given a copy of the Participant Information Sheet and this Consent form for my records.
Future use of anonymous data:
I agree that I will not restrict the use to which the results of the study may be put. I give my approval that unidentifiable data concerning my person may be stored or electronically processed for the purpose of scientific research and may be used in related or other studies in the future. (This would be subject to approval by an independent body, which safeguards the welfare and rights of people in research studies – the Royal College of Surgeons Ethics Committee.)

I consent to be a participant in the above research project.

To be completed by the participant:

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<th>Participant signature</th>
<th>Name in Block Capitals</th>
<th>Date</th>
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To be completed by the Principal investigator or his nominee (Gemma Smith):

I the undersigned, have provided an Information Sheet explaining the nature and purpose of the study in a manner he/she could understand. I have invited him/her to ask questions on any aspect of the study that concerned them.

<table>
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<th>Signature</th>
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<th>Qualification</th>
<th>Date</th>
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Appendix XVIII. Updated consent form for the implementation follow-up interviews

CONSENT FORM

Research title:

Communicable disease screening for asylum seekers and refugees in Ireland: a policy analysis

Please tick the appropriate answer:

I confirm that I have read and understood the attached Participant Information Sheet dated 27/05/10 and that I have had an opportunity to ask questions, to which I have had satisfactory answers. [ ] Yes [ ] No

I understand that my participation in the study is entirely voluntary and that withdrawal is permitted at any time, without having to give a reason and without any personal consequence. [ ] Yes [ ] No

I understand that my identity will remain confidential at all times. [ ] Yes [ ] No

I understand that I can review and comment on my interview transcript up until an agreed date prior to the point of publication. [ ] Yes [ ] No

I have been given a copy of the Participant Information Sheet and this Consent form for my records. [ ] Yes [ ] No

Future use of anonymous data:

I agree that I will not restrict the use to which the results of the study may be put. I give my approval that unidentifiable data concerning my person may be stored or electronically processed for the purposes of scientific research. [ ] Yes [ ] No

I give my approval that unidentifiable data concerning my person may be used in related or other studies in the future, subject to approval by a Research Ethics Committee. [ ] Yes [ ] No

I consent to be a participant in the above research project. [ ] Yes [ ] No

Consent forms will be stored confidentially and kept separately from the interview transcripts.

To be completed by the participant:

| Participant signature | Name in Block Capitals | Date |

To be completed by the Principal investigator or his nominee (Gemma Smith):

I, the undersigned, have provided an Information Sheet explaining the nature and purpose of the study in a manner he/she could understand. I have invited him/her to ask questions about any aspect of the study that concerned them.

| Signature | Name in Block Capitals | Qualification | Date |
Appendix XIX. Consent form for the integration study

Meeting the Health Needs of Migrants in Ireland: An Analysis of the Services for HIV/AIDS, Tuberculosis and Depression.

CONSENT FORM

I confirm that I have read and understood the attached Participant Information Sheet dated 30/03/11 and that I have had an opportunity to ask questions, to which I have had satisfactory answers.

I understand that my participation in the study is entirely voluntary and that withdrawal is permitted at any time, without having to give a reason and without any personal consequence.

I understand that my identity will remain confidential at all times.

I have been given a copy of the Participant Information Sheet and this Consent form for my records.

I understand that the digital recording of my interview will be transcribed and that once the transcripts have been edited, the audio files will be destroyed and the transcripts stored securely for 7 years.

I understand that I am permitted, should I wish, to review the interview transcript up until an agreed date prior to the point of publication for clarification, to add to the transcript, or to indicate that part or all of it should not be used.

Future use of anonymous data:

I agree that I will not restrict the use to which the results of the study may be put. I give my approval that unidentifiable data concerning my person may be stored or electronically processed for the purpose of scientific research.

Please tick the box below if you consent to the following statement:

☐ I give my approval that unidentifiable data concerning my person may be used in related or other studies in the future, subject to approval by a Research Ethics Committee.

Consent forms will be stored confidentially and kept separately from the interview transcripts.

I, ______________________________ (full name) consent to participate in the research study entitled ‘Meeting the Health Needs of Migrants in Ireland: An Analysis of the Services for HIV/AIDS, Tuberculosis and Depression’. I confirm that I have understood the information provided in the information sheet and by the researcher and that I am happy with how the data will be collected and used.

Name (PRINT) ______________________________

Signed

Gemma Smith
Division of Population Health Sciences, RCSI
Beaux Lane House, Mercer Street Lower, Dublin 2

Prof. Samuel McConkey:
Head of the Department of International Health and Tropical Medicine, RCSI, 123 St Stephen’s Green, Dublin 2

Prof. Ruairi Brugha:
Head of the Department of Epidemiology and Public Health Medicine, RCSI
Beaux Lane House, Mercer Street Lower, Dublin 2

Date

Tel: 01-402 2720
Email: gemmasmith@rcsi.ie

Tel: 01-402 2186
Email: smconkey@rcsi.ie

Tel: 01-402 2434
Email: rbrugha@rcsi.ie

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Appendix XX. Participant information sheet for the guideline development study

Royal College of Surgeons in Ireland
Colisie Ríoga na Mhaini in Éirinn
Beauch Lane House,
Lower Mercer Street,
Dublin 2
Ireland

Participant Information Sheet

Research Project:

**Communicable disease screening for asylum seekers and refugees in Ireland: a policy analysis**

Principal Investigator’s Name: Professor Ruairi Brugha
Telephone No. of Principal Investigator: 00-353-1-402 2434

You are being invited to participate in a research study conducted within the Division of Population Health in the Royal College of Surgeons in Ireland. This leaflet provides information about the study so that you can make an informed decision about whether or not you wish to participate. Please feel free to ask any questions you may have at any point.

Your participation is strictly voluntary and you may withdraw at any time, without having to give a reason. Non-participation or withdrawal will be treated as a confidential action with no consequences for you.

The study will involve you participating in a 1 hour interview and a possible short follow up questionnaire.

**Why is the study being conducted?**
The purpose of the study is to aid with future policy formation in the field of communicable disease screening for asylum seekers and refugees; this should impact on the practice on the ground and ultimately should improve the health of asylum seekers and refugees. The study aims to examine the policy making process behind the development of the communicable disease screening guidelines and associated policy documents and instruments for asylum seekers and refugees. It also aims to examine the translation of the policy into practice.
Who is organising and funding the study?
The study is being funded by the Health Research Board (HRB). It is being conducted for a doctoral thesis project by Gemma Smith, an HRB PhD Scholar in Health Services Research in the RCSI. The study and thesis are being supervised by Professor Ruairí Brugha and Professor Samuel McConkey. The HSE and HPSC have been informally consulted about the study.

How will the study be conducted?
The study will commence in May 2010 and the interviews are expected to have been concluded by February 2012. A pilot interview will be conducted. It is anticipated that between 15 and 20 participants will be interviewed.

How will the interview be conducted?
You can select a suitable time, date and location for the interview and the interviewer will travel to you. If you are not in Ireland the interview can be conducted over the telephone. The interview will last for 1 hour and, unless otherwise requested, will be audio-recorded and transcribed. Contemporaneous notes will be taken if audio-recording is not acceptable for you. You are permitted and will be given an opportunity to review and edit the transcript from your interview. If you request to review your transcript, we will contact you when the transcripts are ready to be viewed. They can be amended up until the point of publication (expected from 1st June 2012). If you agree, the researcher may telephone you to clarify any points from the interview. This data will also be pseudo-anonymised with any identifiable data removed.

What are the benefits of taking part in the study?
The study aims to build knowledge around the communicable disease screening policy itself and the policy making process. This should benefit future development of policy in this area and be relevant to policy making in the health service and other sectors, nationally and internationally.
Confidentiality issues
If you consent to take part in the study you will be allocated a pseudonym, the data will be kept confidentially and any identifiable information will be kept separately from the interview data. The data will be kept electronically on the secure RCSI server and will be password protected. The digital audio-files from the interview will be overwritten and erased after they are transcribed. In accordance with the Data Protection Act and as outlined in the Population Health Sciences Guidelines, the interview data transcripts will be kept for 7 years after which time they will be deleted. Only the named individuals below will have access to the identity of the participants.

What will the data be used for?
The data will form the basis of a PhD thesis in Health Services Research. It may be used in other publications such as peer reviewed journal articles and reports. All data used in publications will be anonymous with no identifiable information.

Statement of consent
Having read the above information, and if you agree to participate, we would appreciate it if you could confirm by returning the consent form by email or in the pre-paid envelope. Thank you.

Contacts and questions
If you have any further questions about the study, at any time, please feel free to contact us:

Gemma Smith:  Tel: 00-353-1-402 2720  gemmasmith@rcsi.ie
Prof. Samuel McConkey:  Tel: 00-353-1-402 2186  smcconkey@rcsi.ie
Prof. Ruairi Brugha:  Tel: 00-353-1-402 2434  rbrugha@rcsi.ie

Thank you for your time and interest,

Gemma Smith

Professor Ruairi Brugha
Professor Samuel McConkey
Appendix XXI. Participant information sheet for the implementation study

Royal College of Surgeons in Ireland
Coláiste Ríoga na Míniúleit i Birím
Beaux Lane House
Lower Mount Street,
Dublin 2
Ireland

Participant Information Sheet

Research Project:

Communicable disease screening for asylum seekers and refugees in Ireland: a policy analysis

Principal Investigator’s Name: Professor Ruairi Brugha
Telephone No. of Principal Investigator: 00-353-1-402 2434

You are being invited to participate in a research study conducted within the Division of Population Health in the Royal College of Surgeons in Ireland. This leaflet provides information about the study so that you can make an informed decision about whether or not you wish to participate. Please feel free to ask any questions you may have at any point.

Your participation is strictly voluntary and you may withdraw at any time, without having to give a reason. Non-participation or withdrawal will be treated as a confidential action without any personal consequences for you.

Why is the study being conducted?
The purpose of the study is to improve the policy formation in the field of communicable disease screening for asylum seekers and refugees; this should improve the practice on the ground and ultimately contribute towards improving the health of asylum seekers and refugees.

This study aims to examine the policy making process behind the development of the communicable disease screening guidelines and associated policy documents and instruments. Furthermore, it aims to examine how the policy goes or does not translate into practice.

What does the study involve?
The study will involve you participating in a 30-45 minute interview about the communicable disease screening policies. This information will only be fed back to the HSE and HPSC in a summary report with no information that could identify you as the respondent. There may be a possible short follow up questionnaire.
Who is organising and funding the study?
The study is being funded by the Health Research Board (HRB). It is
being conducted for a doctoral thesis project by Gemma Smith, an
HRB PhD Scholar in Health Services Research in the RCSI. The
study and thesis are being supervised by Professor Ruairí Brugha
and Professor Samuel McConkey. The HSE and HPSC have been
consulted about the study.

How will the study be conducted?
The study will commence in May 2010 and the interviews are
expected to have been concluded by February 2012. A pilot interview
will be conducted. It is anticipated that between 20 and 30
participants will be interviewed.

How will the interview be conducted?
You can select a suitable time, date and location for the interview and
the interviewer will travel to you. The interview will last for 30-45
minutes and unless otherwise requested, will be audio-recorded and
transcribed. You are permitted and will be given an opportunity to
review and edit the transcript from your interview. If you request to
review your transcript, we will contact you when the transcripts are
ready to be viewed. They can be amended up until the point of
publication (expected from 1st June 2012). If you agree, the
researcher may telephone you to clarify any points from the interview.
A follow up short questionnaire may be posted to you, which you will
be asked to return in a pre-paid envelope. This data will also be
pseudo-anonymised with any identifiable data removed.

What are the benefits of taking part in the study?
The study aims to build knowledge around the communicable disease
screening policy itself, the policy making process and how the policy
translates into practice. This should benefit future development of
policy in this area and be relevant to policy making in the health
service and other sectors, nationally and internationally.

Confidentiality issues
The data will be kept strictly confidentially. If you consent to take part
in the study you will be allocated a pseudonym and any identifiable
information will be kept confidentially and separately from the
interview data. The data will be kept electronically on the secure
RCSI server and will be password protected. The digital audio-files from the interview will be overwritten and erased after they are transcribed. In accordance with the Data Protection Act and as outlined in the Population Health Sciences guidelines, the interview data transcripts will be kept for 7 years after which time they will be deleted. Only the named individuals below will have access to the identity of the participants.

**What will the data be used for?**
The data will form the basis of a PhD thesis in Health Services Research. It may be used in other publications such as peer reviewed journal articles and reports. All interview data used in publications will be anonymous with no identifiable information.

**Statement of consent**
Having read the above information, and if you agree to participate, we would appreciate it if you could confirm by returning the consent form in the pre-paid envelope. Thank you.

**Contacts and questions**
If you have any further questions about the study, at any time, please feel free to contact us:

**Gemma Smith:**  Tel: 00-353-1-402 2720 gemmasmith@rcsi.ie

**Prof. Samuel McConkey:**  Tel: 00-353-1-402 2186 smconkey@rcsi.ie

**Prof. Ruairi Brugha:**  Tel: 00-353-1-402 2434 rbrugha@rcsi.ie

Thank you for your time and interest,

Gemma Smith

Professor Ruairi Brugha
Professor Samuel McConkey
Appendix XXII. Participant information sheet for the integration study

Meeting the Health Needs of Migrants in Ireland: An Analysis of the Services for HIV/AIDS, Tuberculosis and Depression.

Research Information Sheet

You are invited to participate in a research study which will explore how well the health needs of migrants in Ireland are met by the health services, with a focus on the service provision for HIV/AIDS, tuberculosis (TB) and depression.

We are a research group based in the Royal College of Surgeons in Ireland (RCSI). This leaflet provides information about the study so that you can make an informed decision about whether or not you wish to participate. Please feel free to ask any questions you may have at any point. Your participation is strictly voluntary and you may withdraw at any time, without having to give a reason. Non-participation or withdrawal will be treated as a confidential action without any personal consequences for you.

What is the study?
This study involves interviewing approximately 20 to 30 individuals from a range of professions and levels within the health services and associated organisations related to migrant health service provision. The interviews will examine the extent to which the health needs of the individual are met, with an emphasis on access, utilisation and the degree to which the provision of services for HIV/AIDS, TB and depression for the individual migrant are as ‘seamless’ as possible.

What does the study involve?
The study will involve you participating in an interview for under an hour which will focus on aspects of access and utilisation with regards to HIV/AIDS, tuberculosis and depression services and the extent to which the provision of services is as ‘seamless’ as possible. You can select a suitable time, date and location for the interview and the interviewer will travel to you. The interviews will be based around the attached vignettes. If you agree, the researcher may telephone you afterwards to clarify any points from the interview.

Who is organising and funding the study?
The study is being funded by the Health Research Board (HRB). It is being conducted for a doctoral thesis project by Gemma Smith, an HRB PhD Scholar in Health Services Research in the RCSI. The study and thesis are being supervised by Professor Ruairí Brugha and Professor Samuel McConkey.
What will happen to the information I provide?
The interview will be audio-recorded and transcribed. If you consent to take part in the study you will be allocated a pseudonym and any identifiable information will be kept confidentially and separately from the interview data. Identifiable information will be anonymised in the transcripts (e.g. names, job role). Only the named individuals below will have access to the identity of the participants.

The data will be kept electronically on the secure RCSI server and will be password protected. The digital audio-files from the interview will be overwitten and erased at the end of the study. In accordance with the Data Protection Act, the interview data transcripts will be kept for 7 years after which time they will be deleted. You have the opportunity, should you wish, to review the interview transcript up until an agreed date prior to the point of publication for clarification, to add to the transcript, or to indicate that part or all of it should not be used. If you wish to avail of this option, please inform the interviewer at the end of the interview.

The data will form the basis of a PhD thesis in Health Services Research. It may be used in other publications such as peer reviewed journal articles and reports. All interview data used in publications will be anonymised i.e. it will not be possible to connect the data with individual people.

What are the benefits of taking part in the study?
The research study will enable recommendations to be made, which will aim to improve the service delivery for migrants in Ireland. This should benefit both those working in the health services and associated organisations and the individuals using the services.

Having read the above information, and if you agree to participate, we would appreciate it if you could email us using the details below. Thank you.

Contacts and questions
If you have any further questions about the study, at any time, please feel free to contact us:

Gemma Smith  
Division of Population Health Sciences  
Royal College of Surgeons in Ireland  
Beaux Lane House  
Mercer Street Lower  
Dublin 2  
Tel: 01-402 2720  
Email: gemmassmith@rcsi.ie

Prof. Samuel McConkey  
Head of the Department of International Health and Tropical Medicine, RCSI  
Tel: 01-402 2186  
Email: smconkey@rcsi.ie

Prof. Ruairi Brugha  
Head of the Department of Epidemiology and Public Health Medicine, RCSI  
Tel: 01-402 2434  
Email: rbrugha@rcsi.ie
Appendix XXIII. Other studies initially designed for inclusion in the thesis

The thesis was also originally designed with a major quantitative element. The aim was to build the evidence base for policy makers surrounding the communicable disease burden and epidemiology in the asylum seeker population in Ireland and the role of screening in detection and prevention. However, severe limitations were identified with the use of the quantitative data from the screening services for this thesis. Firstly, the quality of the analysis was questioned due to the transient and mobile nature of the population, rendering the attainment of an accurate and reliable denominator highly difficult. Confusion was reported around client’s names in addition to misspellings and so the same individual may appear multiple times under different names. The questioning of the quality of the data if compiled nationally was confirmed during one of the in-depth interviews where the respondent discussed how it was unclear what should be counted and that screened could mean partially or fully screened or followed-up.

A centralised, easily accessible and analysable national database was not identified for the screening data. The feasibility of the compilation of a comprehensive national database was also doubtful due to the differing data collection systems identified nationally during the mapping exercise. Centralised databases exist for notifiable diseases but the data for HIV/AIDS in particular may be incomplete, migrant status indicators may not always be complete and they only include those detected with a positive diagnosis and so were limited for the examination of screening. Other difficulties such as accounting for screening biases within the available data were recognised. Considering the limitations it was not convincing that a quantitative data analysis would significantly add to the previous quantitative audit and evaluation (62).

Following on from the difficulties identified, a study was designed to examine the TB trends more thoroughly in Ireland, with a particular focus on LTBI as this was identified as one of the core areas for further research in Ireland. However, as recognised internationally there are numerous difficulties in examining LTBI, including the lack of a gold-standard test and the heterogeneity identified in Mantoux testing in Ireland for asylum seekers (Chapter 8). After consultations with key stakeholders it was decided that the research study would not be pursued as the analysis proposed, which would be feasible, would not have added significantly to the knowledge base.

The use of focus groups was considered but was discounted due to both feasibility and data quality concerns. Service providers were distributed nationally in the case study and were busy HCPs, hindering the organisation of focus groups. Interviews were significantly more flexible and therefore it is likely that with focus groups the sample size would have been substantially lower and so the views of fewer respondents would have been obtained. The geographical dispersion and inclusion of individuals from different professions and hierarchical organisational levels also meant if brought together in a focus group situation the respondents may not feel at ease with each other, as authors have noted that the hierarchical structure may hinder an honest discussion in focus groups with individuals from mixed professional levels (653).
Appendix XXIV: Search strategy for the document review

The following terms were used to search websites for relevant secondary documents for the document review:

1. Migrant (will capture immigrant)
2. “Asylum seeker”
3. Asylum-seeker
4. refugee
5. “Foreign born”
6. “Foreign-born”
7. “New entrant” *
8. “New-entrant” *
9. “Non national” *
10. “Non-national” *
11. Transient**
12. New-arrival***
13. 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12
14. screening
15. "Health assessment" *
16. "Medical assessment" *
17. "Medical surveillance"
18. “Health undertaking” (this was not used for the national searching as it is not a frequently used term in Ireland)
19. "Health evaluation"
20. Policy
21. 14 OR 15 OR 16 OR 17 OR 18 OR 19 OR 20
22. Infectious
23. Tuberculosis
24. polio
25. varicella
26. VZV
27. Chicken pox
28. Rubella
29. HIV
30. Hepatitis
31. Diphtheria
32. “communicable disease” ****
33. “infectious disease”****
34. 22 OR 23 OR 24 OR 25 OR 26 OR 27 OR 28 OR 29 OR 30 OR 31 OR 32 OR 33
35. 13 AND 21 AND 34

* added in later searches
** used in earlier searches but not later searches as it was not highly useful at identifying relevant articles.
*** new entrant was used in place of new arrival in later searches
**** used in earlier searches but not so much in later searches as the term restricted the results

The terms were used flexibly as they needed to be tailored to the websites searched. For the majority of the websites only the migrant terms were used to ensure sensitivity and few records were returned. Manual searches were also conducted through a number of websites in addition to the key terms, such as the DoH and HSE websites. For example, in Lenus a manual search was conducted through the HSE and DoH annual reports, corporate plans and service plans for the health boards.
### Websites searched and sources of documents

#### Websites searched

- Lenus
- DoH
- HSE
- Office for the Promotion of Migrant Integration
- HPSC
- Irish Refugee Council
- Irish Statute Book ([http://www.irishstatutebook.ie](http://www.irishstatutebook.ie))
- Google
- Department of Justice
- RIA
- ICGP library ([http://www.icgp.ie/go/library](http://www.icgp.ie/go/library))
- Dail Eireann debates (detected through snowballing rather than website search)
- IMJ ([http://www.imj.ie/](http://www.imj.ie/))
- Irish Refugee Council
- IOM international migration law database ([http://www.imldb.iom.int/](http://www.imldb.iom.int/))
- Refugee Information Service (now the Integration Centre) [http://www.integrationcentre.ie/](http://www.integrationcentre.ie/)
- Google
- Department of Justice, Equality and Law Reform Website
- Institute of Public Health ([http://www.publichealth.ie/](http://www.publichealth.ie/))

#### Other sources

- Contact with the DoH initially to enquire about any screening documents
- Personal contacts identified by the researcher or PhD supervisors
- Interviewees
### Appendix XXV: Annotations used in the transcripts

#### Box 18. Annotations used in the transcripts

**Annotations used for a better understanding of the transcript**
(theses were used to varying extents)

- **Cough**
- **Laugh**
- **Sigh**
- comma (,) for short pause
- period (.) for longer pause
- **CAPITALS** for emphasis on a word
- **(inaudible)**
- **(approximately)**
- **x**
- **word(s) – GS –**
- **(speculative word if have an idea)**
- **(GS – xxx)**
- **(tape skipped)**
- **word underline** for word only half said
- **word...**
- **“ “**
- **(looking at papers)**

**Annotations used for anonymisation**

(removed x) used if not critical to understanding the conversation

- **(removed x)**
- **(Location x)**
- **(Individual x)**
- **(Job role x)**
- **(County x)**
- **(he/she)(him/her) or changed to (they) (we/they) if better for concealment**

*identifying details were kept in a separate password protected excel spreadsheet*
Appendix XXVI. Topic-guide for the implementation study

Topic-guide – Interviews for those involved in conducting the screening

A) Is there a structure and process in place for the screening of asylum seekers or refugees in your area?
   - If yes – Go to section B
   - If no – Go to section C

B) IF THERE IS A SCREENING STRUCTURE AND PROCESS IN PLACE

   • Do you use anything to guide the screening process, for example guidelines or expert advice?
     
     **If yes:**
     - How helpful do you find this source of guidance?
       - Prompt: Are there any barriers to use?
     - [If guidelines not mentioned] Are you aware of any guidelines?
       - Prompt: If yes – explore knowledge and views
     - Does anything else influence the screening process? For example, time or resource limitations?

     **If no:**
     - Are you aware of any guidelines?
       - Prompt: If yes – explore knowledge and views
     - What influences the screening process? For example, time or resource limitations?

**Everyone:**
Screening in practice

• What diseases do you screen for and how?
  - Prompt: How useful do you think screening for this disease is?
  - Prompt: How appropriate are the screening methods used?
  - Prompt: What are your views on the acceptability to you and to those being screened of: i) screening for these diseases; ii) the screening tests used?

• What are your views on the resources available for screening?
• What are your views on the data collection for the screening process and outcome data?
  - Prompt: Numbers screened, numbers positive/negative

Screening policy

• What interactions have you had with policy makers in this area?
• Do you think there is sufficient policy and guidance in this area?
  - Prompt: If not, why do you think this may be the case?
• Do you find that policies and practices from other sectors impact on the screening?
  - Prompt: Dispersal, direct provision

C) IF THERE IS NOT A SCREENING STRUCTURE OR PROCESS IN PLACE

---

2 Ireland operates a system of dispersing asylum seekers and refugees around the country. The majority of asylum seekers are in the direct provision system where they are provided with meals and accommodation in specific accommodation centres.
• How does the process work for dealing with communicable diseases in the migrant population?
• Was there ever a specific screening service in place?

D) EVERYONE
• What are your views on the way communicable disease screening is dealt with in Ireland?
  o Prompt: Communication within the HSE and between different sectors for example, the Reception & Integration Agency and the HSE.
  o Prompt: Continuity of care.
• Would you like to suggest any improvements to the screening process?
• Are you aware of any other people/organisations which may be useful for us to contact?
• Are you aware of any other policy documents/tools or research which it may be useful for us to look at?
• Do you have any further questions or points at all?
• May I contact you again to follow up certain points?
Appendix XXVII. Topic-guide for the integration study

<table>
<thead>
<tr>
<th>Briefing</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Introductory questions (mapping of pathways and providers)</td>
</tr>
</tbody>
</table>

- Discuss the definition used during the interview of ‘the extent to which the provision of healthcare for the individual migrant is as ‘seamless’ as possible’. The initial definition used is: *the delivery of a ‘seamless’ service* through integration, coordination and the sharing of information between different providers*.
- Discuss the idea of continuity of care with one provider and across the system will also be discussed.
- The vignette will be used as a starting point for the discussion.

<table>
<thead>
<tr>
<th>How would you be involved in the healthcare of the individual in the vignette?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prompts:</td>
</tr>
<tr>
<td>a) How often would an individual such as those in the vignette first present to your service?</td>
</tr>
<tr>
<td>b) And/Or how often would an individual such as those in the vignette be referred to your service?</td>
</tr>
</tbody>
</table>

**Prompt (if not involved in all of the individuals listed on the vignette’s healthcare):**
Why would you not be involved in the individual’s healthcare?

<table>
<thead>
<tr>
<th>Could you tell me a bit about the other service providers who would be involved in delivering healthcare to such individuals? Would you be able to draw them down in a diagram?</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Note: interviewer will note them down to go back to during the interview)</td>
</tr>
</tbody>
</table>

| Prompts: |
| a) GPs, specialist referral hospital consultants/nurses/administrators), voluntary sector, community psychologists, public health, social inclusion. |
| b) Level of care, scope of providers |
| c) Number of different providers |

<table>
<thead>
<tr>
<th>(Additional questions if relevant)</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are your views on having a different TB/respiratory specialist and an HIV specialist in comparison to just having an infectious disease specialist?</td>
</tr>
<tr>
<td>What role are the Community Welfare Officers playing in practice?</td>
</tr>
<tr>
<td>What is the role of the PHN in practice?</td>
</tr>
<tr>
<td>Do people go to the same department for their CXR as for their TB treatment?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What are the desired pathways for care for the individuals described in the vignette?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prompts: A-E</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What are the actual pathways for care for the individuals described in the vignette in practice?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prompts: A-E</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Who has overall responsibility and responsibility and each stage?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would you be involved in this process for other migrants? Would the process and responsibility differ at all?</td>
</tr>
<tr>
<td>Prompt: in what ways? why? what are your views on the consequences of this?</td>
</tr>
</tbody>
</table>

---

B. To what extent there is access to services which meet the other needs of the individual and to what extent the provision of healthcare for the individual migrant is as “seamless” as possible.

What are your views on to what extent these services do or don’t facilitate access to other parts of the health system to meet the other needs of the individual in the vignette?

To what extent do you think these services achieve or fall short of this definition of ‘seamless’ services?

Prompts:
   i) Prompts D and E
   ii) How effectively do the services link the patient into other parts of the health system?
   iii) Do you think individuals will “fall through the gaps”?
   iv) How often do those referred from the GPs/screening services/A&E not attend their appointments?
   v) Is there any duplication? Is there effective communication?

What are your views on the follow up for asylum seekers and other migrants?

C. Missed opportunities, barriers/enablers to access to services which meet the other needs of the individual and the provision of healthcare for the individual migrant which is as “seamless” as possible

Are there any barriers to providing access for the individuals described in the vignette?
Prompts D and E
   • On the side of the patients? (demand side)?
   • Within the health service (supply side)?
   (Interviewer had developed a list of more specific prompts under these headings from the literature and to test and explore findings from previous interviews)

Are there any barriers to the provision of a service which is as ‘seamless’ as possible for the individuals described in the vignette?
Prompts A - E
   i) Within the health service (supply side)?
   ii) On the side of the patients? (demand side)?
   iii) Finances for staff - different groups competing for funding?
   (Interviewer had developed a list of more specific prompts under these headings from the literature and to test and explore findings from previous interviews)

What are your views on your role in the process? Do you feel that it is well defined?

Is there anything that you think currently facilitates or would facilitate continuing access for the individuals described in the vignettes?
Prompts A - E
   • Within the health service (supply side)?
   • On the side of the patients? (demand side)?
   (Interviewer had developed a list of more specific prompts under these headings from the literature and to test and explore findings from previous interviews)

Is there anything that you think currently facilitates or would facilitate the provision of a service which is as ‘seamless’ as possible for the individuals described in the vignettes?
Prompts A - E
   • Within the health service (supply side)?
   • On the side of the patients? (demand side)?
   (Interviewer had developed a list of more specific prompts under these headings from the
literature and to test and explore findings from previous interviews)
What are your views on whether extra funding would help?

Are there any missed opportunities for linking into other services to refer patients for their other health needs?
*Prompts D and E*
1. Within the health service (supply side)?
2. On the side of the patients? (demand side)?

Are there any missed opportunities for providing a service which is more 'seamless' for the individual?
*Prompts:*
*Prompts A - E*
1. Within the health service (supply side)?
2. On the side of the patients? (demand side)?

**D. Why there may be access/a lack of access to services which meet the other needs of the individual, and/or the provision of a service which is/isn't as 'seamless' as possible (if not covered by barriers and facilitators) (rearranged as made more sense to come straight after the barriers/facilitators questions).**

Why do you think there is access to the services which meet the other health needs of the individual in (the areas mentioned by the interviewee in Part B if any)?

Why do you think there is not access to the services which met the other health needs of the individual in other areas?

Why do you think there is service provision which is as 'seamless' as possible (the areas the interviewee mentions in part B if any)?

Why do you think there is not a service provision which is as ‘seamless’ as possible in the other areas?

**E. Specific questions for certain individuals/specialities**

**Referral specialists**
- Could you tell me a little about Mantoux testing and whether it is usually done before or at the referral appointment?
- What are your views on having them done by the screening staff ahead of the appointment?
- What are your views on putting asylum seekers on preventative therapy?

**D. Impact of available service provisions on the individual migrant**

Do you have examples where access to services to meet the other health needs of the individual migrant is not possible?
*Prompts D and E*

What are your views on whether that has any effect from the perspective of the individual?
*Prompt D*
1. Are there any effects at all? (negative/positive)

Do you have any examples where the service falls short of ‘seamless’?
*Prompts A – E*

What are your views on whether that has any effect from the perspective of the individual?
*Prompt D*
1. Are there any effects at all? (negative/positive)

What are your views on the importance of continuing access for the individual?

What are your views on the importance of providing a service which is ‘seamless’ for the individual?
### F. Historical context of to what extent there is access to services which meet the other needs of the individual and the extent to which the provision healthcare services is ‘seamless’.

How similar or different would access to the services which meet the other health needs of the individual you provide care for in the vignettes have been in 2004? *(before the Health Service Executive & when migrant numbers were a lot higher)*

**Prompts:**

i) In what ways?

ii) Why do you think this is?

How similar or different would the extent to which there is service provision which is as ‘seamless’ as possible for the individuals in the vignettes have been in 2004? *(before the Health Service Executive & when migrant numbers were a lot higher)*

**Prompts:**

i) In what ways?

ii) Why do you think this is?

### G. Suggestions for improvements

What are your views on the extent to which the health needs of the individual migrant are met by the health service?

Would you like to make any suggestions for improvements for meeting the other health needs of migrants?

Would you like to make any suggestions for improvements to access to the services which meet the other health needs of the individual for migrants?

Would you like to make any suggestions for improvements for providing a service which is as ‘seamless’ as possible for the individual migrant? *(If interviewee thinks that ‘seamless’ care is beneficial)*

**What are your views on having a specialist service (e.g. specialist screening teams) or a mainstream service e.g. GPs?**

For a service where provision is as seamless as possible and for ongoing access?

What are your views on whether GPs are the best place for preventative screening for migrants?

### H. Finishing the interview

- Is there anything else you would like to mention or anything that you think we should have discussed?
- Do you have any further questions or points at all?
- Are you aware of any other people/organisations which may be useful for me to contact?
- Are you aware of any other policy documents/tools or research which it may be useful for us to look at?
- May I contact you again to follow up certain points?

Thank the interviewee and check they keep a copy of the information sheet so they can contact me if they have any questions.

### Prompts and definitions

*the delivery of a “seamless’ service’ through integration, coordination and the sharing of information between different providers”* ⁴

---

Prompts (A-E) used throughout the topic-guide:

A) Between primary and specialist levels for a single disease problem (for HIV/AIDS, TB and depression)?
B) Between the service providers at the same level of the health system for a single disease problem (for HIV/AIDS, TB and depression)?
C) Between the service providers for different disease problems (for HIV/AIDS, TB and depression)?
D) Would there be differences between asylum seekers, those with refugee status, migrant workers and irregular migrants and Irish-nationals?
E) Could you tell me a bit about your views on the role of GPs and the screening service in this process?
F) What are your views on having a mainstream or a specialist service for dealing with this?

Information flow
  • How does the four part form influence the seamlessness or the access?
Appendix XXVIII: Topic-guide for the mapping study

Reiterate and make it clear to the interviewee that the data collected is not confidential

- Is there a structure and process in place for the screening of asylum seekers or refugees in your area?
- (If no - go to section B)

A) If there is a screening process in place:

- Could you describe the communicable disease screening structure and process for asylum seekers or programme or convention refugees\(^1\)?

Prompt:
- Type of service
- Coverage (Migrant groups, geographically)
- How staffed?
- Who has responsibility?

- Do you have a record of the numbers for 2009 of: people screened, the number of negative/positive results, the follow up?
- Is there any monitoring in place or quality assurance?

B) If there is no screening process in place:

- How does the process work for dealing with communicable diseases in the migrant population?
- Was there ever a specific screening service in place?

\(^1\)Programme refugees are given refugee status prior to entering Ireland. Convention refugees have been through the asylum seeking process prior to being given refugee status.
Appendix XXIX. Vignette for the integration study

Research study:

Meeting the Health Needs of Migrants in Ireland: An Analysis of the Services for HIV, TB and Depression.

Research Vignette

The cases detailed below will be used as a starting point for the discussion in the interviews.

Pat is from Sudan. Pat is reporting symptoms of tuberculosis and depression. Pat has a HIV positive status. Pat does not have a BCG scar or any medical records.

A. Pat is applying for refugee status and is an asylum seeker. Pat is 30 years old. Pat has been in Ireland for three weeks and stayed in Balseskin Reception Centre for the first ten days. Pat is now staying in one of the Reception and Integration Agency dispersal accommodation centres.

B. Pat is applying for refugee status and is an asylum seeker. Pat is 30 years old. Pat has been in Ireland for three weeks but did not stay in Balseskin Reception Centre on arrival. Pat is staying with some extended relatives in private accommodation.

30.03.11
Appendix XXX. Examples of the analysis

A. Familiarisation

Theme: holistic health needs and access
Analytic memo - Participant B19

It is actually the opposite of street level bureaucrats where people are actually doing more.

Theme: Implementation of tests on the ground
Analytic memo - Participant B23

So even though the guideline development group may have intended to avoid complication by putting in HIV as an option – not necessarily recommended – this doesn’t mean that more guidance is not needed on the ground.

Interview memo - Participant B28

The point picked up from the last interview about explaining the screening in place around the country was useful here. Also may need to explain what AS* accommodation centres are in their area.

* AS: asylum seeker

B. The development of a thematic framework

Box 19 details the initial framework for the implementation study. For the final framework see Appendix XXV.

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Figure 31. 19.04.12 The initial framework adapted from Atun et al. (654) and Coker et al. (368, 452) to organise the categories, themes and sub-themes
Box 19. The initial framework for the implementation study

Initial framework from topic guide (pre-indexing) March 2011

1. Guidance used
   - What guidance is used
   - Use national guidelines
   - Don’t mention national guidelines
   - Disease specific guidelines
   - Views on whether there is sufficient guidance

2. Diseases screened for
   - Screening tests used
   - Confusion over age limits
   - Confusion over tests
   - Views on usefulness of disease specific screening
   - Views on appropriateness of screening methods
   - Views on acceptability of screening tests used
   - Communicable disease referrals
   - Whether resources influence

3. Other influences
   - Views on whether other policies influence

4. Views data collection
   - What happens at each stage (process)
   - Views on data collection

5. Views on whether there should be a screening service/policy for other migrants

6. Views on the way communicable disease screening is dealt with in Ireland
   - Views on communication
   - Coherency of process
   - Views on duplication
   - Views on clarity of process
   - Views on people being missed
   - Views on standardisation of the service
   - Views on screening in dispersal locations
   - Views on the screening service
   - Views on a holistic view of screening
   - Views on whether a screening service not in place
   - Changes to the service over time

7. Suggestions for any improvements to the screening process

8. Any further questions or points
C. Indexing

Theme memo during indexing for the INT study:

Analytic memo - 14.06.12

"it can be quite difficult to get people whose attitude is uh you know if you have a
head of service who’s attitude is well they’re part of the general population, I don’t
want to be doing extra things for them um and who just won’t come to a meeting"
(Participant B14)*

This is an important point and is broader than just the screening service – the viewpoint
that asylum seekers or migrants should get the same as the rest of the population.

*some additional information about the participant was removed for additional
anonymisation.

D. Charting

An example of one of the framework matrices for the implementation study with the
summaries highlighted in pink is provided in section 4.5.3.5 of the main thesis. Frequently
there were a much greater number of summaries but this example was selected for
anonymisation purposes.

E. Mapping and interpretation

Analytic memo – 15th March 2012

*Previously the movement of the population was captured under one “dispersal” index. This
needs to be disaggregated as it is the mobility of the population x the fact they are in
same places for a short amount of time which needs to be captured. This is influenced
not only by the system of dispersal but other influences which can make individuals or groups
more mobile.
Analytic & descriptive memo – Importance of service and screening for the
diseases in the guidelines – Thoughts on who is saying what and trends

- xx*, xx, xx, xx, xx, xx, xx in particular talk about the importance of screening for CDs**.
- xx and xx seem to talk more about this for the importance of the service than the CDs.
- There is a division in the comments here as the two mentioning that screening should be reviewed (xx, xx) are not included in the discussion of the importance of the diseases.

*xx: anonymisation of participant codes
**CDs: communicable diseases

Analytic memo 21.02.12. Responsibility – the chicken and the egg

‘this was the old age story of um chicken and egg you know we look after infectious
diseases when they’re known about but you have responsibility for those people in the
community to follow up and tracing and all of that’

This quote illustrates several facets of the responsibility difficulties and why they may be occurring. There are three different situations where there is a ‘chicken and egg’ scenario.

1. Firstly, in relation to how job roles and the responsibilities of the sections of the health system are defined. It seems here that ‘community health’ and ‘public health’ may be sticking to their own remit and the structures are not conducive to integration. This point has also been raised elsewhere.
2. Secondly, this quote demonstrates a feature of the intervention itself and how screening lies between health in the community and preventative care and the diagnosed infectious disease side of public health.
3. Thirdly, resources have been mentioned as a reason why screening is not in place and why sections cannot take responsibility for it. However, others have noted how if there is no one with responsibility for it then they cannot lobby or obtain more resources, which is again a chicken and egg scenario.

Analytic memo – 27.06.12
Is the more holistic service provision an innovation, reinvention or adaption of the guidelines and programme in practice? The definitions of innovation associated with the diffusion of innovation theory imply a concerted effort to implement the innovation, which would not be applicable to this finding. See the definitions for innovation from Greenhalgh et al. (2004) and Weberg (2009).

Reinvention may be more relevant – it is listed as a characteristic of the innovation and it viewed as particularly important for innovations which ‘arise spontaneously as ‘good ideas in practice and spread through informal, decentralised, horizontal social networks’ (41).

The complexity literature offers a different perspective of innovation though as it is perceived as ‘the emergent continuity and transformation of patterns of interaction, understood as complex responses of humans relating to one another in local situations’. See Forseca (2001) and Plsesk (2003).

Section of update to supervisors - Trust – combination of themes 19.04.12
This idea of trust, which crosses across several themes, is linked to the provision of more holistic services. Marchal et al. (2011) discuss how integrated care, where front line providers respond to individual’s ‘felt needs’, will gradually build up trust and while they say this is an important outcome in itself it then means that other more preventative
services will then be better accepted from these trustworthy and responsive health care providers. Therefore, this notion of a more holistic service provision may actually increase the uptake of preventative screening measures as was discussed by one of the participants and trust is key to this. Trust is also interesting in particular in relation to migrant health and a broader concept of integration so that it is not just the trust between HCP and client which is important but that this then increases trust in society (590).

**Theme: variation**

*Analytic memo: (undated) How does this fit with other health services research in Ireland?*

It is no great surprise that there is such variation in the context of declining resources and a previous structure of separated health boards. However, it might be expected that the formation of the HSE would have standardised this in some way. But this did not seem to have a major effect and actually just resulted in further confusion around the roles of PH and CH.

**Theme: views on the importance of screening**

*Analytic memo - 05.08.12 –*

the fact that the providers in general view it as important could explain why it has been running well in some locations even with the lack of external support.

“It’s important both for Ireland and the Irish indigenous population and maintaining good public health standards and … good health of the population as a whole. As well as meeting the needs of people, certainly from a health rights perspective ……So I think we have an ethical responsibly, as well as a political and social responsibility to provide health screening to asylum seekers (Participant B1)

‘all those tests they need to be done they are very very important’

(Participant B19)

*Analytic memo - PRA Memo - 26.04.12*

There appears to be some conflict within the system as to what extent they have legitimacy to continue the policy formation locally. For example, areas do not offer Mantoux tests routinely as it is difficult to do in practice or do tests for polio. However, they were additionally testing for syphilis in several areas but are stopping or have stopped as it is not in the national policy. Therefore, there is some confusion about the extent to which there is policy (co-)formation and the extent to which they have ‘policy formation prerogatives’. See Hill & Hupe and Cline (2000) who they reference, to read more about the comparison they draw between the theory by Goggin and Stoker in this area.

**F. Other memos**

*Self-reflection memo - 30.06.12*

In critically reviewing the conceptual and theoretical literature caution needs to be taken as my perspective can sometimes still reflect my biomedical background. A conscious effort needs to be made to integrate the new concepts of knowledge and approach to research into my thinking as I read through the literature. Discussions within the supervisory team will aid with the challenging of my more biomedical perspective at times.
Appendix XXXI: Research output and dissemination

Preliminary findings from the thesis were presented nationally and internationally during the thesis and the publications and conference poster presentations are detailed below. In addition the work was presented at an internal RCSI seminar, research day and in an informal research-in-progress seminar during the international placement in the University of Ottawa, Canada.

Publications


Conference poster presentations

7th European Congress on Tropical Medicine and International Health, Barcelona, Spain (Oct. 2011)
Posters:
1) Communicable disease screening services for migrants in Ireland: A mapping study;
2) Migrant communicable disease screening programmes: an analysis of the translation of policy into practice.

Health Protection 2011 Conference.
Warwick, UK (September 2011)
Poster: TB screening services for migrants in Ireland: A mapping study.

Health Service Research Network Symposium
Manchester, UK (2012)
Poster: The Asylum Seeker Communicable Disease Screening Programme: An Analysis of the Translation of Policy into Practice

RCSI Research Day
Dublin, Ireland (April 2012)
Poster: The Asylum Seeker Communicable Disease Screening Programme: An Analysis of the Translation of Policy into Practice.
Appendix XXXII. The domains and questions within the AGREE instrument and a review of the guidelines using the instrument

The scoring system was not applied as the domains were used to examine the process of the guideline development, identified through the in-depth interviews, and not just the reporting of the guidelines in the document.

<table>
<thead>
<tr>
<th>AGREE domain and description</th>
<th>A review of the communicable disease screening guidelines for asylum seekers in Ireland</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope and purpose</strong></td>
<td>Within the scope and purpose domain, while the guidelines included a vague overall objective of the screening this could have been defined in greater detail alongside the health questions addressed in the guidelines. Although the title states that the guidelines are for asylum seekers, the target population varies within some of the recommendations and so there is a slight lack of clarity. For example, for TB the recommendations are to assess all new entrants from high incidence countries for TB and provides example regions. For hepatitis B the recommendation just refers again to asylum seekers from areas of high incidence and example regions are provided. Although clear age guidelines are provided for TB and vaccinations, ages are not mentioned for hepatitis B and child bearing age is specified for VZV screening but not rubella. The wording around HIV particularly lacks clarity as to who should be offered screening. Recommendations are however tailored for pregnant women and people with certain comorbidities for example.</td>
</tr>
<tr>
<td>1. The overall objective(s) of the guideline is (are) specifically described</td>
<td></td>
</tr>
<tr>
<td>2. The health question(s) covered by the guideline is (are) specifically described</td>
<td></td>
</tr>
<tr>
<td>3. The population (patients, public, etc.) to whom the guideline is meant to apply is specifically described</td>
<td></td>
</tr>
<tr>
<td><strong>Stakeholder involvement</strong></td>
<td>Stakeholder engagement is not reported in the guidelines. However, from the knowledge gained from the in-depth interviews it is clear that a number of professional groups were included to a certain extent, including predominantly individuals from public health but also community health, the DoH and representatives for the perspective of the GPs, infectious disease referral specialists and laboratories. One respondent mentioned that individuals responsible for resource allocation should have been involved and there were different views within the group as to whether sHCPs offering the screening should have been included in the group. Service user involvement in the guideline development was lacking and evidence on the views of the clients was also not mentioned by respondents.</td>
</tr>
<tr>
<td>4. The guideline development group includes individuals from all relevant professional groups</td>
<td></td>
</tr>
<tr>
<td>5. The views and preferences of the target population (patients, public etc) have been sought</td>
<td></td>
</tr>
<tr>
<td>6. The target users of the guideline are clearly defined</td>
<td></td>
</tr>
<tr>
<td><strong>Rigour of development</strong></td>
<td>Information relating to the rigour of the development of the guidelines is also not included in the guidelines. From the in-depth interviews literature searches were conducted but the detailed evidence searching and reviewing are beyond the scope of this analysis. The recommendations do not include a</td>
</tr>
<tr>
<td>7. Systematic methods were used to search for evidence</td>
<td></td>
</tr>
<tr>
<td>AGREE domain and description</td>
<td>A review of the communicable disease screening guidelines for asylum seekers in Ireland</td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>8. The criteria for selecting the evidence are clearly described</td>
<td></td>
</tr>
<tr>
<td>9. The strengths and limitations of the body of evidence are clearly described</td>
<td>link to the supporting evidence and there was no procedure for review included. A formal review process of the draft guidelines by external experts was not mentioned by respondents, however, one individual did state that experts were asked to review certain sections or were brought into the group for certain meetings. Recent Canadian guidelines for immigrant and refugees included a description of the explicit quality assessment of evidence using GRADE (10, 124, 236).</td>
</tr>
<tr>
<td>10. The methods for formulating the recommendations are clearly described</td>
<td></td>
</tr>
<tr>
<td>11. The health benefits, side effects, and risks have been considered in formulating the recommendation</td>
<td></td>
</tr>
<tr>
<td>12. There is an explicit link between the recommendations and the supporting evidence</td>
<td></td>
</tr>
<tr>
<td>13. The guideline has been externally reviewed by experts prior to its publication</td>
<td></td>
</tr>
<tr>
<td>14. A procedure for updating the guideline is provided</td>
<td></td>
</tr>
</tbody>
</table>

**Clarity of presentation**

| 15. The recommendations are specific and unambiguous | The clarity of the presentation of the guidelines is mixed. While certain recommendations are clear, such as the algorithm for TB, the recommendation regarding HIV testing is highly ambiguous. The options for the management of the condition are mentioned in relation to several infections or diseases but not in detail. However, the frontline GPs or sHCPs would only be dealing with the screening aspects. The guidelines are relatively short and therefore although a summary isn’t included the key recommendations are clear. |
| 16. The different options for management of the condition or health issue are clearly presented | |
| 17. Key recommendations are easily identifiable | |

**Applicability**

<p>| 18. The guideline describes facilitators and barriers to its application. | The guidelines are poor when assessed against the applicability domain. Barriers, facilitators and recommendations to implementation are only included in a few places and the resource implications are not stated. There were different views within the guideline group as to whether that was their remit to consider. Some aspects of implementation are mentioned such as the transfer of information to the GP, local arrangements for Mantoux testing, the absence of immunisation records and the possible reluctance of asylum seekers to describe symptoms of HIV. Monitoring or auditing criteria were not included. |
| 19. The guideline provides advice and/or tools on how the recommendations can be put into practice | |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>20. The potential resource implications of applying the recommendations have been considered</td>
<td></td>
</tr>
<tr>
<td>21. The guideline presents monitoring and/or auditing criteria</td>
<td></td>
</tr>
<tr>
<td><strong>Editorial independence</strong></td>
<td></td>
</tr>
<tr>
<td>22. The views of the funding body have not influenced the content of the guideline</td>
<td>Editorial independence was also not discussed in the guidelines. Respondents did not discuss the more tacit knowledge, the importance of which was discussed in Chapter 3 (378).</td>
</tr>
<tr>
<td>23. Competing interests of guideline development group members have been recorded and addressed</td>
<td></td>
</tr>
</tbody>
</table>