The dynamics of temporary migration: The experience of South African doctors working in Ireland

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Centre for Health Policy,
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"All that is gold does not glitter,
Not all those who wander are lost."

J.R.R Tolkien

I declare that this thesis:

a) Has not been submitted as an exercise for a degree at this or any other University.
b) Is entirely my own work. However, I acknowledge that the data used for Component two was collected as part of the Motivation Project's activities in South Africa. The Motivation Project was funded by Irish Aid and administered through the Heath Research Board (GHRA-06-08).

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Summary

International doctor migration is traditionally considered a straightforward 'drain' on source countries and advantageous only for destination countries, who essentially obtain labour at low cost. Doctor migration places an additional strain on already fragile health systems in Low and Middle Income Countries (LMICs) and hampers their ability to provide effective health care. Migration studies in the past have tended to focus on nurses and less is known about the migration of doctors.

Innovative thinking is required in order to develop strategies to mitigate the adverse effects of doctor migration. The literature suggests that temporary migration is a '*triple-win solution*' and beneficial for all actors involved. Temporary migration provides the opportunity to earn foreign income without the permanent loss of personnel and for the destination country it is a way to address labour shortages without having to provide entitlements that are associated with permanent settlers. Despite the recognition of the benefits that temporary migration could bring, there is limited information about the dynamics under which it operates.

This thesis aimed to provide a better understanding of the dynamics of temporary doctor migration as this had never been done before. This information is needed to help guide migration policies. A key focus of this thesis was to explore what motivates a doctor to migrate on a temporary basis. It was also important to understand whether temporary migration develops into permanent migration.

In order to understand the process of temporary doctor migration a conceptual framework was devised from a synthesis of the migration literature. This conceptual framework was then tested for validity using the case study of South African doctors working in Ireland.

Ireland, once an exporter of doctors, is now heavily reliant on foreign-trained doctors. By 2010, 33% of doctors registered at the Irish Medical Council (IMC) were from outside the European Union (EU). South African doctors comprised the largest number of non-Irish nationals registered at the IMC. There was little information about where South African doctors work within the Irish healthcare system; however, anecdotal evidence suggested that many locum General Practitioners are from South Africa. Preliminary analysis of IMC data confirmed that the majority of South African doctors who were registered in Ireland resided in South Africa. The supposition was therefore made that these doctors migrated on a temporary basis to Ireland.

A single case study design was used to explore the hypotheses that were generated by the conceptual framework. A mixed methods approach provided both a quantitative and qualitative

perspective on the dynamics of temporary migration. There were four components to the research and each one was designed to be mutually reinforcing. Component one '*Exploring migration patterns to Ireland*' analysed registration data from the IMC. Component two '*Exploring the South African context*' re-analysed survey and interview data that were collected as part of the Motivation Project activities in South Africa. Component three '*Understanding temporary doctor migration*' used a cross-sectional postal survey and in-depth interviews to collect data from South African doctors who were registered at the IMC, but residing in South Africa. Finally, Component four '*Comparing permanent and temporary migration'* also used a cross-sectional postal survey and in-depth interviews in order to collect data from South African doctors who were registered at the IMC and residing in Ireland.

Analysis revealed that there are important conditions of temporary doctor migration. One of the main incentives for doctors to migrate on a temporary basis was for financial gain. However, the interviews revealed that while some doctors work in Ireland purely for financial reasons, others do it as a working holiday, or for an adventure. These categories of migrants are closely related and are noted in the literature as '*neglected'* categories. This thesis confirms that it is a mistake to neglect these categories as it would appear that desire for an adventure can be the final push that leads to doctors migrating.

This thesis also highlights the complexities of migration patterns. When motivation for migration changes then the type of migration that is undertaken will accordingly change. Motivation cannot be regarded as static and will be influenced by conditions that migrants are exposed to in the destination country. For instance, many of South African doctors who were permanent settlers in Ireland had arrived with the intention of only staying for a fixed period. However their personal circumstances had changed, many had put down roots, and therefore no longer wished to return to South Africa.

There are personal costs and benefits to the migrant each time they migrate. Temporary migration is shaped by the interplay between these two factors as the benefits (e.g. ability to earn additional income) of being away from home have to outweigh the costs (e.g. time spent away from family or long term employment). Intuition suggests that temporary migrants wish to obtain the maximum number of benefits in the destination country. The time this takes has been described in labour economics as the 'optimal duration'. This thesis found that optimal duration of migration in Ireland is 3-6 weeks. This is an important consideration, as proposals in the past to facilitate temporary migration have suggested much longer periods overseas; up to 1-2 years. I would argue that migration of this length can no longer be called temporary as it operates under different dynamics than observed by migrants who spend a few weeks working overseas.

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Glossary of Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
AJIG	Abridged Job in General scale
ANOVA	Analysis of Variance
ARV	Antiretroviral
CGH	Centre for Global Health (Trinity College Dublin)
COMESA	Common Markets for Eastern and Southern Africa
DCE	Discrete Choice Experiment
DOHC	Department of Health and Children (Ireland)
EEA	European Economic Area
EU	European Union
EWTD	European Working Time Directive
FGD	Focus Group Discussion
GATS	General Agreement on Trade in Services
GCIM	Global Commission on International Migration
GHWA	Global Health Workforce Alliance
GMC	General Medical Council
GP	General Practitioner
HIV	Human Immunodeficiency Virus
HPM	Health Policy and Management (Trinity College Dublin)
HRH	Human Resources for Health
HSE	Health Services Executive (Ireland)
IMC	Irish Medical Council
IMO	Irish Medical Organisation
IOM	International Organisation for Migration
LMIC	Low and Middle Income Country
MDGs	Millennium Development Goals
MIDA	Migration for Development in Africa
MOH	Ministry of Health (South Africa)
MOU	Memorandum of Understanding
NCHD	Non-Consultant Hospital Doctor
NHS	National Health Service (UK)
OECD	Organisation for Economic Co-operation and Development
OSD	Occupational Specific Dispensation
PLAB	Practice and Linguistic Board exams (UK)
PRES	Pre-Registration Examination System (Ireland)
SAMJ	South African Medical Journal

SANSA	South African Network of Skills Abroad
SAWP	Seasonal Agricultural Workers Programme
SHO	Senior House Officer
STATA	Data Analysis and Statistical Software
TCD	Trinity College Dublin
TMP	Temporary Migration Program
UHI	Universal Health Insurance
UK	United Kingdom
UN	United Nations
USA	United States of America
WHO	World Health Organisation
WTO	World Trade Organisation

Table of Contents

1 *Introduction and Rationale*

This thesis seeks to determine what motivates a doctor to migrate on a temporary basis. To understand how temporary migration differs from permanent migration this thesis will also draw on the experiences of doctors who have made a permanent move. The case study of South African doctor migration to Ireland was explored in order to gain a deeper understanding of temporary doctor migration. Use of this example increases the evidence base of the phenomenon in order to establish whether policies to manage such migration could, and should, be developed to provide benefits for all the actors involved, i.e. the individual migrant, the source country[1] and the destination country[2].

This research is very timely, as management of doctor migration[3] is firmly on the current international policy agenda [1]. Additionally, whilst recommendations have been made to encourage temporary rather than permanent movement of doctors in order to minimise the negative consequences of permanent migration [1-4] there is sparse information about where temporary migration occurs and how. Due to the disagreement over what extent mobility of doctors represents a temporary or permanent phenomenon [2] this thesis will draw on the literature which relates to international migration of doctors, irrespective of migration length. Whilst Snowden (1990) would argue against this approach - stating this would be *'comparing apples with oranges'* [5], Bell & Ward (2000) argue that this approach is justified as questions commonly asked in regard to permanent migration are equally pertinent in the context of temporary moves [6]. Indeed, Martineau et al. (2002) suggest that a crude-benefit analysis is done before any decision is made to migrate [7]. This analysis occurs irrespective of migration duration and so infers that although temporary and permanent migrants have different characteristics [1, 3, 4, 8, 9] they are exposed to the same factors within the source and destination countries. It is therefore only by truly understanding what factors do not result in a permanent change of usual residence that it is possible to understand the dynamics of temporary migration.

Doctor migration is not a new phenomenon. Issues created by international health worker[4] migration were documented in Mejía's benchmark paper, which was published in the late seventies [10]. The relevance of this analysis of 137 countries continues to be highlighted to the

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[1] Source countries are also referred to in the literature as 'sending', 'origin' or 'home' countries. However to ensure continuity of terms throughout this thesis the term source country will be used to describe countries where migrants come from, as this is the most widely accepted.

[2] Destination countries are also referred to in the literature as 'host', 'recipient' or 'receiving' countries. However, as before, in order to ensure continuity through this thesis, the term destination country will be used to describe countries where migrants go to.

[3] Doctor migration can also be referred to as physician or medical migration. The term doctor migration will be used in this thesis to describe the migration of doctors.

[4] The World Health Organisation defines health workers as *'all people engaged in the promotion, protection or improvement of the health of the population'*.

temporarily often leave jobs at home [34]. It is important, therefore, to consider who is doing the migrant's job whilst they are away.

1.2 Temporary migration

Migration data is at best incomplete and not compatible between countries [4]. It is widely accepted that migration can be permanent or temporary [14, 35, 36], however, it is particularly difficult to capture temporary flows [22]. This is due to incomplete data and inconsistent migration terminology, both of which mean it is not possible to know the true extent of temporary doctor migration [37].

Migratory terminology will be discussed further in section 2.4. For this thesis, the definition of a temporary migrant is taken to be that provided by the International Organisation for Migration (IOM): '*skilled, semi-skilled or untrained workers who remain in the receiving country for definite periods as determined in a work contract.....*' [38]. Agunias & Newland (2007) further include mention in their definition of temporary migration that it is '*by their own volition*' [32], enhancing the view that temporary migration is through choice.

Empirical evidence from outside the health sector, suggests that temporary migrants demonstrate different behaviour than permanent migrants [39]. Non-medical temporary migrants have been found to be motivated solely by economic gain [40]. Rogerson (2007) also observes in his study of South African doctors that finance is the major catalyst for temporary migration, whereas permanent migrants are more motivated by long-term prospects [9]. This difference in motivation needs to be disentangled further.

There have been wide debates about the use of programs devised to facilitate temporary migration (albeit for non-medical professionals) and their consequences are well documented [41-43]. There are some examples of temporary nurse migration [44, 45], but there is limited information about the dynamics of how it works, or whether it could exist as a managed program. Although no known temporary migration program exists for doctors, it is useful to review programs that have been used for other professions in order to gain a deeper understanding of what elements of them were successful and what were not. This is explored further in section 3.4.

1.3 Thesis design, Aim and Objectives

The aim of this thesis was to provide a better understanding of the dynamics of temporary doctor migration in order to guide future policies that are developed to manage migration. A key focus was placed on exploring what motivates a doctor to migrate on a temporary basis. In order to understand the process of temporary migration a conceptual framework was developed from a synthesis of the literature on international doctor migration, and more specifically temporary movement. This was done from an individual perspective (i.e. the doctor).

The conceptual framework forms the heart of this thesis. A conceptual framework allows for key factors in a process to be presented together with the theorised relationships among them [46]. This consequently determines what data should be collected and analysed in order to test whether the theoretical framework matches up with what occurs in practice. The conceptual framework was tested for validity using the case study of South African doctors working in Ireland (the rationale for this approach is discussed further in section 1.4.1).

The specific objectives of this thesis were to:

- Provide a contextual analysis of issues that are faced by doctors in Ireland and South Africa.
- Identify and improve understanding of temporary and permanent doctor migration patterns to Ireland.
- Determine the key motivation for temporary migration.
- Develop a conceptual framework to understand the dynamics of temporary doctor migration.
- Test the conceptual framework using the case study of South African doctors working in Ireland so as to examine whether these conditions occur in practice.
- Use the lessons learnt from the case study and conceptual framework in order to explore whether it could be used as a model to develop strategies to manage doctor migration.

It is beyond the scope of this thesis to look in detail at how temporary migration fully affects the health systems of the source and destination countries. However, the human resource situation and health workforce planning practices will be reviewed in both. In the light of the limited number of studies on doctors who migrate temporarily, this thesis will draw on the experiences of other health workers such as nurses and other non-health workers.

1.4 Methods

A detailed methodological discussion is provided in Chapter 6. A single case study design was chosen to test the validity of conceptual framework. In order to do this, it was first necessary to identity an example of doctors migrating on a temporary basis from a LMIC to a high-income country.

For many years Ireland has sourced locum General Practitioners (GPs), particularly those for the 'red-eye shift[6]', from South Africa [47]. Preliminary analysis (carried out as part of this thesis) confirmed that a large number of South African doctors were registered in Ireland, but still resided in South Africa[7]. This, together with informal personal communications with Locumotion[8] led to the assumption that South African doctors are temporarily migrating to Ireland to work as locums. There are also South Africa doctors who have migrated on a permanent basis to Ireland and it is useful to compare the two groups of migrants (i.e. temporary and permanent) in order to understand how they differ in characteristics. This instance of South African doctors working in Ireland provides an invaluable opportunity with which it is possible to explore the phenomenon of temporary doctor migration.

1.4.1 The justification for using case study methodology

This thesis required an extensive, in-depth description of a social phenomenon (in this case temporary doctor migration) and therefore it is appropriate to use case study methodology. The distinct advantage of a case study is when *'a "how" or "why" question is being asked about a contemporary set of events over which the investigator has little or no control'* [48]. Also, case studies use several different sources of data to facilitate the conduct of multi-perspective analyses [49].

There are four different applications for case study [48] research, namely to:

i. Explain complex relationships in real-life interventions (an explanatory study).
ii. Describe the real life context in which the intervention took place (descriptive study).
iii. Illustrate topics within an intervention that has already occurred (evaluative study).
iv. Enlighten the instances when the intervention being evaluated has no clear set of outcomes (exploratory study).

Case study research is not confined to one type of methodology and often mixed methods are used to both quantify and qualify a particular occurrence. A mixed methods approach is defined

[6] 'Red-eye' shifts are carried out between 11pm until 8am in order to provide GP out-of-hours services
[7] Detailed results of this analysis are provided in Chapter 7
[8] Locumotion are an Irish recruitment agency which specialises in placing locum GPs

as '*the class of research where the researcher mixes, or combines, quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study*' [50] and this thesis uses this approach. The advantages of this are that it ensures comprehensiveness of the data and it adds breadth and depth to the analysis [50]. Additionally, by using multiple sources of data it is possible to triangulate the evidence which serves to corroborate data and thereby increase its reliability [48].

Critics of case studies say that the results cannot be generalised [49]. Additionally, there can be concerns about the lack of rigor to case study research. Yin (2009) argues that the goal of doing a case study is to expand and generalise theories (analytic generalization), not to enumerate frequencies (statistical generalisation). In this way, case studies, like experiments, can be generalised to theoretical propositions and not to populations [48]. The concern about lack of rigor is due to researchers not following systematic procedures, or by allowing biased views to influence the direction of the findings. This thesis endeavours to avoid these pitfalls by following systematic procedures for all data collection and analysis.

Theory development is an essential part of case studies and is irrespective of whether the purpose of the case study is to develop or test theory. This provides strong guidance for determining what data to collect and the strategies for analysing the data. It is good practice to develop a theoretical framework, no matter whether the study is explanatory, descriptive or exploratory. As discussed in section 1.3 this thesis follows such guidance for good practice by reviewing the literature (Chapters 2 and 3) in order to develop a conceptual model (Chapter 5) which forms the basis for the research and analysis.

1.5 The Motivation Project

In addition to primary data collection this thesis also draws on data obtained as part of the Motivation Project, for which I was the Project Coordinator (2007-2010) at Trinity College Dublin (TCD). The Motivation Project was funded by Irish Aid, and administered through the Health Research Board. The Project was the result of collaboration between TCD (Ireland), the University of the Witwatersrand, (South Africa) the College of Medicine (Malawi) and the National Institute for Medical Research (Tanzania).

The primary focus of the Motivation Project was to strengthen the evidence base for effective HRH strategies. It was conducted in order to improve understanding of health worker motivation and retention in South Africa, Malawi and Tanzania. To this end, three mutually reinforcing components were conducted to achieve the Project objectives. These were:

- *Exploring Capacity and Context* aimed to develop a better understanding of the critical factors that affect HRH. A focus was placed on the motivation environment facing health workers and the type of incentives that have been used to address this. This component used existing data and literature.
- *Evaluation of Incentive Initiatives* assessed the impact of incentive initiatives (both national and local, financial and non-financial) that had been implemented in the three Project countries to improve recruitment, motivation and retention of health workers. Qualitative and quantitative data was collected to evaluate each initiative.
- *Discrete Choice Experiment* (*DCE*) aimed to improve understanding of the absolute and relative power of motivational factors for different cadres of health workers within each Project country.

1.5.1 The relationship between this thesis and the Motivation Project

As Project Coordinator, I worked as part of the Project team to review existing literature on health worker motivation. The resulting systematic review [51] was used to develop tools used that were used to evaluated the incentive initiatives and for the DCE. The Motivation Project collected quantitative and qualitative data from several different cadres of health workers in the three countries, however for this thesis I only re-analysed data that related to South African doctors. This provided some contextual information on the issues faced by South African doctors and how these contribute to their desire to migrate. Nevertheless, such data contributed only a small part of the data for the thesis and I collected the remaining data independently.

1.6 The structure of the thesis

In order to answer the research objectives outlined in section 1.3, the structure of the thesis is as follows:

- Chapter 2 reviews the literature on doctor migration. Reasons for the global shortage are presented, as well as current trends in doctor migration and the consequences of this movement. An emphasis is placed on the motivational determinants of migration in order to determine the reasons for migration. Theories on motivation and migration are reviewed. Finally, policy responses to migration are discussed.
- Chapter 3 specifically reviews the literature on temporary migration and draws together examples of where and how it occurs. Programs to manage temporary migration are examined to understand how such programs operate.

- Chapter 4 provides the source and destination country context. The HRH situation in both Ireland and South Africa is presented in order to determine the factors which contribute to doctor migration.
- Chapter 5 presents the conceptual framework which was developed from the literature. This Chapter also presents the hypotheses about temporary doctor migration that were generated by the conceptual framework.
- Chapter 6 clarifies the methodology used for each Component of the thesis and the justification for this. Methodological and ethical concerns are also raised.

The results are presented in four Chapters (7-10). Each Chapter ends with a number of summary discussion points resulting from the analysis presented.

- Chapter 7 presents the analysis of the Irish Medical Council (IMC) register in order to determine migration patterns to Ireland.
- Chapter 8 presents the re-analysed data from the Motivation Project. This provides information on the general working environment faced by doctors in South Africa. Efforts were made to determine factors that affect retention and more specifically, predictor variables which influenced intention to emigrate.
- Chapter 9 focuses on South African doctors who are temporary migrants to Ireland. A profile is developed of temporary migrants in order to determine their motivation for migration. Additionally, experiences of living and working on a temporary basis in Ireland are explored to determine satisfaction with migration. Finally, the future plans of doctors are explored, i.e. whether they intend to migrate to Ireland on a permanent basis or remain in South Africa. This was done in order to establish whether temporary migration is a prelude to permanent movement.
- Chapter 10 focuses on South African doctors who are permanent migrants to Ireland. Similarly to Chapter 9, a profile is developed of permanent migrants to determine their motivation for migration. Their experiences of living and working in Ireland are explored so as to determine satisfaction with migration. Finally, future plans are explored, i.e. whether doctors intend to remain in Ireland, return to South Africa or migrate onwards. This was done in order to further gain an understanding of migration patterns.
- Chapter 11 looks at the limitations of the research and the implications for the results.
- Chapter 12 discusses the findings of all four components and draws together all the evidence. The conceptual framework is revisited and by drawing together all the evidence it is possible to determine its validity.

- Chapter 13 provides the final conclusions. This chapter also suggests future policy recommendations for managing doctor migration, in addition to outlining suggestions for further research.

1.7 Contributions to Academic Literature

Doctor migration has for too long been considered a one-way process [14]. Temporary migration is an understudied area in the literature. This thesis will therefore contribute to a better understanding of the nature, extent and causes of temporary doctor migration. A key part of this is the development of a conceptual framework which outlines the causes and dynamics of temporary doctor migration. By doing, it is possible to identify areas which could be targeted for policy interventions.

The need for more precise and up-to-date statistics in order to present an accurate picture of migration has been indicated [52]. This thesis documents the current statistics of South African doctors who have migrated to Ireland and their motivation for doing so. This information will be applicable to current geopolitical, demographic, economic and social realities both within South Africa and Ireland. Although this data is confined to doctors from one country migrating to another one, this information will contribute towards the evidence base of current migration trends from LMICs to high-income countries.

This thesis presents the major issues and challenges that are associated with measuring the phenomenon of doctor migration. This in turn has implications for policy makers. The techniques that have been used to answer the research questions posed here will contribute to the knowledge base about the methodology that can be used for studying international doctor migration. Additionally, by applying Yin's (2009) [48] robust procedures for case study research, this thesis also contributes to the academic literature on case study methodology.

The Global Code, developed by the World Health Organisation (WHO), has put doctor migration firmly on the policy agenda by placing a prominence on the ethical implications that it can cause [53]. Other multilateral agreements, such as the EU Green Paper on the Health Workforce [54] and the General Agreement on Trade in Services (GATS) both focus on facilitating temporary migration. There is no evidence that GATS is actually affecting, or even facilitating temporary mobility of doctors. It appears to currently relate to the temporary movement of other professionals, for instance businessmen [55]. Further information about the GATS, as well as other bilateral and multilateral strategies will be presented in section 2.10.1. While it is positive that there is a global commitment to the development and implementation of policies to manage doctor migration, there are only a few examples of innovative strategies that have been

implemented. This thesis provides an additional illustration of temporary doctor migration and the conditions under which it operates. This will improve the evidence base that is available to policy makers worldwide who are striving to determine effective ways to manage doctor migration.

2 *Literature Review*

2.1 Introduction

All professionals have the potential to migrate, however no other group receives as much attention as health workers. It has been said that *'no other category of worker is so essential to the well-being of the population of every nation'* [56]. It can be argued that the basis of this statement is fair, seeing that the ability to provide health care in a country crucially depends on having the human resources with which to do it [23]. Throughout this literature review, unless specifically indicated otherwise, the term 'migration' will be used to refer to international movement. Any reference to mobility within the country will be referred to as 'internal migration'.

The worldwide shortage of health workers is currently estimated to be more than four million and migration is said to be one of the three major factors exacerbating this situation [23]. While the other two factors (a history of underinvestment in human resources and the AIDS epidemic) are no less important, there has been increased research throughout the world into migration, in conjunction with issues of motivation and performance in the workplace [12].

Although in recent years, research has been conducted into out-migration of doctors [19, 21, 27, 57, 58], there is little concrete evidence to determine how much of this is permanent movement and how much is temporary [3, 14]. Different types of migration have different implications for both the source and destination country [58]. The implications of permanent migration are well-documented [20, 25, 27, 59]; however, detailed information on temporary migration is scarce.

A review of the existing literature was conducted to determine what knowledge exists on the dynamics of temporary doctor migration. This review provides the basis for the conceptual framework. By identifying the variables and their associated relationships, the conceptual framework sets the stage for the hypotheses.

There are several sections of this literature review. The first section (2.2-2.3) provides a global profile of doctors and gives an overview of current international doctor migration trends. The consequences of migration are also discussed. The second section (2.4-2.5) explains general migration terminology and clarifies terms that are used in relation to doctor migration. In particular, theories and categories of temporary migration are reviewed in order to determine exactly what the phenomenon entails. The third section (2.6-2.7) explores motivational theories. It is important to understand whether motivational attributes differ for temporary and permanent migrants. Temporary migration may be a prelude, or 'stepping stone', to permanent migration

and it is important to disentangle this issue. The fourth section (2.10) examines current strategies that are being used to manage doctor migration.

This Chapter focuses on doctor migration from sub-Saharan Africa, as this region is affected by the greatest burden of disease, chronic underinvestment and severe shortages of doctors [12]. However, reference will also be made to HRH challenges in other LMICs, especially countries in the Pacific and Asia [60].

This review draws on literature and information gathered through a targeted search of literature databases (PubMed, Web of Science and Google Scholar) and other websites, including, but not limited to: Human Resource for Health Global Resource Centre, (www.hrhresourcecenter.org), the WHO (www.who.int), the International Organisation for Migration (www.iom.int) and the Migration Information Source (www.migrationinformation.org).

The key words used to search for relevant material were: 'migration', 'doctor migration', 'medical migration', 'temporary migration', 'temporary migration programs', 'circular migration', 'return migration', 'doctor motivation', 'retention' and 'sub-Saharan Africa'. No date limitations were applied to the search, but there were language limitations. Articles were only considered if an abstract and full article existed in English. Additionally a snowball process, whereby the reference list of all relevant articles was scanned to discover additional material was used in order to assist in the identification of grey literature.

2.2 A global profile of doctors

The WHO recommends that a doctor to population ratio of 20 per 100,000 is needed just in order to carry out the basic requirements of the Millennium Development Goals[9] (MDGs) [61]. As can be seen in Table 1 there are considerable differences between the densities of doctors throughout the world. High-income countries such as Belgium have 449 doctors per 100,000 (well over the WHO recommendation) and low income countries such as Liberia have just 2 doctors per 100,000 (10% of that recommended by the WHO).

[9] The MDGs are eight goals that all 191 UN member states have agreed to try to achieve by the year 2015. The eight goals focus on combating poverty, hunger, disease, illiteracy, environmental degradation, and discrimination against women. (http://www.who.int/topics/millennium_development_goals/en/)

Table 1: Global distribution of doctors, as of 2006

	Country	Density per 100,000 population	Doctors in the country (n)
Countries with highest density per population	Cuba	591	66,567
	Belarus	455	45,027
	Belgium	449	46,268
	Estonia	448	6,118
	Greece	438	47,944
Selected OECD countries	Australia	247	47,875
	USA	256	730,801
	UK	230	133,641
	Canada	214	66,583
Countries with lowest density per population	Liberia	2	103
	Malawi	2	266
	Tanzania	2	822
	Ethiopia	3	1,936
	Niger	3	377

Developed from [12]

2.2.1 Reasons for the shortage of doctors

The HRH crisis is being experienced throughout the world and all countries, rich or poor are affected by shortages in their workforce [62]. Shortages are defined as an imbalance between the requirement of skills and the availability of workers [63]. This definition has been elaborated further to reflect not just the lack of trained personnel; but also takes into account the shortage of personnel who are willing to work within the health system in addition to the insufficient employment opportunities for those who are willing to work [64].

Countries with less than 250 health workers per 100,000 population are defined as having '*critical shortages*' and 63% of the 57 countries that fall into this category are in sub-Saharan Africa [12]. Health worker shortages, particularly of doctors, in these countries is '*crippling the already fragile healthcare systems*' and having dire consequences for the provision of healthcare services [25].

Growing populations and increased burdens of disease (chronic in high-income countries and HIV/AIDS in LMICs) are contributing to the increased demand for health services and this in

turn is driving the need for more health workers [64]. The WHO has recommended that new health workers are trained in order to tackle shortages [53]; however there are limitations to using this as a sole strategy [65].

Chronic worldwide underinvestment in medical training has indeed resulted in an insufficient numbers of doctors being trained [13, 66]. Countries need to be able to train medical graduates in order to develop their workforce. Whilst data regarding education establishments is limited, WHO medical school data (see Table 2) suggests that there is an urgent need in some countries to increase training capacity for doctors. For instance, Africa has 15% of the world's population and less than 4% of the world's schools compared to the Americas which has a smaller percentage of the world's population (13%) but over a quarter (26%) of medical schools .

Table 2: Number of medical schools by WHO region

WHO region	Number of Medical schools
Africa	66
Eastern Mediterranean	137
South-East Asia	295
Western Pacific	340
Europe	412
Americas	441
Total	1,691

Developed from [12]

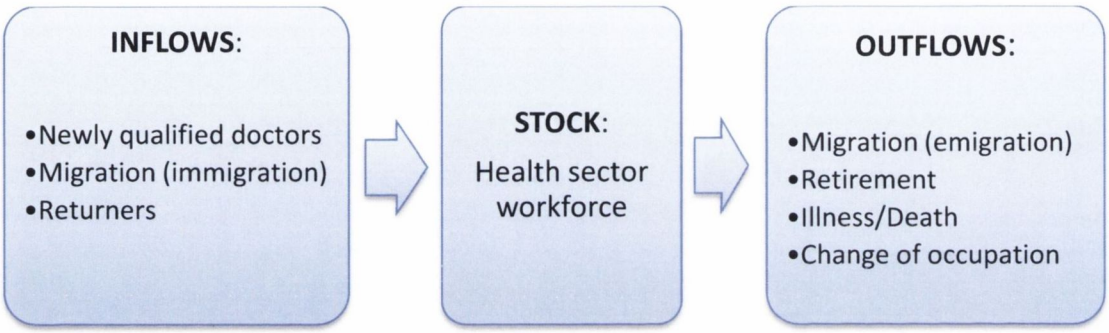
If strategies are to be implemented to develop the health workforce through increased training there need to be funds available with which to do this [64]. Furthermore, any training needs to be done as part of a country's health workforce development plan. Currently, both LMICs and high-income countries are experiencing issues of poor workforce planning [13, 66]. Good workforce planning is essential for ensuring a sustainable number of personnel to deliver effective healthcare services [23]. Workforce planning must taken into consideration training, recruitment and attrition [64]. Additional factors such as increased ageing and feminization of the workforce also need to be considered [66]. Feminisation affects the workforce as women are more likely to choose to be employed part-time and this reduces the number of full-time equivalent staff [67]. Women are also more likely than their male counterparts to work in primary care services and this affects the number of doctors available to work in secondary or tertiary care settings [68].

Effective workforce planning would also allow for task-shifting to be used as strategy to optimise the roles of less specialised health workers [64]. Whilst the limitations of this are that the health workers providing the care may not have sufficient specialised knowledge and there may be

mixed patient attitudes [69], overall task-shifting is seen as an effective strategy to enhance provision of essential services [69, 70].

The total number of doctors available to work within a country's health system is the 'stock' and this affected by both inward and outward flows [1]. Inflows (or entry routes) include new graduates of national medical schools and qualified doctors coming from other countries (i.e. immigration). Outflows (or exit routes) can be temporary or permanent [12]. Figure 1 depicts both these flows.

Figure 1: Entry and Exits for the workforce ('Stock-flow' model)



Adapted from [1, 12]

As previously mentioned in the introduction to this Chapter (section 2.1) health worker migration, especially of the highly skilled cadres, is cited as one of the major reasons for the decline in the workforce [23]. Consequently, this exit route is a key focus for this thesis rather than the other three exit routes outlined.

2.3 Doctor Migration

Doctor migration can be internal (from one region to another, rural to urban or public to private) or international [12, 23]. Both affect the capacity of health systems to maintain adequate staffing levels and this in turn affects coverage, access and utilisation of health services [20]. Migration from LMICs to high-income countries has increased over recent years and this is leaving the poorest countries worst affected [36]. While some countries, such as India and the Philippines specifically train health workers for export to high-income countries, this is not the norm and unplanned loss through migration can be extremely costly [60]. It is difficult to determine the full extent and effect of migration in countries such as Africa, as data on both in and out-flows tend to be very poor [14].

Buchan (2008) states that *'any examination of the migration of health workers should be based on an understanding of the magnitude of the issue'* [1]. However, despite a widespread

recognition of the importance of migration statistics, these continue to be incomplete and inadequate [52]. The reasons for this relate to the fact there is no standardised way that international migration data are recorded; migration studies have previously used registration data, country of qualification, nationality and immigration statistics [71]. There are limitations to all of these types of data, in particular immigration statistics as they do not tend to allow for country comparison as there are often differences in permit durations[10] across countries for the same types of migration [52].

Furthermore, it is widely acknowledged that there is a lack of consistency in classification and there is no common terminology for migrant doctors or their origins [1]. Terms used in the literature to describe doctors who have migrated include: non-national [72], foreign-born [58] foreign-trained [22], overseas doctors [73], migrant doctors [74] and international medical graduates [75]. The term 'foreign-trained' [21] refers to a doctor practicing in a country where they did not obtain their medical degree. Although this does not allow for identification of medical students who migrate in order to undertake their primary medical degree [76] it is the commonly used term used by the OECD and the WHO. It is therefore the most appropriate term to be used in this thesis when referring to migrant doctors.

2.3.1 Current trends of doctor migration

It is important to consider why some destination countries are chosen over others. Buchan (2008) identifies 6 key factors that determine and maintain migration linkages, namely: shared language, shared/similar culture, shared/similar education curriculum, recognition of qualifications, geographical proximity/ease of travel and pre-existence of a migrant community [1].

Colonial ties are influential for migration [77] partly because of language and recognition of professional credentials. A medical carousel has been described [78] which identified major migration patterns. For example: from Malawi to Botswana; from Botswana to South Africa; from South Africa to the UK, USA, Australia and Canada [79]. This also demonstrates that some countries are both source and destination countries. For instance South Africa is a major source of doctors and also attracts doctors from other Sub-Saharan countries [57]. Interestingly, it would appear that the USA is the only net receiver of doctors and very often the final destination for those who had worked in other countries [14].

[10] Data on permits is used as an indicator in OECD countries to determine levels of migration.

2.4 Migration: A review of current understanding and key concepts

Migration can be temporary or permanent [1]. Dustmann (2000) suggests that the characteristics of temporary migrants differ from those of permanent migrants [39]. It is important to understand how characteristics differ as it is plausible that different types of migration have different drivers, effects and policy implications.

This is no easy task as there is a lack of consistency in the definition of what 'temporary' migration is and it can be from 9 months to 10 years [80]. Furthermore, the category of what constitutes a temporary worker differs from one country to another [52]. This lack of consistency presents difficulties in data comparison and furthermore in determining who actually qualifies as a temporary migrant. Section 2.4.1 below will look at the different types of migration that can occur and will specifically focus on the distinguishing features of each type of temporary migration.

2.4.1 Types of migration

Lowell and Findlay (2001) distinguish between the different terms used for international mobility of skilled workers as each different type of migration has different implications for policy and workforce planning [36]. The terms that they defined are outlined below and are not specific to doctors, but in each case an illustration has been provided to describe movement that doctors undertake.

- **Optimal brain drain** is described as *'the 'right' amount of skilled emigration'* whereby migration raises educational levels and stimulates economic growth [36]. In the case of doctor migration it is not clear what the 'right amount' is, particularly when there is such a global shortage of doctors, no country can really afford to lose doctors through migration. It could be argued that Cuba has achieved the 'right' amount of brain drain, with 20,000 doctors working overseas generating revenue which goes directly to the Ministry of Health's budget [81] whilst at the same time maintaining good health indicators, including the eradication of polio, diphtheria, whooping cough, rubella and neonatal tetanus and a life expectancy of over 77 years [82].

- **Brain waste** whereby there is no employment for native born workers [36]. Lowell and Findlay (2001) state that this type of emigration poses little economic threat [36]. However, documentation exists that migrant doctors work as taxi drivers in destination countries, which means they are under-employed within that country [83]. Furthermore, there are anecdotal reports that doctors from sub-Saharan Africa are working in Ireland as security guards, whilst doctor shortages in this region are a significant rate limiting

step in the provision of antiretroviral (ARV) drugs [84]. Lack of access to ARVs poses a very real economic threat [85] and if the shortage of doctors is hindering provision, then this contradicts Lowell and Findlay's (2001) definition of brain waste when applied to migrant doctors.

- **Brain exchange** whereby a loss of native born workers is offset by an equivalent inflow of highly skilled workers [36]. South Africa is a net importer and exporter of doctors [57] and Cuban doctors in particular have been recruited to compensate for the loss of native South African doctors [86]. However, the loss of a native doctor may not be adequately offset by the arrival of a non-native doctor, particularly when there are cultural and language differences [37].

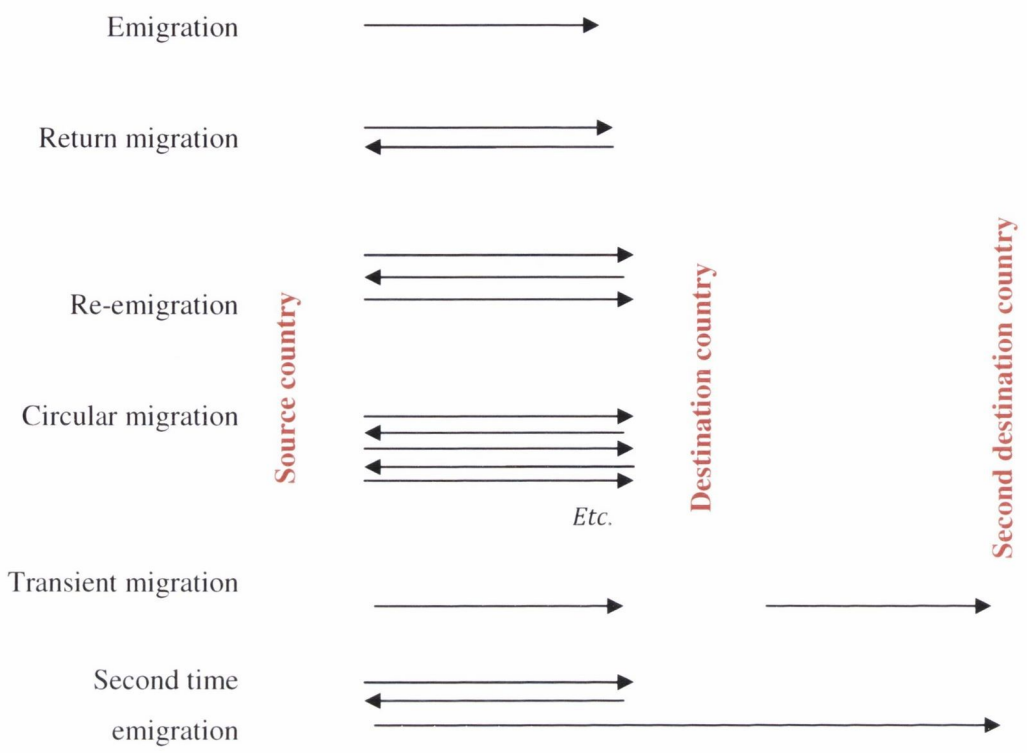
- **Brain globalization** refers to trade and skilled mobility and infers that some level of migration is integral to trade; in particular multinational companies require international mobility [36]. The GATS was designed to progressively liberalize trade in health services and part of the agreement refers to the temporary movement of health workers [87]. How GATS will affect doctor migration is an area that is under-researched, however what information there is will be discussed in section 2.10.1.1.

- **Brain export** whereby developing countries choose to educate and export workers, either through bilateral contract programs or in free agent emigration [36]. The Philippines in particular has been using this as an effective strategy to generate financial gain, through remittances [88]. As already mentioned, Cuba is another country which has turned to exporting doctors [81].

These definitions are useful for examining the different types of movement and while policy makers may aim for 'optimal brain drain', it could be argued that 'brain export' is the most effective strategy to implement. The consequences of countries choosing to train workers for export will be further explored in section 2.9.2.

One drawback of the migration terminology outlined above is that each of the terms implies one way movement and, migration is rarely thus [1, 14, 89]. There are counter-flows whereby migrants may leave one country to work in a second, then return home or move to a third country, or both, or may even live in one country and regularly travel to work in a another country [1]. King (1986) acknowledges this, and identified 6 types of migration which illustrate permanent and temporary movement [35].

Figure 2: Different types of migration



Adapted from [35]

Whilst King's categories are far from the exhaustive migration typology, they highlight the different types of movement that the literature often describes unanimously as temporary migration. For instance, return migration and circular migration tend not to be differentiated [90]. It is really important to do this, as each type of temporary migration is unique and has different dynamics [38]. Whilst it is helpful to describe different migration categories in order to understand the diverse forms of mobility, it is however worth noting that categories should not be too rigid as one migration type can easily morph into another [14].

The International Organisation of Migration (IOM) has elaborated King's definitions and each sub-category of temporary migration is outlined below. These are the most current definitions and therefore are the ones that will be used by this thesis.

- Return migration: '*The process of a person returning to his/her country of origin or habitual residence usually after spending at least one year in another country*' [38].

- Re-emigration: '*The movement of a person who, after having returned to his/her country of departure, again emigrates*' [38]. King further specifies that the migrant re-emigrates (or returns) to the same destination country where they had initially emigrated to [35].

- Circular migration '*temporary movements of a repetitive character either formally or informally across borders, usually for work, involving the same migrants*' [90].

- Transient migration: '*Professional or skilled workers who move from one country to another, often as employees of international and/or joint venture companies*' [38].

- Second time emigration is defined by King as when a migrant returns to their home country and then at some point re-emigrates but to a different country than before [35]. This implies it is a form of onward migration (i.e. the migrant does not end up as a permanent resident of their home country.

Dustmann (2000) draws attention to the fact that the term 'temporary' is used from the destination country's perspective – meaning that transient migrants are classified as temporary, even if they have left their home country permanently [39].

Important distinctions between temporary migrations are that some are time dependent and some are frequency dependent. Return migration is defined as being more than a year [38] and is further used by Wickramasekara (2011) to refer to '*one migration cycle*' [90], which means that this migration occurs once for a defined period of time. Conversely, the key element of circular migration is the frequency with which it occurs.

Circular migration is not a new phenomenon and was used by Hugo in 1977 when describing internal movement within Indonesia [40]. Return and circular migration gain the most visibility with regard to developing strategies to manage migration [8, 42, 43, 90]. This is due to the fact that these types of migration facilitate movement between the source and destination country. Although re-emigration also facilitates the same movement, policy recommendations have not devoted much time to promoting it. This could be that re-emigration is not as predictable as circular or return migration and therefore is harder to manage. Policies have not focussed on facilitating transient migration or second time emigration as these still represent a loss to the source country as the migrant does not return permanently.

Evidence suggests that circular migration is taking place on a much wider scale [91] and more recently the term has been associated with temporary migration programs [32]. Temporary migration programs are just one way to facilitate circularity and this will be discussed further in section 3.4.

2.4.2 Temporary versus permanent migration: differences in motivation

Contextual issues within the source and destination country will be the same for people who become temporary or permanent migrants. However, the motivation for migration may differ. The literature suggests that financial gain motivates temporary migrants whilst permanent migrants are motivated by long-term career prospects and family considerations [92].

Temporary migrants may also be constrained by contract duration, however Dustmann's theory (2000) states that 'optimising behaviour' is an important feature of temporary migration [39]. This implies that temporary migrants have decided that this type of movement maximises a desired outcome. Although this outcome has not been specified it is likely to be that migrants can obtain the benefits of migrating to the destination country, whilst maintaining the benefits of remaining in their home country.

As will be seen through the discussion on temporary migration programs (in section 3.4.2) there is a debate about whether temporary migration is a stepping stone towards permanent migration [93]. It is said that the strongest bond a foreign worker has to their home country is their family. Reunification in the destination country can reverse previous plans to return, thereby resulting in permanent migration [93]. Certainly, permanent migration has been a feature of previous programmes which had the intention of facilitating temporary migration [91, 93, 94]. However, Hugo's study (1977) in Indonesia found that circular migration was not being used by migrants to 'test' other environments and the majority (93%) intended to return to their homes [40].

2.4.3 Relevance of migration types for the conceptual framework

A key focus of this thesis is to explore what motivates a doctor to migrate on a temporary basis. The above section has indicated that migration can be permanent or temporary and has also shown that there are different types of temporary migration. At this stage, the conceptual framework will only distinguish between temporary and permanent migration and it is hoped that analysis of the results will reveal whether there are different types of temporary migration occurring in the presented case study of South African doctors working in Ireland. The literature implies that individuals evaluate which type of migration will yield the maximum benefits to them. This concept will form the heart of the conceptual framework as it suggests that motivation for migration will influence what type of migration will occur. Another theme that is emerging is the importance of the length of time spent abroad and this needs to be further understood.

2.5 Migration theories

The different types of movement have been considered in the section above and now it is important to gain an understanding of why people migrate. Migration is an extremely intricate process, affected by individual motivations, socio-economic factors and cultural norms [77]. Different theories have been developed in order to explain migration; however it is understood to be the results of a desire for a better life and livelihood [95]. Arango's (2002) fascinating article provides a description and critical evaluation of the major migration theories, starting with neo-classical theory, which is often criticized as it disregards any migration that is not labour related and down plays the non-economic factors that are influential in migration [77, 95]. The article then goes on to outline more contemporary theories, namely: individual aspects, new economics of migration, dual labour market, world systems theory and push-pull theory [77]. It is useful to briefly define the theories that Arango (2002) highlights and this done below:

- **Individual theory** stems from neo-classical theory in that each migrant looks for a destination that will offer the highest wages.
- Conversely, the **new economics of migration** states that migration is a family, or household, strategy in order to minimize risks (e.g. unemployment, loss of income).
- **Dual labour market** suggests that migration is caused by a permanent need for foreign labour in developed societies as local workers are often reluctant to occupy unattractive jobs.
- **World systems theory** builds upon individual decision making and migrant networks by inducing how goods and capital flow and fit together.
- **Push and pull theory** states that movement of a population is 'pushed', through dissatisfaction with current conditions, and 'pulled' by perceived better conditions elsewhere.

While each of these theories provides a valuable insight into why migration occurs, they all have flaws and do not take into account the fact that migration is diverse and multifaceted. It would appear that these complexities cannot be explained by a single theory. For instance, 'individual theory' is solely labour related; the dynamics of 'new economics of migration' mean that the decision is not made by an individual migrant. 'Dual labour market' assumes that migration is demand based and while Sanders & Lloyd (2005) argue that brain drain of doctors is demand driven by high-income countries (this is explained further in section 2.8) [96] and thereby confirming this theory, it does not take into account 'push' factors, or different immigration rates. Finally world systems theory is only applicable at the global level [77, 95]. Furthermore, no theory captures the importance of social networks that link migrants (potential, current and returned). These are hugely influential in explaining migration as they facilitate the flow of information, thereby reducing any uncertainties [77].

The most widely accepted theory used to understand the drivers for doctor migration, is that of 'push' and 'pull' factors [1]. Motivation to migrate is therefore based on an assessment of the situation in the home country ('push' factors) and the perceived situation in the destination country ('pull' factors) [37]. Pull factors in particular are powerful motivators, for instance the lure of well maintained high-tech facilities has been found to be very attractive to physicians [19].

Motivation to migrate will also depend on the country of origin. It is said that migrants from LMICs place more importance on economic and employment related factors than migrants from high-income countries who are more motivated by lifestyle [97]. However, I suspect that it is not as clear cut as this and that lifestyle will also play a large part in the decision to migrate from LMICs and this will be investigated further.

The decision to migrate is essentially a personal one and therefore susceptible to changing personal circumstances [80]. There is a need to understand the drivers of migration, or individual motives, therefore the following section will look at motivational theories and how these apply to decision to migrate.

2.5.1 Importance of migration theories for the conceptual framework

Migration is clearly a complex issue due to its fluidity. It may not be possible, or necessary to attempt to theorise migration. However conceptualisation allows for comparisons to be made and provides guidelines for predictability. The above section has highlighted the inadequacies of migration theories, particularly when applied to the phenomenon of temporary migration. What the theories do however highlight are the concepts, definitions, and propositions that are involved in migration. Migration is a multifaceted process, involving many different forms, types, processes, actors, motivations, socio-economic factors and cultural contexts. It will therefore be important to build these issues into the conceptual framework.

2.6 Motivation

'Man is a perpetually wanting animal' [98]

Motivation provides the stimulus to migrate and has been used for analyzing current migration trends [99]. Indeed individual motives are attributed to the dynamics of international mobility and migration [1]. It is therefore necessary to review the literature around motivational theories in order to understand how motivation really influences migration.

Motivation is defined as the *'the psychological processes that causes the arousal, direction and persistence of voluntary action'* [100]. Motivation is inherently an individual phenomenon, as each individual is unique and different people have different needs, expectations, values, attitudes and goals [100]. In fact, a hierarchy of needs was proposed by Maslow, whereby each of the five levels must be fulfilled in turn before the individual can focus their attention to the next level. The first level is associated with physiological needs which must be met in order for the human body to survive and the highest level is self actualization, whereby there is a desire to reach personally set goals [98]. Maslow's theory has been influential for exploring motivation and behaviour and has been used as a model for understanding in business [101], for use of incentives for health workers [62], as well as to explore migration decisions [102].

There are limitations to Maslow's theory of needs, namely the assumption that once lower needs have been met, human needs move onto a higher level and although this may make intuitive sense, there is little evidence to support such a strict hierarchy [103]. Furthermore, the model ignores the often-observed behaviour of individuals who tolerate low-pay for the promise of future benefits [104].

Additionally, Maslow's theory refers to the broad topic of human motivation and is not specific to work motivation, which refers to the *'psychological process that have direct implications for individual behaviour in the context of work and in particular those processes that influence the individual's accomplishment of workplace goals and tasks'* [105]. Furthermore, study of worker motivation typically focuses on how personality traits, values and organisational practices influence employee actions that are critical for organisational success and thus motivation for work is viewed as a result of the interaction between personal and organisational forces [105]. Worker motivation, crosses many disciplinary boundaries, including psychology, economics, human resource management and sociology [106].

Herzberg's two factor theory looks at employee motivation and identifies two categories that influence job satisfaction (and motivation) and determines that these are distinct from factors that lead to job satisfaction [107]. The first category, 'motivators' include achievement, recognition,

the work itself, responsibility and growth/advancement, which are intrinsic to the job and the primary cause of job satisfaction [107]. These factors (often referred to as 'job content') are a group of needs, which if satisfied will encourage employees to worker harder [104]. Conversely, 'hygiene' factors are the primary cause of unhappiness in a job and include company policy, supervision, interpersonal relationships, working conditions, salary, status and security [107]. These factors relate to 'job context' and dissatisfaction with any of these things can lead to decreased motivation [104]. It is important to note that Herzberg states that the opposite of job satisfaction is not job dissatisfaction, rather it is no job satisfaction [107]. Herzberg's theory has been used to identify key motivators amongst health workers in Vietnam [108] and Zimbabwe [109].

While Herzberg's theory is useful for advocating job enrichment as a way to motivate workers it is criticized for being method bound, lacking reliability and precision in defining the factors and furthermore ignores individual differences [104]. Certainly, while providing a useful tool with which to explore motivation in the workplace the other critical factor that it ignores are personal circumstance, which will in turn affect what an individual needs. Kanfer's (1999) model goes beyond the simple distinction of motivators and satisfiers by identifying two internal motivational components, the origins of which are determined by the individual, the immediate organisational work context and the cultural context [105]. '*Will do*' relates to the extent to which workers adopt organisational goals and '*can do*', which is the extent to which workers mobilize their personal resources to achieve joint goals [105].

Other popular motivational theories devised in the 1960s include 'Expectancy Theory', whereby people are motivated by the expectation that their work will be instrumental in receiving a certain valued outcome and Equity Theory, which is concerned with justice with people expecting a balance between work efforts and the rewards that these efforts produce [104]. Both these theories are concerned with rewards and there are issues around employees' competencies, their behaviour, the surrounding environment as well as the effects of overpayment [110].

Goal-setting theory has been researched for nearly four decades and defines motivation as the intent of an employee to meet certain goals [111]. Individuals make a conscience decision about which goals to pursue and this directs their behaviour. Once committed to a goal, an individual will make more effort to achieve it [104]. Locke & Latham (2002) argue that because goals are self-set, people with high self-efficacy set higher goals than people with lower self-efficacy [111]. Additionally, people with high self-efficacy are more committed to assigned goals and respond more positively to negative feedback [111]. Goals are also a theme highlighted by Kanfer (1999), whose paper provides an invaluable insight into the two interrelated psychological systems that are involved in worker motivation. These are goal choice and goal striving. Kanfer

(1999) further provides a heuristic framework for motivational processes [105]. Although Franco et al. (2002) state that individual goals are an important individual-level determinant of work motivation [106], it would seem from the literature that the importance of goals is often overlooked in studies of health worker motivation. For this thesis, the interesting thing about Goal-setting theory is the specified time limit within which goals are to be achieved [111]. This in turn influences the duration of migration.

All of the popular motivational theories have their flaws, but they do provide an insight into the motivational environment faced by employees. Delivery of health care is very labour intensive. Consequently service quality, efficacy and equity are all directly affected by health worker motivation [106]. Motivational theories offer possibilities for designing effective workplace strategies and are therefore appealing to policy makers. However, it is important to note that while motivation is paramount to achieving higher productivity within the health system it is not sufficient by itself to ensure effective healthcare provision. Infrastructure and other contextual factors will also have an impact [62].

It is also recognized that individual motivation fluctuates over time, even in a stable work environment [106]. Whilst most theories recognize these concepts, very few have attempted to address other factors that influence human behaviour at work such as social, cultural and economic contextual factors [104].

Health worker motivation has become an important area of HRH research [51, 106, 112-114]. The widely accepted definition of motivation is '*an individual's degree of willingness to exert and maintain an effort towards organizational goals*' [106]. Whilst motivation studies have been conducted in relation to performance [104, 106, 113] and job satisfaction [115, 116], it has become increasingly clear that motivation and retention are closely interlinked [51]. Health worker motivation has therefore become a topic of growing interest in order to develop a deeper understanding of how 'de-motivation' contributes to the 'brain drain' [62].

2.6.1 Importance of motivation for the conceptual framework

Individual motivation will influence whether a doctor will consider migration. An important aspect of this relates to what goals an individual doctor wants to achieve. The literature suggests that if migration has taken place in order to achieve a specific goal the time it takes to achieve this goal will influence the duration of migration. This concept of what goals have been set is an important one to carry forward into the next sections. It is possible that temporary and permanent migrants have different goals. This will be an important feature of the conceptual framework.

2.7 Doctor motivation and retention

This section seeks to draw together the evidence on how motivation affects retention, and ultimately migration. There are two aspects to motivation. Although they are related, they are often confused; namely, motivation to stay in a job and motivation to perform. The former means that even though the worker is retained within post there is no guarantee that they will be productive. However the latter, implies that the worker is productive [62]. This means that motivation is not synonymous with performance, nor is performance univocally determined by motivation [105].

Job satisfaction should not be equated with worker motivation [106]. The two concepts are related however and dissatisfied and de-motivated staff are difficult to retain [117]. Whilst retention relates to any losses from employment, it is how retention relates to loss from the country (i.e. emigration) that is of interest for this thesis.

While economic factors play a large role in health worker motivation and retention, they are not the sole reasons for migration [60]. Migration is a personal consideration, based on conditions in the source and destination country. Many doctors who migrate are hoping to improve their professional and financial situations [10]. As a study carried out of South African doctors found *'It is not always a case of simply money, although some are keen to go for a short period and make a lot of money. For those that emigrate there are considerations of their families, their schooling and their prospects'* [92].

As indicated in section 2.5, the push and pull theory of migration is the one mostly commonly used for describing health worker migration, particularly that of doctors. Dovlo (2003) describes six gradients (income, job satisfaction, career opportunity, governance, protection and social security) whereby the complex combination of both 'push' and 'pull' factors lead to a threshold decision to migrate [118]. Push and pull factors interact and relate to one another and both need to be present. It doesn't matter how strong the pull factors are from the destination country, there also need to be strong push factors from the source country [119]. In addition, where the relative (or perceived) gap between factors in the two countries, e.g. income, is significant, the pull of destination country will be very strong [1].

Low remuneration in LMICs is said to be one of the most influential factors in a doctor's decision to emigrate [20]. The public sector, in particular, is often associated with low remuneration and doctors in Ethiopia reported that salaries in the private sector were three or four times as much as that received by a government worker (the equivalent of US$118, of which US$36 is tax) [120]. Remuneration varies widely, and monthly salaries listed for physicians in

1999 ranged from US$50 in Sierra Leone to US$1,242 in South Africa [7]. While it is useful to examine different wages within each country, it is difficult to directly compare remuneration as standard of living is not taken into consideration. Vujicic et al. (2004) were able to convert salaries into purchasing power parity to represent cost-of-living adjusted wages that could be compared and found that there are large wage differentials between source and destination countries [121]. This confirms that wage differentials are a strong incentive to migrate [122].

Common pull factors are often the opposite of push factors. They include: better pay, better working conditions, safer work environment, increased opportunities for professional development and better opportunities for their children [96].

Additionally it is said that one of the main 'pull' factors is the recruitment practices of high-income countries [17, 96, 123]. For instance, shortages in countries such as the UK have led to intense recruitment drives [123].

It is important to distinguish between active and passive recruitment. Active recruitment specifically targets doctors through active campaigns [124]. These are done in a way that 'entices' doctors to come to a country, when previously they may not have considered relocation. Passive recruitment is when an individual initiates the decision to migrate themselves [124]. What countries claim is active and passive recruitment can become unclear [66] and it will be discussed further in section 2.8 if demand for doctors within high-income countries is driving migration.

Padarath et al. (2003) categorise push and pull factors as either endogenous (factors within a country's health system e.g. remuneration, working conditions and career development) or exogenous (factors that arise outside the health system e.g. quality of life, crime and political stability) [119]. Table 3 shows the main push and pull factors involved in doctor migration, as identified by Buchan (2008) [1], categorized as either endogenous or exogenous.

Table 3: The main push and pull factors associated with doctor migration

	Push factors	Pull factors
Endogenous (within the health system)	Low pay	Higher pay
	Few opportunities for increasing salary	More opportunities to increase salary
	Poor working conditions	Better working conditions
	Lack of resources/equipment	Better resources/equipment
	Limited career opportunities	Career opportunities
	Limited educational opportunities	Provision of further training
	High HIV/AIDS prevalence	Lower HIV/AIDS prevalence
	Unstable/dangerous work environment	Safer work environment
Exogenous (outside the health system)	Limited education for children	Better schooling opportunities
	Unstable political situation	Political stability
	High crime rates	Lower crime rates
	Poor quality of life	Better quality of life
	Civil unrest/war/political repression	Free from civil and political unrest

As well as push and pull factors, Padarath et al. (2003) additionally highlight a second set of factors, namely 'stick' and 'stay' factors, which must be overcome before an individual is willing to migrate [119]. Stick factors keep people in their home countries. They include social values (such as family and cultural ties) and the presence of barriers to migration, such as re-qualification costs, language differences and immigration procedures [119]. Work factors, such as being valued by society, may also serve as stick factors [14].

'Stay' factors operate in the destination country to prevent a migrant from leaving. They are generally due to the development of new social and cultural bonds [119]. They relate to a reluctance to disrupt family life and the view that the standard of living is higher in the destination country [14].

Table 4 shows the typology of migrant health workers that has been developed. This was in order to delineate between different push and pull factors, whilst considering individual characteristics [4]. These typologies have been related to nurses [125], however no reference was found in the literature that doctors have been categorised in this manner.

Table 4: Typology of health worker migrants

Migrant type	Motivation
Economic	Solely attracted by the possibility of extra income
Qualify of life	Interested in safety and well-being. Less motivated by economic reasons
Career move	Motivated by enhanced professional opportunities
Survival	Trying to escape political oppression or conflict
Partner	Migrated to follow their partners
Adventurer	Motivated by having new experiences and visiting new places. Travel can be for several years and across several countries.
Holiday worker	Motivated by broadening personal horizon, but over a pre-defined period of time
Student	Attainment of qualifications for use in home country
Contract worker	Works for fixed term, often to earn additional income or improve job prospects in home country

Developed from [4, 14, 125]

Whilst Buchan (2006) and Kingma (2006) categorise 'economic migrants' as permanent migrants [4, 125], Rogerson (2007) argues that wages are the major catalyst for temporary migration and that permanent migrants are more motivated by long-term prospects [9]. It is inevitable that both permanent and temporary migrants will be attracted by finance gain; however, what is unclear from the literature is whether it is a more important driver for one migration type as opposed to the other.

2.7.1 The implications of push and pull factors for the conceptual framework

Push and pull factors create the desire to migrate. Migrants also have to overcome stick factors within the source country in order to migrate. For temporary migration to occur it could be that 'stick' factors can be overcome, but that 'stay' factors are less influential. This means that there are less powerful factors within the destination country that prevent the doctor from leaving. The literature suggests that stay factors are only built up over a period of time. As temporary migrants are only in the destination country for a short period, it is likely that stay factors do not develop. This means in order to maintain temporary migration, the duration in the destination country has to be shorter than the time it takes for stay factors to become significant. This highlights again, that duration in the destination country is a key factor involved in the dynamics of temporary migration.

2.8 Is demand within developed countries driving migration?

'Because of incentives - often provided by donor nations - many African doctors and nurses understandably go overseas' (President Obama, 2009[11])

Stilwell et al. (2004) argue that health worker migration is primary demand led. Furthermore, this demand is being driven by workforce shortages in destination countries [80].

Mounting evidence shows that many OECD countries, in particular Ireland, have seen rapid increases in the proportion of foreign-trained doctors working within their health systems [21]. Foreign-trained doctors, many of whom are from LMICs, make up between 23-28% of the doctor workforces of the USA, UK, Canada and Australia [26]. The reliance of doctors from LMICs does not stop destination countries from drawing on each other. Doctors from the UK constitute the largest group of foreign-trained doctors in Canada and Australia [26].

The growing demand for doctors in high-income countries is caused by several factors. These include demographic shifts (increased ageing and increased feminization of the workforce), poor workforce planning and a chronic underinvestment in medical training [66]. Increased urbanization also makes rural retention very hard. For instance, 20% of Americans live in rural areas, but fewer than 9% of physicians live in these areas [61]. Additionally, the proliferation of private health services in high-income countries has aggravated the demand for foreign-trained doctors to work in public health facilities [126].

Severe staff shortages within high-income countries fuel a dependency on foreign-trained workers [21]. Many high-income countries are now increasingly reliant on professional recruitment agencies who source health workers internationally [12].

As stated in section 2.8 above, one of the main 'pull' factors is said to be the recruitment practices of many countries. Table 5 illustrates selected OECD countries and the numbers of foreign-trained doctors who are working there [12].

[11] An extract from a speech made by President Obama in Ghana (11 July 2009). The full text of the speech is available at http://www.huffingtonpost.com/2009/07/11/obama-ghana-speech-full-t_n_230009.html

Table 5: Foreign-doctors working in selected OECD countries (2006)

	Foreign-trained doctors in each country (n)	Comprise % total workforce in that country
New Zealand	2,832	34
UK	69,813	33
USA	213,331	27
Canada	13,620	23
Australia	11,122	21
France	11,269	6
Germany	17,318	6

As can be seen, by 2006 the USA had the largest number (n=213,331) of foreign-trained doctors. However, the composition that foreign-trained doctors formed of the workforce was highest in New Zealand, despite having smallest actual number (n=2,823).

There is keen competition within OECD countries to attract foreign-trained doctors [52]. The use of active international recruitment has raised several ethical issues, and countries have been accused of '*poaching*' health workers from LMICs [19, 127]. Active recruitment of nurses is well documented [14, 128]. The nature of these campaigns have been termed 'aggressive' at times [129].

Active and passive recruitment were defined in section 2.7. To recap, active recruitment is usually done within the source country and targets doctors in a way that 'entices' them to come to a country when they may previously have not intended to relocate; passive recruitment is where an individual initiates the decision to migrate themselves [124]. However, the difference between the two practices can be ambiguous. For instance, Canada is not seen as actively recruiting from LMICs, but there is ongoing advertising in southern Africa. This, in addition to favourable immigration policies portray Canada as an attractive place for doctors to migrate to [66].

Active recruitment is discouraged as part of the WHO Global Code (which will be discussed further in section 2.10.1) which was adopted by member states in 2010 [53]. Despite agreeing to the terms of the WHO Global Code, Ireland carried out an active recruitment campaign to recruit 230 junior doctors from India and Pakistan in 2011 [130]. These countries are not normally considered as experiencing severe shortages of doctors [76]. However, it cannot be assumed that

there are no effects of such active recruitment campaigns on the source countries' health system. Consequences of doctor migration are discussed further below in the next section.

2.9 The consequences of doctor migration

Ultimately the destination country is seen to be the 'winner' in doctor migration as they benefit through a rapid increase in staff [131]. Source countries tend to be portrayed to be the 'loser'. It is evident that loss of personnel through doctor migration is constraining the ability of fragile health systems in LMICs to function properly [12]. In addition to directly affecting provision of health services, other financial and non-financial losses have been noted [28]. In order to explore the positive and negative consequences of doctor migration, perspectives from the individual, source and destination country need to be reviewed.

2.9.1 The consequences of doctor migration for the individual

Doctors migrate in order to overcome push factors within their countries so that they can improve their livelihoods and lifestyle [10]. Hagopian et al. (2005) describe it as searching for 'greener pastures' [19]. Migration offers an opportunity for doctors to earn higher income and learn new skills [94]. To this end, positive consequences of migration for the doctor usually focus around better working conditions, better pay, better training and more opportunities for their children [20, 132]. The resourcefulness of doctors to improve their situation is illustrated in Rogerson's study (2007) '*They (doctors) will always find other places to carve out a future if they are not happy*' [9].

Despite the positive consequences of migration for doctors, there are also negative consequences. Many relate to expectations of the destination country not being fulfilled. This is particularly the case for non-EU doctors who have migrated to Ireland for postgraduate training and found that there are limited opportunities afforded to them [133]. Racism is widely reported in the UK, with foreign-trained doctors reporting that they are looked down on and do not receive equal treatment [134]. Lack of skill recognition was also found to be major source of frustration: '*I probably performed between 100-200 C-sections over 15 years and they did not grant me C-section privileges....you come with skills and they basically just say that because you haven't worked within an academic centre you are not granted these privileges*' [135]. Finally, despite receiving larger salaries, doctors reported that the cost of living in destination countries is extremely high [136].

2.9.2 The consequences of doctor migration to the source country

Haour-Knipe & Davies (2008) state that global labour market forces are driving out-migration and further report that many African and Asian countries are '*unwilling exporters*' of doctors [14].

Source countries often have low doctor to population ratios [1, 10, 12, 13, 80]. This means that the loss of one doctor will have greater impact on the source country than the gaining of one doctor will have on the destination country [95].

The negative consequences of migration on the source country are loss of investment (through educational costs and potential taxed income) as well as the impact on health systems due to the reduced workforce. In Kenya, the financial loss of an emigrating health worker to the country was calculated to be USD 517,931 for a doctor and USD 338,868 for a nurse [28]. Medical education in West Africa is estimated to cost between USD 2,000 and USD 10,000 per year, per student and this figure does not include the student's personal costs [19]. Non-financial losses include loss of mentors for trainees, impaired referral systems and loss of role models [28].

There are benefits of migration to the source country. These, however, are often documented as minimal, and losses more likely to be highlighted. Billions of dollars are generated each year in remittances. In Egypt, remittances have been a major source of foreign currency and by the early 1990s represented 5-11% of the GDP [89]. Money sent home by migrants may be spent on housing and family maintenance but in time investments result in increased social mobility, for instance education [14]. Returning migrants can use their skills to develop businesses – for instance, a returning doctor set up India's first corporate hospital chain [137]. It is, however, argued that remittances may not boost the economy if the costs of lost personnel and skill are greater [95].

Some countries overproduce health workers for the purpose of export and it is claimed that there are significant returns to this strategy. Filipino nurses working overseas report the benefits of being able to send money home to their families, engage in further studies and travel [138]. Due to the trade embargo, Cuba turned to trading in healthcare professionals and services in order to earn US dollars. Currently over 20,000 Cuban doctors are working overseas, many of whom are in Venezuela, but they also work in Africa [81].

This strategy is not however without drawbacks - Filipino nurses report that they would not return to work within the Philippines due to poor working conditions [138], therefore their skills have essentially been 'lost' to the source country. In Zimbabwe, national doctors are de-motivated by their government's decision to use Cuban trained doctors to meet labour shortages

rather than invest in developing domestic supply. Furthermore, it was felt that the economy will suffer as a result of transfer of domestic currency into US dollars to pay the Cuban doctors [95]

2.9.3 The consequences of doctor migration for the destination country

In the UK each qualifying doctor costs £200,000–£250,000 and 5–6 years to train, so in economic terms, every doctor arriving in the country is appropriating human capital at zero cost to the UK health services [56]. Doctor migration therefore benefits the destination country by filling vacant posts [122]. International recruitment of doctors has been described as a 'quick fix' to solving staff shortages in countries [14]. Additionally, foreign-trained doctors have been found to work more unsociable hours, with twice as many working night shifts compared to native doctors [58].

Employment of migrant doctors is however, not without challenges. Managers involved in recruitment of foreign-trained doctors have reported differences in clinical and technical skills, language and racism in the workplace as well as a negative reaction from patients [139].

Table 6: The main consequences of doctor migration for source and destination countries and the individual migrant

	Source country	Destination country	Individual
Advantages	• Generation of remittances • Ability to acquire new skills and qualifications	• Rapid increase in staff numbers • Cheaper than training new doctors	• Financial gains (higher remuneration) • Access to training • Career advancement • Improved work environment • Improved living conditions • Better education for children • Work opportunities for spouse
Disadvantages	• Exacerbates workforce shortages • Financial loss through educational costs and potential taxed income • Rural areas are worse affected • Low morale of staff who remain • Loss of mentors/role models for trainees	• Differences in clinical abilities • Reliance on overseas workers reduces investment into training • Differences in language • Racism in the workplace/ negative patient reaction	• Disruption of family life (separation from relatives) • Language difficulties • Cultural differences • Travel & setting up expenses • Negative reaction from colleagues • Loss of professional status • Higher cost of living in destination country

2.10 Policy Responses to international doctor migration

Mejía (1978) recognised that measures to foster migration are more effective than measures to curb it [10]. It is not possible to ban doctors from migrating as freedom of movement is a human right [3]. This issue of human results is crucial when policy responses are being developed for international doctor migration [12]. On the one hand, health workers should be able to leave their country and seek a better life and on the other hand, the populations in the source countries have a right to access to health care [79]. Indeed, other professionals can migrate freely and it could be less people would enter the health workforce if they knew that their qualification prohibited them from migration.

Many policy analysts focus not on whether skilled migration is good or bad, but rather note its integral role within globalization and the conditions needed to benefit both the source and the destination countries [36]. To this end, international and national policy makers have tried to focus on ways to manage doctor migration so as to alleviate the negative impact to the source country [79].

Doctor migration can be managed in different ways. As already noted some countries, such as the Philippines and Cuba, intentionally train excess numbers of doctors, in order to export them to other countries [61]. It could be argued that in these countries people embark on their medical training with the purpose of emigrating [140], however a study found that only a minority of doctors in India (a known exporter of doctors) consider emigration when starting their career [73]. Section 2.10 will review some of the lessons learnt from these policy responses used to manage migration.

There are several concepts that need to be looked at when exploring issues around migration, particularly the challenges around motivation and retention of doctors. These issues need to be understood in both source and destination countries. For instance, if issues around motivation and retention were to be addressed in high-income countries it might reduce their dependency on recruiting doctors from LMICs [62].

Highly-skilled workers are disproportionately more likely to leave LMICs [97]. Some policies responses that have been identified [36] in response to the emigration of highly-skilled workers are as follows:

- Return of migrants to their source country
- Restriction of international mobility
- Recruitment of international migrants
- Compensation for loss of human capital

- Retention through education policies
- Retention through economic development

Return of migrants to their own country, or encouragement of 'return migration' comes under the umbrella of temporary migration and so will be discussed in detail in section 3.3.

Some of the policies above have been used in response to the emigration of doctors. For instance, there has been a renewed increase in using mid-level cadres in Africa due in part to the reduced training time and also because their qualifications are not internationally recognised it means they are less likely to migrate [141].

It has been suggested that high-income countries compensate source countries for the loss that they incur when doctors migrate. What is adequate compensation is difficult to calculate and it is suggested that it reflect training costs, lost tax revenue, increased mortality and morbidity in the population aggravated by staff shortages and the recruitment of expatriate staff to fill vacant posts [118].

In terms of education policies, early responses to the shortages of doctors in LMICs focused mainly on issues of training capacity, but this does not address retention. It has become increasingly clear that this is a more important issue, along with use of incentives and motivation of those who remain [142]. Financial and non-financial incentives are important to attract, retain and motivate health workers and thereby reducing the 'push factors' [51]. Furthermore, it is has been documented that high levels of morale improves retention of health workers [118].

Martineau et al. (2002) argue that source countries need to improve their retention strategies and until this happens, the attraction strategies of destination countries will continue to draw doctors [7]. Whilst it is acknowledged that retention strategies could be improved, particularly through better implementation and management [143] one strategy in particular has been accredited with success. The Global Health Workforce Alliance (GHWA) attributes Malawi's six-year Emergency Human Resources Programme (EHRP) with a decrease in nurse migration to the UK [144].

Policy innovations to foster international cooperation to ethically manage the demand for doctors globally are now being heralded as the way forward [54]. Due to the diverse nature of these bilateral, regional and global policies, some examples of international agreements are outlined below.

2.10.1 International agreements

Codes of Practice and Memorandums of Understanding (MOUs) have been developed in order to achieve three main aims: maintaining migrant workers' rights, supporting their effectiveness in the workplace and protection against aggressive international recruitment within source countries [145]. Both Codes of Practice and MOUs have been developed throughout the world and promise mutual gain through migration [54].

MOUs are bilateral, often referring to specific groups of health workers which means they tend to be more specific than Codes of Practice [145]. The National Health Service (NHS) in the UK is a world leader in developing Codes of Practice for recruitment of health workers [79]. The Code prohibited active recruitment of health workers from LMICs [79]. This was not mandatory and schemes such as the International Fellowship, whereby highly qualified doctors were offered two year consultant salaries, plus up to £62,000 to assist with relocation and housing in essence contravened this Code of Practice. In addition, the Code only covered public sector posts, so staff hired to work in the private sector were then able to leave their posts and work within the NHS [146]. The NHS Code was revised in 2004 in order to include recruitment agencies and private sector providers [145].

In 2003 South Africa and the UK signed an MOU in order to create opportunities for health workers from one country to spend time, either in education or in practice, in the other country [54]. The South African Minister of Health reported in 2005 that the MOU had been successful in managing health worker migration [12], however the evidence to substantiate this claim is extremely limited.

The Commonwealth Code of Practice for the International Recruitment of Health Workers sought to support the rights of health workers to migrate, whilst applying the principles of transparency, fairness and mutuality of benefits and working improve workforce planning within destination countries [147].

The EU Green Paper on Health Workforce (2008) saw a commitment to the work being carried out by the WHO on the ethical recruitment of health workers [54]. This commitment was then expanded outside the EU, with all WHO member states adopting the Global Code of Practice on the International Recruitment of Health Personnel at the 63rd World Health Assembly [53]. In addition to the discouragement of active recruitment from countries experiencing shortages, the Code encourages Member States to 'train and retain' a sustainable workforce, as well as provide statistics on migration [148].

Figure 3: Emergence of international agreements to address health worker migration

Developed from [54]

Bilateral agreements have been hailed as an innovative way of countries being able to manage doctor migration [54], Connell and Buchan (2011) hold a more nuanced approach noting that there are no incentives for countries to adhere to Codes [145]. Like all Codes, the WHO Global Code is voluntary and cannot instantly redress health worker issues; however it is hoped that it will provide a framework for developing policies to strengthen health systems worldwide.

Whilst these agreements focus mainly on addressing permanent migration and not specifically temporary migration, it is useful to reflect on the international discussions on management of doctor migration. A further international agreement, which does focus on temporary movement, though is not specific to health care, is the General Agreement on Trade in Services (GATS). Due to attention that this has received regarding temporary doctor migration [45, 96, 126] it is discussed in detail below in section 2.10.1.1.

2.10.1.1 The General Agreement on Trade in Services (GATS) and health services

The principles of the World Trade Organisation (WTO) are that trade should be without discrimination, without barriers, more competitive and more beneficial for less developed countries [149]. The General Agreement on Trade in Services (GATS) was developed in order to provide legally enforcing conditions for trade in internally traded services (e.g. banking, telecommunications and tourism) and all members of the WTO have ratified the Agreement [150]. One of the expectations of GATS was that it would be the first step towards labour market

liberalization, i.e. that professionals and semi-skilled workers from developing countries could access employment opportunities in industrialised nations [29].

The GATS extends the traditional concept of cross-border trade by distinguishing four modes of supply [150]. How these apply to health services is outlined below [149]:

- Cross-border supply (Mode 1): Services supplied from one country to another (e.g. telemedicine)
- Consumption abroad (Mode 2): Consumers making use of a service in another country (e.g. health service delivery to foreign nationals)
- Commercial presence (Mode 3): Foreign company setting up subsidiaries or branches to provide services in another country (e.g. private hospitals and clinics, private health insurance companies)
- Presence of natural persons (Mode 4): Individuals travelling from their own country to supply services in another (e.g. migrant doctors)

The GATS is viewed negatively where health systems are concerned [96]. Rather than see it as an opportunity for reform that could improve efficiency, less than 40% of WTO members have undertaken some form of commitment on health in comparison to 90% of members for tourism services [150].

Table 7 shows the positive effects and the limitations that increased trade could have. Potential benefits are that the increased foreign investment may help to create employment opportunities and deter people from moving abroad, thereby reducing the brain drain [150]. Additionally, there could be improved exchanges in clinical knowledge and improved standards of care through promotion of international certification procedures for providers and facilities [151].

There are also limitations that an increase in trade in health services could bring. It is possible that benefits are only reaped by selected organisations and certain health personnel, leaving the economically poor disadvantaged [150]. The greatest concern however, is that it is not known how the GATS will affect the international migration of health personnel [29, 96] and Sanders & Lloyd (2005) argue that GATS *'facilitates the erosion of restrictions placed on immigration, entry visas, works permits'* and will thereby aggravate the medical brain drain [96].

Table 7 **Limitations and benefits that could be brought around through trade in health services**

Mode	Limitations	The benefits that could be brought from trade health services
Mode 1: Cross-border supply	Due to the technology needed 'telemedicine' may not yet be feasible in all countries	Improved exchanges in clinical knowledge
Mode 2: Consumption abroad	Non-portability of insurance entitlements may restrict people going abroad to access health services	Foreigners coming for treatment could be charged special taxes or charges. These proceeds could be used to enhance the domestic services
Mode 3: Commercial presence	Countries are reserving right to restrict incorporation of foreign companies so as to protect of domestic ones	Increased foreign investment and creation domestic employment opportunities
Mode 4: Movement of people	Non-recognition of foreign qualifications and ceilings on numbers of foreign workers.	Increased remittances, skill acquisition and transfer of knowledge

Adapted from [150, 152]

Despite the modest role of GATS Mode 4 to date, many organisations aim for it to remain at the top of the agenda. The Global Commission on International Migration (GCIM) for instance has called for increased dialogue between experts dealing with international trade and international migration [29]. More specifically to healthcare the WHO has established closer ties with the WTO in order to ensure that public health remains present on the trade agenda [151].

2.11 Summary of the literature review

Push and pull factors create a desire to migrate. Different types of migration have been identified and each has different implications for policy. Mobility is a basic human right, however, it clear that LMICs are worse affected by migration and this has led to the need to develop policies to mitigate these negative effects.

As outlined in the sections above, promotion of return and circular migration are one of the strategies that have been suggested could manage migration. The review of migration terminology found that these are both a type of temporary migration. Temporary migration forms the focus of this thesis, so the next Chapter will be dedicated to reviewing in more detail

the current understanding and key concepts of temporary migration. It is important to understand what makes a migrant temporary and what makes a migrant permanent when they are faced with the same context (i.e. push and pull factors). It is assumed that the decision making process of temporary and permanent migrants differs. This information is important for the derivation of the conceptual framework.

The next Chapter focuses on the dynamics of temporary migration in more detail and in particular examines whether migration type is dependent on personal motivations and goals. It has been highlighted that there is limited information about temporary doctor migration; therefore the experiences of other unskilled and skilled temporary migrants will be drawn upon in order to aid understanding of the phenomenon.

3 *Temporary migration*

3.1 Introduction

'People migrate in order to improve their lives. Emigrants want to improve their lives abroad when they think they cannot achieve this by staying at home.....workers however, by temporarily working abroad and saving money there, intend to improve their lives at home' [93].

This Chapter looks specifically at temporary migration and strategies that have been used to facilitate it. Temporary migration is not a new phenomenon. A study carried out in 1973 demonstrated the importance of circular migration within Indonesia [40]. Temporary migration has become progressively more visible in destination countries, for instance by 2004 there were over 15% more temporary migrants in Australia than permanent migrants [32]. The OECD Annual Report for 2004 states that there has been an increase in temporary migration despite the fluctuating economic climate [52].

Temporary migration has been promoted as a strategy that could be used to mitigate the negative effects of the brain drain [95]. High rates of return migration after temporary stays abroad may be the best of all in order to achieve 'optimal brain drain' [33]. Indeed, Winters (2002) estimates that *'an increase in developed countries' quotas on the inward movements of both skilled and unskilled temporary workers equivalent to 3% of their workforces would generate an estimated increase in world welfare of US$150 billion per annum'* [153]. In addition, policy makers consider temporary migration a more attractive option as it permits a greater flexibility in the labour market and is perceived to be less 'threatening' than permanent migration [154].

As discussed in section 2.4, there are many types of temporary migration and terms are often used interchangeably in the literature. Although migration patterns are fluid and one type of migration can become another, there needs to be a clear distinction of what type of temporary migration is being facilitated when developing policy responses. Strategies for return migration need to focus on incentives to encourage people back. Whereas strategies for circular migration need to focus on facilitating ease of movement on a repeated basis and this distinct feature often earns it the terms 'shuttle migration' or 'commuter migration' [14].

There are also cases of permanent migrants who return to their home country on a temporary basis (a study of Silicon Valley found that many Chinese and Indian immigrants regularly return to their native countries for business purposes) [155]. However, for this thesis the focus is on those who migrate temporarily from their native (i.e. the source) country. Such migrants are

defined as: '*workers under a temporary labour scheme or who by their own volition, stay temporarily*' [33].

This Chapter will firstly look at the features of temporary migration. It will then look at strategies, such as return migration and temporary migration programs that are being used to manage temporary migration. Most of the temporary migration programs documented in the literature relate to management of unskilled labour. These will be reviewed in order to understand under what circumstances they have been successful and how they could be relevant for facilitating temporary doctor migration. Although doctor migration relates to skilled rather than unskilled migration, it has been found that there are clear parallels between skilled and unskilled migration [134].

Finally, this Chapter will explore whether temporary migration is a prelude to permanent migration. Hugo (2003) argues that due to modern transport and communication migrants are able to earn in a high-income country and then return to their low cost origins [91]. However, a major criticism of past initiatives to facilitate temporary migration is that migrants settle in the destination country, thereby becoming permanent migrants [33, 156]. In fact, the literature suggests that those stay in the destination country for more than four years are more likely to become permanent migrants [119, 157]. It will therefore be important to examine the literature further to determine how much of a spill over there is from temporary to permanent migration.

3.2 Features of temporary migration

Venturini (2008) states that an important feature of temporary migration is that workers must be able to obtain a leave of absence from their employment within their home country and that their job must be guaranteed on return [158].

It has been suggested that temporary migration could be promoted first as a working holiday and second as a study tour where migrants gain new skills for use in their home country [95]. While temporary migration may be a good opportunity to learn skills abroad, Wickramasekara (2011) argues that skills acquired abroad may not be relevant to local labour conditions [90]. Also, despite skill acquisition in the destination country being a feature of Dustmann's (2000) model for both contract and return migration [39] it has been found that the main motivation for circular migration is to enhance income, and not skill development [40].

It appears that temporary migration is only likely to continue until such time that the migrant has achieved, or obtained whatever it was they wanted. Indeed, Agunias & Newland (2007) outline three conditions that are needed if temporary migration is going to be beneficial for development.

These are: i) socio-economic conditions in the source country have improved or are strongly expected to, ii) the return is voluntary and iii) the returnees have gained skills and savings whilst abroad [32].

A study of Caribbean nurses working in the United States and Canada found that once economic commitments had been met and savings put aside, nurses would no longer work for repeated periods of time overseas. Instead, they would return to work in the Caribbean, often for a lower wage [159]. This illustration emphasises the concept raised in section 2.4.3 that temporary migration is a result of 'optimising behaviour'.

Table 8 outlines the main advantages and disadvantages for temporary doctor migration for source and destination countries. These have been identified from the literature. In comparison to Table 6, (found on page 37) which outlines the advantages and disadvantages for general migration, Table 8 shows that there are more advantages than disadvantages associated with temporary migration. Indeed, for some the advantages of temporary migration are so great that it has become their permanent way of life and migrants have developed 'transnational lifestyles' [14]. The main disadvantages of temporary migration are similar to that of permanent migration and relate to how temporary workers are treated in the workplace and whether their skills set matches the work that they are doing in the destination country.

Table 8: Summary of the main advantages and disadvantages of temporary doctor migration for source and destination countries and for the individual migrant

	Source Country	Destination Country	Individual
Advantages	• Alleviate the adverse effects of the brain drain • Shortages cannot be solved merely by restricting migration • Permanent migrants have less incentive to remit, whereas temporary migrants take earnings home with them • Provides an opportunity to acquire new skills and transfer these to others on return	• Rapid increase in staff numbers • Cheaper than training new doctors • Can assist with the selection and screening of migrants • More willing to accept higher numbers of migrants if they knew it was temporary • Less 'threatening' than permanent migration	• Financial gains (higher remuneration) • Access to training • Career advancement
Disadvantages	• Conditions associated with temporary migration can include lack of basic labour rights	• Differences in clinical abilities • Reliance on overseas workers reduces investment into training • Differences in language • Racism in the workplace • Negative patient reaction • Increased competition for labour	• Disruption of family life • Language & cultural difficulties • Travel & setting up expenses • Negative reaction from colleagues • Loss of professional status • Mobility could be restricted • No provision to become a permanent migrant

Dustmann's (2000) economic assimilation model for return migration shows that '*return time is determined by equalizing the benefits*[12] *of remaining a further unit of time abroad and the costs*[13]' [39]. This means that the benefits of the migration have to outweigh the costs and when the benefits decrease in value, the costs increase and therefore the migrant returns home. Defining what costs and benefits are likely to be dependent on the individual, this needs to be explored further.

Temporary migration has been suggested as a policy measure that developed countries could implement in order to facilitate international movement, and yet encourage economic growth in developing countries [36]. Economic models, such as the Global Migration Model have illustrated the economic gains that can be made through migration of skilled and unskilled labour [160], however the policy tools to manage this process are less well documented. Wickramasekara (2011) argues that temporary migration is only appropriate for middle income countries and provides the illustration of Mauritius and India, both of whom are willing to enter into short-term partnerships to facilitate temporary movement [90]. Strategies to manage temporary migration include promotion of return migration and temporary migration programmes, both of which will be explored in more detail in section 3.3 and 3.4 below.

3.3 Return migration

As seen in section 2.4.1 return migration is a type of temporary migration and it is a distinct category as it is defined by time (return is defined by the IOM as after having spent at least a year in another country [38]). Interestingly, returnees seem to be divided into those who come back happy, having met their goals and those who have had more negative experiences [14].

Facilitation of return migration tends to be through the use of incentives and this can lead to resentment amongst those who had not migrated in first place (i.e. they had stayed behind) [125]. Incentives may not be the only draw to return home, Haour-Knipe & Davies (2008) note that there has to be an impetus to return through improved lessening of push factors in the source country that instigated migration in the first place [14].

Until recently most of the literature has focussed on return migration of unskilled labour [89, 161]. The literature on highly skilled temporary movement is starting to accumulate, but information specific to return of health workers is limited [14] and the bulk of information

[12] Benefits are defined as the difference in wealth accumulation when residing at home or abroad, i.e. relate to wage differentials

[13] Costs are defined as the differences in services obtained from consuming in source or destination country, i.e. relate to consumer costs

focuses on a few countries in East and South Asia [33]. To this end, examples of return migration of other professions (both skilled and unskilled) will be discussed below.

Returning migrants have the potential to facilitate the transfer critical financial and human capital that the developing world needs and several studies have highlighted that returnees are key actors in development [33]. In the case of Egypt, where 20% of the labour force have worked overseas, returnees create on average 1.5 more jobs per establishment compared to those who have not migrated [89]. Several studies have indicated that overseas savings have a positive significance on both the probability of investing in a project or choosing self-employment on return [89, 161, 162].

Decision to return home involves a mixture of professional and personal motivations in both the source and destination country [14]. In particular there is a notion that some migrants are not particularly attracted to the lifestyle in the destination country and so eventually they are drawn back to their own country [163].

Agunias and Newland (2007) note that in general, migrants intend to return to their home countries [32]. A study of skilled professionals from South Africa suggests that a large proportion, perhaps half, of educated emigrant outflow will ultimately return [36]. However, it is important to know who is returning and what they will do when they get home. The same study notes that the least qualified migrants return to Bulgaria and contribute little; furthermore large numbers of returnees to Jamaica come back only to retire [36].

Martin (2003) highlights the importance of Diaspora[14] networks in facilitating return migration [164]. For instance, The South African Network of Skills Abroad (SANSA) currently has at least 22,000 graduates from five major South African universities who reside abroad. The aim of the network is to share knowledge and resources as well as to transfer technology back to South Africa [165]. The Migration for Development in Africa initiative has facilitated the transfer of Diaspora skills and knowledge through temporary return of health workers to Ghana [14]. Whilst it seems that returnees are making a valuable contribution to the development of Ghana, it could be argued that they are only returning temporarily and therefore still represent a 'loss' to the country.

The examples illustrated above highlight the transfer of skills, or 'human capital transfer'. However, the evidence is not all positive [33]. There are examples (e.g. Turkish guest workers returning from Germany and recent research from Thailand) which indicate that no, or limited

[14] 'Diaspora' literally means 'the dispersion or spread of any people from their original homeland' and refers to organisations/networks of migrants that develop within a country.

skills are acquired. Furthermore, it is often the case that temporary migrants are not entitled to social benefits. This means there is a strong incentive to work in the informal sector of the economy where wages are not subject to such deductions [29].

The UK House of Commons International Development Committee report 'Migration and Development How to Make Migration Work for Poverty Reduction' rationalises this by staying that:

'We may have to accept that temporary migrants prioritise earning as much money as possible before going home, rather than being keen to invest their time in learning new skills. And as far as the host country and its employers are concerned, the priority is always likely to be using migrants' labour rather than providing migrants with transferable skills' [166].

There is some documentation about return migration of doctors. Aly & Tai (2008) found that Pakistani doctors who migrate to the USA for postgraduate training often return home and *'prove to be leaders in their area of expertise and help to build better functioning health care systems'* [167]. In addition, it has been found that returnees promote an environment conducive to research and repatriated graduates from the Aga Khan University, Karachi have won grants from major international agencies [167]. This contributes to development within the country. Ganguly's study (2003) of Indian doctors (cited in [14]) also found that on return, doctors use their savings and skills in order to establish hospitals that provide affordable treatment.

3.4 Facilitation of circular migration

The re-introduction, or expansion, of temporary migration programs is an emerging trend for encouraging circular migration [33]. These have been criticised in the past for being both unfeasible and leading to the non-return and settlement of many guest workers [41]. It was reported in 2004 that every year 100,000 "temporary" guest workers get permanent residency (green cards) in the USA [168]. The two most common policy measures to encourage circular migration are incentives and strict measures to prevent overstaying [32].

3.4.1 Temporary Migration Programs

'States and the private sector should consider the option of introducing carefully designed temporary migration programmes as a means of addressing the economic needs of both countries of origin and destination' [29].

There are several terms used to describe programs which manage temporary labour migration. These include: 'temporary migration programs', 'guest worker programs' [93], and 'temporary foreign worker program' [41]. The term 'guest worker' is the generic term for migrants who have no right to settle permanently [8]. For this thesis, programs which manage the temporary movement of workers will be referred to as temporary migration programs (TMPs) as this is the term most commonly used in recent literature [8, 42, 43].

There has been a call to strengthen TMPs as an avenue to encourage circularity [169]. The GCIM has called for a focus on designing effective TMPs and advocates that they should not be dismissed because of previous difficulties with implementation [29]. TMPs have previously been in response to labour needs in a destination country [166]. It is argued that if TMPs were tailored to serve development needs they would be more beneficial to both the source and destination countries [33].

TMPs are usually bound to time-limited, non-renewable contracts, with limited or non-existent pathways to permanent status [32]. Most programs relate to unskilled labour [94, 154, 170]. Recent TMPs include the temporary Green Card status in Germany, the EU Blue Card [93] and the Canadian Seasonal Agricultural Workers Program (SAWP). The SAWP is portrayed as the 'best practice' model for managing temporary migration [154]. Its key features will therefore be described in section 3.5.1.

The role of TMPs for highly-skilled labour is a continued source of debate [8, 169]. In particular there are suggestions that restrictions of stay and employment associated with unskilled TMPs may not be suitable for recruiting highly-skilled workers [42].

In order to understand what can be done to make TMPs work there is a need to examine the evidence to learn what previous difficulties there have been with implementation. To this end, the remainder of this Chapter will review and evaluate TMPs, both historic and present day, in order to determine under what circumstances they work, or don't work, and what can be learnt from them. In particular, this Chapter seeks to explore whether TMPs could be used in the present discussions about managing doctor migration.

3.4.2 Features of Temporary Migration Programs (TMP)

The key feature of a TMP is that *'residence and employment on the basis of a temporary work permit alone does not create an entitlement to stay permanently in the host country'* [42]. The term 'temporary' or 'guest' worker therefore emphasises the *'rotation principle at the heart of such programs'* [156], namely that migrants should work for a short period of time and then return to their country of origin.

The GCIM have strongly endorsed TMPs, but note the danger that they could create a 'second-class category of workers' [29]. The benefits of TMPs include a steady supply of workers for the destination countries and inflow of investments and skills for the source countries [33].

Ruhs (2005) outlines the ways in which TMPs can vary [42], namely through:

a) The process by which migrants are admitted, in particular whether there are bilateral agreements with the source country.
b) The policies for selecting migrants with regard to skill level and sector of employment.
c) The employment conditions within the destination country and the rights of the migrant.
d) The primary policy objectives of the program, for instance whether it is to alleviate labour shortage, reduce illegal immigration or to promote cultural ties.

3.4.3 Unskilled Vs Skilled labour

TMPs have tended to focus on unskilled labour, particularly for seasonal workers [154], however, such programs could exist for skilled labour. Martin (2003) reports that most countries have temporary worker programs for high and low skilled workers, including health care workers [156], however, there is no clear evidence of temporary worker programs being used in practice for skilled labour.

Agunias (2006) argues that skilled migrants in temporary schemes are less likely to return home once their contracts are finished and the destination countries are less like to encourage them to go back [33]. Ruhs (2005) also argues that TMPs may not be suitable for recruiting highly skilled workers and that permanent residence needs to be offered for the effective recruitment of skilled workers [42]. It is possible however, that one way to ensure that the stay is temporary is to have shorter stays. It is suggested that most skilled migrants receive the maximum benefit from their work experience, new skills acquisition and career development in the first few months, not years, of a foreign work placement [36].

3.4.4 A review of past and current TMPs

Table 9 below reviews past and current TMPs in order to identify the positive and negative aspects for the source country/worker and for the destination country.

As seen in Table 9 the positive aspects of TMPs are that they provide extra income for the workers/source country and provide essential labour within the destination country. Negative aspects for the source country/workers include lack of integration within the destination country and lack of social benefits. In particular, for the Swiss guest worker program many migrants did not have adequate unemployment insurance and so had to leave the country when made redundant [171]. The main negative aspect of TMPs for the destination country was overstaying of migrants. In some cases there were reduced employment opportunities for native workers and increased racial tensions.

Table 9: A review of current and past Temporary Migration Programs

Program and its key features	When	Positive aspects		Negative aspects	
		Source country	**Destination country**	**Source country**	**Destination country**
Bracero Program [93] Mexican agricultural workers to the US	1942-1964	Money earned was important source of foreign income.	4.5 million workers were legally contracted to work on US farms.	None detailed	Increased illegal immigration. Wages were reduced and there was reduced employment of US farm labourers.
German Guest worker (*Gastarbeiter*) **program** [93, 166] Labourers (all sectors) from Mediterranean countries, especially Turkey and other Baltic countries.	1955-1973	Source country thought that guest workers would act as agents for development and modernization when they returned. Workers were able to earn more money and improve their lives at home.	Provision of cheap labour. Employers were able to give guest workers short contracts which they were not obligate to renew.	Millions of workers did not return and their families moved to them, thereby increasing the flow of emigration. Less than 10% of workers received any training.	In many cases employers opted for cheap labour over investment in new and technologically advanced machinery. Lack of integration of guest workers, which created ethnic tensions.
Moldovia-Slovenia temp labour scheme [172] 'Blue collar workers' work for 6 months in Slovenia	1990s	Workers were paid at Slovene rates (five times normal amount). They also acquired industrial/technical skills.	Some workers went back to Slovenia on several occasions.	No negative consequences were documented. The scheme was said to be successful for all involved	

Swiss guest worker program [171] Semi-skilled workers were entitled to stay for one year.	Post WWII-present day	Increased wages for workers.	Switzerland is very dependent on foreign labour to fill shortages.	No social benefits for guest workers. Swiss increased the residency period that was required for obtaining a permanent residence permit.	Increased asylum seeker applications. Increased tensions with regard to integration.
Canadian SAWP [154] Mexican agricultural labourers work in Canada on a seasonal basis	1966-present day	Workers earn extra income.	Canada has a stable numbers of workers for seasonal work. Guest workers expand local employment opportunities through supply and processing sectors.	Mobility of guest workers is restricted. Employers have control over current and future contracts. Those who assert their rights may be deported or blacklisted. Social and psychological costs (loneliness) have been reported. No provision to settle permanently	None detailed.

3.5 Emerging issues from TMPs

'There is nothing more permanent than temporary workers' [156]

Past programs are said to have 'failed' in a sense that they caused intended effects such as permanent and illegal migration, as was the case for the Bracero Program [93]. The unexpected effects of the Bracero Program have had long lasting effects [156]. Recent debates, some forty years after the program was abolished, still include references which document the history and abuse of the program [173]. The premise of TMPs was that migrants would leave when contracts were terminated and indeed many did, but many also stayed [43].

Martin (2003) attributes failures to two phenomena: distortion and dependence. Distortion refers to the assumption made by employers that there is a permanent influx of migrant workers and dependence refers to migrant workers becoming reliant on foreign jobs and wages [156]. It is argued that migrant workers do not necessarily have a long-term desire to settle in host countries, but that highly restrictive policies and barriers to entry push them into settlement [91]. Indeed, the Canadian SAWP has a negligible overstay rate [154].

Successful programs are likely to be associated with minimal illegal migration, economic mechanisms that align migrant and employer incentives and a path to legal status for migrants who have developed roots [156]. If temporary migrants were able to access such benefits in their country of origin, they would be well placed to return home and enjoy a decent standard of living [29].

A report by the GCIM suggests that it would be beneficial to draw on the experiences of the Philippines as they provide large numbers of temporary migrants to the global labour market [29]. However, Agunias (2008) shows that the Philippines' model for managing migration has imperfections, particularly with regard to ensuring welfare of migrants [174]. Furthermore, a study conducted by Humphries et al. (2008) found that although Filipino nurses send remittances back home (i.e. a positive consequence of migration) none of them had any intention of returning to the Philippines to work [175]. This suggests that no scheme to manage migration is infallible. However, lessons learnt from past programs could be developed into a framework for 'best practice', which could provide guidance for developing policies and legislation.

In fact, despite the unpredicted social impacts brought about by previous TMPs, European employers and governments are reconsidering temporary labour migration [43]. It has been suggested that the negative consequences of TMP could be avoided through appropriate program design and strong enforcement of worker rights [29]. Ruhs (2005) maps out the measures that would be needed in order for TMPs to be beneficial for all the actors involved [42]. Based on

these recommendations the Global Commission on International Migration (GCIM) recommends that:

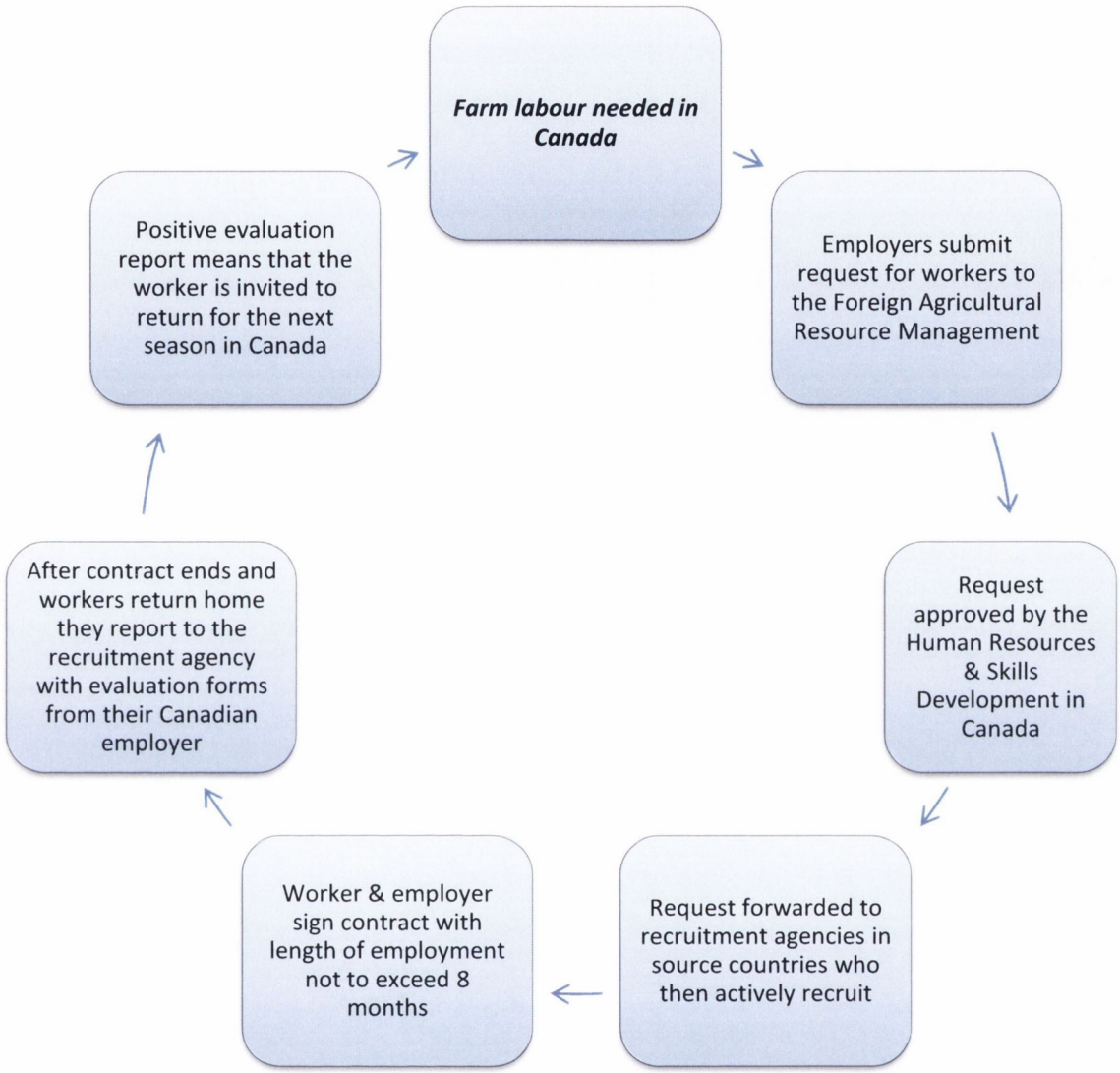
> '*States and the private sectors should consider the option of introducing carefully designed temporary migration programs as a means of addressing the economic needs of both countries of origin and destination*' [29].

3.5.1 The Canadian Seasonal Agricultural Workers Program (SAWP)

The Canadian Seasonal Agricultural Workers Program (SAWP) deserves to be highlighted. The program began over 40 years ago in response to labour shortages. While there are no statistics available on the economic benefits of the program, it is argued that the program provides stable and predictable levels of workers. By filling farm labour positions, temporary migrants are, at the same time, supporting the creation of jobs in the food processing industry and supply industry, which employs predominantly Canadian workers.

The SAWP is portrayed as *the* 'best practice' model for managing temporary migration [154]. Its success is attributed to the way which the program is implemented and managed. A key strength to the program is the formal structure which ensures that all key players are engaged and that worker's rights are clearly understood, outlined and enforced through Agreements [154]. The key players and the process by which the program operates are outlined in Figure 4.

Figure 4: **The operational process of the Canadian Seasonal Agricultural Workers Program (SAWP)**



3.5.2 Recommendations for effective TMPs

Wickramasekara (2011) argues that there has been little progress overall in developing circular migration programmes with the predicted triple-win results [90]. Meanwhile the intention of the GCIM is to replace the previously exploitative TMPs with a mutually beneficial system of voluntary circularly migration and with this comes responsibilities for both the source and destination countries [29].

There is recognition that there needs to be ways to ensure that temporary migrants do return. Aguinas (2006) made recommendations to achieve this through the use of incentives (or '*carrots*') to return and penalties (or '*sticks*') for remaining [33]. These are outlined in Table 10 below:

Table 10: Proposed 'Carrots' and 'Sticks' to ensure temporary migration

Carrots	Longer contracts	Contracts need to be of sufficient length to generate net financial gains necessary to make the migration worthwhile.
	Financial return incentives	Transfer of worker's pension back to their home country. Preferential interest rates on savings lodged in home countries.
	Options of re-entry	Multiple re-entry visas so that migrants have the confidence to return.
	Quota system	Incentives for source country based on a quota of how many migrants return.
Sticks	Financial security bond	Mandatory purchase of a financial security bond. Should the worker decide to overstay the bond is confiscated by the destination country.
	Mandatory savings schemes	Migrants pay a proportion of their earnings to a fund redeemable only upon return.
	Strict enforcement of the law	Including fines for violations of immigration acts.

Adapted from [33]

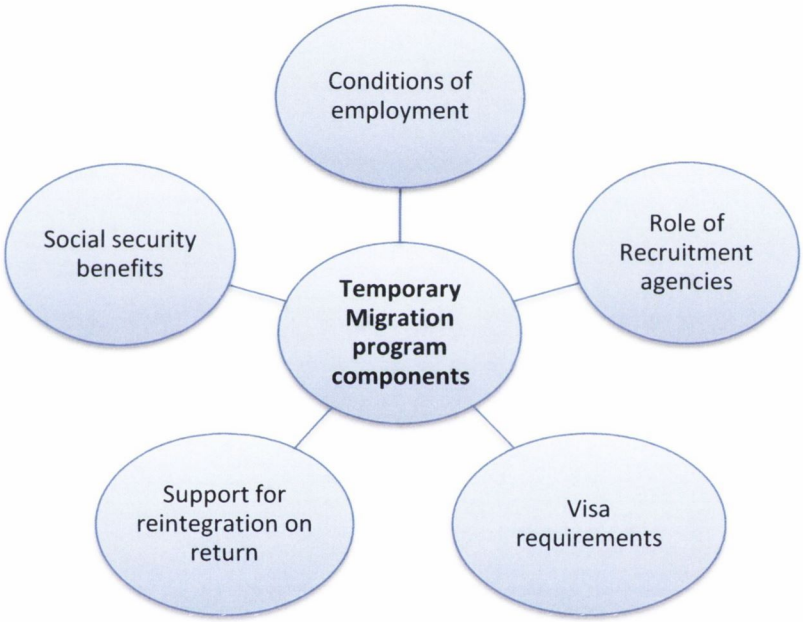
Proposals were made in 2007 for a bilateral agreement between the Caribbean and Canada, which would use a system of carrots and sticks in order to manage nurse migration [45]. However, no information has been found on what constituted the proposed incentives for nurses to return to the Caribbean or the disincentives to overstay in Canada.

The use of carrots and sticks provides a creative solution, however, patterns of repeated and circulatory migration are becoming increasingly common [43]. It could be more effective for

policy makers to encourage this movement, rather focus on formalised TMPs. Recruitment agencies could be instrumental to this process. Their role has been highlighted in facilitating the Canadian SAWP [154] and for managing migration in the Philippines [174].

There are important issues to consider with regards to working conditions, in particular around social security benefits as it is reported that less than 25% of international migrants work in countries with bilateral social security agreements [29]. This situation has a number of negative consequences, with temporary migrant workers unable to benefit from such schemes once they have returned to their home countries [29]. There are several different components that have emerged that are instrumental to TMPs and these are illustrated in Figure 5 below:

Figure 5: Component parts of a successful TMP



Developed from [29]

TMPs should essentially provide channels that allow for migrants to work in other countries on a temporary basis, thereby facilitating movement, which may otherwise have not been possible. Castles (2006) states that *'effectively, there is already free movement for the highly skilled'* [43]. This suggests that there is no need to develop TMPs to facilitate migration of certain professionals, such as accountants, whose qualifications are internationally recognised. However, while doctors are able to move freely, their ability to practice (and therefore work) in countries is regulated by their need to fulfil the registration requirements of the Medical Council in relevant countries [58]. For instance in Ireland, doctors who qualified in non-EU countries have to pass both an English test and pass, or be exempt from, the Pre-Registration Examination System (PRES) before they can register at the Irish Medical Council [176]. Interestingly, the

major barrier for Caribbean nurses hoping to work in Canada and the USA was not work permits, but recognition of their foreign credentials [159].

3.6 Does a TMP exist in a health care setting?

Although not a formalised TMP as such, it has been noted that some Jamaican nurses regularly work in Miami for two weeks per month and then return to work in Jamaica for the rest of the month [45].

Despite Brown's recommendation in 1999 that TMPs be developed for nurses [163], to date there is no clear evidence that a formalised TMP exists for any health worker category [177]. The Commonwealth Secretariat, in collaboration with COMESA[15] commissioned a report into the feasibility of TMP for nurses from Africa to Europe [178]. This report was not made public. However, Record and Mohiddin (2006) do comment on the proposed program. They argued that while some program aspects were valid, others were not. These included non-renewal of work permits and the fact that potential migrants were chosen as part of a government programme, meant that the scheme would be unlikely to succeed [179].

Is it then that there is no scope for a TMP for doctors? Indeed, it seems that the negative connotations of TMPs are hard to escape, with foreign-doctors in the NHS reporting that they are used as 'cheap labour' or 'professional guest-workers' [134].

There could be a potential for well-thought out TMPs to facilitate international doctor migration [42]. The experiences of South African doctors in Ireland presented in this thesis could provide new evidence to this debate. Certainly, temporary migration of nurses [45] and doctors [9, 180] is occurring. Section 3.6.1 below looks at locum work (a form of temporary employment) and explores whether this could be replicated in an international context.

3.6.1 Locum work carried out by doctors

Doctors have the opportunity to do temporary work, through taking locum posts. A locum doctor (or locum tenens) is one '*who stands in for an absent doctor, or temporarily covers a vacancy, in an established post*' [181]. Locum tenens have an important place in healthcare services by providing care whilst doctors are on leave and also introduce locum doctors to new areas of treatment [182].

[15] COMESA stands for the Common Markets for Eastern and Southern Africa

Locum work can be both within country and internationally. Recruitment agencies, such as Global Medical Staffing[16] specialise in assignments overseas for locums. Maniscalco's (2003) review found limited literature on locum tenens other than it is a largely private and highly competitive billion-dollar industry, in which information is not readily shared [182].

Rogerson (2007) identified the dominance of UK based recruitment agencies (e.g. Global Medics) in South African Medical Journals, with advertisements offering 'fantastic opportunities' and 'great rates' [9]. A recruiter interviewed as part of Rogerson's study, suggested that some doctors are suited to the type of temporary work that is afforded to locums.

Motivation to work as a locum doctor seems to differ from that of a permanent employee. A study carried out by McKevitt et al. (1999) identified that there were four main reasons for working as a locum GP. These were: a short-term option while between posts, to gain experience of different practices before commitment to one practice, to balance work and family commitments or to continue part-time work after retirement [183]. The advantages of locum work are that it provides the opportunity to '*meet interesting patients, learn about local culture, see how practices are organised, learn adaptability and broaden clinical skills*' [182]. Furthermore, there is a category of 'career locums' who carry out locum work on a long-term basis, the major attraction of this being the flexibility that this type of employment affords [183].

The University of New Mexico developed a successful locum program in 1993 to provide medical services to rural/underserved communities [184]. Although this model was confined to selected communities, it could be adapted for programs in different national and international contexts.

3.7 Summary of temporary migration and the implications for the conceptual framework

This Chapter has discussed the features of temporary migration. Limited examples were found of temporary doctor migration. Nevertheless, by looking at other skilled and unskilled temporary migration it has been possible to draw out some themes around the conditions under which successful programs might operate.

Temporary migration has been portrayed as a 'win-win' situation. Policy makers have therefore tried to develop strategies to facilitate temporary movement. Facilitation of return and circular migration are the two main strategies that have been proposed for use. Circular migration

[16] http://www.gmedical.com/

suggests repeated short migrations between two countries, which essentially means that the migrant contributes to the workforce in both source and destination country. Return migration focuses on encouraging the migrant back to the source country after they have been away for some time. Although this means that the migrant returns to work in the source country, thereby balancing losses there, it means that they no longer form part of the workforce in the destination country.

Circular migration seems to be the most beneficial for meeting both the labour needs of the source and destination country. Despite the success of the Canadian SAWP at overcoming the negative consequences of previous TMPs, no program has been developed for health workers. This might suggest that such a formalized process may not be feasible, or economically attractive in this instance.

There is a real possibility that temporary migration of doctors could be facilitated through the promotion of locum work in other countries. One of the key features of the Canadian SAWP is the role that recruitment agencies played. It will be important to determine what role, if any, recruitment agencies play in the case study being used in this thesis. Recruitment agencies will therefore clearly need to be represented in the conceptual framework.

Duration of migration seems to be the key. Dustmann's (2000) model [39] shows that the length of migration is determined by equalizing the benefits and the costs. This information provides a vital contribution to the conceptual framework.

The next Chapter will provide the final contribution to the conceptual framework by reviewing the context in the source country (i.e. South Africa) and destination country (i.e. Ireland). The situation in each will be explored in order to understand how the desire to migrate is created.

4 *The South African and Irish Context*

4.1 Introduction

The previous Chapters have reviewed the causes and effects of migration. They have also provided illustrations of where migration occurs. As indicated in section 2.5 the desire to migrate arises through a combination of push factors from the source country and pull factors to the destination country. South African doctors working in Ireland provide the case study for this thesis. Therefore it is necessary to explore issues that contribute to the desire to migrate in both these countries. This contextual information forms the foundation on which the conceptual framework sits.

Ireland, as the destination country in this case study (i.e. migrant doctors are coming here), will generate the pull factors. Language may be one of the major reasons why South African doctors consider migrating to Ireland. In turn, because medical training in South Africa is modelled on that of Europe [135], Ireland may prefer to attract South African trained doctors. As well as pull factors it is important to understand why Ireland has a need to attract foreign-doctors into its workforce.

South Africa, as the source country in this case study (i.e. migrant doctors are coming from here to Ireland) will generate the push factors. It was found that push factors in the 1980s from South Africa related to objection to apartheid [185] and to avoid compulsory military service [135]. Despite attempts at reform the legacy of apartheid is still felt [186]. It is reported that push factors play a much greater role in the decision to leave South Africa than pull factors to the source country [132]. This will be explored further in section 4.6.1.

Due to the limited information about temporary doctor migration both from South Africa and to Ireland, it will not be possible to provide a breakdown of how push and pull factors vary for temporary and permanent migrants. The conceptual framework will therefore assume that these factors are present regardless of migration type; however, the perceived severity of the factors may differ.

4.2 The Irish Context

Demand for health care services is shaped by demographic profile. Today (2011), Ireland's population is approximately 4.6 million [187]. By 2025 it is expected to be 4.9 million and increase further to almost 5.5 million by 2050 [188].

In comparison to other EU countries, the Irish population is relatively young which has meant decreasing mortality rates [180]. However, there are a high prevalence of risk factors and this is resulting in an increase in chronic illness. Over a quarter (36%) of the population smoke, over a third (36%) are overweight, 22% are physically inactive and 14% are clinically obese [189]. Additionally the consumption of alcohol in Ireland is the highest in Europe [188]. Currently, chronic illness accounts for 80% of GP consultations and 60% of hospital bed days, as well as two thirds of emergency hospital admissions [190].

The burden of chronic illness is further set to increase through the ageing of the population. By 2020 15% of the population will be aged 65 or over. Taking into consideration these demographic changes it is estimated that by 2020 the number of people with high blood pressure will have risen by 40% (an additional 341,000 adults) and the number with coronary heart disease will have risen by 50% (an additional 65,000 adults) [191]. These increases will create demand for specific categories of health workers and will pose challenges for the Irish health care system [180].

It was reported in 2005 that Ireland had the second lowest doctor per 100,000 population in the EU [192]. For Ireland to meet the EU average of 326 doctors per 100,000 population it was estimated that an increase of 41% (n=3,754) in the number of doctors employed would be needed [192]. Shortages were found to be particularly evident in some specialities. Ireland has 52 GPs per 100,000 population, whereas Germany, France and Austria have more than double this [193]. In order to meet the EU average GP population ratio it was estimated Ireland would face a shortfall of 1,800 GPs by 2021 if there was no expansion of the existing GP supply [67].

In Ireland junior hospital doctors are termed non-consultant hospital doctors (NCHDs) and comprise all interns, Senior House Officers (SHOs), Registrars and Specialist Registrars. They provide the majority of medical care in hospitals and work long hours. Although they are officially doctors in training, they often have limited access to formal training [194].

Forecasters have also highlighted that ageing and feminisation[17] of the workforce will affect the number of doctors [67]. Further shortages were also anticipated through the advent of the European Time Working Directive (ETWD) which came into force in August 2004 in order to restrict the number of hours doctors can work. It was estimated that 2,500 additional NCHDs would be needed in order to fulfil the requirements of the Directive [194]. Ireland has been unable to achieve full compliance with the ETWD and one of the reasons cited for this is failure to fill posts [195]. Indeed, vacancy rates for NCHDs reached critical levels by February 2011 [196].

[17] The effects of ageing and feminisation of the workforce were explained in section 2.2.1

The current shortages seen in the Irish health system suggests that the country is unable to supply (train and retain) sufficient doctors to meet demand [76]. As seen in section 2.2.1 supply of doctors is generated through new graduates and qualified doctors arriving from other countries [1]. Ireland experiences both of these inflows. A 2006 report found that Ireland trains sufficient medical students to meet the demands of the Irish health system [197]. In addition, favourable migration policies in the 2000s stimulated the inflow of health workers [180] to the extent that by 2008 Ireland had the second highest proportion of foreign-trained doctors in the OECD [21]. Both these inflows should generate enough doctors to staff the Irish health system, however shortages persist [196, 198]. In order to understand this anomaly it is necessary to explore the unique structure of the Irish health system. This is done below in section 4.2.1.

4.2.1 The Irish health system

Since the late 1990s, the Irish health system has been reviewed constantly and major changes have been implemented; the largest being the creation of the Health Service Executive (HSE) in 2004 [199]. The HSE is the body responsible for provision of public health care and personal social services throughout Ireland [199]. It is the largest employer in Ireland with more than 65,000 staff in direct employment and a further 35,000 are employed by agencies funded by the HSE [199]. The HSE reports to the Department of Health and Children (DOHC) whose role is to focus on strategic policy issues and it also has the ultimate responsibility for health service delivery [200].

The HSE's expenditure in 2011 was €13,588 billion [187]. It is predominately funded through general taxation. The remaining components come from private sources, either from individuals paying directly or through private insurance [199]. Colombo and Tapay (2004) report that the advantage of this hybrid system is that hospitals generate private income and this reduces the costs in the public system [201]. However, it has created a two tier system of hospital care, which discriminates between public and private patients [202, 203]. There are strong financial incentives for consultants to prioritise private work over public duty [202]. Private patients can be treated in a public hospital [203] and until November 2011 the Government paid a subsidy for private medical treatment carried out in public hospitals [204].

Provision of health care in Ireland is set to undergo radical change, as in 2011 the government committed to the adoption of Universal Health Insurance (UHI) as part of its Programme for Government [205]. UHI pledges to end the two-tier system of health care and promises that free GP care will be available to the whole population by 2016 [205]. Much of the plan is dependent

on new contracts for GPs who would be paid per capita[18] and as this is likely to result in salary cuts it is thought negotiations will be 'hard won' [206]. The Irish Medical Organisation has already argued that '*Capitation is an overly simplistic method of deciding on payment*' [207] and so it will be interesting to see how the process evolves, particularly as past attempts to introduce free health care met with fierce opposition from the Irish Medical Association[19] [203].

4.2.2 Factors affecting supply of doctors

It is not yet known exactly how the UHI will affect medical staffing [206]. However, free services will increase demand for care and this must be met with an appropriate response to ensure that there is a sufficient supply of doctors [205]. Therefore the factors that have shaped the current supply of doctors will be the focus of the remaining sections. This will be done by initially reviewing the two main inflows into the Irish health system, namely new graduates and in-migration. Subsequently outflows from the Irish health system will be discussed, in relation to how these affect the supply of doctors.

4.2.2.1 Supply of medical graduates

It was estimated that an annual intake of between 700-740 medical students is required to achieve self sufficiency within the Irish health system, if they were all retained [208]. Although Ireland trains enough medical students to meet the needs of the Irish health system, over 60% of the annual student intake are non-EU nationals most of whom leave Ireland on graduation [208]. This is a unique situation to Ireland, as non-nationals in most other high-income countries only account for 10% of the total medical school student body [208]. The proportion of non-EU medical students is though higher at the Royal College of Surgeons in Ireland (RCSI) whereby in 2007 they had 39% of all non-EU medical students in Ireland and the remaining 61% were spread across the four other medical schools[20]. This is likely to be due to the fact that whilst the other medical schools receive state funding, RCSI does not, and operates as a private institution and means they are more likely to source non-EU students who pay higher fees for their training.

The high proportion of non-EU nationals attending Irish medical schools has been a feature in Ireland since 1978 when the Department of Education introduced a cap on the number of EU students that a medical school was allowed to admit [208]. This was originally intended to be a

[18] Per capita payment means that GPs are paid a rate per patient on their books, rather than being paid through fees for each visit (which is the current system)

[19] The Irish Medical Association was incorporated into the Irish Medical Organisation in 1984

[20] Data on medical student numbers was obtained by personal request to the Health Education Authority (HEA) in 2009.

short term measure in order to address economic issues[21] [194]. It proved to be a successful strategy to raise income and a report in 2005 found that over half of the income received by the state-funded medical schools was generated from non-EU fees [209]. Although the number of EU medical students that could be admitted in a year was limited to 305, there was no limit for the number of non-EU students that could be admitted [208]. Indeed, of the 3,505 medical students enrolled in 1998/99 43.5% were non-EU (n=1525) and four years later this had increased to 49.5% (n=1962) [209].

As a result of the Fottrell report (2006) a national policy was developed and implemented in order to increase the Irish/EU student intake from the previous cap of 305 a year [210]. The aim is to increase the numbers of Irish/EU students to 725 by 2013 [211]. This is to be achieved through both undergraduate and graduate entry programs. It is anticipated this increase will provide sufficient Irish doctors to address the current shortages [208].

4.2.2.2 Supply of immigrant doctors

Ireland has traditionally been an exporter of doctors [212]. Over the last decade, however, Ireland has relied heavily on immigration to fill shortages within its health system [213]. Many high-income countries have seen increased doctor immigration, but what makes Ireland distinct is the rapid rate of increase [21]. By 2010 a third of doctors (33.4%) registered at the IMC were foreign-trained [76]. In an international context, this is the second highest proportion in the OECD [21].

As seen in section 2.8, importing health workers rather than training sufficient numbers to meet demand has been termed the '*free rider phenomenon*' [131] as it involves the free transfer of skills from one country to another.

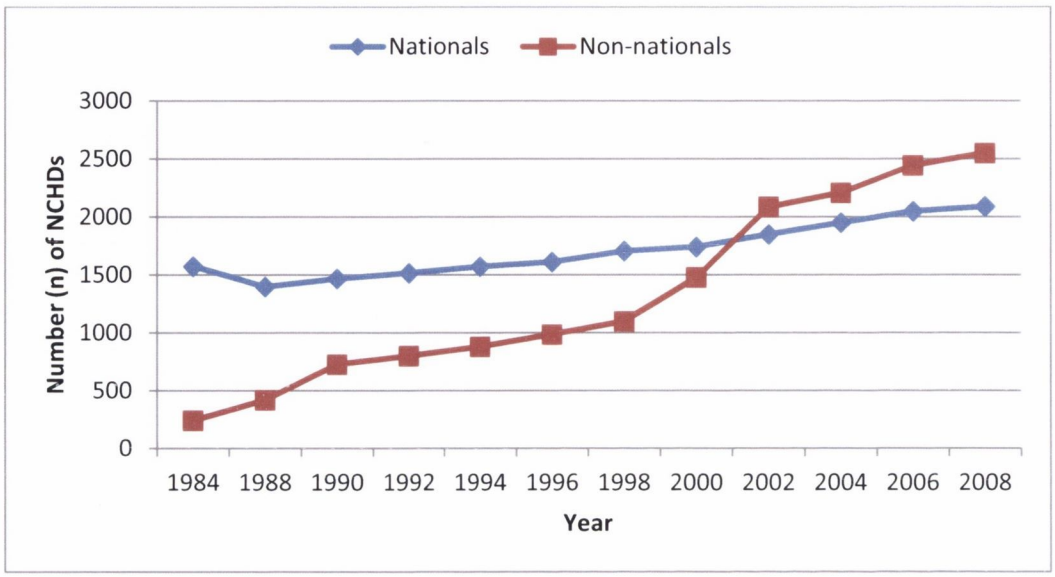
The importance of migratory flows for Irish workforce planning has been recognised [198, 214] and it is clear that foreign-trained doctors have had an increasing role to play within the Irish healthcare system. Indeed, Thomas and Layte (2009) noted that the government could '*facilitate the market entry of additional numbers of qualified GPs from other countries*' in order to increase the supply of GPs in Ireland [67].

Very little is known about where foreign-trained doctors work within the Irish healthcare system [76]. However, it appears that they are working as junior doctors, or NCHDs. By 2008, non-Irish nationals made up 55% of the 4,639 NCHDs employed in the public sector. This was an

[21] Non-EU medical school fees are considerably higher than the fees that Irish or EU students pay.

increase from 15% in 1984 [215]. Figure 6 presents the number of NCHDs, classified as nationals and non-nationals for the period 1984-2008.

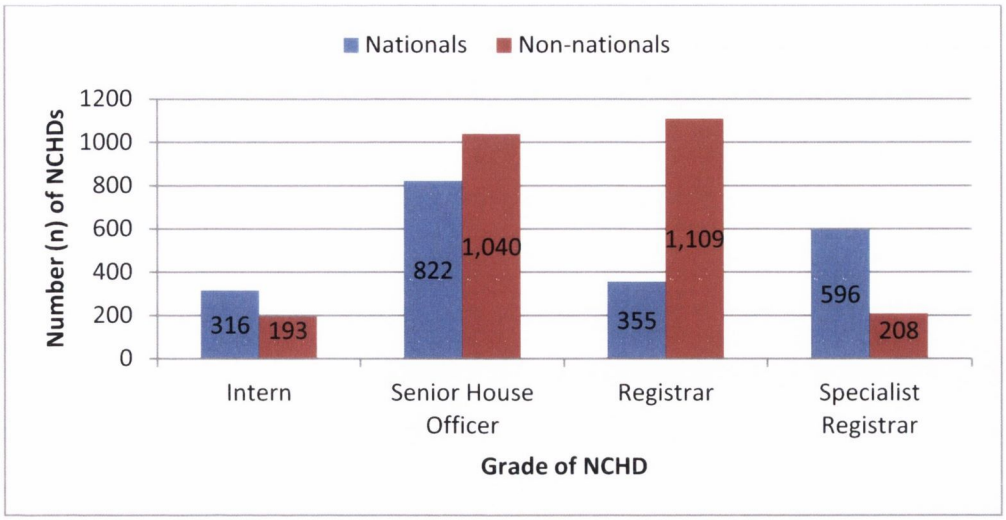
Figure 6: Numbers (2008) of national and non-national NCHDs



Developed from [215]

As can be seen below in Figure 7, in 2008 non-nationals represent 38% of interns, 56% of SHOs, 76% of Registrars and 26% of Specialist Registrars [215]. Some specialities have even higher levels of non-nationals, for instance non-nationals comprise 75% or more of all registrars specialising in anaesthetics, obstetrics/gynaecology, paediatrics, radiology and surgery [215].

Figure 7: Number (2008) of NCHDs by grade and by nationality



Developed from [215]

The 2008 data was not broken down by nationality, NCHDs were only categorised as national (i.e. Irish) or non-national (all other nationalities). It is therefore not possible to determine which countries the non-nationals are from. However, an audit of NCHDs carried out in 2007 found that 38% of SHOs[22] and 54% of Registrars[23] were non-EU nationals, with highest numbers from Pakistan, followed by Sudan [216].

The favourable economic climate during the Celtic Tiger period (1997-2007) together with the expectation that doctors would be able to access training to further their careers all served to make Ireland an attractive destination [180]. It would appear, therefore, that during this period most doctor migration was through passive recruitment[24] [76]. Some active recruitment was conducted, but this was confined to anaesthetists, locum GPs (many from South Africa). More recently (July 2011), a campaign was conducted in India and Pakistan in order to attract NHCDs to fill the critical shortages mentioned in section 4.2.

The economic downturn in 2008 created spending restrictions within the healthcare system which resulted in salary reductions, loss of training grants and reduced overtime payments [217]. This, together with a recruitment moratorium [180], changes in immigration procedures, and frustrations at the length of time for naturalisation [218], have all served to make Ireland a less attractive destination [76]. Not surprisingly therefore, a clear reduction in the number of foreign-trained doctors entering the IMC has been seen post-2008 [76].

[22] The nationality of 11% of SHOs was not known
[23] The nationality of 9% of Registrars was not known
[24] Passive and active recruitment were defined in section 2.8

In order to address critical shortages of NCHDs, Ireland conducted an active international campaign in India and Pakistan in July 2011 in order to attract doctors [196]. Such a reactive approach to workforce planning raises issues of sustainability and ability to compete in a global market [68]. However, it appears that until issues of retention are addressed, Ireland will continue to rely heavily on foreign-trained doctors [76].

4.2.3 Outflow of doctors from Ireland

Ireland faces issues of retention [213], and it is the European country with the highest percentage of nationally trained doctors practicing abroad [219]. This trend shows little sign of slowing down with a survey conducted in 2011 finding that 80% of NCHDs were considering emigration [220]. A further audit of interns conducted in the same year found *'clear evidence that around half of the doctors who completed internship in Ireland in mid 2011 have left the country'* [221].

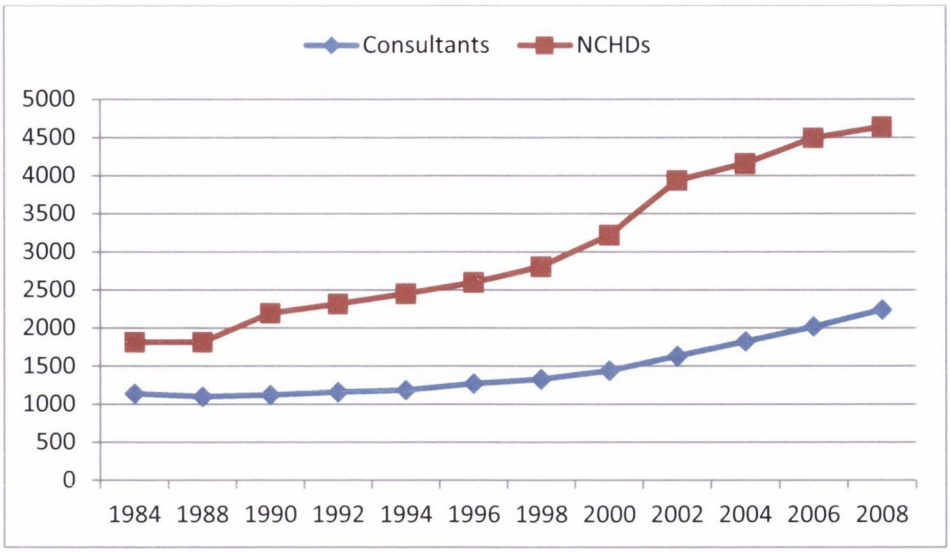
The major source of dissatisfaction amongst doctors and one of the key reasons behind their decision to leave Ireland is the limited number of consultant posts [133, 180, 217, 220]. Indeed, in some specialities there are only consultant posts for less than 40% of NCHDs who complete their training [217].

A review of medical staffing in 2003 (the 'Hanly Report') recommended a major reduction in the number of NCHDs and an increase in the numbers of consultants (with the aim of reforming the Irish health system from a consultant-led[25] to a consultant-provided service[26])[194]. However, as can be seen in Figure 8, although the numbers of consultant posts did increase post-2003, no major reduction in the number of NCHD posts has been seen and this trend is contradictory to recommendations that were made for effective medical workforce planning [208].

[25] Consultant-led service is defined as 'a service supervised by consultants who lead and advise teams of doctors in training and other staff in the delivery of care to their patients'

[26] Consultant-provided service is defined as 'a service delivered by teams of consultants, where the consultants have a substantial and direct involvement in the diagnosis, delivery of care and overall management of patients'

Figure 8: Consultant and NCHD numbers 1984-2008



Developed from [215]

In order to understand this issue, some understanding of medical career paths is needed. Specialist training takes place in two stages i) initial specialist training and ii) higher specialist training, which leads to the award of Certificate of Satisfactory Completion of Specialist Training, which allows them to be employed at consultant level [211]. This training path is outlined in Figure 9.

Figure 9: Overview of medical training in Ireland

Duration	Training Level	Employment grade
4-6 years	**Medical student**	*n/a*
1 year	**Intern**	*Intern*
2-4 years	**Initial specialist training**	*SHO, Registrar*
4-6 years	**Higher Specialist training**	*Registrar, Specialist Registrar*
	Public Health / Consultant / General Practitioner / Other	*Consultant*

Developed from [222]

While this is the typical training path, the number of training posts does not match the number of NCHDs. For instance, in 2011 there were 3,620 training posts [222], but in the same year there were 4,660 NCHDs employed [217]. This means that there were over 1,000 NCHDs in non-training posts. It is widely believed [133, 180, 217, 223] that most of the doctors in posts of limited training value are foreign-trained doctors.

Foreign-trained doctors feel particularly disadvantaged with regards to accessing consultant posts in Ireland [180]. A non-EU doctor working in Ireland captured this feeling by recently stating '*I don't think I have any career prospects – that is why I am planning to move*' [133]. This suggests that foreign-trained doctors, as well as Irish doctors, are not being retained in Ireland which is also compounding to the existing shortages.

It is not possible to quantify the numbers of doctors leaving Ireland [213, 219]. The Buttimer Report (2006) highlighted the need to retain Irish doctors [224]; but despite reforms and policy recommendations as outlined above (and summarised below in Table 11) issues of retention continue to be paramount [76, 217]. Until the rate of emigration of Irish-doctors has decreased [213, 219], it is likely that there will be a continued need for foreign-trained doctors.

Table 11: Summary of the key events, reports and milestones that have shaped the current Irish health system

Key events	
1978	Cap introduced on the number of EU students that could be admitted to Irish medical schools
2003	'Hanly' Report: recommended reduction in the number of NCHDs
2004	HSE was established European Working Time Directive (EWTD) first came into force
2006	'Fottrell' Report: called for an immediate review on the cap of EU medical students 'Buttimer' Report: a review of medical training in Ireland highlighted the need to retain Irish trained doctors
2008	End of the 'Celtic-tiger' and start of economic downturn Ireland reported to have the 2nd highest proportion of foreign-trained doctors in the OECD
2009	NCHD shortages reported to be '*critical*'
2011	Active recruitment campaign in Pakistan and India to fill 450 vacancies Government's commitment to introducing Universal Health Insurance

4.3 The South African Context

South Africa has a higher number of doctors (67 per 100,000 population) than its immediate neighbours (e.g. Botswana is 40 per 100,000 and Namibia is 30 per 100,000). However, the South African ratio is low compared to other middle income countries (where the average is 180 per 100,000) [225]. This section will look at the South African context in order to understand why South African doctors migrate.

South Africa has been described as a '*country of sharp contrasts, combining a third world and first world economy*' and it has one of the most highly skewed income distributions in the world [86]. It is also unique in being both an attractive destination country for health workers within Africa, whilst at the same time experiencing high rates of emigration [57]. It is widely accepted that the Department of Home Affairs and Statistics in South Africa underestimates the numbers of people leaving South Africa because records only take into account people who declare themselves as an emigrant when they cross the border [226, 227].

Until 1983 net immigration to South Africa accounted for 4% of annual population growth. However, tougher migration laws and worsening employment conditions since then have resulted in a decline in immigration and an increase in emigration [57]. Doctors have been part of this increase in emigration and it was reported that the proportion of doctors who intended to work overseas after completing their intern year increased from 34% in 1999 to 43% in 2001 [228].

Overall, over 22,000 doctors are thought to have left South Africa over the six year period 2003-2009 [229]. Emigration of doctors from South Africa is such that health workforce data provided in the World Report 2006 showed that it is the African country with the highest number of doctors abroad, totalling 12,136 (equivalent to one third of its total doctor workforce at home) [12]. The extent of doctor emigration from South Africa has been likened to '*global raiding by several developed countries*' [9], a term similar to that of 'poaching' or 'snatching' [25, 230] and the implications of this have been described in section 2.9 of the literature review.

4.3.1 Human resource situation in South Africa

Since the end of apartheid in 1994, South Africa has aimed to develop a democratic and just society and the healthcare sector has been at the forefront of the government's reforms [231]. 1994 saw the introduction of free healthcare, first by removing user fees for pregnant women and children, and by 1996 this included everybody accessing public primary care [232]. This resulted in a very rapid uptake of service, particularly in rural areas and exacerbated health worker shortages [57].

It was argued in 1995 that many of the current problems are a legacy of the apartheid era and that '*human resources for health care have developed in an ad hoc and fragmented manner. The ideology of apartheid not only compounded the inherent inequality in the provision of health care along race, gender and class lines but also entrenched the development of human resources along these lines*' [186]. However, critics of the new democratic government argued that there was a failure to advertise rural posts and this created the need in 1996 to recruit doctors from Cuba to fill shortages [233].

One of the main HRH issues in South Africa is the mal-distribution of personnel [20, 57]. Geographic mal-distribution has been documented, particularly between urban and rural areas [234]. For example more urbanized provinces, such as Western Cape and Gauteng have 180 doctors per 100,000 compared to the more rural Northern Province and Eastern Cape where there are just 21-34 per 100,000 [57].

Imbalances also exist between tertiary and primary levels of care, but the largest imbalance is between private and public sectors [234]. In the South African public sector, salaries are often low, facilities are under-staffed and there are often no opportunities for further education or career development [235]. Private health services, however, have flourished in recent years, and there is a drain of public sector professionals into the private sector [236]. It was found in 2003 that 38% of registered doctors were employed in the public system, which catered for 84% of the population [237]. However, many doctors work across both sectors so it is not easy to measure precisely how many work in only the private or public sector [225].

By 2004, issues around HRH were identified as a key priority for the South African health sector [238]. The key HRH problems within the public sector related to inadequate training, inequitable personnel distribution, migration, low staff morale and poor attitudes to patients, all of which is compounded by the challenges associated with HIV/AIDS [232]. The brain drain is cause for concern for South Africa as it comes with associated racial issues. It has been found that white professionals are more inclined to migrate [226] than other ethnic groups. Migration will be discussed further in section 4.6. Ditlopo et al. (2011) outlined the key HRH events which have occurred since 1994 [239] and Table 12 outlines how these policies relate to doctors.

Table 12: Key effects with regard to in South African HRH Policy for doctors

HRH Policy Context and Key Milestones	
1994	Rural allowance was introduced for doctors and dentists
1996	First Cuban doctors arrived to work in rural areas of South Africa
1998	Introduction of community service
2004	Rural allowance was revised with the aim of attracting and retaining certain health workers in rural facilities Introduction of the scarce skills allowance in order to attract and retain scarce categories of health workers in the public health sector. Development of a policy on the recruitment and employment of foreign health workers in South Africa was developed Finalisation of a bilateral agreement allowing Iranian doctors to work in South African rural health facilities
2006	A National Human Resources for Health Framework to address the critical shortage of health workers was developed and released.
2007	National strike of nurses lead to the development of occupational specific dispensation (OSD) Agreement signed allowing recruitment of Tunisian doctors to work on a temporary basis in rural areas of South Africa
2008	OSD for nurses was implemented in September. OSD for doctors was delayed
2009	Strikes held by doctors due to delays in OSD implementation August: resolution signed for OSD implementation for doctors

4.3.2 Numbers of doctors working in South Africa

By 2012 there were 38,236 doctors and a further 3,502 interns registered at the Health Professions Council of South Africa (HPSCA)[27] and therefore eligible to practice in South Africa [240]. As in the Irish context registration data does not distinguish between doctors who are actually practicing and those who are not [225]. Although males comprised 70% of the workforce in 2006 there has been an increased feminisation of the workforce with an annual growth rate for females of 5.6% compared to 1.5% for males [225].

Approximately 300 doctors were trained per year in South Africa during the period 1993-2000 [20]. Annual supply of medical graduates was projected to increase from 1,265 in 2001 to 1,637 by 2011 and Hall & Erasmus (2004) calculated that this would generate sufficient graduates to

[27] The HPSCA was established under the Health Professionals Act No56 and coordinates the bodies for all healthcare practitioners

maintain the doctor/population ratio [237]. However, Hall & Erasmus (2004) do note that no account was made for loss through emigration, imbalances in the distribution of doctors within the country or the impact of HIV/AIDS [237]. Also, it is important to note that the doctor/population ratio that the author's proposed to maintain was 65 per 100,000. Although this ratio is higher than that needed to carry out the minimal requirements of the MDGs [61] it is lower than ratios found in Latin America (e.g. 127 per 100,000 in Brazil) [57].

4.4 HRH policies and interventions

The South African government recognises that there is a shortage of doctors [225]. In order to address HRH issues within the public sector a variety of short and long term initiatives have been implemented [231].

A one-year compulsory community service for doctors[28] was first implemented in South Africa in 1998 [228]. The aim of the strategy was to improve provision of health services throughout the country by providing an equitable distribution of newly qualified doctors and it was also hoped that they would then be attracted to work in rural areas longer term [241]. However, it has been found that while community service provides short-term recruitment to rural areas, it is not an effective retention strategy [242]. Reid (2002) reported that only 20% of doctors who had completed their community service considered working in rural areas afterwards [228].

The Motivation Project evaluated the effectiveness of three initiatives that have been implemented to attract and retain health workers [231]. The three initiatives that were chosen for evaluation were: the Rural and Scarce Skills Allowance, Occupational Specific Dispensation (OSD), and the Hospital Revitalisation Programme. As discussed in section 1.4, data from the Motivation Project is being used for this thesis to provide a deeper understanding of workforce issues experienced by South African doctors. Some of the results presented in section 8.6 will therefore refer to attitudes to and satisfaction with these initiatives in order to see whether they have improved motivation and retention. Some awareness is therefore needed on the formulation and implementation of the initiatives and this is provided below.

4.4.1 Rural and Scarce Skills Allowance

A Rural Allowance was implemented in 2004 as a national incentive targeting certain categories of health workers working in rural facilities (as identified by the provincial Departments of Health) [243]. The incentive was designed to both attract and retain health workers to rural areas

[28] Community service was rolled out to dentists and pharmacists in 2000 and then to a further 7 professional groups, including physiotherapists in 2003

and also to address the imbalances in the distribution across the private and public sector [231]. The allowance ranged from between 8-22% of annual salary, depending on occupation and area and was to be reviewed every year [244].

The Scarce Skills Allowance came with the recognition that as well as geographic imbalances in the health workforce there were also shortages of certain cadres of health workers within the public sector [243]. The allowance was due to be implemented on 1 July 2003 [245], however it was not implemented until March 2004 [231]. The Scarce Skills Allowance ranges from 10-15% of annual salary payable to personnel in the following occupational groups: medical officers, dentists, medical and dental specialists, pharmacists, radiographers and some professional nurses [245]. It was designed to target 62,000 health workers in these specified categories regardless of the geographical location where they worked [243].

4.4.1.1 Satisfaction with the Rural and Scarce Skills Allowance

Health workers are unhappy that neither the Rural or Scarce Skills Allowance is pensionable and doctors suggested they would rather have the money included in their basic salary '*We believe a consolidated package that does away with commuted overtime, and rural and scarce skills would be better*' [246].

Both the Rural and Scarce Skills Allowance were designed to address critical shortages that were faced in 2004. However, in order to ensure continuity, at the time of implementation R750 million – R1 billion was built into the health budget to cover these allowances for the subsequent two years [244].

It is not clear what evidence was used to inform the development of the Rural Allowance, particularly with relation to which categories of health workers were entitled to the allowance and the differences in the amount that they received [239]. The Scarce Skills Allowance was due to be re-negotiated every three years from the date of implementation in 2004 [245], however by 2010 this had not been done [231].

4.5 Occupation Specific Dispensation (OSD)

A recommendation of the Personal Expenditure Review conducted in 2006 was the development of an Occupational Specific Dispensation (OSD) for targeted occupations [247]. The main objectives of OSD were to attract and retain skilled staff to the public sector and to eliminate interprovincial variations by providing clear grading structures which lead to salary progression based on experience and performance [247].

It is illegal for nurses in South Africa to strike [248], however nurses were among the 1 million public sector workers who went on strike[29] over pay during the 'winter of discontent' in 2007 [249]. As part of the deal to end strike action, it was agreed that OSD would be implemented with immediate effect for public sector nurses and that they would receive a salary increment of 20-80% [250]. As nurses were the first occupational group to be considered for OSD they felt their work was being recognised by the government. Additionally OSD was found to exert pressure in the private sector to review its salaries [231]. OSD was not intended to be *'an across-the-board salary increase, but to provide differentiated salary structures that cater for proper career pathing opportunities'* [247].

By December 2008 30% of nurses had still not received the full amount of OSD that they had been promised [231]. It appears that one of the reasons for this is that there had been a lack of proper costing before implementation of OSD and indeed, it was noted in 2009 that: *'early during implementation (of OSD for nurses) there were indications that the projected amount for the dispensation was insufficient due to implementation challenges'* [247].

Proposals to roll-out OSD to other health workers, including doctors, were developed in 2008 However, these could not be implemented due to *'inadequate funding for the 2008/09 budget cycle'* [247]. The root cause of the strike action by doctors in April 2009 was the delay in the implementation of OSD [251]. A resolution was signed in August 2009 in order to introduce OSD for doctors (as well as some other categories of health workers). The allowance was to be based on grade and years of experience, however to date (August 2012) OSD for doctors has yet to be implemented [247].

The scaling up of salaries through payment of OSD has had a significant effect on the health budget, and due to OSD expenditure on health personnel doubled from R28,240m in 2006/7 to R58,919m in 2010/11 [252]. In one province alone OSD has created an overspend of R1.33 billion (or by 21% of the approved budget) for the year 2010/11 [253]. The over-expenditure was such that there was a recruitment moratorium in 2009 resulting in high vacancy rates [254].

4.5.1.1 Satisfaction with OSD

The OSD was 'ambiguously annotated' which meant there was discretion amongst the provinces when applying the new benefits [252]. Furthermore, the implementation of OSD was

[29] Due to the illegal nature of strike action for nurses in South Africa many were issued letters of dismissal for having taken part in the 2007 strike, however after union negotiations disciplinary action was largely restricted to warnings.

characterised by poor planning, lack of coordination and rushed implementation with the result that there have been unintended consequences such as anger and increased tensions amongst health workers [231].

4.5.2 Hospital Revitalisation Program

A national facilities audit carried out in 1996 found that one third of facilities needed major repairs, and it was estimated that R27.2 billion would be needed in order to address hospital deficiencies [255].

With a budget of approximately R1 million per year, the Hospital Revitalisation Program (HRP) aims to regenerate 30 hospitals over an initial 15-20 year period, followed by the remainder of the country's 405 hospitals at a later date [256]. Specifically the HRP plans to '*Provide strategic funding to enable provinces to plan, manage, modernise, rationalise and transform the infrastructure, health technology, organizational management and development and monitoring and evaluation of hospitals in line with national policy objectives*' [257]. By improving working conditions within hospitals it was envisaged that this would increase health worker motivation and retention for all those employed there.

4.6 Migration: Where South African doctors migrate to

The migration of doctors from South Africa has emerged as a major policy issue [9]. The UK [226] and Australia [95] have been major destination countries for many years and are likely to remain so for some time. Additionally Canada is a popular destination. This is illustrated by the fact that by 2008 South Africa was one of the top two source countries for newly registered doctors at the Medical Council of Canada [258].

4.6.1 Reasons for migration

It is important to understand what push and pull factors are identified in the literature in order to find out whether they correlate with those that were identified as part of data collection for this thesis.

In the past, military service was cited as a prime reason why doctors wished to emigrate [259]. Today, endogenous push factors relate to lack of job satisfaction, lack of further education and career development, in addition to poor working conditions [95]. Additionally, the HIV prevalence in 2010 was estimated to be 10.5% of the population [258]. The stresses related to treating patients with HIV/AIDS are therefore extremely high [235].

Exogenous push factors include political insecurity, affirmative action, the deteriorating state of public education, uncertainty for the future and the perceived fragility of the South African economy [57]. With crime rates soaring personal safety is a concern to many, as one doctor stated '*I have had both experience of theft at home and car-jacking, it sure is a scary situation*' [95].

Although pull factors including transferability of qualifications, competition for skills and the activities of recruitment agencies [57] all serve to make destination countries appealing, it has been found that push factors play a much greater role than pull factors in the South African instance [95, 132].

Oberoi and Lin's study (2006) found that reason for migration determined which destination country doctors went to. Doctors who were motivated by economic gain went to the Middle East or Europe and those motivated by other push factors, such as the HIV and crime rates migrated to Australia [95].

Table 13 shows the push and pull factors that have been identified in studies relating to migration of doctors from South Africa [20, 57, 95, 132]. Although both the push and pull factors are similar to those outlined in Table 3 (page 34), the push factors that have more of an influence in the South Africa context relate to insecurity and crime and high rates of infectious illnesses.

Table 13: Push and pull factors that are specific to South Africa

	Push factors from South Africa	Pull factors to other countries
Endogenous factors	• Low salary • Increased workload • Deteriorating conditions in the public sector • Uneven distribution of resources between private & public sectors • Uneven distribution of resources between urban & rural areas • Exposure to HIV and other infections e.g. TB • Lack of suitable equipment	• Higher rates of pay • Perceived smaller workloads • The transferability of SA qualifications in OECD member countries • Global competition for doctors • Active foreign recruitment
Exogenous factors	• Insecurity and crime • Deteriorating public education • Uncertainties about the future, especially for children • Perceived fragility of the South African economy	• Low crime rates • Improved education system • Improved opportunities for children • More stable economies

Developed from [225]

4.6.2 Recruitment of South African doctors to work overseas

Medical recruitment for specific positions in specific countries, as well as general recruitment by international agencies is widespread in South Africa. Between 2000 and 2004 a total of 2,522 advertisements were placed in the South African Medical Journal (SAMJ), many of which repeated over a period of several months [92]. The UK had the largest number of adverts (36%), followed by New Zealand (22%), Australia (16%) and Canada (12%) [92]. Interestingly, despite being a major destination for South African medical personnel the USA only had a small number of adverts in the SAMJ [92]. It may well be therefore that job opportunities in the USA are heard of through different channels.

South African doctors are highly regarded [9]. It is argued that the conditions in the South African private sector support 'the export of health services' and NetCare[30] won several major tenders to provide staff and services to the NHS in the UK [260].

[30] NetCare are a group of hospitals in South Africa

4.6.3 How Recruitment Agencies facilitate employment of South African doctors

The employment process of South African doctors to work overseas is dominated by recruitment agencies mostly based outside of South Africa. In addition to advertising overseas positions, they also assist in administrative issues such as immigration procedures and opening bank accounts [9].

Two channels of recruitment have been identified: younger medical graduates seeking short term locum work in the UK and older doctors moving permanently to Australia, New Zealand or Canada [9]. The major 'catalyst' for temporary migration from South Africa was found to be financial '*locum work is a lifeline for many doctors...they can earn some extra money*', as opposed to permanent migrants who were motivated by long-term prospects [9]. As discussed in (section 2.5 on page 23) of this thesis, 'stick' or 'stay' factors are important at influencing migration patterns. Stick factors, such as children in schools, establishment of career paths, development of friendships and a general satisfaction of life in Australia have been found to play an important role in influencing that migration was permanent [95].

Conscious of the global market for medical personnel, recruiters seek to offer comparative benchmarks for potential recruitment, with one advertisement reading: '*forget the hassle with the GMC for registration – hop on a plane to Oz where your South African qualifications and experience will be appreciated. Forget the rain and fog of the United Kingdom – go in leaps and bounds to the sunshine*' [92].

There appears to be conflicting information about whether doctors wish to migrate permanently from South Africa. It was found that nearly three quarters (70%) of doctors who intended to work overseas after their community service wanted to return to South Africa [228]. Watanabe et al.'s (2008) study found that 50.5% of South African doctors return home after practicing in Canada [75]. Bezuidenhout et al.'s study (2009) further found that 53.6% of South African doctors practicing overseas wanted to return permanently to South Africa [132].

Neither study provides data on how long the doctors have been overseas, or whether doctors planned to practice medicine when they returned to South Africa. However, it alludes to the fact the migration is not always permanent and that South Africa has pull factors which draw doctors back to the country at some point. Further evidence suggests that the trend for permanent migration has slowed and has been replaced by temporary overseas appointments: '*We have lots of South Africans on the database but it doesn't necessarily mean that they will all be going out of the country. After their locum posting most of them will return*' [9]. Overwhelmingly, the

evidence of migration patterns of South African doctors highlights the difficulties of trying to categorize migrants as temporary, permanent and return.

4.7 The link between Ireland and South Africa

This Chapter highlights the Irish and South African contexts. This is needed for the conceptual framework in order to understand the range of push and pull factors within the source and destination country. It was important to understand the link between the two countries to see why there is a flow of doctors from South Africa to Ireland.

As seen in section 4.2.2, Ireland is experiencing a shortage of doctors, particularly in certain specialities such as General Practice and there is a reliance on foreign-trained doctors to fill shortages [76]. Historical issues of not training sufficient numbers of medical graduates are being addressed [210, 211]. However, issues of retention persist [180, 217]. In particular, the lack of specialist training posts in Ireland has resulted in many medical graduates leaving Ireland to take up such opportunities abroad, many of whom never return [208].

By 2006, South Africa was one of the main source countries for nurses who are registered in Ireland [128]. Statistics accessed from the IMC website[31] in January 2009 revealed that this was also the case for doctors. Large numbers of South African medical graduates[32] registered at the IMC for the period 2006-2009. By January 2009, there were a total of 1,746 South African medical graduates registered at the IMC. In fact, South Africans represented the largest numbers of non-Irish medical graduates registered at the IMC.

In terms of migration type, the literature on pro-active recruitment practices suggests that South African doctors work in Ireland on a temporary basis [9]. Irish based medical recruitment agencies, such as Locumlink highlight their strong South African-Irish links and advertise '*guaranteed minimum number of hours to work each month. You'll have a potential to earn approximately 160,000 ZAR*[33] *per month*' [261]. During the Celtic Tiger, Ireland was portrayed as an attractive destination by having a strong euro [180]. Indeed, Locumotion[34] had offices in South Africa and tried '*to "sell" Ireland as a place*', offering lucrative salaries and other incentives such as covering the costs of work permits [262]. Both agencies also advertise that they will meet doctors arriving from South Africa at Dublin airport and organise initial accommodation [261, 262].

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[31] http://www.medicalcouncil.ie/Registration/Statistics/

[32] It is important to note that the registration statistics published on the IMC website (referenced in footnote 19) categorise doctors by country of qualification and not nationality. For information on how migrant doctors are classified refer to section 2.3

[33] Equivalent to €15,362.90 (€1 = 10.4 ZAR) on 21 June 2012 (www.oanda.com)

[34] Locumotion (like the previously mentioned Locumlink) is an Irish based medical recruitment agency

Until 2011, the IMC automatically recognized South African medical qualifications [263]. Ease of registration is attractive to doctors. Rogerson (2007) noted that South African doctors who wish to work in the UK must sit registration exams and this has created a barrier for them going there, particularly in the case of older doctors who were reported as saying that they '*won't go back to school*' [9]. Ease of registration in Ireland is therefore likely to attract doctors to go there as opposed to other countries.

Data from the IMC suggests that large numbers of South African doctors migrate to Ireland and the literature insinuates that this is on a temporary basis. A critical first stage to this thesis was therefore to verify whether this was in fact the case. This was in order to determine whether this was an appropriate case study with which to explore the dynamics of temporary migration.

The first research component of this thesis was an analysis of the IMC register. This analysis confirmed that there were large numbers of South African doctors registered at the IMC, but had not permanently migrated to Ireland. This analysis not only confirmed that South African doctors registered in Ireland was an appropriate case study to use, but also provided the sampling frame for components three and four. The methods for component one are outlined in full in section 6.3 and the results are presented in Chapter 7. The next Chapter presents the conceptual framework which has been developed out of the literature review.

5 *The Conceptual Framework*

5.1 Introduction

As seen in the literature review (Chapter 2), motivation for migration differs; it could be for economic reasons, career development, to escape instability, or it could just be for an adventure. Whatever the reason for migration, it is clear that the basic potential for migration exists if push and pull factors are present in two countries [34].

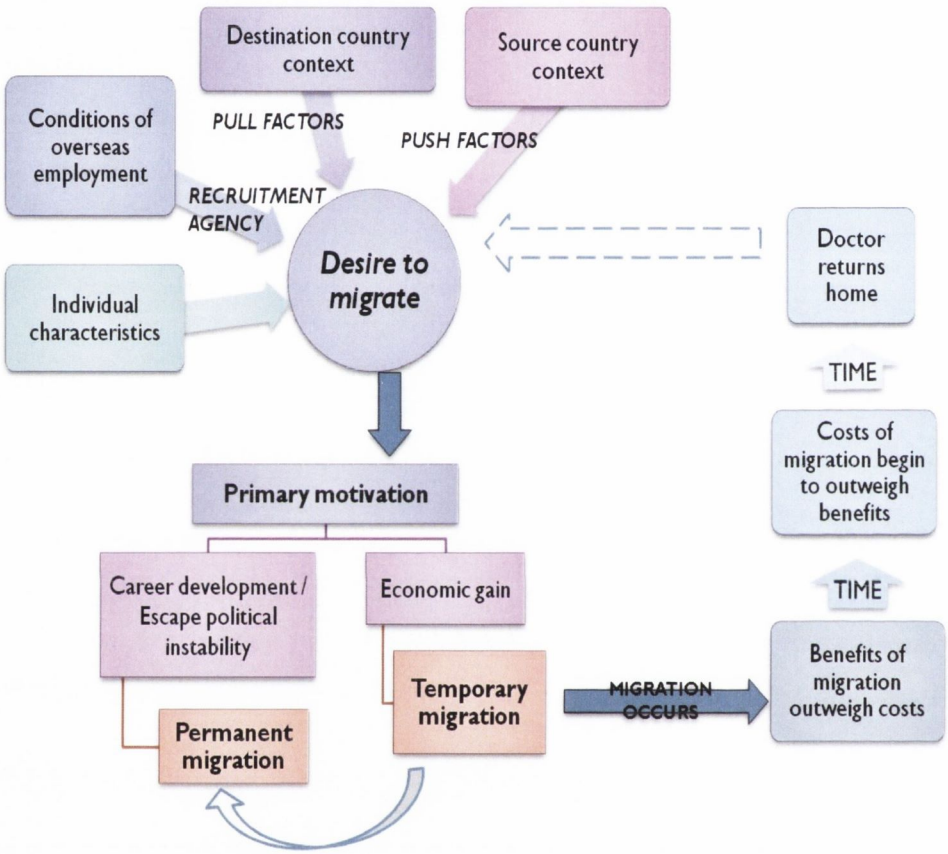
This Chapter presents the conceptual framework which was devised from the literature in order to present the theorised relationships that occur in temporary doctor migration. More specifically, this encapsulates the theorised relationships that are thought to occur in the case of South African doctors migrating to Ireland. As outlined in section 1.4.1, the justification for using a conceptual framework is that it consequently determines what data should be collected and analysed. This allows the theoretical framework to be validated against what actually occurs in practice.

Conceptual frameworks use 'bins' to contain information on events and/or behaviours [46]. Each 'bin' is given a descriptive name and laid out according to their inter-relationships [46]. The framework presented here uses both an exploratory and confirmatory design [46]. This is because some of the outcomes are hypothesised (e.g. the primary motivation for temporary migration is economic gain), and some are not hypothesised, they are evidence based (e.g. the creation of push and pull factors from conditions in the source and destination country). This means that the level of specificity in each 'bin' and the direction of influence between them is less pre-determined than would be seen in a confirmatory design. However, it is more inferential than would be seen in an exploratory design. This combination of design allows for some structure, whilst allowing for reflexivity.

Following presentation of the conceptual framework in Figure 10, this Chapter then discusses the elements which will form the 'bins' and justifies why they have been included. Finally the Chapter presents the hypotheses that were generated by the theorised conceptual framework. By confirming or refuting these hypotheses it is possible to determine the validity of the framework in practice, and thereby understand what motivates a South African doctor to migrate to Ireland on a temporary basis. Furthermore, once the framework has been found to be helpful, it will be possible to explore whether it could be adapted outside the South African context in order to describe generic temporary doctor migration. Such a tool could provide crucial information on how to ensure that temporary migration remains beneficial. It is important to emphasise that the framework theorises the dynamics of temporary migration from the perspective of the migrant.

By determining these factors in practice it will be possible to explore whether this framework accurately describes the phenomenon could be managed in order to produce beneficial results for all actors involved in the migration process.

Figure 10: Conceptual framework indicating the theorised dynamics of temporary migration of South African doctors to Ireland



5.2 Key elements of the conceptual framework

The situation in the source and the destination country and the associated push and pull factors provide important contextual information. It is important to consider this context, as it influences decision to migrate. This thesis is looking at migration from a LMIC (South Africa) to a high-income country (Ireland). The literature suggests that possible push factors from South Africa could include factors such as low wages, poor infrastructure, poor working conditions, lack of training opportunities, or political instability. Pull factors to Ireland (i.e. the destination country) could include higher wages and greater training opportunities. How influential these push and pull factors are will depend on the doctor's individual circumstances and motivation.

The conceptual framework considers the individual characteristics of doctors in the source country. These include personal characteristics (age, gender, marital status, number of dependent children), social characteristics (ethnicity and location of residence. i.e. urban or rural) and job characteristics (speciality, stage of career and job satisfaction).

Individual motivation is at the heart of the desire to migrate. It is useful to briefly revisit the definition of motivation[35] as *'the psychological processes that causes the arousal, direction and persistence of voluntary action'* [100]. Motivation is inherently an individual phenomenon, as each individual is unique. Different people have different needs, expectations, values, attitudes and goals [100]. Motivation is a fluid factor and as it is dependent on personal circumstances it will change over time, for instance when there are changes in marital status, age and number of dependent children.

Individual motivation coupled with the desire for a better life/livelihood will determine the primary motivation for intending to migrate. Migration occurs because the individual believes that they will benefit by doing so. The conceptual framework suggests that if the primary motivation for migrating is for career development, or to escape political instability within South Africa then the most likely outcome will be permanent migration. This doctor is unlikely to return to their source country after a period abroad.

If the primary motivation for migration is for economic gain, migration is likely to be temporary. Although the literature provided evidence to show that there are different types of temporary migration, as discussed in section 2.4.3, it is not possible at this stage to distinguish between which types of temporary migration are occurring. It is anticipated that analysis of the results will provide more information on this.

Conditions of overseas employment are crucial. Working conditions in Ireland need to be favourable and enticing to South African doctors. This is in terms of contracts and types of positions that are available. Contracts need to not only be financially rewarding, but also need to be flexible in terms of length. As no clear definition of 'temporary' employment was found in the literature it is likely that doctors will vary in their ability and willingness to work Ireland for different lengths of time. The duration of employment is therefore critical and needs to appeal to the doctor.

In addition to employment length, there also need to be no (or only minor) logistical barriers for doctors being able to work in Ireland. For instance visas/work permits are undoubtedly a major barrier to the ability to work in some countries.

[35] This was originally defined in section 2.6

Finally it is important that the doctor is able to take the time off to work overseas without having to permanently leave their current post in their home country (whether this is taken as the doctor's holiday, or a sabbatical). This means that they are able to return to their current post, once they have completed their temporary employment overseas.

As for the Canadian SAWP [154], the conceptual framework presented here indicates that recruitment agencies play a vital part in facilitating migration. For recruitment of doctors it is probably more beneficial to have the recruitment agency in the destination country, rather than in the source country (as in the case of the Canadian SAWP). The reasons for this are that it means that it is possible to have a closer liaison between the employers in the destination country (e.g. in the Irish case, organisations such as the HSE and the out-of-hours cooperatives) so that they are able to inform the recruitment agencies of the positions that they need filling. Also, when the recruitment agency is based in the destination country it means they are able to provide assistance with administrative issues such as obtaining visas and with registration at the relevant medical regulating body.

The conceptual framework presents a dashed arrow from the doctor returning home, back to the start of 'desire to migrate'. It is likely that once the doctor returns home s/he is faced by the same push and pull factors as before, and this may once again create a desire to migrate. Whether this move is temporary or permanent will, as in previous migrations, depend on what the primary motivation for migration is.

It is important to consider loss to permanent migration. The literature suggests that some migrants who originally intended to stay permanently change their mind, and vice versa [34]. There is clearly a balance that needs to be maintained for migration to be temporary and that is that the lure of the conditions in the destination country are offset by the fact that the doctor wants to benefit from some of the pull factors, but that the push factors are not so extreme that they want to permanently leave. In this manner, temporary migration is a delicate balancing act whereby the doctor wants to return to their source country. If this balance is upset, in any way, for example if the effect of the pull factors is greater than the advantages of staying in the source country then the doctor will not migrate temporarily and will instead choose to either migrate permanently, or not at all.

As highlighted before, time is an important factor in determining temporary migration. Dustman's (2000) return migration model has shown that duration abroad is determined by equalising the benefits and costs of migration [39]. The benefits of temporary migration to Ireland include additional income and work experience. The costs associated with temporary

migration include any travel and accommodation costs that are incurred as well as personal costs such as time apart from families, or from employment in South Africa.

When the doctor arrives in Ireland the benefits of migration (additional income) outweigh the costs. However, as time progresses the personal costs start to be more influential and these start to outweigh the benefits. When this occurs the doctor will return to South Africa. The conceptual framework therefore indicates that as time increases, the benefits of migration diminish and the motivation to return increase. It is important to consider the duration spent in Ireland as this is felt to be crucial to maintaining temporary mobility as opposed to permanent migrants who often have less pre-determined ideas about how long they are planning to remain within a country for.

5.3 Hypotheses raised by the conceptual framework

The conceptual framework has shown the theorised dynamics of temporary doctor migration. From these theorised dynamics it was possible to generate a number of hypotheses, in order to guide data analysis that was subsequently carried out.

The hypotheses are as follows:

1) Doctors who migrate temporarily are primarily motivated by financial gains.
2) Doctors who migrate permanently are primarily motivated either by career development or to escape political instability within their own country.
3) Employment contracts need to be attractive to the doctor in terms of length, financial remuneration and fitting their skill set.
4) Overseas employment has to be promoted. This is done through the promotion activities of a medical recruitment agency.
5) Overseas employment has to be facilitated by the ability of doctors to work overseas and for it not to affect their employment circumstances at home.
6) Doctors will reap the maximum benefits of migration within a few weeks. After this time the costs of their migration will outweigh the benefits and they will return to South Africa.
7) Desire to migrate is a cyclical process. After the migrant has returned to their home country the desire to migrate will start to build up again.

Whilst these hypotheses may seem logical, what is unclear from the literature is how influential these variables are in ensuring that migration remains temporary instead of becoming permanent. The next Chapter presents the methods that were used to test these hypotheses that have been raised.

6 *Methods*

6.1 Introduction and Aims

The aim of this thesis was to provide a better understanding of the dynamics of temporary doctor migration. In order to achieve this aim, case study methodology was used to assemble and triangulate data from a number of sources. This allowed identification of the key features of temporary doctor, in particular the motivation behind this phenomenon.

This Chapter outlines the methods that were used to test the hypotheses generated by the conceptual model (depicted in Figure 10). There are four components of data collection and analysis namely: 1) Exploring migration patterns to Ireland, 2) Exploring the South African context, 3) Understanding temporary doctor migration and 4) Comparing permanent and temporary migration. This Chapter describes the methods that were used for each of the four components. Indication is also given as to which part of the conceptual framework that each component sought to answer. Finally, there is a discussion on the limitations of the methods that were used.

6.2 Justification for the data collection strategies used

As indicated above, case study methodology was used in order to collect data. There are four types of case study design, and a 'single case design' was used because the aim of this thesis was to critically test a well-formulated theory. A single case is useful as it can confirm, challenge or extend the theory [48]. Multiple case designs may be preferred over single case designs as there is the possibility of direct replication [48], however, this would require identification of further examples of temporary migration. This would require more resources for investigation and is therefore out of the scope of this thesis. Case studies use either an inductive approach (whereby the research question is informed through existing theory) or a deductive approach (whereby a hypothesis is deduced on the basis of ideas and then tested) [264]. Due to the limited evidence base on temporary doctor migration a deductive approach has been used in this thesis.

The four components ensure that there is breadth and depth to the analysis and findings. The precise methods differ for the four components and different types of data were collected and analysed. However, each component was designed to provide as much information as possible with which to test the validity of the conceptual framework.

Consistent terminology is important to describe the different components of the thesis, particularly as they themselves are composed of a number of elements. Each component and its aim, is outlined below:

- *Component One: Exploring migration patterns to Ireland* provides a better understanding of the numbers of doctors who have migrated to Ireland.
- *Component Two: Exploring the South African context* provides vital background information on the motivation and retention environment faced by South African doctors.
- *Component Three: Understanding temporary doctor migration* focuses on South African doctors who are registered at the IMC, but report a residential address in South Africa. As indicated in section 7.3 the assumption was made that these are temporary migrants. Analysis performed in this component provides key information about what motivates a doctor to migrate on a temporary basis. This component further provides information on the dynamics of this migration.
- *Component Four: Comparing permanent and temporary migration* focuses on South African doctors who are registered at the IMC, but report a residential address in Ireland. It was assumed that these were permanent migrants. This provides information on what motivates a doctor to migrate on a permanent basis in order to allow comparisons between these doctors and those identified in component three as temporary migrants. This component also sought to answer whether doctors had migrated on a temporary basis prior to a permanent move.

6.3 Component One Methodology

Prior to this thesis the IMC registration data had not been analysed[36]. Component one used very distinct methodology compared to components 2-4 and so will be considered separately. Component one analysed registration data obtained from the IMC for two purposes. Firstly, to provide a better understanding of migration patterns to Ireland and secondly to provide the basis for the sampling frame which was used for the temporary and permanent migrants in components three and four.

Doctors wishing to work in Ireland must first register with the IMC. Registration procedures are outlined below in section 6.4. This information is provided before presenting the results of IMC registration data.

[36] Subsequently (2012) a detailed analysis of a decade (2000-2010) of IMC registration data has been conducted [68].

6.4 Registration procedures at the IMC

Firstly, it is important to understand the registration procedures at the IMC, particularly as these changed during the time which this thesis was written. Until March 2009 the IMC held two registers under the 1978 Medical Practitioner Act: the General Register of Medical Practitioners, which was mandatory for all doctors practicing in Ireland and the Register of Medical Specialists, which was voluntary for specialists [263].

Within the mandatory General Register there were three categories of registration: full registration, internship registration and temporary registration [263]. Country of qualification determined the registration category doctors were eligible to apply for. Non-EU qualified doctors initially held temporary registration and if the IMC were satisfied with their training, were eligible to apply for full registration after two years; however they could remain on the temporary register for an aggregated period up to five years [263].

Not all non-EU qualified doctors had to hold temporary registration first. Under reciprocal agreements, doctors who had obtained their primary medical degree from a university in South Africa, New Zealand, the Canadian province of Saskatchewan, or the Australian states of New South Wales, South Australia, Victoria and Western Australia, or the University of Queensland were able to apply directly for full registration, provided they held full registration with the authorities in the country where they qualified [265].

New registration rules under the Medical Practitioners Act 2007 came into effect on 16 March 2009 and established one register comprising four divisions: Trainee Specialist (comprising interns and doctors holding recognised training posts), Specialist (those who have completed specialist training), General (doctors who have not completed specialist training and do not hold a recognised training post) and Visiting EEA Practitioners (for EU/EEA citizens wishing to practice on an occasional basis) [266]. Eligibility for each division depends on the stage of medical education and training and doctors can move from one division to the next [176]. The Supervised Division was added in 2011 specifically to accommodate doctors who were recruited as part of an active overseas recruitment drive in India and Pakistan [130]. However as this occurred after the registration data was obtained for this thesis, none of the doctors registered referred to in the results are in this Division.

6.5 Registration data

Registration data from the IMC was needed for three main reasons:

- To determine the number of doctors on the register, disaggregated by nationality

- To extract the South African doctors who were registered in order to provide the basis for the sampling frame for temporary and permanent migrants
- To explore whether temporary doctor migration to Ireland is occurring from other countries.

The IMC register contains information about all the doctors who are registered. The register is publicly available on request. To this end a request was made to the IMC to obtain a copy of the database and this was received in April 2009. Due to data protection, not all the information held for each doctor was obtained; however, it was possible to get the following data for each doctor who was registered:

- Registration number (this is a unique identifier)
- Name
- Postal address (including country of residence)
- Gender
- Nationality
- Date that they first joined the register

The database (which the IMC provided in the form of an Excel spreadsheet) was first analysed by nationality in order to obtain the numbers of registered doctors by nationality.

6.5.1 Analysis of registered doctors by nationality

It is important to emphasise that the statistics provided on the IMC website, referred to in section 4.7, categorise doctors by country of qualification. However, the database that I obtained on 3rd April 2009 did *not* have any information regarding what qualifications doctors had obtained, or where they had obtained them from. Information was instead provided for nationality of doctors. The results presented below, which relate to the April 2009 database (as used in this thesis) reflect this.

Analysis of the IMC register took place April-May 2009. All analysis was done in Excel, whereby a separate sheet within the workbook was created for each of the key nationalities. Doctors were first categorised by EU status. They were then further disaggregated by nationality in order to determine the key source countries.

As will be shown in section 7.2 (page 123), the largest number of non-Irish doctors who were registered in Ireland were South African (n=1,632). Non-Irish doctors were then analysed by country of residence.

6.5.2 Analysis of registered doctors by country of residence

The listed postal address (which indicated country) given for each doctor was used in order to determine country of residence. The assumption was made that doctors were residing at the address which they reported to the IMC. This meant that by identifying the country of residence it was possible to determine whether the doctors were in Ireland or in another country. Doctors were therefore divided into those who held an address in Ireland and those who did not. A further assumption was made that as registration details are updated yearly and any change in personal details are supposed to be recorded (this can be done at any time) the number of doctors who are in Ireland but have not updated their address are minimal.

Based on the assumptions outlined above three tentative suppositions were made, namely:

- Doctors who are registered at the IMC, but residing in the country of their nationality migrate to work in Ireland on a temporary basis.
- Doctors who are registered at the IMC and residing in Ireland have migrated to work in Ireland on a permanent basis.
- Doctors who are registered at the IMC, but residing in a country other than Ireland, or their country of nationality have migrated on from Ireland (i.e. are onward migrants)[37].

Using the listed postal addresses, all non-Irish nationalities (n=7,236) were categorised by their country of residence in order to determine their migratory category. The results of this analysis are shown in section 7.3 (page 124). The most important finding, and one which provides essential information for components three and four is that of the 1,632 South African doctors who were registered at the IMC, 206 reside in Ireland and 1,330 reside in South Africa.

Based on the three suppositions made above, this analysis of the IMC register suggests that South African doctors are migrating to Ireland on both a temporary and a permanent basis. This means that by collecting data from South African doctors registered in Ireland it is possible to understand what motivates a doctor to migrate temporarily (and permanently). This natural case study can therefore by used to test the validity of the conceptual framework which was presented in Chapter 5.

[37] This supposition may not be correct, but unfortunately it is outside the scope of this thesis to confirm this further. Confirmation (or rejection) of this theory would be an interesting area of further research

6.6 Overview of the methods used for Components Two, Three and Four

All three components used a mixed methods approach to obtain primary data. Mixed methods are not inherently superior to single method research used [267]. However, in this instance mixed methods allow for a deeper understanding of temporary doctor migration.

Quantitative research provides numerical measurements of a phenomenon and the methods can be easily replicated, but it does not provide richness to the data, nor describe any features which make the study population unique. To this end it was important to have a qualitative component as this provided rich descriptions and explanations of processes that were occurring in local contexts [46]. Qualitative data allows direct quotes to be used as well as paraphrasing to provide this context. It was not appropriate to solely use qualitative methods as this is a 'investigative process' and this thesis sought to statistically test the hypotheses that were generated. By being able to combine qualitative and quantitative methods it was possible to interweave the different elements in order to fully explain the relationships outlined in the conceptual framework.

There was a major difference for the population studied in component two, compared to components three and four. For component two there were no criteria that doctors were registered at the IMC, nor indeed any other country. This means that doctors in this component cannot be classified as future temporary or permanent migrants, though they have the potential to be either.

Although component two was distinct from components three and four, similar strategies were used in terms of the data that were collected and the way that the data were analysed. All data collection tools were piloted before main data collection was conducted and revised where necessary. An overview of data collection methods used is outlined below.

6.6.1 Overview of the quantitative methods used for Components Two, Three and Four

Cross-sectional surveys were conducted in each component to provide a 'snap shot' of the situation faced by doctors [268]. Although the questionnaires used for each component varied, all were self-administered (i.e. filled in by the participants themselves).

A certain level of literacy is assumed when using self-administered questionnaires. This meant it was an appropriate tool to use in the case of doctors. Self-administered questionnaires are a cost-effective way to conduct questionnaires and provide privacy to the participant. Their disadvantages are however that although they eliminate the interviewer effect, they may result in missing data due to uncertainty about the questions being asked [269].

The questionnaires were structured and for all three components contained both open and closed ended questions. Structured questionnaires involve the use of fixed questions which are presented to the respondents in the same way. The advantages of this approach are that it is possible to collect data for quantitative analysis [270]. The disadvantage of structured questionnaires is that the response choices may not be sufficiently comprehensive and so participants are 'forced' to choose an answer that may not fully represent their views [270]. The use of some open-ended questions enabled participants to have some flexibility with their responses.

There are two sampling techniques that can be used for quantitative data collection namely, non-probability and probability [268]. The sampling procedures used for each survey is explained in the detailed methods for each component.

6.6.2 Overview of the qualitative methods used for Components Two, Three and Four

Qualitative data were obtained in order to add depth to the study of temporary migration. In particular, a focus was placed on the decision making process that occurs before and during the migration process.

In-depth interviews were the method chosen to obtain this insight [271]. Interviews provide one of the important sources of information for case studies [48] as they provide '*rich sources of data on people's experiences, opinions, aspirations and feelings*' [272]. In-depth interviews were used as opposed to semi-structured interviews because they allow respondents to tell their own stories and this enabled extended data collection [270].

Interviews were chosen as opposed to other qualitative methods such as focus group discussions (FGDs). FGDs are advantageous in that they generate large amounts of data, are relatively cost-effective and also allow participants to build on each other's experiences [273]. However, as FGDs involve a gathering of 7-10 people [274] it was not appropriate to use this as a method of data collection. FDGs were not possible for component two due to the shortages of doctors in each hospital. For components three and four FDGs were not possible due to the dispersed nature of the potential participants. It would have been costly, both in terms of travel and time, to get a number of doctors to a central location at the same time.

Interviews were conducted face-to-face (bar two in component four; one of which was conducted on the telephone, the other on Skype). Although face-to-face interviews are an expensive method

of conducting interviews, the advantage is that it allows for rapport to be built up between the interviewer and the participants, allowing them to talk more freely at ease [270].

In terms of recruitment for the interviews it was appropriate to use non-random sampling as the aim was to understand a complex phenomenon [270]. Careful judgement is needed to ensure that the correct type of non-sampling is used and the main sampling types and their advantages and disadvantages are outlined in Appendix 1.

Practicality is an important issue to consider when accessing potential participants for qualitative research as there can be time and other logistical constraints [46]. For this reason convenience sampling was chosen to recruit doctors for the in-depth interviews in all three components. This is because it allowed for recruitment to be carried out in a practical manner. This was particularly necessary for component two where data collection took place in South African public hospitals and there were few doctors available to participate and those who were available faced severe time constraints. Convenience sampling was also necessary for components three and four due to the large geographical distances involved in both South Africa and Ireland.

The above sections have outlined the rationale behind the methods. The following sections will provide detailed information on the methods that are specific to each component. Due to the overlapping features that were used for data analysis, for both the quantitative and qualitative methods, these will be discussed for all three components in section 6.10.

6.7 Component Two (Exploring the South African context): detailed methodology

Component two provides the source country context and involved a re-analysis of the Motivation Project data obtained from South Africa.

As outlined in section 1.5 the aim of the Motivation Project was to improve understanding of health worker motivation and retention in South Africa, Tanzania and Malawi. As part of the Project activities initiatives that were being implemented to address HRH issues were evaluated. The Motivation Project data included all cadres of health workers. However, for this thesis I extracted the data which related only to South African doctors.

Re-analysis of this data sought to answer the following questions:

i) What is the motivational environment faced by South African doctors in public health facilities?

ii) What is the satisfaction with working conditions?

iii) What factors affect retention?

iv) Are incentives effective at increasing retention and thereby reducing the 'push' factors?

6.7.1 Component Two: Overview of the methods

A multiple descriptive case study design was used to collect data on the impact of HRH interventions in selected South African hospitals. The three HRH incentive initiatives that were evaluated were: 1) Rural and Scarce Skills Allowance, 2) Occupational Specific Dispensation (OSD) of Nurses and 3) Hospital Revitalisation Program. The background to these interventions and their implementation was described in full in section 4.4.

A survey and in-depth interviews were used to collect data. Data collection took place between 2009 and 2010. Although different cadres of health workers were included in these mixed methods, this thesis only reports the methods and data that relates to doctors.

6.7.2 The Motivation Project study sites

Two provinces, one urban (Gauteng) and one rural (North West) were purposively selected as study sites in order to make comparisons between urban and rural settings. The aim was to include five hospitals in each province. As hospital revitalisation was one of the human resource interventions that were being evaluated as part of the Motivation Project, it was important to ensure that hospitals which had been revitalised were included to participate in the study [231].

Hospitals that were revitalised were therefore purposively selected to participate in the study. In North West province three revitalised hospitals were chosen and in Gauteng one was chosen (this was the only one at the time of data collection that had been revitalised). The non-revitalised hospitals (two in North West and four in Gauteng) were randomly selected. Table 14 outlines the characteristics of the hospitals that participated in the study.

Table 14: Characteristics of hospitals that participated in the study [231]

Province	Hospital name	Type of hospital	
		Revitalised	Provincial/District
North West	Taung	Yes	District
	Swaartruggens	Yes	District
	Ganyesa	Yes	District
	Job Shimankana Tabane	No	District
	Ventersdorp	No	Provincial
Gauteng	Tembisa	Yes	Regional
	Mamelodi	No	District
	Pretoria West	No	District
	Natalspruit	No	Provincial
	Germiston	No	District

6.7.3 The Motivation Project: Quantitative phase

As indicated in section 6.7, a quantitative phase was conducted in order to evaluate incentive initiatives that have been implemented in order to determine their impact on motivation and retention. Specifically, data was gathered to quantify satisfaction with the initiatives, in addition to motivation levels and retention.

The aim was to select doctors at random in each hospital. However, given the shortage of doctors, especially in the district hospitals, it was not possible to follow this planned sampling method. Convenience sampling was therefore used to recruit doctors, whereby they were approached during their free time and given information about participating in the research. A total of 40 doctors were willing to participate in the survey and completed a questionnaire.

The self administered semi-structured questionnaire obtained information on:

- Demographics
- Job satisfaction
- Organisational commitment
- Intention to quit (retention)
- Intention to emigrate
- Extent of absenteeism of health care professionals
- Level of satisfaction with the selected HRH interventions
- Perceptions on the effectiveness of the selected HRH interventions in their recruitment, motivation and retention.

Job satisfaction was using the abridged Job in General (AJIG) scale developed by Bowling Green University. This scale has been demonstrated as being both reliable and valid [231]. For the purpose of this thesis it is important to note that each index was scaled with a minimum score of 0 and a maximum satisfaction score of 15. For each scale, a mid-point was taken of 7.5 as a cut off, indicating that a score below this indicated dissatisfaction and a score above this indicated satisfaction. Cronbach's alpha was calculated for each satisfaction score to determine reliability. In general anything over 0.7 is considered an acceptable score [275].

Whilst analysis conducted as part of the Motivation Project focussed on how the incentive initiatives affected recruitment, motivation and retention of health workers as a whole and then made comparisons between cadres, re-analysis conducted for this thesis looked at factors which could lead to the desire to migrate. These were to determine factors that were involved with dissatisfaction, both in the workplace and outside as these could generate into push factors. Additionally, analysis was conducted in order to determine whether there were any significant associations between intention to quit their current post and intention to migrate internationally.

6.7.4 Motivation Project Qualitative phase

In-depth interviews were conducted with doctors in the different hospitals that participated in the study. As for the survey, convenience sampling was also used for the interviews, whereby the research team approached doctors during their breaks to explain the study to them to determine whether they would be willing to take part in the interview. A total of 6 doctors agreed to take part in the interviews. Consent was given by all doctors to audio-record the interview.

The in-depth interviews collected information on:

- Demographics
- Human resource challenges/problems experienced within their facilities
- Factors that attracted them to work in their current facility
- Their motivation and future plans (retention)
- Opinions on the effectiveness of the selected human resource interventions in their recruitment, motivation and retention
- Recommendations on how best to improve the implementation of the selected human resource interventions as well as to motivate and retain them.

As for the quantitative data, the qualitative data were re-analysed as part of this thesis to draw out themes that could contribute towards the desire to migrate.

6.8 Component Three (Understanding temporary migration): Methodology

Component three aimed to understand the factors that are associated with temporary migration. It was important to determine the reasons for migrating on a temporary basis as well as to explore experiences of working in Ireland, i.e. to determine whether their perceptions pre-migration matched up to the reality of the experience.

Component three used a survey and in-depth interviews to collect primary quantitative and qualitative data in order to establish the following:

- Develop a profile of South African doctors residing in South Africa
    - What was the decision-making process behind registering at the IMC
    - Confirmation that these doctors are temporary migrants or if not, what were the other reasons for registration
    - Reasons for choosing to register in Ireland as opposed to other countries
    - Establishing area of speciality
    - Exploring experiences of working in South Africa

- Experiences of working and living in Ireland
    - Are they satisfied with work in Ireland?
    - How does it compare to their work in South Africa?
    - If they are working in Ireland on a temporary basis, how often do they go? How long for?
    - Is temporary work a 'stepping stone' to permanent migration?

All data collection was conducted in South Africa. Quantitative data collection took place between July-August 2009 and the interviews were conducted April-May 2010.

This component tests the conceptual framework by looking at the dynamics of temporary migration as a whole process. Data analysis provided answers to three main issues namely:

i) What are the primary motivating factors for temporary migration?

ii) What are conditions that ensure that the doctor reaps the maximum benefits from temporary migration? Are temporary doctor migrants planning to become permanent doctor migrants?

6.8.1 Component Three: Overview of methods

As indicated in section 6.5.2 above, analysis of the IMC register revealed that 1,330 South African doctors who are registered at the IMC reside in South Africa. The assumption was made that these doctors were temporary migrants.

For some mixed methods studies, the qualitative research often facilitates the quantitative research through providing hypotheses and aiding measurement [267]. However, for components three and four it was more appropriate for the quantitative research to facilitate the qualitative research. This is because it served as a means to measure the extent of the phenomena (i.e. temporary or permanent migration), identify doctors to be interviewed, and develop the hypotheses that were generated in the quantitative research.

6.8.2 Component Three: Quantitative phase

A survey was conducted in order to quantify, in a representative sample of South African doctors, their motivations for registering at the IMC, their experiences of working in Ireland and any future migration intentions. The justification for this approach was explained in section 6.6.1.

6.8.2.1 Component Three: Quantitative data collection tool

Self-administered questionnaires were used to obtain quantitative data. The questionnaire was carefully designed in order to obtain data on background information, facts, descriptions, opinions and attitudes. A variety of questions were used for this, namely: numerical (e.g. number of times been to Ireland), categorical (e.g. male/female), nominal (e.g. job type), ordinal (e.g. job satisfaction using the Likert scale 1-5) and text (for open-ended questions).

The questionnaire was structured to obtain the following information:

- Demographics
- Reasons for registering at the IMC
- Length of time and number of times worked in Ireland
- Opinion of the working conditions in Ireland and South Africa
- General motivational context
- Future plans

For components three and four questionnaires were sent to participants in the post. Postal questionnaires are widely used when the population is dispersed [269] and are a frequently used method of data collection in health services research [276]. It was appropriate to use a postal survey in this instance as the postal address was the only contact detail that was held for the

doctors. Non response is a major disadvantage of postal questionnaires and this can introduce bias into the results [269]. It was therefore essential to use methods to increase the response rate as much as possible in order to improve the quality of the research. The methods used are outlined in section 6.11.1. One such method was to give the doctors the option of completing the questionnaire online at www.surveymonkey.com.

Doctors who had been selected to take part in the study were sent a copy of the questionnaire, together with an invitation letter which explained the purpose of the research and with information about how doctors could volunteer to take part in the subsequent interviews. A pre-paid envelope was enclosed to facilitate the return of questionnaires. The invitation letter and questionnaire can be found in Appendix 2 and 3 respectively.

6.8.2.2 Component Three: Quantitative sampling

Participants were selected at random so as to ensure that every doctor has a specified chance of being selected. This form of sampling (probability sampling) reduces bias [277]. However, in such a large country it was not feasible to include all of the doctors as part of the sampling frame for this thesis. In order to make generalizations about the temporary migrants it was therefore necessary to sample from the total number of doctors registered at the IMC, but residing in South Africa.

Systematic sampling involves sampling from a list that has been ordered in some way [267]. This approach was taken as it was known which province doctors resided in and they were organised accordingly. For logistical reasons, three provinces which are adjacent to each other were purposively selected, one urban (Gauteng) and two rural (Limpopo & Mpumalanga). The total number of doctors who are registered in these three provinces is 469 (Gauteng 388, Limpopo 30 and Mpumalanga 51).

6.8.2.3 Component Three: Sampling stages

The key variable used to calculate sample size was intention to migrate to Ireland on a temporary basis. Based on the finite population size outlined above (n=469) a sample size of 138 doctors was calculated. This enabled a 95% confidence level and a +/- 7% margin of error[38]. The response rate to the survey was predicted to be 40%, as this is in line with previous postal surveys [276]. To this end, 345 doctors were selected at random and invited to participate in the postal survey.

[38] Sample size was calculated using http://surveysystem.com/sscalc.htm

A total number of 325[39] questionnaires were initially sent. Of these, 88 were returned completed and 15 were returned as undeliverable. Efforts were made (as outlined in the section 6.11.1) to increase participation, however, further review of the literature revealed several barriers to doctors participating in postal questionnaires [278] and in line with other postal surveys for migrants [279] it was decided that a 30% response rate would have been more appropriate.

The sample size was therefore re-calculated to reflect a response rate of 30%, which meant that 460 questionnaires would have been needed in total. As 325 had already been sent an additional 135 were sent in order to achieve the total number needed for a revised 30% response rate. To this end, 107[40] additional questionnaires were sent. Of these, 42 were returned completed and 10 were returned as undeliverable.

Overall a total of 130 questionnaires were returned, indicating a response rate of 30.1%, but 2 questionnaires were later excluded as these participants had only filled in the first page (gender, age, marital status, country of birth and nationality) and this information was not sufficient to be used for analysis. This means that the total sample obtained for the doctors residing in South Africa was 128. The implications of this will be discussed in the limitations (Chapter 11).

[39] Due to logistical constraints at the time, 20 fewer questionnaires were sent out than the required number of 345.

[40] Due to logistical constraints at the time, 28 fewer questionnaires were sent out than the required number of 135

Table 15: Sampling stages for doctors residing in South Africa

	Figures
The number of SA doctors on the IMC register (April 2009)	1,632
Number living in SA	1,332
Of those in SA, the number in the target regions (Gauteng: 388, Mpumalanga: 30, Limpopo: 51)	469
Sample size calculation (95% Confidence interval +/- 7% margin of error)	138
Number of questionnaires needed for Response Rate of 40%	345
Actual number of questionnaires sent out	325
Number returned	88
Number returned undeliverable	15
Number of questionnaires needed for a Response Rate of 30% (for target sample size of 138)	460
Extra number of questionnaires needed to be sent out (based on 325 already sent)	135
Additional questionnaires sent	107
Number returned (of additional 107 sent)	42
Number returned undeliverable (of additional 107 sent)	10
Total questionnaires sent	**432**
Total number returned	**130**
Total Response rate	**30.1%**
Total number entered (2 were excluded)	**128**

6.8.3 Component Three: Qualitative phase

As discussed in section 6.8.3, in-depth interviews were used in order to obtain a deeper insight into the experiences that doctors had of temporary migration.

6.8.3.1 Component Three: Qualitative data collection tool

Although in-depth interviews are not based on a formal schedule, it is important to have an interview guide (or theme sheet) in order to maintain a focus to the interview. This ensures that all the important areas are covered. Accordingly, a theme was developed which contained a series of cues to facilitate the doctor's reflection on temporary migration.

The theme sheet for the interviews for South African doctors residing in South Africa (Appendix 4) was designed to collect information on the following:

- Demographics
- Reasons for registering at the IMC
- Experiences of working and living in Ireland
- Experiences of working and living in South Africa
- Future plans

All of the interviews were all conducted in-person by me in a place of convenience for the participant. To ensure the confidentiality of information revealed during the interview, respondents were assigned a unique study number. Any identifying information was altered to protect the identity of the respondents and pseudonyms were assigned when quoting in the results section what doctors had said. Where informed consent was given, interviews were audio recorded.

6.8.3.2 Component Three: Qualitative sampling

Due to the disbursed nature of the sample population and the fact that the first point of contact was through the postal questionnaire, convenience sampling was used for the qualitative phase. For those who participated in the survey, the last question requested an indication of willingness to take part in the in-depth interviews. If doctors were willing to take part they were asked to provide their telephone number and/or email address so that they could be contacted easily in order to discuss in further detail what participating in the interview would involve.

The disadvantages of this approach is that does not ensure that the sample is representative of the wider population; however it is a fast way to document a particular phenomenon [270]. For this reason it was an appropriate method to use. Due to the nature of their work, doctors do not have much free time and so by volunteering to take part it indicated that they were able and willing, to spend the necessary time that the interview would take.

6.8.3.3 Component Three: Qualitative Recruitment

From the 128 completed questionnaires that were returned, 46 doctors indicated that they would be happy to take part in the in-depth interviews.

The interviews for component three took place in South Africa in April-May 2010. Doctors who had indicated that they willing to part in the interviews were contacted by email or telephone, depending on what contact details they had provided in the postal questionnaire. Some doctors

who were contacted said that although they were still willing to take part in the interviews they were not in South Africa at the time when the interviews were being conducted

The email/telephone call was made by me in order to give doctors information about what the interview would involve. The email/telephone call clearly explained that participation was voluntary and that if the doctor no longer wanted to, or no longer had the time to take part, then they did not have to. Emphasis was also placed on the fact that the results were anonymous and that doctors could not be identified from what they had said. If doctors were still interested in taking part they were emailed an information sheet (Appendix 5) outlining the study objectives and procedures. The potential interviewee was then given seven days to reflect on what participating in the study will involve. After this time doctors were telephoned to ask whether they were willing to take part in the study and to determine their availability. Upon meeting, the participants were given the opportunity to ask any questions about the research. If doctors were still willing to continue, they were asked to sign a consent form (Appendix 6) which indicated that the interview would be audio-recorded. Doctors were also asked at this point whether they wished to see a copy of their transcript before it was used for analysis. None of the doctors in this component requested this and all gave their permission for the transcript to be used without them seeing it beforehand.

Qualitative data should reflect the views of a population. It is important to get a range of perspectives rather than the average view [280]. It is therefore not possible to calculate a definitive sample size that is needed for qualitative data collection. Rather, data collection should continue until an interviewee does not add any new information to the understanding of a phenomenon. The point at which no new themes emerge is 'data saturation' and this is defined as '*when emerging concepts have been fully explored and no new insights are being generated*' or 'data saturation' [267]. For component three, data saturation was reached after interviewing 17 doctors.

6.9 Component Four (Comparing permanent and temporary migration): Methodology

Component four aimed to compare permanent and temporary migration. It was important to determine the motivation behind permanent migration. It was also important to explore migrants' future intentions, i.e. whether they planned to stay in Ireland, or return to South Africa, or even migrate on to another country.

The methods for data collection and the tools were used for this component were similar to that outlined in component three above for temporary migrants. This component used primary data

collection in the form of a quantitative survey followed by qualitative, in-depth interviews in order to determine the following:

- Develop a profile of South African doctors residing in Ireland
    - Reasons for registering at the IMC
    - Reasons for choosing Ireland as opposed to other countries
    - Any prior migration, either on a temporary or permanent basis
    - Exploring individual motivation

- Experiences of living and working in Ireland
    - Satisfaction with working in Ireland
    - How it compares to working in South Africa
    - Future plans

All data collection was conducted in Ireland. Quantitative data collection took place between September-October 2010 and the interviews were conducted March-May 2011.

This component tests the conceptual framework by exploring whether and how the dynamics of temporary migration are different from the dynamics of permanent migration. There is no doubt that due to the fluidity of the migration process, there will always be some temporary migrants who become permanent migrants, however, the literature indicates that temporary migration is not an automatic prelude to permanent migration. Explicitly, this component will provide answers to two main issues, namely:

i) Whether the primary motivating factors for permanent migrant are different to those of temporary migrants
ii) Whether permanent migrants were originally temporary migrants

6.9.1 Component Four: Overview of the methods

The target population for this component was South African doctors who are registered at the IMC and residing in Ireland. As indicated in section 6.5.2 above, analysis of the IMC register revealed that 206 South African doctors are registered at the IMC and reside in Ireland. As for component three, the quantitative research was conducted first in order to facilitate the qualitative research.

6.9.2 Component Four: Quantitative phase

As for component three, a survey was done in order to quantify, in a representative sample of South African doctors residing in Ireland motivations for migrating to Ireland, experiences of working in Ireland and their future migration intentions. A postal questionnaire was used in order to collect this quantitative data.

6.9.2.1 Component Four: Quantitative data collection

As for component three, an invitation letter (Appendix 7) outlining the purposes of the study was sent to selected participants as well as the questionnaire (Appendix 8). Also, as before information was provided about the interviews which would take place. Doctors who were interested in taking part were given space to indicate this at the end of the questionnaire. A pre-paid envelope was enclosed to facilitate the return of questionnaires.

The justification for using a questionnaire is given in section 6.8.2.1 and the questions were structured so as to obtain information on the following:

- Demographics
- Reasons for registering at the IMC
- Length of time worked in Ireland
- Experience of working and living in Ireland
- General motivational context
- Future plans

6.9.2.2 Component Four: Quantitative sampling

The total doctor population in Ireland was 206. However, 10 were excluded as their address was found to be c/o Locumotion (a recruitment agency) and a further 10 were excluded as their addresses were incomplete. Therefore, the total sampling frame was 186.

Because of the smaller sampling frame of doctors residing in Ireland, it was not necessary to organise the doctors by which province they lived in within Ireland in order to sample from within this. However, this was done in section 7.4 just in order to determine the distribution of where the doctors were residing in Ireland.

The key variable used to calculate sample size was whether doctors had worked in Ireland on a temporary basis prior to permanent migration. Based on the finite population size outlined above

(n=186) a sample size of 96 doctors was calculated. This enabled a 95% confidence level and a +/- 7% margin of error.

Predicting a response rate of approximately 30% which was that found in component three, it would have been necessary to invite 320 doctors to take part in the study. There were not this many doctors in the sampling frame to achieve this and so all 186 doctors were invited to take part and were sent the questionnaire in the post.

Table 16 shows the sampling stages for component four. Of the 186 questionnaires that were sent, 56 were returned completed and 8 were returned as undeliverable. Efforts were made (as outlined in the Methods chapter) to increase participation. Due to the number in the sampling frame it was not possible to send out more questionnaires to increase the sample size. The overall response rate was 30.1%. One doctor was later excluded as the information provided on the questionnaire was not sufficient for analysis and so the final sample size was 55.

Table 16: Sampling stages for Component Four - doctors residing in Ireland

	Figures
The number (April 2009) of SA doctors on the IMC register	1,632
Number with an address in Ireland	206
Sampling frame	186
Sample size calculation (95% Confidence interval +/- 7% margin of error)	96
Response Rate of 30%	320
Actual number of questionnaires sent out	186
Number returned	56
Number returned undeliverable	8
Total Response rate	**30.1%**
Total sample size for analysis (1 was excluded)	**55**

6.9.3 Component Four: Qualitative phase

As discussed in section 6.8.3, in-depth interviews were used in order to elicit qualitative data from the doctors in order to gain a deeper insight into their experiences of permanent migration.

6.9.3.1 Component Four: Qualitative sampling

As for component three, convenience sampling was used in this component to recruit doctors for the qualitative phase. The rationale behind this approach is given in section 6.6.2. As before, the

intention was to interviewee doctors until no new themes or insights arose (i.e. data saturation was reached).

6.9.3.2 Component Four: Qualitative data collection tools

As for component three a theme sheet was developed in order to ensure that the interviews remained focussed, yet flexible. The theme sheet for the interviews for South African doctors residing in Ireland (Appendix 9) was designed to collect information on the following:

- Demographics
- Reasons for registering at the IMC
- Experiences of working and living in Ireland
- Previous migration
- Experiences of working and living in South Africa
- Future plans

All of the interviews were all conducted in-person by me, in a place of convenience for the participant. To ensure the confidentiality of information revealed during the interview, respondents were assigned a unique and random study number. Any identifying information was altered to protect the identity of the respondents and pseudonyms were assigned when quoting in the results section what doctors had said. Where informed consent was given, interviews were audio recorded.

6.9.3.3 Component Four: Qualitative recruitment

The same methods were used for recruitment of the interviews as those used for component three and outlined in section 6.8.3.3. The interviews for doctors took place in Ireland in September-October 2010, As for component three, doctors who had volunteered to take part were contacted and if they were still interested were sent an information sheet outlining what taking part in the study would involve (Appendix 10). Doctors who given an opportunity to reflect whether they did want to take part and then a time was arranged to meet them. Doctors were asked to provide their written consent (Appendix 11) before the interview began.

From the 55 completed questionnaires that were returned, 24 doctors indicated that they would be happy to take part in the in-depth interviews. Doctors were chosen at random to take part in the interviews; however, 6 doctors who were contacted had moved back to South Africa and so were unable to take part. A further 4 doctors who were contacted said that they would be willing to

take part but they were temporarily not in Ireland. In total 11 doctors were interviewed until data saturation was reached.

6.10 Data Analysis

This section will provide the methods that were used for analyzing the quantitative and the qualitative data which was obtained for components two, three and four. As similar data collection tools were used for all three components the methods for data analysis were similar. General methods that were applied will be presented together. Specific information will be provided were necessary. This section starts with the quantitative data analysis and then will proceed to the methods used in the qualitative analysis.

6.10.1 Quantitative data analysis

All quantitative data obtained was entered into Excel. Separate excel databases were used for each Component. Variables were classified as either interval, ordinal, nominal or dichotomous [267].

All analysis was done using STATA (version 10). The advantage of using STATA is that a variety of descriptive and tests for significance can be used. Univariate analysis yielded the descriptive statistics and included frequencies, percentages, means and standard deviations. These are displayed in tables and diagrams. Bivariate analysis was done in order to determine relationships between two variables and multivariate analysis to determine simultaneous analysis of three or more variables. Tests of significance were used and in accordance to good practice, the p value of significance was <0.05 [267].

Due to the range of data that was collected several tests of significance were used. Chi-squared (x^2) was used for categorical data to compare the prevalence in 2 or more groups. Chi-squared was only used when the expected frequencies in each cell was greater than 5. Fisher's exact test was used when frequencies were less than 5. T-tests compared means for numeric data of 2 groups. Analysis of variance (ANOVA) was used to compare means of more than 2 groups. As this only shows whether there is a difference between the means, post-hoc tests were then conducted, when appropriate, to determine which group was different. Regression analysis was used to determine the association between variables. For numerical outcomes, simple linear regression were used for two variables and multiple linear regression were used when there were more than one predictor variable. Logistic regression was used when there was a categorical outcome. The coefficient is presented for the regression models as this shows the measure of effect that the predictor variable has. It is important to note that a negative coefficient shows that

there is a negative relationship between the predictor and the outcome variable. Conversely a positive coefficient shows that there is a positive relationship between the predictor and the outcome variable. In some cases odds ratios were used to look at the strength of the associations.

6.10.1.1 Component Two: specific quantitative methods for analysis

As outlined in section 6.2 , I extracted doctors from the Motivation Project data set and analysed these.

The same statistical techniques were used as outlined in section 6.10.1 in order to:

- Quantify the motivational environment
- Predict whether demographic variables affected job satisfaction, organisational commitment and retention
- Determine the effectiveness of the HRH interventions to motivate, recruit and retain doctors
- Make comparisons across the two provinces

The predictor variables were:

- Personal characteristics: Age, Gender, Marital status, Number of dependent children
- Job characteristics: Speciality, Stage of career, Job satisfaction
- Social characteristics: Ethnicity, Urban/Rural location
- Attitudes towards OSD
- Attitudes towards Rural Allowance
- Attitudes towards Scarce Skills
- Attitudes towards Hospital revitalisation

The outcome variables were:

- Job satisfaction score
- Organisational commitment score
- Intention to quit
- Intention to work overseas (i.e. emigrate)

6.10.1.2 Components Three and Four: specific quantitative methods for analysis

A unique ID number was assigned to each questionnaire received and this was the first variable entered for each doctor. In accordance to good practice [281] the questionnaire was coded before the questionnaire was administered.

The predictor variables were:

- Personal characteristics: Age, Gender, Marital status, Number of dependent children
- Job characteristics: Speciality
- Social characteristics: Ethnicity, Urban/Rural location

The outcome variables were:

- Temporary migration
- Permanent migration

The contextual factors that need to be considered were:

- Conditions in the source country
- Conditions in the destination country

Even though the survey was quantitative there were qualitative elements through the use of open-ended questions. Answers need organising into categories of occurrence, or 'coding'. Coding of open questions follows the same principles as qualitative data analysis (this is explained in section 6.10.2 below), however the difference is that codes are used to translate answers into numbers for subsequent statistical analysis [281].

The two open ended questions asked in component 3-4 were '*What are you most dissatisfied with in South Africa*?' and '*Is there any further information you would like to add about your reasons for registering in Ireland*?' Due to the open nature of these questions it was not possible to anticipate all the answers, therefore a coding scheme was developed after the questionnaires had been completed.

Overall quantitative data analysis aimed to:

- Determine whether economic motivation is the primary motivation for determining temporary migration.
- Determine whether demographic variables (gender, age, marital status and number of dependents) affect intent to migrate, frequency of migration and future plans.
- Examine whether job characteristics (speciality, length in employment) affect intent to migrate and frequency of migration.
- Compare if there are any variances in results for urban/rural location and amongst ethnicity.
- Observe the impact of employment conditions on the frequency of migration

6.10.2 Qualitative data analysis

The in-depth interviews were transcribed verbatim into MS Word and analysed using NVivo (Version 9). NVivo was chosen as provides a 'code-based theory building tools' and also produces quantitative information on word frequency [282]. In order to distinguish between the different components, doctors interviewed in component two were labelled alphabetically and for components three-four this was done numerically (for component four the initials 'PM' were added after the number to show that they were permanent migrants).

It is good practice to analyse qualitative data during data collection. This interactive and cyclical approach allows the researcher to think about the existing data in order to generate strategies for collecting new and better quality data [46]. While this was possible for components three and four (as I collected the data), it was not possible to do this for component two (as the fieldwork had already been done by the South African Motivation Project research team).

Qualitative data describes and explains social phenomena by using analytical categories [272]. There are two approaches to qualitative data analysis; inductive (categories are gradually obtained from the data, i.e. theory generating) or used deductively (categories are derived at the beginning of the analysis i.e. theory testing) [267].

Grounded theory is an inductive process whereby potential theories and concepts are developed and tested until an understanding of the phenomenon is attained [270]. This process stops when saturation is reached. Because the ground theory approach allows for hypotheses to be developed from the ground upwards, rather than a priori [272], it is this process that was used in this thesis.

Coding was used in order to analyse the qualitative data. This involves labelling transcripts to identify components of theoretical significance [267]. Coding pulls together a lot of material and allows the researcher to quickly spot segments relating to a particular hypothesis, concept or theme [46]. Coding essentially breaks down the data into small units so that it is possible to determine the importance of these units. There are three classes of codes: descriptive (which are typically created first); interpretative: and explanatory [46].

Coding can be emergent, or 'bottom up', and start after data collection is completed, thereby allowing data to be moulded into codes that represent them [282]. It is good practice to create a 'start list' of codes, drawn from the conceptual framework, [46] in order to focus attention to theoretic issues. For components three and four this was done prior to fieldwork being conducted. However, as fieldwork for component two had already been conducted it was not

possible to do this, but it was possible to develop a start list of codes before the data were received.

It was however important to adopt a progressive coding system as codes always develop – some don't work, others emerge, some relate to too many segments and need breaking down – in order to ensure that data is not being forced into pre-existing codes [46]. This 'adaptive approach' allows the use of existing theory as an orientating device, whilst maintaining an openness to new concepts [282].

To this end, a general coding domain was created for component two and for components three to four together. For component two there was less development of codes from issues arising from the conceptual framework as analysis relates very specifically to South Africa. Codes were developed from a general understanding of the literature and from issues that arose through working on the Motivation Project. These are presented in Appendix 8. A combined general coding domain was produced for components three and four, using the dynamics of temporary migration captured in the conceptual framework. These are presented in Appendix 9.

After the codes were developed they were applied to the data using in this instance, NVivo[41]. 'Axial coding' was used to determine causal or consequential relationships between the codes, in order to identify any dominant themes. Finally 'selective coding' was used to illustrate the themes obtained in axial and open coding, [281] this produced quotable material for the results chapters.

6.11 Methodological Concerns

There are problems associated with all of the methods chosen and it is important to review this and determine how these may impact on the results.

In particular there were some confounding factors for the data collected as part of component two (i.e. that of the Motivation Project) which may have affected study participation. Shortages of doctors specifically hindered data collection, for instance in one hospital the research team were informed that they had lost eight doctors over the recent months which meant that there were only two at the time of the visit, which may explain the low response rate in this hospital. Additionally in many cases it had not been possible to meet with clinical managers and so doctors were not well informed about the study. Also, an observation was made that the majority of the doctors were not South African and some did not want to participate in the study as they said that they wanted to maintain good relations with management.

[41] NVivo is a computer software programme for qualitative data analysis.

6.11.1 Components Three and Four: Using postal questionnaires

As outlined in section 6.6.1, a disadvantage of using postal questionnaires is a low response rate and this can introduce bias into the research. Effective strategies have been identified to increase survey response rates [269] and where possible these were used in order to increase the likelihood of the questionnaire being returned. The following strategies were used:

- All invitation letters were personalised. Names were hand written in blue ink and each was individually signed.
- Headed Trinity College Dublin University paper was used for the invitation letter.
- All questionnaires were sent by first class post.
- Stamped addressed return envelopes were included.
- An incentive was used. For component three each completed questionnaire was entered into a prize draw for one year's subscription to the Lancet. For component four each completed questionnaire was entered into a prize draw to win a €50 Eason's[42] voucher.
- The questionnaire was short.
- Follow-on contact was made were possible and where this was not possible reminder letters were sent.
- It was anticipated that the survey would be of interest to doctors.
- There were no sensitive questions that doctors would be reluctant to answer.

Because little contact information was known for the selected participants, a variety of approaches were used to encourage participation. Articles were placed in Alumni magazines from South African medical schools in order to publicize the research and its objectives. An attempt was made to trace non-respondents through the telephone directory. This in itself posed a challenge, as many of the postal addresses that were held were PO boxes and not physical addresses. Also, many doctors had similar names or were not listed and therefore it was not possible to distinguish who had been invited to take part in the study. Any doctors who had been invited to take part in the study and were listed in the phone book were rung during the day time. The study was explained to them. For many doctors, the telephone number listed was at their surgery and so the study was first explained to the receptionist who then gave an indication of whether or not the doctor would be interested or not in taking part in the study and completing the questionnaire. If the receptionist thought that the doctor would be interested s/he put the call through to that doctor. It was made very clear during this conversation that participation was entirely voluntary.

[42] Eason is a book shop in Ireland

A reminder letter was sent to all those who it was not possible to make contact with over the phone and who had not responded after a three week period. The reminder letter contained a new questionnaire and a new pre-paid return envelope.

As discussed, non-response is an issue when using postal questionnaires and all efforts were made, to ensure that bias is not introduced into the sample through non response. Non-response was the major methodological concern for the quantitative data and this will be discussed further in the limitations chapter (Chapter 11).

6.11.2 Qualitative data

In order to ensure that doctors were able to speak freely about their experiences certain techniques were used. All of the interviews for components three and four were carried out by me and I have previous experience of conducting in-depth interviews. For component two, the South African Motivation Project field team had been thoroughly trained as to how to conduct interviews [231]. Throughout all interviews neutrality was maintained and leading questions were not used.

There is always a problem with recall bias, however comprehension and memory was checked throughout.

Double coding, whereby two researchers code the same data set and discuss codes used is a good reliability check and aids definitional clarity [46], however, due to the nature of this thesis, whereby all research must be independent and so it was not possible to do this. Nonetheless, in order to increase internal consistently I double coded some transcripts.

It is believed by some qualitative analysts that you need to work with paper, rather than a CAQDAS software, in order to get a larger view of the data [282]. To this end, I worked in a combination of ways, using both NVivo and printing out codes in order to assist with code refinement.

6.12 Triangulation of data

A major strength of a case study methodology is that there is the opportunity to use different sources of evidence. Different types of triangulation have been identified, however the one which implies the common meaning, and the one which is used here, is 'Methodological Triangulation' [267]. This means that findings are supported by more than one source of data [48]. Triangulation allows the '*use of more than one method or source of data in the study of a*

social phenomenon so that findings can be cross checked' [267]. It therefore supports a finding by providing repeated verification using independent measures [46].

Whilst critics of triangulation argue that it assumes that different methods can unambiguously be compared in their ability to answer a research question [267] the process allows for a more reflexive analysis of the data. This is because the researcher is able to develop an overall interpretation of the findings.

This thesis uses triangulation of data on three instances when the same questions are being asked. In component two the use of both a survey and interviews help to both quantify and qualify the South African context in order to enhance the results and draw conclusions from them. In component three, the use of a survey and interviews help to quantify and qualify temporary doctor migration in order to ensure comprehensiveness of the findings. Component four similarly uses a survey and interviews to quantify and qualify permanent migration in order to make comparisons to temporary migration.

Whilst the results of the four individual components cannot be triangulated as each dealt with different topics and asked different questions [267], each component was complementary. This approach ensures that the findings can be corroborated in order to test the validity of the conceptual framework.

6.13 Ethical considerations

Approval to carry out the research for this PhD thesis was obtained from the Health Policy and Management (HPM)/Centre for Global Health (CGH) ethical committee of Trinity College Dublin (TCD). This can be found in Appendix 14.

The invitation letters for component three-four outlined the objectives of the study and stated that all information collected would be anonymous. Questionnaires were labelled with a unique study number which could not be linked to the participant's identify. The invitation letter highlighted that participation in the study was entirely voluntary. Indication was made that by completing and returning the questionnaire doctors were providing their consent to take part in the study.

As outlined in section 6.8.3.3 and 6.9.3.3, doctors who volunteered to take part in the in-depth interviews were provided with detailed information about what the interviews would involve. In particular, emphasis was made that taking part was voluntary. They were then given sufficient time to reflect whether they still wanted to take part in the interviews. With the consent of doctors, interviews were audio recorded. The doctor's name did not appear on the recording. All

recordings were transcribed verbatim. Transcripts were stored on a password protected computer. The transcripts were only viewed by me, and doctors were given the opportunity to read and approve their individual transcript before it was used for analysis. Audio recordings were destroyed after one year.

Research carried out as part of the Motivation Project was approved by the University of the Witwatersrand's Ethics Committee and by Faculty of Health Sciences, TCD. This approval is found in Appendix 15. Permission to conduct the study was further obtained from the Gauteng and North West departments of health, as well as each individual hospital that was selected for participation in the study. Informed consent was obtained from all participants. Participants were provided with an information sheet which explained the purpose of the study and clearly stated that participation was voluntary.

6.14 Summary of Methods

The methodology outlined in this Chapter shows a variety of different approaches. These are being used to ensure that the conceptual model is tested with maximum rigour. The four Components of data collection have been designed to be mutually reinforcing. Component one explored migration patterns to Ireland and provided the sampling frame for components three and four. Component two involved re-analysis of primary data and provides important contextual information regarding the situation in the source country. Components three and four collected primary data collection and methods for this have been outlined. The results of each component will be presented in the subsequent Chapters, followed by a discussion Chapter which triangulates the data and presents the cross-cutting issues.

7 *Results for Component One: Understanding migration patterns to Ireland*

7.1 Introduction

This Chapter presents the analysis of the Irish Medical Council (IMC) register. This had two purposes. Firstly, to provide a better understanding of the numbers of South African doctors registered in Ireland, and secondly, to provide the basis for the sampling frame for the temporary and permanent migrants in components three and four. This Chapter first presents the analysis of the IMC register by nationality. It then shows the breakdown by place of residence in order to determine the number of temporary and permanent migrants.

7.2 Key source countries for registered doctors

A total of 17,406 doctors were listed on IMC register that was obtained on April 2009. As indicated in section 6.5 (page 94) data were provided by nationality of each registered doctor, rather than country of qualification.

Of the total 17,406 doctors on the register, 45 doctors were marked as 'other' or 'unknown' nationality. They were therefore excluded from analysis, bringing the total number of doctors that were analysed by nationality to 17,361.

Figure 11: Breakdown of IMC by nationality, total n=17,361 (2009)

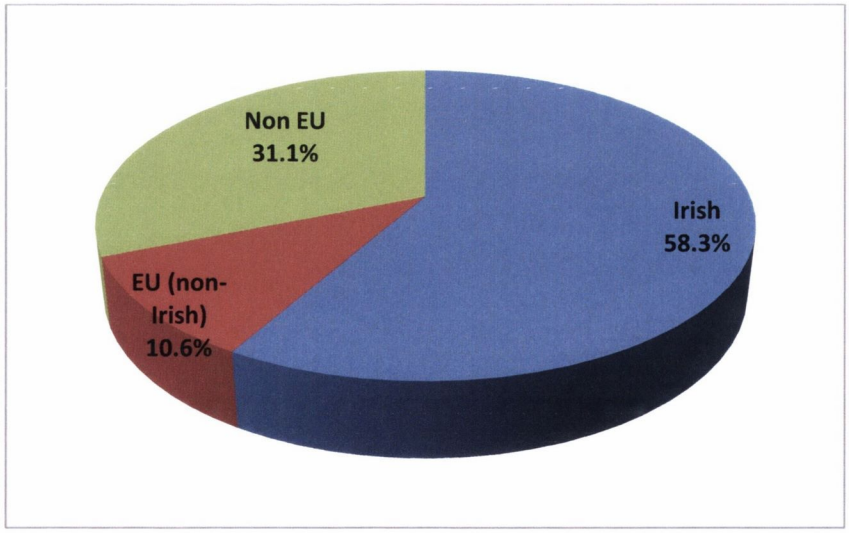
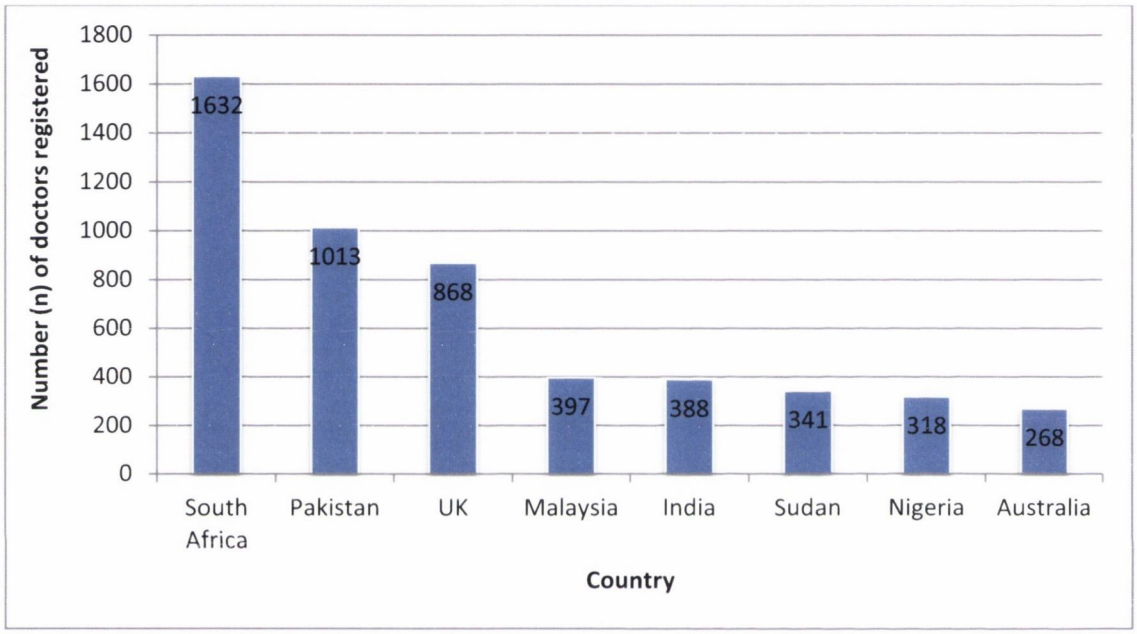


Figure 11, above, shows registered doctors, categorised by EU status. The majority (58.3%, n=10,125) of doctors were Irish, nearly a third (31.1%, n=5,400) were non-EU nationals and the smallest proportion (10.6% (n=1,836) were EU (non-Irish) nationals.

Doctors were further divided into separate categories for each nationality. This was to determine the key source countries. Figure 12 shows the key source countries for doctors holding registration at the IMC, as identified by their nationality. The key source country in 2009 was South Africa (n=1,632) which had 61% more doctors than the second key source country, which was Pakistan (n=1,013). Pakistan was followed by the UK (n=868), Malaysia (n=397) and then India (n=388).

Figure 12: Key source countries for doctors holding registration at the IMC by nationality (2009)



7.3 Analysis of doctors by country of residence

Interestingly, although the majority (57.2%, n=4,139) of non-Irish nationals reported an address in Ireland, 42.8% of all doctors registered (n=3,097) reported an address *outside* Ireland. As already mentioned above, it is assumed that doctors who report an address outside of Ireland do not live in Ireland. It is not possible to tell whether doctors who have an overseas address have been to Ireland, or are considering moving in the future, or whether they are in Ireland but have not yet updated their details.

Figure 13 shows the majority of non-Irish doctors report an address in Ireland. However, the reverse situation was seen for South African doctors, whereby the vast majority reported an address outside Ireland. In fact, the numbers of South African doctors who reside in Ireland is relatively small (n=206).

Figure 13 Non-Irish doctors registered at the IMC by reported address

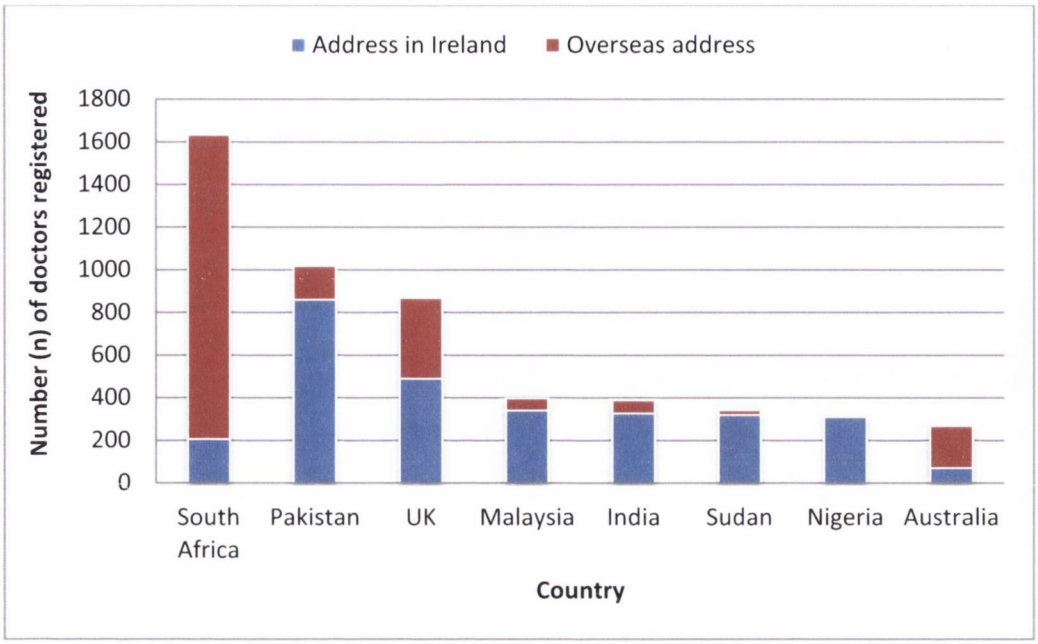


Table 17 further shows registered doctors by reported residence (categorised by source country) and also provides information on the main country where the majority of those residing overseas are living. The vast majority of South African doctors who hold an overseas address are residing in South Africa (n=1,330). This is the largest proportion seen of doctors who report that they are residing in the country of their nationality.

Table 17: Registered doctors (2009) by residential status

Source country	Doctors registered (n)	Doctors with address in Ireland (n)	% holding address elsewhere	Country where majority (%) of those overseas are residing
South Africa	1,632	206	87.4	South Africa (93.3)
Pakistan	1,013	859	15.2	UK (54.1)
UK	868	490	43.5	UK (51.9)
Malaysia	397	340	14.4	Malaysia (64.9)
India	388	326	16.0	UK (40.3)
Sudan	341	318	6.7	UK (39.1)
Nigeria	318	310	2.5	UK (50.0)
Australia	268	69	74.7	Australia (90.4)

When Australian doctors are categorised by address, only a quarter (n=69) report an Irish address. Again, as for South Africans, the majority who hold an address overseas are residing in their home country (i.e. Australia). It could therefore also be assumed that these are temporary

migrants. It is interesting that such a striking similarity of doctors who are registered in Ireland but residing in their home country should occur in two very different countries. Australia has different social, economic and political conditions to South Africa and so the reasons for maintaining an Irish registration may well be different. Due to the smaller numbers of Australian doctors (and the geographical distance to Australia) it was not possible to incorporate these doctors into a suitable case study to answer the questions raised by this thesis. However, this would be an interesting area for further research.

It was suggested in section 6.5.2 that doctors who were residing in a country other than that of their nationality or Ireland were onward migrants. It is not possible to confirm or reject this supposition with the available data. Table 17 shows that the majority of doctors who fall into this category are residing in the UK. It would be interesting to know whether these doctors have worked in Ireland and have migrated on to the UK, or whether they are in the UK and planning to go to Ireland. This is an important area of further research as it provides additional information about migration patterns.

7.4 Analysis of South African doctors only

A new database containing only South African doctors (n=1,632) was created. It was useful to just briefly look at the characteristics of South African doctors who are registered at the IMC in order to understand more about them.

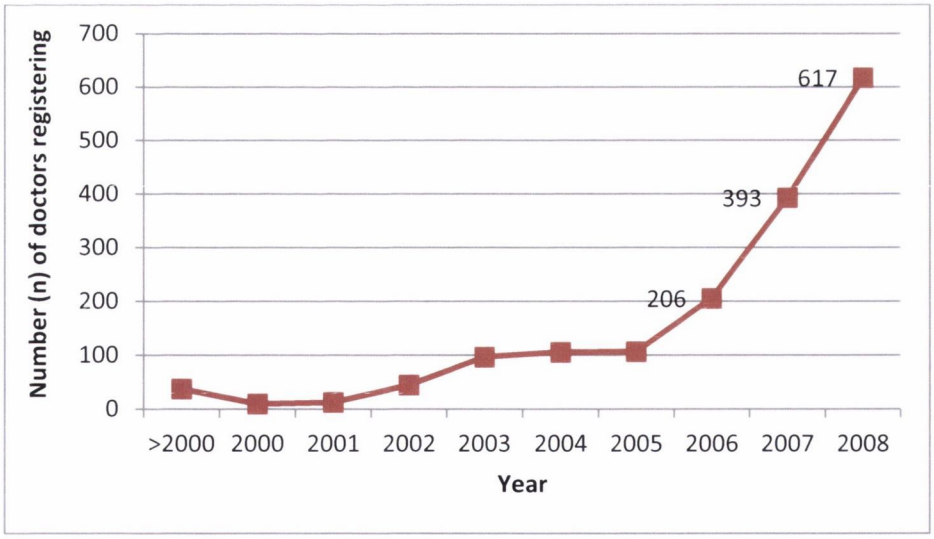
Table 18 shows characteristics (from the available data provided by the IMC register) of South African doctors registered at the IMC. Age was not provided on the database I obtained; however this was calculated using date of birth (as this was provided). Nearly three quarters (71.1%) of the doctors were male and there were approximately one third in each of the three age categories.

Table 18: Characteristics of South African doctors registered at the IMC

Variable	Category	Total (n)	% of the total
Country of residence	South Africa	1,330	81.5
	Ireland	206	12.6
	UK	36	2.2
	Canada	18	1.1
	Australia	15	0.9
	Other	27	1.7
Gender	Male	1,161	71.1
	Female	471	28.9
Age group	Under 35	525	32.2
	35-49	538	34.9
	50+	569	34.9

Figure 14 shows the year that South African doctors joined the register for the first time. The numbers registered has steadily increased and there was a dramatic increase from 2006 to 2008, whereby the number of South African doctors registering that year increased nearly three times during a two year period.

Figure 14: Year that South African doctors joined the IMC register (n=1,632)

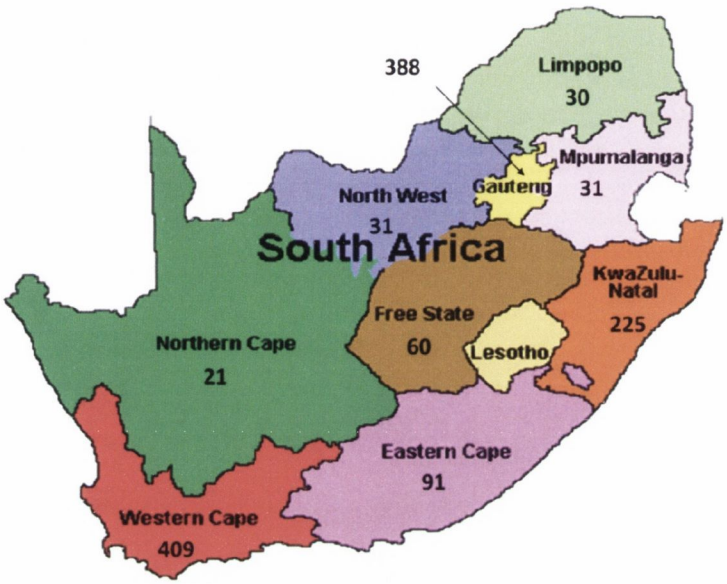


7.4.1 Obtaining the sampling frame for South African doctors

South African doctors (n=1,632) were then analysed by country of residence in order to obtain the sampling frame for components 3-4. A total of 24 doctors were excluded at this point as their address was incomplete.

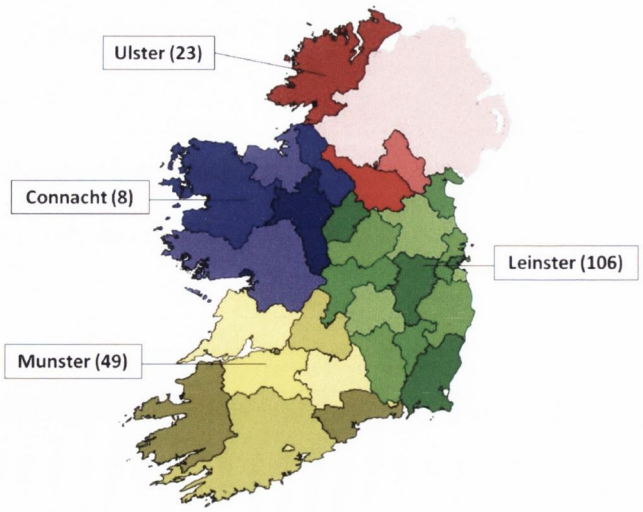
South African doctors who reported a residential address in South Africa (n=1,330) were extracted and placed in a new database for temporary migrants. They were further categorised by province in order to explore how they were distributed throughout the country. Figure 15 shows that the largest number of doctors lived in the Western Cape (n=409), followed by Gauteng (n=388) and KwaZulu-Natal (n=225).

Figure 15: Doctors reported place of residence by South African province



Similarly South African doctors who reported a residential address in Ireland (n=206) were extracted and placed in a new database for permanent migrants. They were categorised by region. Most doctors resided in Leinster (n=106), followed by Munster (n=49). This is illustrated in Figure 16.

Figure 16: Doctors reported region of residence by Irish region



7.5 Summary of the IMC analysis

These results present information on the key source countries for doctors who are registered in Ireland. Whilst the main aim of this component was to provide a sampling frame for components three and four these results contribute valuable information about migration trends to Ireland. As previously discussed, analysis of the IMC register had never been done before at this depth. In particular, by disaggregating the data by registered address it was plausible to propose that doctors who are registered at the IMC fall into three migration categories: namely, permanent, temporary and other. It is beyond the scope of this thesis to explore the 'other' category further, however, in an important area of further research.

This analysis therefore highlights that migration patterns are much more complicated than one off flows. Such complexity of migration patterns has different implications for the Irish healthcare systems particularly in terms of their ability to implement effective workforce strategies.

As already highlighted, this component forms the integral part of this thesis by providing the sampling frame for components three and four (i.e. temporary and permanent migrants respectively). As shown in section 7.3 although South Africans make up the largest number of non-Irish nationals registered at the IMC, the vast majority do not live in Ireland; instead they reside in South Africa. It is possible that South African doctors applied to the IMC before migration, using their address at that time (likely to be South Africa) and that they have not updated their contact details. It is also possible that South African doctors view Ireland as a 'safety net' in case the political and economic situation in South African worsens. However such a discrepancy, as well as review of the literature which suggests that South African doctors are working as locums in Ireland (see section 4.7), confirms that temporary migration is taking place.

8 *Results for Component Two: Exploring the South African context*

8.1 Introduction

This component uses data that were collected as part of the Motivation Project. These data provide an insight into the situation faced by doctors working in the source country (namely South Africa). It was important to gain an understanding of what push factors are present in South Africa. This creates a desire to migrant and the literature review found push factors faced by South African doctors played a more important role than pull factors in influencing decision to migrate [95, 132].

As discussed in section 6.2 of the Methods chapter, quantitative and qualitative data were collected as part of the Motivation Project's activities in South Africa. For this thesis information was extracted for doctors for re-analysis. A total of 40 doctors took part in the survey in both Gauteng and North West province and in urban or rural locations. Hospitals were either revitalised or non-revitalised. As outlined in the Methods (section 6.11) it was difficult to get doctors to participate in the in-depth interviews and only 6 doctors took part in these (3 from rural revitalised hospitals, 3 from urban non-revitalised hospitals). The implications of the sample size will be discussed in the Limitations (Chapter 11). All doctors were from the North West province (no doctors from Gauteng took part in the interviews.

The Chapter starts by presenting the main themes that emerged from the qualitative interviews relating to the challenges faced by doctors who are working in South African hospitals. After this, analysis from the survey is presented in order to quantify issues of job satisfaction, organisational commitment and retention as well as to explore the effect of incentives that have been implemented in order to motivate and attract health workers to work in facilities. Finally issues of retention will be examined by determining intent to emigrate. Throughout the quantitative sections added depth of the results will be provided by the qualitative data.

8.2 Challenges that are faced by doctors in South Africa

Doctors were found to be in low spirits in the interviews: "*We see patients but the morale is low*" (Doctor A). This was found to be having an effect on productivity "*I don't have any motivation at all*" (Doctor E).

During the in-depth interviews doctors were asked about the work challenges that they faced. One of the major challenges that was reported was the shortage of doctors "*it's really our biggest challenge for now; I think we are having four doctors only for this institution which has 290*

beds" (Doctor B). Shortages meant that doctors often had to do extra overtime. Extra work at a time when doctors should have been resting was resulting in issues of burn out:

"*I had to be on call every other day, on call, post call, on call, post call, for like five in nine days...after that week I needed a week to rest, I just, I couldn't function*" (Doctor E).

Additionally, the resulting extra work for doctors said to be contributing to a decline in the quality of care that doctors were able to provide to:

"*You can't give them a good service you know...for example 120 patients, tell me what do you expect me to give to these patients, I have no problem with medication but I don't have time to check them deeply, you know, and unfortunately that is happening*" (Doctor C).

Staff shortages were found to not only be caused by a lack of human resources, but also through absenteeism of staff who were working at the facilities: "*it tires the other people through the ones who absent themselves*" (Doctor F).

Another major challenge was found with training. Access to training was found to be a problem particularly for doctors working at rural facilities and this was also related to the fact that shortages made it impossible to leave the facility where they were working:

"*We cannot go for training because of shortages and we cannot, you know, upgrade ourselves...So you just have to work with what you know. So it's a bit of a problem*" (Doctor A).

Training was also found to be a powerful motivator and it was suggested that providing training would be a better incentive than finance:

"*It is not just about the money, people can go for training things – like you say, ok, good if you work in the rural area we will send you to Baragwanath hospital*[43] *for six months...things like that to try to motivate people to give them more skills*" (Doctor B).

However, financial incentives were found to be important and all six interviewees mentioned that money was very influential. The survey confirmed that doctors were dissatisfied with pay, in addition to the incentives that have been implemented in order to increase pay. These results are presented below.

[43] A teaching hospital in Soweto, Johannesburg

8.3 Survey respondents: demographic characteristics

A total of 40 doctors were surveyed, n=26 from Gauteng province and n=14 from North West province. The demographic characteristics of doctors, characterised by province, are provided in Table 19.

Table 19: Demographic characteristics of survey respondents

Variable		Gauteng % (n)	North West % (n)	Total % (n)	P-value
Location	Urban	100.0 (26)	50.0 (7)	82.5 (33)	<0.01#
	Rural	0.0 (0)	50.0 (7)	17.5 (7)	
Revitalisation status	Revitalised	0.0 (0)	35.7 (5)	12.5 (5)	<0.01#
	Not revitalised	100.0 (26)	64.3 (9)	87.5 (35)	
Age	Av. (years)	38.2	38.3	38.2	0.98*
Gender	Male	61.5 (16)	71.4 (10)	65.0 (26)	0.73#
	Female	38.5 (10)	28.6 (4)	35.0 (14)	
Nationality	South African	84.0 (21)	66.7 (6)	79.4 (27)	0.35#
	Other	16.0 (4)	33.3 (3)	20.6 (7)	
Marital status	Married	57.7 (15)	42.9 (6)	52.9 (21)	0.37^
	Not married	42.3 (11)	57.1 (8)	47.5 (19)	
Ethnicity	African	50.0 (13)	64.3 (9)	55.0 (22)	0.54#
	White	26.9 (7)	28.6 (4)	27.5 (11)	
	Other	23.1 (6)	7.1 (1)	17.5 (7)	
Children	Yes	57.7 (15)	76.9 (10)	64.1 (25)	0.30#
	No	42.3 (11)	23.1 (3)	35.9 (14)	
Medical college	South Africa	68.0 (17)	38.5 (5)	57.9 (22)	0.08^
	Other country	32.0 (8)	61.5 (8)	42.1 (16)	
Category of doctor	Medical officer	96.2 (25)	71.4 (10)	87.5 (35)	0.04#
	Specialist	3.9 (1)	28.6 (4)	12.5 (5)	
Changed job in the past year	Yes	23.1 (6)	57.1 (8)	35.0 (14)	0.03^
	No	76.9 (20)	42.9 (6)	65.0 (26)	

^ Chi-squared test, * T-test, # Fischer's exact test

Statistical analysis was performed to see if there were any associations between province and demographic characteristics. Chi-squared tests were used for categorical outcomes and Fischer's

exact tests were used when expected frequencies were low[44]. T-tests were used for numerical outcomes in order to compare the means of two groups.

Overall, respondents were predominantly working in urban (82.5%), non-revitalised hospitals (87.5%). In the North West a larger proportion of doctors worked in rural locations than Gauteng ($p<0.01$) and also a larger proportion worked in revitalised hospitals compared to Gauteng ($p<0.01$).

Most of the other demographics for each province were similar. There were a slightly higher proportion of males working in the North West and doctors in this province had more children, but neither result was significantly different than that found in Gauteng. Gauteng had a higher proportion of South African nationals and doctors who had been to medical college in South Africa, but again neither of these characteristics was significantly different to that found in the North West.

There was, however, a significant association between province and category of doctor ($p=0.04$) whereby there was a higher proportion of medical officers in Gauteng compared to the North West. There was also a significant association between province and whether the doctor had changed jobs in the previous year (x^2 (1) = 4.64, $p=0.03$), with a smaller proportion of doctors in Gauteng changing their jobs compared to the North West.

8.4 Job satisfaction and organisational commitment scores

The literature suggests that job satisfaction and organisational commitment are linked to retention and therefore these factors will be considered in order to see if they are influential in the South African context. The survey quantified happiness with five elements of the doctors' job, by measuring satisfaction with: pay, promotion opportunities, supervision, their job in general, relationships with colleagues and overall job satisfaction. As discussed in section 6.7.3 of the Methods, job satisfaction and organisational commitment were measured on a score of 0 to 15. As the maximum score was 15 a mid-point of 7.5 was taken as a crude cut-off, namely that a score below this indicated 'dissatisfaction' and a score above this indicated 'satisfaction'. Cronbach's alpha was calculated in order to determine the reliability of each job satisfaction score and the organisational commitment score. The summary statistics are shown in Table 20:

[44] As noted in the methods section 6.10.1.2 chi-squared was only used when the expected frequencies in each cell was greater than 5. Fisher's exact test was used when frequencies were less than 5.

Table 20: Summary statistics for job satisfaction and organisation commitment scales

Job satisfaction scale	Number of items in scale	Cronbach's alpha	Mean score	Standard deviation	% dissatisfied
Colleagues	5	0.76	10.8	4.44	18.4
Job in general	5	0.74	10.7	4.33	23.1
Overall job	8	0.87	8.9	4.81	27.0
Supervision	5	0.84	8.3	5.38	43.2
Promotion	5	0.75	5.0	4.59	76.3
Pay	5	0.55	3.2	3.34	89.7
Organisational commitment	14	0.92	3.8	0.81	-

As shown in Table 20 doctors appeared to be satisfied with their colleagues and their job in general. Conversely, doctors were very dissatisfied with pay and opportunities for promotion. Although there appeared to be mid-level satisfaction with both the job overall and with supervision both of these have large standard deviations, (SD 4.81 and 5.38 respectively). This indicates that there was more heterogeneity and doctors agreed less with each other.

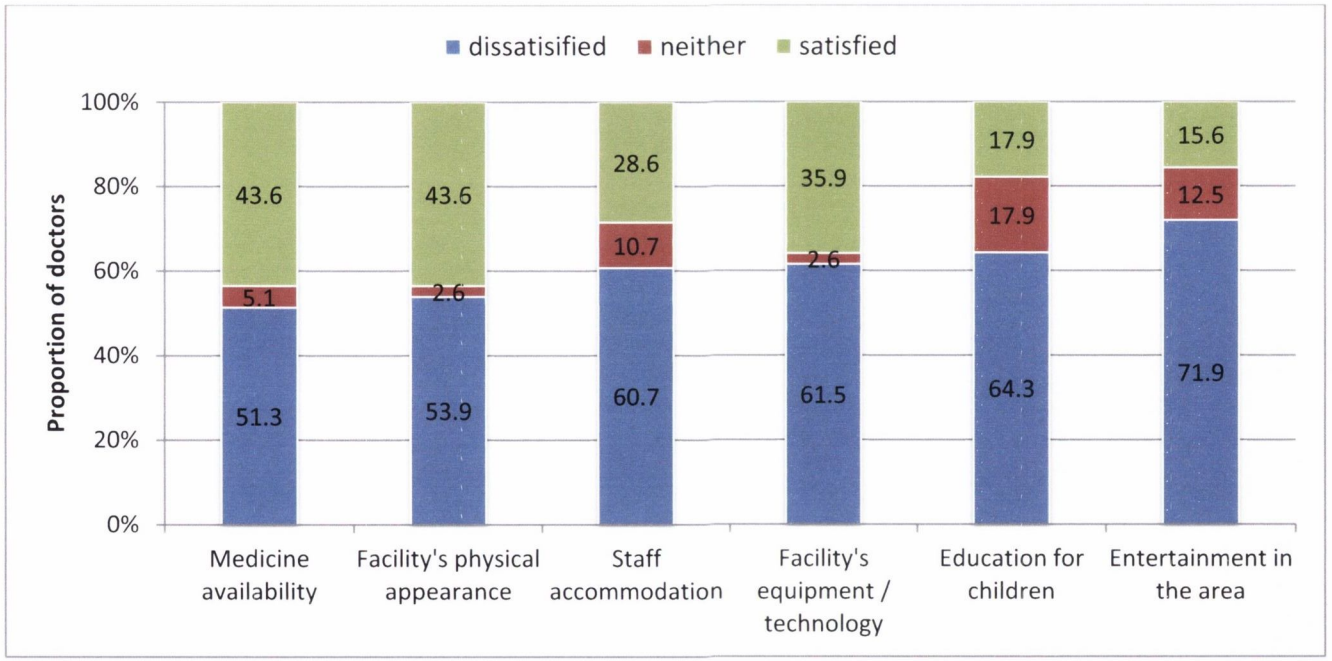
Dissatisfaction with salary was also noted in the in-depth interviews: "*we are underpaid for the ridiculous hours that we work*" (Doctor E).

8.5 Satisfaction with the facility and surrounding area

Survey respondents were asked to score their satisfaction with certain factors within or around their facilities. The scoring was conducted on a scale of 1 as very dissatisfied to 7 as very satisfied. Figure 17 shows these results. It is important to spend some time reflecting these results as they provide important information on push factors and how influential they are.

There were mixed feelings about the physical appearance of the facility where doctors were working, with just over half (53.9%) dissatisfied with this. There were high levels of dissatisfaction with equipment / technology in the facility (61.5%), accommodation provided for staff (60.7%) and education for children in the area (64.3%). However, lack of entertainment was the factor that doctors were most unhappy with, with nearly three quarters (71.8%) saying that they were dissatisfied with this.

Figure 17: Satisfaction with the facility and surrounding work area



Lack of facilities in rural areas and the challenges that this brought were noted in the interviews:

"we don't have good schools nearby....they don't have banks here, they only have the auto tellers...the shops around only stock basic food and basic things, so if you want to buy something that is most special you have to travel for that" (Doctor F).

Additional themes that emerged in the interviews were dissatisfaction with lack of education for children and entertainment in the area. These two issues were found to cause major problems at both attracting and retaining health workers to rural areas.

"Look, we have to admit that maybe people don't want to work in the rural area....they (doctors) won't come here because they think there is no good school for their kids here. They will have to leave one day because of the school for their kids" (Doctor B).

"there is nothing for the young people....if they need to go anywhere and they have transport they go to [names city] or [names city] but other than that there is absolutely nothing here in [names town]" (Doctor D).

8.6 Allowances

Allowances have been implemented in order to attract and retain staff and thereby decrease push factors. For this reason, some attention will be paid to determine doctors' satisfaction with these initiatives.

Doctors were asked whether they were receiving or not receiving the rural allowance, scarce skills allowance or Occupational Specific Dispensation (OSD) and their attitudes towards each is reported in Table 21. As indicated in section 4.5 OSD for doctors has not yet been implemented, therefore no doctors reported that there were receiving this allowance, but their attitudes towards it were examined.

Table 21: Satisfaction with allowances

Allowance	Receiving/not receiving	Variable	Dissatisfied/ Disagree	Neither	Satisfied/ Agree
Rural	Receiving allowance (n=6)	How do you feel about it?	50.0	16.7	33.3
		It attracted me to come and work at this facility	83.3	0.0	16.7
		It motivates me to do my job	83.3	0.0	16.7
		Encourages me to stay at this facility	66.7	16.7	16.7
	Not receiving (n=24)	How do you feel about not getting it?	66.7	20.8	12.5
Scarce Skills	Receiving (n=34)	How do you feel about it?	55.9	14.7	29.4
		It attracted me to come and work at this facility	72.7	18.2	9.1
		It motivates me to do my job	64.7	14.7	20.6
		Encourages me to stay at this facility	70.6	14.7	14.7
	Not receiving (n=4)	How do you feel about not getting it?	75.0	25.0	0.0
OSD	Not receiving (n=26)	How do you feel about not getting it?	88.5	7.7	3.9

8.6.1 Satisfaction with Rural Allowance

There were high levels of dissatisfaction with the Rural Allowance reported in the survey, both by those who received the allowance and by those who did not. Of those who were receiving the allowance it was not motivating them to do their job or to remain within their post. Equally, those doctors who were not receiving Rural Allowance were unhappy about this, with two thirds reporting that they were dissatisfied not to receive it.

None of the doctors who were interviewed felt that the Rural Allowance was very effective. The main reason for this was that it does not take into account the 'ruralness' of the location. There was awareness that this made it difficult to attract doctors to more remote areas with the promise of Rural Allowance, as this could receive this in some towns which were classified as rural:

"*People in town receive the same than the person who has to travel 80 kilometres to get to the nearest town. I mean the village cannot be seen as a town*" (Doctor F).

Furthermore it was felt that Rural Allowance was not adequate compensation for the lack of facilities that were found in rural areas "*if I work in [names town]...I get rural allowance....on weekends when you are not working you have to travel....and so you actually spend that money on the road anyway....no, it won't attract me*" Doctor E.

One of the reasons provided for this was that doctors working in urban hospitals are able to top up their income through doing overtime, which was said to be more lucrative than the Rural Allowance.

"*I don't think it is working.....an example, Jo'burg doctors are allowed to go and do calls in different hospitals they call it 'extra over time'....we know guys who get more than the rural allowance by doing calls in different hospitals*" (Doctor B).

Also it was noted that the allowance was not fair as not all cadres of health workers were receiving it, despite also working in rural areas and this might create tensions within the workplace.

"*and when the rural allowance came out and I said no man, why must I get it and why must they not get it. Then I think they gave us for a while and then they gave the senior nurses and at the moment I think the junior nurses don't get, would I be correct? The junior nurses don't get rural allowance. So I think that's not right*" (Doctor D).

8.6.2 Satisfaction with Scarce Skills Allowance

The majority of doctors (87.2%) reported that they were receiving the Scarce Skills Allowance. However, like the Rural Allowance there were high levels of dissatisfaction with this allowance, with less than a third (29.4%) happy with it. Conversely, three quarters (75.0%) of doctors reported that they were dissatisfied that they were not receiving the Scarce Skills Allowance.

Again, as for the Rural Allowance, the Scarce Skills Allowance seems to have a limited impact on motivation (20.6% said it motivated them to work at the facility), retention (14.7% reported it encouraged them to stay) and attraction to facilities (9.1% said it attracted them to work at the facility). Similar negative attitudes towards Scarce Skills and Rural Allowance were also made during the interviews: "*What I said about the rural allowance, it will apply also here*" (Doctor B). The point was also raised that the scarce skills was given regardless of location and therefore would work to attract doctors to rural locations:

> *"If I work in Cape Town I get the scarce skills and if work in this town I will get the same. So that would not attract anybody from coming from Cape Town at this place"* (Doctor A).

One doctor referred to the fact that Scarce Skills Allowance was not out-come orientated or assessed on skills which doctors had. It was felt that if the allowance was calculated according to experience and skills it would encourage people to learn other skills:

> *"They (doctors) are all getting it, but if a doctor doesn't give anaesthesia gets less than the one that does give anaesthesia I think that would motivate people to develop their skills"* (Doctor F).

8.6.3 Satisfaction with OSD (or lack of)

There was a high level of dissatisfaction (92.3%) amongst doctors who were not receiving OSD. Unhappiness that OSD had not been implemented was mentioned by all doctors who were interviewed. OSD seems to be the intervention that doctors would like to be receiving as it seems to be the incentive that is perceived to really boost income, as stated by one interviewee "*I would be happy for the OSD, I would really be happy because if you see what people make in the private sector*" (Doctor D).

Frustrations with the delayed implementation were overwhelming evident, but some were trying to keep optimistic that this would happen soon: "*they (the government) don't get to the point where they pay us and it is making us unhappy, so hopefully it will come*" (Doctor F). Interestingly, one doctor referred to the negative knock-on effects that were experienced during the implementation of OSD for nurses and to this end was not as optimistic as to the benefits the

allowance would bring: "*the sisters (nurses) are complaining it's just a disaster. I don't know whats gonna happen with our OSD, but hopefully it will be beneficiary to some extent, I don't know*" (Doctor E).

8.7 Retention

Whilst it is important to understand contextual factors, the focus of this thesis is migration and therefore factors associated with retention will not be examined in detail. Issues of retention will be explored further in section 8.9 to look at issues of international migration.

Retention was found to be a major issue in the in-depth interviews. Reasons that were given for the lack of retention included desire to leave rural locations, heavy workloads and money – particularly discrepancies amongst the provinces for pay that is received: "*different provinces are paying more to attract people from the smaller provinces.....the other provinces gave them a little bit extra and they left; I think that is important for retaining staff*" (Doctor D).

Retention was measured through a scale to determine doctor's intention to quit their current post. The Cronbach's alpha reliability coefficient for the intention to quit scale was 0.87. Overall there was a mean intention to quit score of 16.1 (SD 7.5), with a minimum score of 4 and a maximum score of 28. As the maximum score for this scale was 28, a mid-point score of 16 was taken as a cut off point implying that above this meant a high likelihood of wanting to quit and below this suggested less likelihood of wanting to leave.

8.7.1 Relationships between receipt of allowances and retention

As allowances were introduced with the aim of increasing retention, analysis using two sample t-tests was carried out to determine whether there were associations between receiving allowances and intention to quit. Additionally as the hospital revitalisation program aimed to improve retention, tests for association were also carried out between this and intention to quit.

As shown in Table 22 doctors who receive rural allowance were significantly less likely to quit[45] (M = 7.5, SE = 1.12) than those who were not receiving the allowance (M = 17.6, SE = 1.220), t (38) = 5.53, $p<0.01$. This suggests that rural allowance is effective at retaining doctors. Revitalisation also appears to be an effective retention strategy, with doctors who were working in a revitalised hospital significantly less likely to quit (M = 6.8, SE = 1.07) than those who were not working at a revitalised hospital (M = 17.4, SE = 1.07), t (38) = -3.35, $p<0.01$.

[45] i.e. scored lower on the intention to quit scale

Scarce skills allowance does not appear to be an effective retention strategy as there was no association between receiving this allowance and intention to quit.

Table 22: Relationships between allowances/revitalisation and retention

Predictor Variable		Intention to quit			
		Mean	Std Error	t	P-value
Rural Allowance	Yes	7.5	1.12	-3.47	<0.01
	No	17.6	1.20		
Scarce Skills Allowance	Yes	16.4	1.28	0.68	0.50
	No	14.1	3.09		
Revitalised hospital	Yes	6.8	1.07	-3.35	<0.01
	No	17.4	1.18		

Interestingly, however, there was reference in the interviews to the fact that rural allowance was not effective at retaining people:

"If it [Rural Allowance] were effective people would stay here" (Doctor A)

"Yes, I would tell you being in a rural area is a choice, not really about rural allowance. I don't think there is anyone who is here because of the rural allowance" (Doctor B).

There were mixed opinions in the interviews as to whether hospital revitalisation retained staff. Half or the doctors interviewed (n=3) were working at revitalised hospitals, one doctor referred to the program rather derisively as *"touch-ups"* (Doctor B) and another felt the renovations were, helping retention, but not overwhelmingly so *"it can help, but not to the extent to keep someone"* (Doctor A). One doctor, however, was very positive about the revitalisation *"we are going to enjoy the new place...I enjoy being called there [names department]...they will stay because the structure is more compliant to what we need"* (Doctor F). A confounding factor for satisfaction with the revitalisation program is clearly that there is no information about what condition the hospital was in before and to what extent revitalisation has occurred to the same standard throughout all the departments in the hospital, i.e. some departments have been renovated more than others and this may account for some doctors perceiving it to be a more effective program than others.

8.8 Factors associated with intention to quit current position

As indicated in section 8.7, the mean intention to quit score was 16.1 (out of a maximum of 28). Multiple linear regression analysis was conducted to determine the predicator variables associated with intention to quit.

The first multiple linear regression model used receipt of incentive initiatives that have been implemented to improve retention as predictors, whilst incorporating demographic variables.

Table 23: Multiple linear regression analysis to determine whether demographic characteristics and receipt of incentive initiatives were associated with intention to quit

Predictor variable		**Coef.**	**Std. Error**	**P-value**
Constant		*12.69*	*8.26*	-
Province	North West	-	-	-
	Gauteng	-3.22	5.28	0.55
Location	Rural	-	-	-
	Urban	4.03	8.32	0.63
Category of doctor	Specialist	-	-	-
	Medical officer	2.67	5.41	0.63
Gender	Female	-	-	-
	Male	4.50	2.87	0.13
Age		-0.40	0.13	0.77
Children		-1.90	3.18	0.53
Marital status	Not married	-	-	-
	Married	-1.42	2.46	0.57
Rural Allowance	Not receiving the allowance	-	-	-
	Receiving the allowance	-6.08	8.77	0.49
Scarce Skills Allowance	Not receiving the allowance	-	-	-
	Receiving the allowance	2.36	4.29	0.59
Revitalisation status	Not revitalised	-	-	-
	Revitalised	-5.95	10.72	0.82

n=39, F=1.14, p=0.12

Table 22 (on page 141) found that Rural Allowance and hospital revitalisation were significantly associated with intention to quit. However, the results of the multiple linear regression shown above in Table 23 show that none of the variables significantly predict intention to quit, i.e. this model shows that intention to quit is not associated with province, location, grade, gender, age,

having children, marital status, working in a revitalised hospital, or receiving allowances. However, there may well be associations with these variables but these differences were not big enough to be identified with the small sample size available for analysis.

The second multiple linear regression used the job satisfaction scores as predictors of intention to quit, whilst, as before, keeping demographic variables incorporated. The results of this analysis are found in Table 24.

There were three significant predicator variables. Location was found to be significant (0.01). Interestingly, doctors working in an urban environment scored higher on the intention to quit scale (i.e. more likely to quit). This may be due to the fact there are more job opportunities available in urban locations.

The second predictor variable is satisfaction with work ($p=0.03$). The negative coefficient indicates that the less satisfied the doctor is with work, the more likely they are to quit.

The third predictor variable is satisfaction with supervision ($p<0.01$). Again the negative coefficient indicates the less satisfied the doctor is with supervision, the more likely they are to quit.

Table 24: Multiple linear regression analysis to determine whether job satisfaction variables were associated with intention to quit

Predictor variable		**Coef.**	**Std. Error**	**P-value**
Constant		*37.57*	*8.72*	-
Province	North West	-	-	-
	Gauteng	-9.23	4.79	0.07
Location	Rural	-	-	-
	Urban	12.97	4.80	0.01
Category of doctor	Specialist	-	-	-
	Medical officer	-3.32	4.37	0.46
Gender	Female	-	-	-
	Male	3.36	1.91	0.09
Age		-0.21	0.11	0.07
Children		-3.10	2.45	0.22
Marital status	Not married	-	-	-
	Married	-0.76	2.55	0.77
Satisfaction with work		-0.21	0.09	0.03
Satisfaction with pay		-0.65	0.43	0.15
Satisfaction with promotion		-0.05	0.24	0.82
Satisfaction with supervision		-0.75	0.22	<0.01
Satisfaction with colleagues		0.07	0.29	0.81
Overall job satisfaction		0.03	0.21	0.90
Organisational commitment		0.35	1.72	0.84

n=34, F=4.66, p<0.01

8.9 Factors associated with plans for international migration

Survey participants were asked whether they were considering going to work in the health sector of another country. This binary variable was used as a measure of intent to emigrate (i.e. "0 = not considering emigration" and "1 = considering emigration"). Just under half of the doctors (47.2%, n=17) reported that they were considering emigrating from South Africa to work in another country.

Salary was mentioned in the interviews as a contributing factor towards international migration: "*people are going to pack overseas because of money*" (Doctor C). A t-test was therefore conducted to determine whether there was any significance between satisfaction with salary and

intent to emigrate. After this test had been preformed, all variables were tested[46] for association with intent to emigrate.

Table 25: Summary statistics of emigration intent by demographic factors, job satisfaction scores and receipt of allowances

Variable	Category	Not considering emigration	Considering emigration	P-value
Province	North West	54.6 (6)	45.5 (5)	0.58#
	Gauteng	52.0 (13)	48.2 (12)	
Location	Rural	40.0 (2)	60.0 (3)	0.45#
	Urban	54.8 (17)	45.2 (14)	
Age	Mean age	39.9	35.9	0.26*
Gender	Female	50.0 (6)	50.0 (6)	0.55#
	Male	54.2 (13)	45.8 (11)	
Married	Not married	38.9 (7)	61.1 (11)	0.09#
	Married	66.7 (12)	33.3 (6)	
Children	No	38.5 (5)	61.5 (8)	0.20#
	Yes	59.1 (13)	40.9 (9)	
Nationality	South African	60.0 (15)	40.0 (10)	0.24#
	Other	33.3 (2)	66.7 (4)	
Medical college	South Africa	50.0 (10)	50.0 (10)	0.32*
	Other country	64.3 (9)	35.7 (5)	
Satisfaction with salary	Mean score	3.17	2.5	0.55*
Satisfaction with work	Mean score	10.3	11.1	0.61*
Satisfaction with promotion	Mean score	5.1	4.9	0.91*
Satisfaction with supervision	Mean score	8.4	8.4	0.96*
Satisfaction with colleagues	Mean score	11.3	9.8	0.38*
Satisfaction overall	Mean score	13.8	14.5	0.80*
Organisational commitment	Mean score	3.9	3.7	0.35*
Rural allowance	Receiving	25.0 (1)	75.0 (3)	0.26#
Scarce skills allowance	Receiving	54.8 (17)	45.2 (14)	0.44#
Hospital status	Revitalised	33.3 (1)	66.7 (2)	0.46#

Bivariate analysis found that there was no statistically significant associations were found (i.e. $p<0.5$) between considering emigration and the following variables: province, location, age, gender, marital status, nationality, country of qualification, work satisfaction (all categories of

[46] Fischer's exact (indicated by #) or t-tests were used (*) depending on the type of predictor variable

this), or organisational commitment. Furthermore, there were no differences between considering emigration and being in receipt of rural allowance, or scarce skills allowance, or working in a revitalised hospital.

Questions regarding satisfaction with the facility and surrounding areas were measured on a Likert scale of 1-7[47]. In order to determine whether there was an association between these factors (which were identified as potential 'push' factors in section 8.5) and considering emigration, each of the satisfaction variables were re-coded into a binary outcome, namely dissatisfied and not dissatisfied. Fisher's exact tests were performed to determine whether there were any relationships between each of these re-coded binary satisfaction variables and considering emigration.

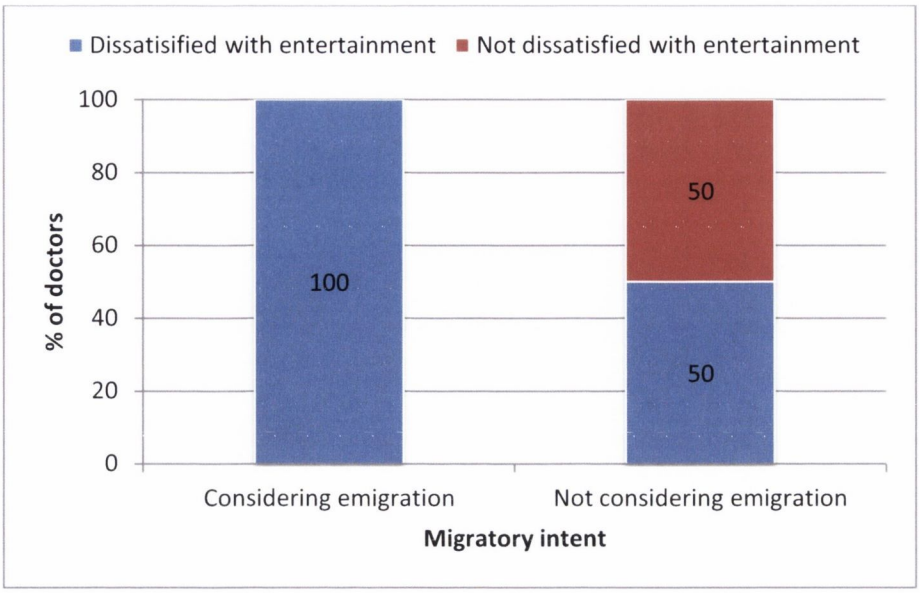
Table 26: Summary statistics for satisfaction with the facility and surrounds by emigration intent

Dissatisfied with...	Not considering emigration	Considering emigration	P-value
Availability of medicine	52.6 (10)	47.4 (9)	0.57
Facility's physical appearance	60.0 (12)	40.0 (8)	0.20
Accommodation for staff	43.8 (7)	56.3 (9)	0.33
Equipment available at the hospital	59.4 (18)	40.9 (9)	0.20
Education opportunities available for children	37.5 (6)	62.5 (10)	0.24
Entertainment in the area	33.3 (7)	66.7 (14)	<0.01

There were no significant associations between considering emigration and dissatisfaction with availability of medicine, the physical appearance of the facility, staff accommodation, the facility's equipment/technology and education opportunities for children. However, there was a significant association ($p>0.01$) between dissatisfaction with entertainment in the area and considering emigration. Put more simply, as shown in Figure 18, all of the doctors who were considering emigration were dissatisfied with entertainment in the area where they currently were.

[47] Scale corresponded to 1 as very dissatisfied and 7 as very satisfied

Figure 18: The relationship between considering emigration and dissatisfaction with entertainment in the surrounding area



The issue of lack of entertainment was a major theme that was identified in the interviews:

"There is nothing for young people. There is no entertainment; the only entertainment they have is at the shebeen...there is nothing for the youngsters" (Doctor D).

"I am very happy here, but I'm not a very social person. So I think people with a different character and different interest they will find it very uncomfortable, because you don't have recreation around" (Doctor F).

8.10 Summary of the results found in Component One

There are challenges in attracting doctors to rural areas and the results presented here shows that incentives to do this have had limited success. The survey identified low levels of satisfaction with both the Rural Allowance and the Scarce Skills Allowance. Although, initially it appeared that doctors who were not receiving Rural Allowance or working in revitalised hospitals were more likely to quit their posts, multivariate analysis found these incentives were longer influential when other factors were taken into consideration.

The survey identified that there were low levels of satisfaction with salary. The interviews revealed that greater financial reward could stop doctors leaving government service to work in the private sector. However, multiple linear regression analysis conducted to determine predictor variables associated with intention to quit found that salary was not a significant factor. Though this is likely to be because there was less variation with this variable, i.e. almost all doctors were

unhappy with pay. However, lack of satisfaction with supervision and the doctor's current work, were found to be significant predictors of intention to quit.

The interviews further highlighted that staff shortages in facilities resulted in overwork for doctors and a reduced quality in care. Access to training, particularly in rural areas was also found to be a major challenge and it was felt that providing opportunities for additional training could be a more powerful incentive than increased salaries.

In terms of international migration it is interesting that neither demographic variables nor work related variables were influential in whether a doctor was considering migration. However, an unusual finding was that that satisfaction with entertainment in the surrounding area had such a significant association as to whether a doctor was considering international migration or not. The theme of 'entertainment' is an interesting one. The exact specifics of what was classified as 'entertainment' were not known, and this would have been an interesting issue to probe during the interviews. It would be useful to find out what the connection is and this could be explored in future research. It may be that those who thirst for entertainment are maybe people who are predisposed to adventure and this may be a predicator for emigration.

9 *Results for Component Three: Understanding temporary doctor migration*

9.1 Introduction

This Chapter starts by describing the demographic characteristics of the survey participants and interviewees for component three. It then goes on to identify reasons for registering in Ireland in order to start to understand the motivation behind temporary migration. The Chapter ends by providing a summary of the results that have been found.

9.2 Demographic characteristics of participants

A total of 130 questionnaires were returned. Two questionnaires were excluded for analysis due to incomplete information. Table 27 shows the demographics of both the survey population (n=128) and the interview population (n=17).

A total of 95 survey respondents came from Gauteng and 33 from Limpopo/Mpumalanga. This means that there was a higher response rate from the rural areas (40.7%) compared to the urban area (27.1%). The vast majority were born in South Africa (98.8%). Approximately one quarter was female (27.2%) and three quarters male (72.8%). Nearly half of respondents were over 50 years old. In terms of ethnicity, over half of the sample was white, Afrikaans speaking. The majority of doctors were working in the private sector as General Practitioners.

In terms of how well the survey population reflected the total population of South African doctors registered at the IMC the only data that can be compared is age and gender (these results are provided in section 7.4). The survey respondents have a similar gender split as the total IMC population (with each having approximately 30% females and 70% males). However whereby the total South African population registered at the IMC had approximately one third in each of the three age categories, the survey population did not have this distribution and instead were older, with increasing proportions as the age category increased.

Of the 17 interviews that were conducted 3 were female and 14 were male. As for the survey respondents, the largest proportion of interviewees were over 50 years of age and over half were white, Afrikaans speaking, therefore the interviewees were a fairly accurate reflection of the survey population as a whole.

Table 27: Demographic characteristics of participants

Variable	Category	Survey respondents (n=128)	Interviewees (n=17)
Area	Gauteng	74.2 (95)	70.6 (12)
	Limpopo/Mpumalanga	26.8 (33)	29.4 (5)
Gender	Male	68.8 (88)	82.4 (14)
	Female	31.3 (40)	17.6 (3)
Marital status	Married	74.8 (95)	70.6 (12)
	Not married	25.2 (25)	29.4 (5)
Country of birth	South Africa	98.4 (126)	100 (17)
	Other country	1.6 (2)	0.0 (0)
Ethnicity	White	84.1 (106)	100 (17)
	Asian	15.9 (20)	0.0 (0)
Age (years)	Under 35	18.0 (23)	0.0 (0)
	35-49	35.2 (45)	35.3 (6)
	50+	46.9 (60)	64.7 (11)
Language spoken at home	English	32.8 (42)	11.8 (2)
	Afrikaans	53.9 (69)	88.2 (15)
	English & Afrikaans	13.3 (17)	0 (0)
Dependent children	0	39.7 (50)	23.5 (4)
	1	16.7 (21)	5.9 (1)
	2+	43.7 (55)	70.6 (12)
Primary Medical Degree	Pretoria	69.1 (56)	82.4 (14)
	Other SA university	29.6 (24)	17.6 (3)
	Irish university	1.3 (1)	0.0 (0)
Speciality	General Practice	74.7 (68)	76.5 (13)
	Other speciality	25.3 (23)	23.5 (4)
Working in which sector of health system	Private	79.7 (98)	88.2 (15)
	Public	13.0 (16)	11.8 (2)
	Other	7.3 (9)	0.0 (0)

9.3 Migratory intentions

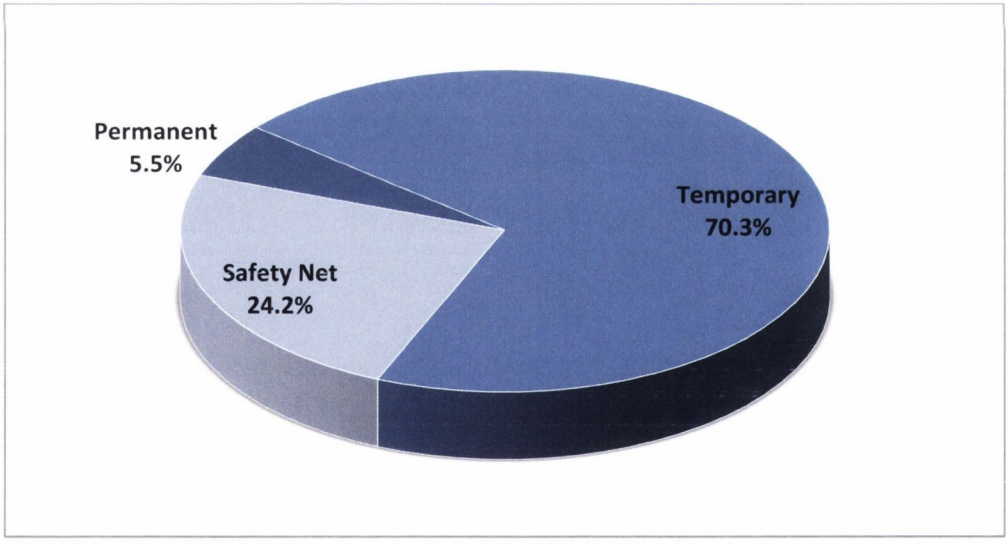
Survey participants were asked what their primary reason had been for registration at the IMC. This was in order to determine their migratory intent. Doctors were asked to choose whether they planned to work in Ireland on a permanent or temporary basis, or that they had no intention of work in Ireland, it was a 'safety net' where doctors would go to as a last resort.

Doctors who had indicated that they were planning to work on a temporary or permanent basis where then asked further questions to determine what type of migrants they were. Based on this information, three categories of migrants appeared that were used for analysis; namely:

- Temporary migrants: doctors who registered at the IMC in order to work in Ireland on a temporary basis.
- Permanent migrants: doctors who are thinking about moving to Ireland permanently, but who have no immediate plans to do so.
- Safety net migrants: doctors do not intend to work in Ireland but have just registered at the IMC in order to have a safety net and will go there as a last resort.

Figure 19 shows the migration intentions of the survey participants. The majority (70.3%, n=90) are temporary migrants and nearly a quarter (24.2%, n=31) do not plan to work in Ireland, but instead are registered there as a 'safety net'. A small number (5.5%, n=7) are thinking about moving to Ireland permanently, but have no definite plans to do so, of whom, n=4 had previously worked in Ireland on a temporary basis.

Figure 19: Migration intentions for survey respondents (total n=128)



Of those who indicated they had registered in Ireland with a view to doing temporary work (n=94[48]), over two thirds had done locum work (66.0%, n=62) and the rest are intending to do locum work in the future (34.0%, n=30).

Table 28 shows that the majority of the interview respondents had registered in Ireland in order to do temporary work. A smaller proportion than the survey respondents reported that they had

[48] Includes those (n=4) who have done temporary work and are now planning a permanent move

registered as a safety net, as one doctor explained "*I think the easiest way to explain is that it is a back door – that is the bottom line*" (Doctor 14). One doctor who was planning a permanent move to Ireland had previously worked there on a temporary basis. Nearly two-thirds of interviewees had been to Ireland on two or more occasions.

Table 28: Migratory intentions of doctors who took part in the interviews

Variable	Category	% (n)
Migratory type	Temporary	70.6 (12)
	Permanent	11.8 (2)
	Safety net	17.6 (3)
Number of times to Ireland	Never been	23.5 (4)
	Once	11.8 (2)
	Twice or more	64.7 (11)

All of the interviewees who had originally registered in order to have a safety net were now more positive about the situation in South Africa, with one doctor thinking about relinquishing his IMC registration and the other two now intending to go and use their registration to work in Ireland on a temporary basis.

"*The way I'm feeling now, it's becoming less of an important card to hold....I'm actually at a point where I'm considering actually stopping the registration as well, simply because I don't see myself emigrating*" (Doctor 14)

"*We did it (registered in Ireland) for insurance....I was going to let it lapse, but I might just do it (locum work in Ireland) next year*" (Doctor 12)

9.4 Reasons for choosing to register in Ireland as opposed to other countries

Table 29 shows that recommendation by family/colleagues was important for survey respondents deciding to register in Ireland as opposed to other countries, with 61.1% indicating that this was the main reason for choosing Ireland.

Of those stating 'other' reasons (19.1%) ease of registration at the IMC, particularly the fact that doctors did not have exams, was cited as the major reason for choosing Ireland as opposed to other countries. This theme also emerged in the interviews and ease of registration was mentioned as a key attraction of Ireland by the majority of respondents in comparison to other countries, such as the UK and Australia where the registration procedures are said to be more complicated.

"It (Ireland) was the last European place that was easy to register" (Doctor 4).

"Why I chose Ireland was that there are no exams and I really have an affinity for Europe and it was very easy actually to register with you" (Doctor 16).

Table 29: Registration at the Irish Medical Council

Variable	Category	Survey respondents % (n)
Main reason for choosing Ireland	Of Irish descent/Irish partner	2.4 (3)
	Recommendation by family/colleague	61.1 (77)
	Job offer	17.5 (22)
	Other	19.1 (24)
Year of IMC registration	2000-2004	19.5 (25)
	2005-2009	80.5 (103)

The interviews also highlighted promotional activities that had been conducted in South Africa by the Irish Medical Recruitment Agency, Locumotion. Presentations made by Locumotion acted as good publicity for working in Ireland and based on these promotional activities, some doctors then decided to register in Ireland.

"They (Locumotion) had a promotion, a tour or something, so they all invited us, we all knew they were going there and so yes, we went and listened to what they were saying.... and then I decided to go (to Ireland)" (Doctor 3).

9.5 The main incentive why doctors had registered in Ireland

Survey respondents were asked to determine their main incentive for registering at the IMC by scoring each incentive 1-5: 1 was ranked as the most important and 5 was the least important (i.e. the most important incentive has the lowest score). For analysis, the incentive variables were re-coded into binary variables. Therefore if the respondent had scored the incentive as 1 this was re-coded as 1 "the main incentive" and if the doctor had scored the incentive as 2-5 this was re-coded as 0 "not the main incentive".

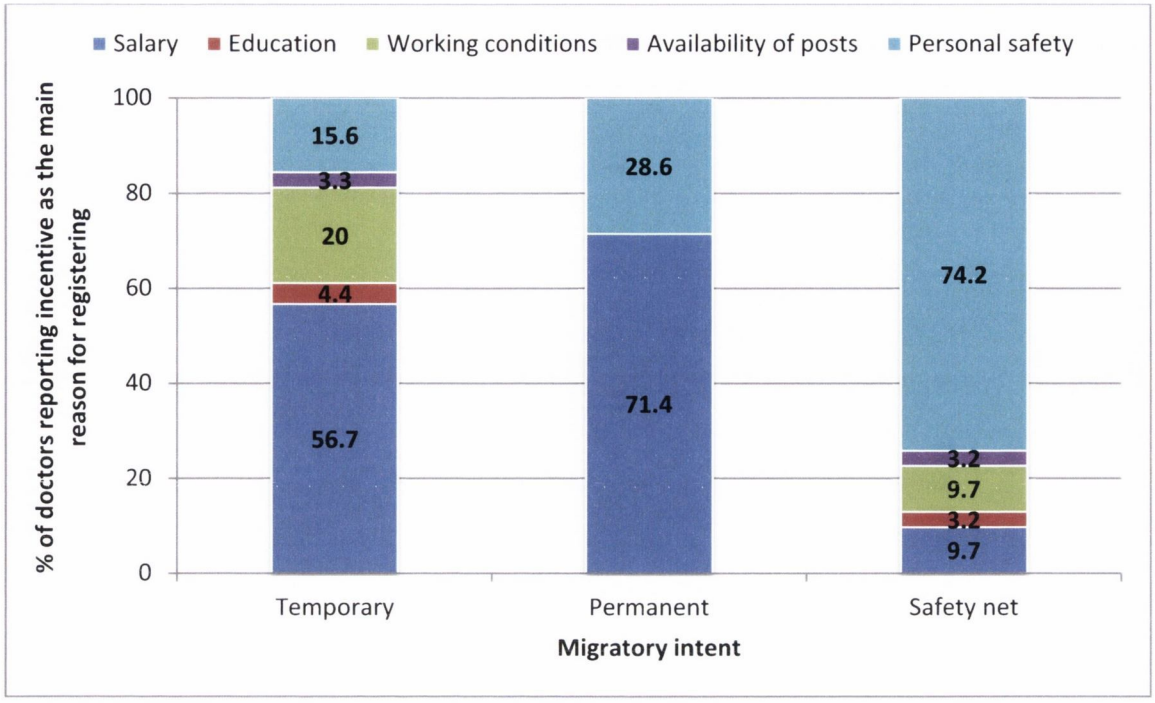
Salary was found to be important for both temporary migrants and for doctors who were planning a permanent move, with high proportions in these categories ranking salary as their main incentive.

Education, working conditions and availability of posts did not appear to be influential factors, with low proportions of each migratory type reporting that these were the main incentive for registering at the IMC.

Personal safety was found to be the major incentive for safety net migrants, with nearly three quarters (74.2%) ranking it as their main incentive. Salary was found to be important for those planning a permanent move, with 71.4% ranking it as their main incentive. However, this result needs to be interpreted with some caution as there are only 7 doctors in this category, compared to 90 in the temporary category and 31 in the safety net category.

Overall, salary and personal safety were found to be the dominant incentives for registration. There are high proportions of temporary migrants scoring salary highly and personal safety lower. Conversely the opposite picture is seen for safety net migrants, who scored personal safety highly and salary much lower. This relationship can clearly be seen in Figure 20 where each incentive was ranked by the doctors as the main reason for registering at the IMC. This is categorised by migratory intent.

Figure 20: Main reason for registering at the IMC by migratory type



9.6 Further reasons for registering in Ireland: Push and Pull factors

Reasons for registering in Ireland were further explored through opened-ended questions in the survey and in the in-depth interviews. These reasons provided further information on what the push factors from South Africa are and what the pull factors to Ireland are.

9.6.1 Reasons for wanting to leave South Africa

Overall, exogenous push factors were found to be the major reason why doctors had registered at the IMC. The survey respondents highlighted factors such as personal safety, political instability, corruption and a feeling of general decline of infrastructure, in addition to concern about the long-term future. These factors were further alluded to in the interviews:

- Crime "*I think crime is definitely very challenging*" (Doctor 11).
- Personal safety "*personal safety issues are what would drive me if I ever did decide to leave*" (Doctor 14).
- Political instability "*The political instability that's literally the only reason*" (Doctor 12).
- Corruption "*There's a huge amount of corruption in the country and people feel insecure*" (Doctor 6).

As shown in Table 27 which outlined the characteristics of the survey respondents (page 149) only 13% reported that they worked in the public health system. It seems therefore that endogenous push factors had mainly been overcome by doctors leaving the public health system and working in the private sector: "*nobody is interested, because when you finish with your registrar period, they sometimes just do not ever want to go back to the government places*" (Doctor 5).

Reasons why doctors had left the public health system included:

- Staff shortages "*the theatre doesn't run, they haven't got anaesthetists, they haven't got surgeons*" (Doctor 7).
- Long hours "*you are so overworked, you are so tired, you've got to work week in and week out*" (Doctor 3).
- Workload "*You hardly have three or four minutes per patient*" (Doctor 17).
- Low salary "*They are not making money in the government hospital*" (Doctor 2).
- Lack of equipment/medication "*there is not enough equipment or drugs, that was always the frustration*" (Doctor 14).
- Poor management "*staff are not well trained and they are not well motivated, and I think it is about management*" (Doctor 15).

HIV, maybe surprisingly considering South Africa's prevalence rate, was barely mentioned. Of those who mentioned HIV, this was in reference the how the epidemic was being dealt with by the Department of Health "*They're not looking after HIV/AIDS*" (Doctor 11) rather than concern about infection themselves.

No endogenous push factors were reported for doctors who worked in private practice. It was acknowledged that there was a big divide between government hospitals and private practice: "*the private sector snaps them (doctors) up from the government sector*" (Doctor 6).

Proposals for a national health insurance system[49] could however affect doctors working in private practice and this was noted as a concern: "*They want to implement a national health system and if not implemented well, that might make some people want to leave*" (Doctor 13).

It appears that doctors who were planning to move to Ireland permanently were more affected by push factors within South Africa than the temporary migrants. In particular doctors who were

[49] Interviews with doctors were conducted in May 2010 and since then there have been several developments with relation to proposals for national health insurance (NHI). Piloting of NHI was to occur in 10 selected districts in April 2012.

planning a permanent move were concerned about the future in South Africa, as well as the current opportunities that were available to them.

"*I don't think economically there is a future in South Africa. It is really going downhill. It makes me feel very sad to have to leave. I also felt very bad about leaving government service, because I really enjoyed it, but basically you can't advance to do what you want to*" (Doctor 4).

"*That's actually one of the reasons I've leaving as well, because there is very little chance for me to further my career from where I am at the moment*" (Doctor 8).

Even though temporary migrants reported to be less concerned about political instability, it appeared that they were not whole-heartedly certain about the future in South Africa, and needed a back door in case they needed one - one doctor succinctly stated "*most South African doctors have foreign registration somewhere*" (Doctor 2).

9.6.2 Reasons for wanting to register in Ireland

The in-depth interviews confirmed that for those who had registered in Ireland in order to do temporary work there, the reason for doing this was stimulated by the desire to earn extra income.

"*I think before I got established with all my small consultancies, I needed locum work and so I wanted to actually go overseas for short periods of time and bring in income. It was very much making a living*" (Doctor 6).

"*My major motivation was money, only money. It sounds bad, but the Euro was good*" (Doctor 9).

One of the major pull factors to Ireland is the opportunity to travel. This may imply that Ireland isn't their final destination. Having friends in Ireland was also important for permanent migrants. Ease of registration appears to be important for those who are looking for a safety net and for temporary migrants.

The interviews also revealed that financial gain was not always the sole reason for working in Ireland on a temporary basis. Respondents talked about it being a working holiday, or an adventure which allowed them to have the opportunity to work in a different environment.

"*The adventure and the difference in working circumstances also attracted me*" (Doctor 7).

"Work experience. To work in a different place, experience different kinds of medical practice...it's sort of a working holiday where you have less intense hours, but you're not totally foregoing income" (Doctor 13).

The theme of adventure was not listed as an incentive in the questionnaire and so it was not possible to quantify how influential adventure is an incentive, particularly in comparison to salary. This is an important area of further research.

Table 30 summarises all the reasons that were identified during the open-ended survey questions and the in-depth interviews why doctors had decided to register in Ireland. Factors have been categorised as either being endogenous (within the health system) or exogenous (outside the health system).

Table 30: Factors affecting doctors' decision to register in Ireland

	Reasons to leave South Africa	Reasons to work in Ireland
Endogenous	• National Health proposals • Staff shortages • Long hours • Poor management • Poor working conditions • Low salary • Heavy workload • Lack of equipment/medication	• Ease of registration/no exams • Gain work experience • Good working conditions • High remuneration • Qualified in Ireland
Exogenous	• Crime • Personal safety • Political instability • Corruption • General decline of medical facilities and future prospects	• Change in environment • Close to the UK/English speaking • Friends in Ireland • Political stability • Safety net • Travel opportunities

9.7 Experience of working in Ireland

Approximately half of the survey participants (n=63) had been to Ireland once or more, with 24.2% having been once or twice and a quarter having been 3 or more times. Table 31 shows that the majority of safety net migrants had never been to Ireland (96.8%). This is plausible given that doctors in this category have not registered at the IMC with the intention of working in Ireland, rather they have done it in order to have a 'back-door' should they become concerned

with the situation in South Africa. Conversely, nearly two thirds of the temporary migrants have been to Ireland more than once.

Table 31: Number of work visits to Ireland by migration category

	Migration category		
Number of times to Ireland	**Temporary (n=90)** % (n)	**Permanent (n=7)** % (n)	**Safety net (n=31)** % (n)
None	35.6 (32)	42.9 (3)	96.8 (30)
Once or twice	32.2 (29)	14.3 (1)	3.2 (1)
Three or more times	32.2 (29)	42.9 (3)	0 (0)

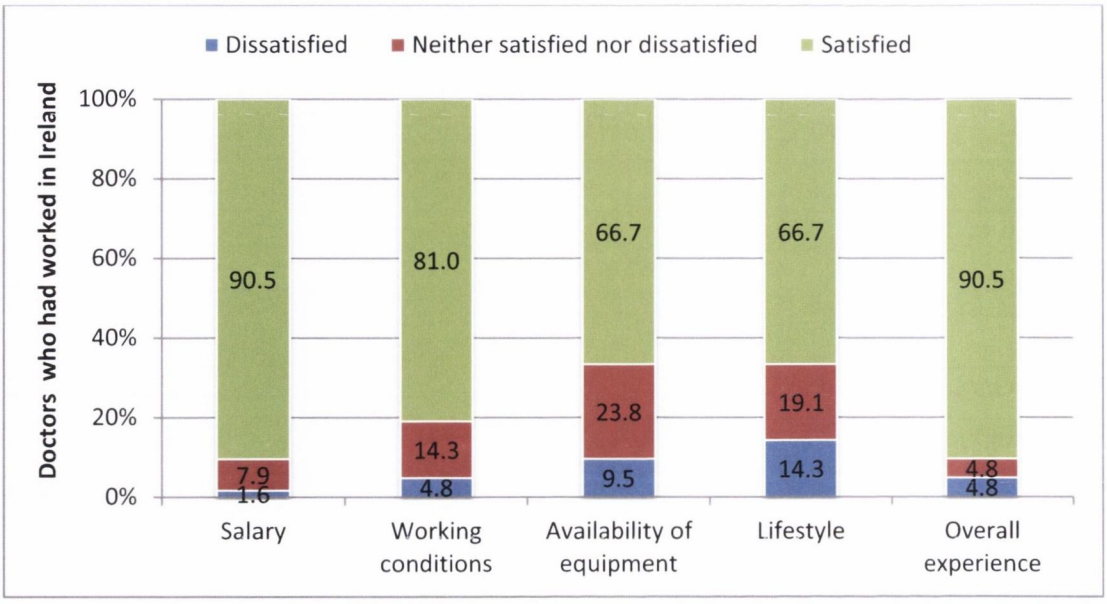
The results from the survey show that the range of time spent in Ireland was 1-52 weeks (only one participant reported 52 weeks). The median time spent in Ireland was 6 weeks. The interviews indicated that length of migration time is very important, as time away has financial and personal costs. The majority of interviewees reported that their preferred period of time spent in Ireland was between 4 and 6 weeks.

"*The maximum I'd go for is three or four weeks on any locum. I can't go for longer than that, I can't leave the family*" (Doctor 6).

"*If you look, you have the same expenses of going if you go for a week, or you're going for six weeks, it will be the same*" (Doctor 10).

Those that had been to Ireland to work as a locum were asked to rate their satisfaction with salary, working conditions, equipment availability, lifestyle and overall experience. Figure 21 outlines satisfaction with all of these factors. There were high levels of satisfaction with salary and the overall experience. There were lower levels of satisfaction with equipment availability and mixed responses for working conditions and lifestyle.

Figure 21: Satisfaction with factors relating to locum work in Ireland



Overall interview participants were satisfied with the salary that they received, particularly when doing out of hours work, which appears to be more lucrative. Also, there was greater satisfaction with salary when the Euro to Rand exchange rate was favourable.

"we go there for the euro, so as long as the rand is weak and the euro is strong we will see a lot of South African doctors there" (Doctor 2).

9.8 Why Ireland?

In addition to being registered in Ireland one quarter of survey respondents were registered in another country and the UK was the most common country to also be registered in (18 out of 20). Interviewees were asked why they had chosen to register in Ireland as opposed to other English speaking countries, such as the UK, Australia or the USA. Several of the interviewees were also, or had been at some point, registered in the UK, but many had discontinued their registration, saying it was expensive to continue to hold it and others stated that there were continued administrative issues associated with maintaining their registration which was why they were considering cancelling it. Some doctors also mentioned that they had initially started registration in the UK, but due to 'bureaucracy' they had given up the process and the feeling that gains from working in the UK would not be worth the hassle of registration. Doctors therefore applied to Ireland where the registration processes were easier and greater gains were to be had.

"I think the UK has got a lot of logistical problems and if you want to work there you have to this that and the other and I've just given up because it is a lot of red tape and currently the sort of things that I can do in the UK in terms of remuneration would not be worth it" (Doctor 12).

Doctors had considered registering in Australia, New Zealand and Canada, but reasons for not doing so included distance from South Africa and the fact that doctors would have to write exams. Also, it was said that there was less opportunity to do short term locums in these countries and that positions were longer-term.

"*I have considered Australia and Canada, but the problem with those countries is that you have to work there for quite a long time, you can't pop over for two months and come back*" (Doctor 13).

Some doctors had worked in other countries other than Ireland. However, they had not enjoyed this as much as they had enjoyed working in Ireland.

"*I enjoyed working in Ireland better. It's much nicer. The atmosphere is nicer, the people are nicer, just a nicer environment*" (Doctor 6).

The problem with working in the UK was that doctors were not easily able to work as locum GPs and instead were working in a hospital setting as registrars. Doctors who were trained and working as GPs in South Africa found it difficult to then work in the hospital environment as they felt it was more like being a "sixth-year final student" or an "intern":

"*The England work was very brain-dead work, it was like being a sixth-year final student, and you couldn't leave the premises, it was a resident medical officer they call it, so you worked two weeks on and one week off, but you can't leave the premises, so it's staying in one place the whole time, really not good for the psyche*" (Doctor 9).

9.9 Challenges of working in Ireland

The survey did not ask questions about challenges faced by doctors who had gone to work in Ireland on a temporary basis. It is a methodological weakness not to have quantified challenges faced by doctors and this will be discussed further in the conclusions.

Challenges were however explored in the in-depth interviews. Overall the interviewees found that there were no major challenges experienced whilst working in Ireland and the majority said that they found it very easy to fit into the Irish setting.

However some doctors mentioned the restrictive nature of practicing medicine in Ireland, as compared to South Africa. In South Africa, GPs tend to perform minor procedures on site and so the doctors found the work in Ireland a bit more basic.

"*GPs just want to be a consultation stopover and they don't want to do any minor procedures, it is difficult for them getting X-rays....If I want an X-ray done here I can have it within 20 minutes*" (Doctor 2).

"*You practice medicine a bit more conservatively there than what we do in South Africa*" (Doctor 8).

Despite frustrations with the referral systems and inability to perform minor procedures doctors were philosophical in their views of this. They understood that they had to comply with the regulations of the Irish health system and that they weren't there to "*change the system*" (Doctor 11) and indeed as one doctor explained "*if you go to Ireland you do as Ireland does*" (Doctor 3).

A couple of doctors also mentioned non-work specific challenges in terms of having to arrange accommodation and transport. This was particularly a challenge for those whose locum work meant they were not based in one place and had to travel around the country, as highlighted by Doctor 9: "*Sometimes I think the people that organise the locums, they lose track of the distances of towns, so you must decide, are you going to sleep that morning and start that night in a different town, or would you rather push through and then go to sleep and then work that evening in a different town*".

9.10 Future intentions

Of those who had been to Ireland the majority (95.2%) said that based on their experiences they would go back to work as a locum in Ireland.

Table 32: Future plans in terms of returning to Ireland to work

Variable	Category	% (n)
Would you go back to work in Ireland?	Yes	95.2 (59)
	No	4.8 (3)

All of the interviewees said that they would like to return to work in Ireland, but only four had definite plans to go in the coming year. The reasons that the others gave for not returning to Ireland in the immediate future were generally family orientated in that it would not be easy, or

possible to leave their children. However, it was felt that when children were more grown up, doctors would return to work on a temporary basis in Ireland.

"*As soon as he is independent enough, or we find school holidays long enough I will go again*" (Doctor 5).

The major reason for returning was based on the good experiences that the doctors had had on their previous visits, the sense of having an 'adventure' and the opportunity to have a working holiday.

"*The money is nice...it's a nice experience, just to see how other doctors work and see if you are still on par, because you don't really know if you are on par if you are living in South Africa so it's nice to see if the people there are using the same medication, the same way of thinking...the third this, I love the European experience*" (Doctor 16).

In order to determine whether temporary work at a time when doctors should be resting caused burn-out on return to South Africa, interviewees were asked how they felt after returning from Ireland. Doctors did not have any problems moving between the work in South Africa and Ireland. However responses varied as to how doctors felt when they returned to Ireland, some felt '*refreshed*' (Doctors 5, 7 and 17) as they stated that they worked longer hours in South Africa. Other doctors, who had worked the maximum amount of shifts, came back '*physically tired*' (Doctors 2 and 3) but that they did not mind this as this had meant that they had been able to obtain a high remuneration "*the money's good the harder you work*" (Doctor 2).

Interestingly, one doctor stated that by going overseas he had been inspired to work harder in South Africa as he did not want to have to migrate again in order to supplement his income "*it actually motivated me to say, ok, I've travelled now, the bug is out of my bonnet, settle down now, accept your work here rather. Build up the practice, work long hours and stay with your family rather than having to go overseas*" (Doctor 9).

9.11 Employment actors

The interviews also explored the employment actors that are involved in the migration process. These were defined as the source country employer, destination country employer and a recruitment agency.

9.11.1 Source country (i.e. South African) employer

In order to organise time off to go and work in Ireland, the majority of respondents worked in private practice. They were able to negotiate with their practice partners to cover their patients whilst they were away. In some cases, several doctors in the practice were registered in Ireland and so they rotated who went to Ireland. One participant spoke of how all three partners were registered in Ireland and how they organise it:

"Dr X owns the practice, she's gone to Ireland now. When's she's there we two are staying behind, Dr Y and myself. We manage the practice" (Doctor 3).

Those who were not partners in a private practice arranged to go to Ireland during their holiday periods, or had arrangements with the hospitals where they worked to have time off.

"we are working on a roster and so you can work out when you are going to be free, as long as you do it a month in advance, before they do the next roster, you can say that you are unavailable for the next 6 weeks" (Doctor 4).

9.11.2 Destination country (i.e. Irish) employer

Most doctors worked as GPs in the out-of-hours services, for example 'Caredoc', doing the 'red eye' shifts. Some however worked as locum GPs covering vacancies in GP practices and worked regular hours. Those doctors whose priority was going to Ireland for financial reasons would often work both during the day and in the out-of-hours services. Specialists who were not GPs worked within the public hospital systems. Some doctors described how they returned to the same place each time that they went to Ireland.

"It is out-of-hours and then a number of locums during the day time. We are off during the day time and if we can fit in the day time locums we do" (Doctor 1).

9.11.3 Recruitment Agency

As Table 33 shows, there is a very clear role of a recruitment agency in facilitating placements. Nearly three out of five survey respondents (58.6%) reported that they were currently registered with a recruitment agency. Locumotion was highlighted as one of the major recruitment agencies and 82.6% of those who were registered with an agency were registered with them. Both in the opened questions and as indicated above in section 9.4 during the in-depth interviews doctors referred to the promotional activities that Locumotion have done in South Africa. Promotional

activities reported by survey and interviewees included presentations and advertisements in the SAMJ.

Table 33: Recruitment agencies and survey respondents

Variable	Category	% (n)	P-value
Registration with a recruitment agency by migratory type	Temporary	70.0 (63)	<0.01
	Permanent	85.7 (6)	
	Safety net	19.4 (6)	

There were differences between migratory intent and whether doctors were registered with a recruitment agency. A one-way ANOVA found that there was a significant association between migratory intent and being registered at a recruitment agency $F(2,125) = 16.41$, $p<0.01$). As recruitment agencies appear to play an instrumental role at finding positions for temporary migrants, it would seem that as less than 20% of safety net migrants are registered with one that this confirms that they have little intention of working on a temporary basis in Ireland.

The interviews further explored the role of recruitment agencies and satisfaction with using them. Doctors were very impressed with Locumotion, mentioning their professionalism, providing comprehensive details about working in Ireland and that they were motivated by what they had to say but did not use '*hard sell*' (Doctor 12). Also there were reports that Locumotion had helped with the registration at the IMC, thereby facilitating the migration process.

Recruitment agencies were found to be instrumental particularly for finding the first placement in Ireland, after which doctors sometimes made their own agreements, or again through a recruitment agency.

"Every time I have worked through Locumotion" (Doctor 16).

"I know many doctors who were originally registered with Locumotion....but now deal with the health boards themselves" (Doctor 5).

9.12 Is temporary migration a stepping stone to permanent migration?

In the survey there were 4 doctors (3.1% of the survey population) who had done temporary work in Ireland and were now planning a permanent move. Although there was no question in the survey to quantify the number of temporary migrants who would consider permanent migration and this is a methodological weakness, none of the temporary survey migrants reported that they were planning permanent migration in the open-ended questions.

The in-depth interviews explored this issue in further detail and all interviewees were asked whether they were considering a permanent move to Ireland. This issue was probed in-depth and if the doctor reported that they were not considering permanent migration they were further asked under what conditions they would leave South Africa permanently and whether Ireland would be their chosen destination.

Apart from the two interviewees who were planning a permanent move to Ireland, none of the other interviewees intended (15 out of 17) to leave South Africa permanently, as one doctor put "*this is my place, South Africa, your roots are here*" (Doctor 1). It was felt that a permanent move from South Africa would only happen as a result of exceptional circumstances ("*hopefully never*") with doctors saying that this would only occur if something '*very very drastic*' happened, they were "*forced*", or a "*major disaster*", "*total destabilisation*" arose. One doctor stated that if he had to leave South Africa permanently, Ireland would not be his chosen destination and instead would go to Australia. This evidence suggests that temporary migration is not necessarily a stepping stone to permanent migration.

9.13 Important conditions for temporary migration

The in-depth interviews found that there are very clear reasons why temporary migrants want to return home to South Africa. Factors influencing decision to return to South Africa mainly related to exogenous factors, such as love of the South African lifestyle and family ties. Clinical freedom was mentioned as an endogenous factor "*One thing about being a doctor in SA is that there is a lot more clinical freedom*" (Doctor 2).

There do appear to be trade-offs involved in temporary migration and the experiences that doctors had whilst working in Ireland were influenced by factors such as the type of practice that they worked in and the accommodation that they had. In terms of accommodation there were mixed reports as to how this was arranged. Some practices organised accommodation and doctors talked about there being dedicated houses for locum doctors "*we stay in that flat for 6 weeks and we leave and then 2 other doctors come and take our place*" (Doctor 1). Other doctors stayed in accommodation which they had organised themselves "*you get a book with all the bed and breakfasts, then you just phone and organise*" (Doctor 16).

Families, and in particular children played a big part in whether doctors felt they wanted to do locum work in Ireland and this has already been highlighted in section 9.10 above about future plans. Although the survey showed no statistical association between number of dependent children and intention to return to work in Ireland on a temporary basis (p=0.14), the interviews

found that doctors who had dependent children were less likely to go and work in Ireland in the forthcoming year. While they had not ruled it out completely, they were just waiting for their children to grow up.

"The first time we went there were no children and then the family grew...I went leaving my wife with the firstborn...I promised them I would never go back because I saw what it did to my family. If we go, we have to go as a family" (Doctor 9)

Although many doctors mentioned going with their spouses to Ireland *"my wife always went with me yes, she wouldn't stay behind!"* (Doctor 7), trips with the whole family were often not possible due to the extra financial costs they incurred: *"If I could bring the family I'd probably go for longer, but it's just too expensive. You're not going on holiday; you're going to earn a living"* (Doctor 6).

9.14 Summary of findings

The main incentive for doctors to migrate on a temporary basis is financial. However the in-depth interviews revealed that while some doctors work in Ireland purely for financial reasons, and work as many hours as they are able to, some also work in Ireland so that they can have a working holiday, or an adventure. Length of migration is very important as there are financial and personal costs. It would appear from both the survey and the interviews that 4-6 weeks is the optimal length. In order to address the personal cost some temporary migrants went to Ireland with their spouses. However it was less common to take children as well as this meant that there were incurred financial costs (in terms of flights) and there were also difficulties fitting work in around school holidays.

The fact that South African graduates did not have to take exams to register at the IMC was found to be a major reason why doctors chose to register in Ireland as opposed to other countries. Furthermore, the perception was that there were more opportunities to do short-term GP locum work in Ireland than in, for instance, the UK or Australia, where placements tended to be longer. Ireland has also been effectively promoted by Recruitment Agencies, such as Locumotion, who have a very clear role in facilitating placements within Ireland.

Most endogenous push factors within South Africa have been overcome by doctors working within private practice however there were still exogenous push factors. These were more commonly cited by doctors whose migratory intent was to have a safety net. These doctors were concerned about security, political instability and general decline. Interestingly, these doctors had never worked in Ireland. Permanent migrants were also concerned about security, political

instability, poor infrastructure and low remuneration, however also wanted to work in Ireland in order to have travel opportunities. It appeared that doctors who were intending to leave South Africa on a permanent basis are more affected by push factors than doctors who migrate on a temporary basis. This issue will be explored in more detail in the next Chapter (10) by looking at the motivations and experiences of the permanent migrants and then comparing them to the temporary migrants.

Temporary migration does not appear to be a 'stepping stone' to migration. There was a strong feeling that doctors did not want to leave their South African roots, indicating that there are strong 'stick' factors in South Africa. To this end, temporary migrants were able to enjoy the best of both worlds, by earning extra income in Ireland (to supplement income or facilitate travel in Europe) and then return home, thereby illustrating, at least at the personal level the 'win-win' scenario of temporary migration that it referred to in section 3.1of the literature review.

The results found so far and presented in this chapter suggest that financial incentives play a large role in determining temporary migration. An important motivating theme emerged which had been alluded to in the literature, but one which has not been expanded on, nor has been quantified before. The desire to have a working holiday, or a 'thirst for adventure' appears to be a influential factor for some doctors to migrate on a temporary basis. This finding should be explored further in future studies to determine how influential this factor is.

The next Chapter will focus on the results obtained from South African doctors who report a residential address in Ireland and therefore are assumed to be permanent migrants. It is important to explore the dynamics of permanent doctor migration in order to compare this to the dynamics of temporary doctor migration. By doing this it will provide a deeper understanding of how doctors are influenced by push and pull factors. This will identify whether temporary and permanent doctor migrants are motivated by different issues. Additionally, the issue of whether 'temporary migration is a stepping stone to permanent migration' will be further explored.

It is important to note that the original supposition in section 6.5 was that doctors who are registered at the IMC but reside in South Africa were temporary migrants. The results reported here however contradict this theory. The results show that a quarter of doctors cannot be classified as temporary migrants as they registered in Ireland in order to have a safety net and do not intend to work in Ireland on a temporary basis. Additionally a further 5.5% of doctors cannot be classified as temporary migrants as they were planning a permanent move. The motivation of doctors, particularly between safety net migrants and temporary migrants, was found to be quite distinct and therefore the original generalisation that these doctors were temporary migrants needs to be refined. Safety net migrants and those who were planning a permanent move were

therefore removed. This means that for subsequent analysis which compares temporary migrants to permanent migrants in component four, the sample size of temporary migrants is n=90 (as opposed to the total n=128 for this component).

10 *Results for Component Four: Comparing permanent and temporary migration*

10.1 Introduction

This Chapter aims to gain an understanding of what motivates a doctor to migrate on a permanent basis. Additionally the dynamics of permanent migration will be explored. This Chapter starts by presenting the results found from the doctors who are registered at the IMC but reside in Ireland.

This Chapter starts by presenting the demographic characteristics of the survey population and the interviewees. As for component three, the results from the survey and interviews are presented together. This Chapter identifies reasons for registering in Ireland in order to start to understand the motivation behind permanent migration. The characteristics of the temporary migrants (from component three) will then be compared to the permanent migrants found in this component. The Chapter ends by providing a summary of the results that have been found.

10.2 Demographic characteristics of the survey respondents and interviewees

Demographic characteristics of participants Table 34 shows the demographics of the permanent survey population (n=55) and the interview population (n=11). Three quarters of the survey population were male and married and the majority were born in South Africa. Just over half of survey respondents were over 50 years old.

As for the doctors in component three, the demographic characteristics doctors in this component were compared to that of the total population of South African doctors registered at the IMC. The permanent survey respondents had a similar gender split as the total IMC population. However, as for the doctors in component three, the doctors in this component did not have one third in each of the three age categories and instead were older, with increasing proportions as the age category increased.

Table 34: Demographic characteristics of participants

Variable	Category	Survey respondents (n=55)	Interviewees (n=11)
Gender	Male	74.6 (41)	63.6 (7)
	Female	25.4 (14)	36.3 (4)
Marital status*	Married	74.1 (40)	72.7 (8)
	Not married	25.9 (14)	27.3 (3)
Country of birth	South Africa	92.7 (51)	90.9 (10)
	Other country	7.3 (4)	9.1 (1)
Ethnicity	White	76.4 (42)	81.8 (9)
	Indian/Asian	14.6 (8)	9.1 (1)
	African	3.6 (2)	0.0 (0)
	Coloured	5.5 (3)	9.1 (1)
Age (years)	Under 35	18.2 (10)	45.5 (5)
	35-49	27.3 (15)	45.5 (5)
	50+	54.6 (30)	9.1 (1)
Language spoken at home	English	47.3 (26)	54.5 (6)
	Afrikaans	29.1 (16)	18.2 (2)
	English & Afrikaans	23.6 (13)	27.3 (3)
Dependent children*	0	46.3 (25)	54.5 (6)
	1	18.5 (10)	9.1 (1)
	2+	35.2 (19)	36.3 (4)
Primary Medical Degree	Pretoria	30.9 (17)	27.3 (3)
	Other SA	56.4 (31)	63.6 (7)
	Irish	12.7 (7)	9.1 (1)
Specialty^	General Practice	58.0 (29)	27.3 (3)
	Other speciality	42.0 (21)	72.7 (8)
Working in which sector of the Irish health system #	Private	51.9 (27)	18.2 (2)
	Public	47.1 (24)	81.2 (9)

*1 missing result, ^5 missing results, #4 missing results

Of the 11 permanent interviewees, 4 were female and 7 were male. The demographic characteristics of interviewees were a fairly accurate reflection of those of the survey population as a whole with the exceptions that the interviewees were younger (only 9.1% were over 50 years of age) and a higher proportion of interviewees were working in a speciality that was not general practice.

10.3 Reasons for choosing to register in Ireland

Table 35 shows that the majority of permanent migrants stated that the reason they had chosen Ireland was due to recommendation by family or colleagues. One quarter of respondents cited 'other' reasons for choosing Ireland. There was no overriding factor given for 'other', reasons included: being an Irish graduate, that there were no registration exams, that English was spoken in Ireland and geographical proximity to Europe.

Table 35: Registration at the Irish Medical Council

Variable	Category	Survey respondents (n=55)
Main reason for choosing Ireland	Of Irish descent/Irish partner	10.9 (6)
	Recommendation by family/colleague	43.6 (24)
	Job offer	20.0 (11)
	Other	25.5 (14)
Year of IMC registration	Before 2000	20.0 (11)
	2000-2004	34.6 (19)
	2005-2009	45.5 (25)

Of the permanent interviewees 4/11 doctors had Irish family connections. As for the survey respondents, other reasons for choosing Ireland included recommendation by friends and the lack of exams for registration at the IMC.

"They had been talking to us and saying how wonderful it (Ireland) is" (Doctor 25, PM)

Some permanent migrants had considered other countries, such as the UK, Canada and Australia. Reasons for not going to these countries were similar to those given by the temporary migrants. Doctors stated that the registration procedures in these countries were more complicated – the PLAB[50] exam was cited for the UK. Doctors also mentioned the need to take exams in America, Canada and Australia; however these countries were also associated with being far from South Africa.

"Going to Australia, great, you'll have a nice job and everything, but it's far, I don't know when I'd see my family. And the same with Canada" (Doctor 19, PM).

"It was just easier coming here" (Doctor 23, PM).

[50] PLAB = Professional and Linguistic Board exams. These need to be sat by non-EU doctors wishing to register at the General Medical Council (GMC) in order to practice in the UK

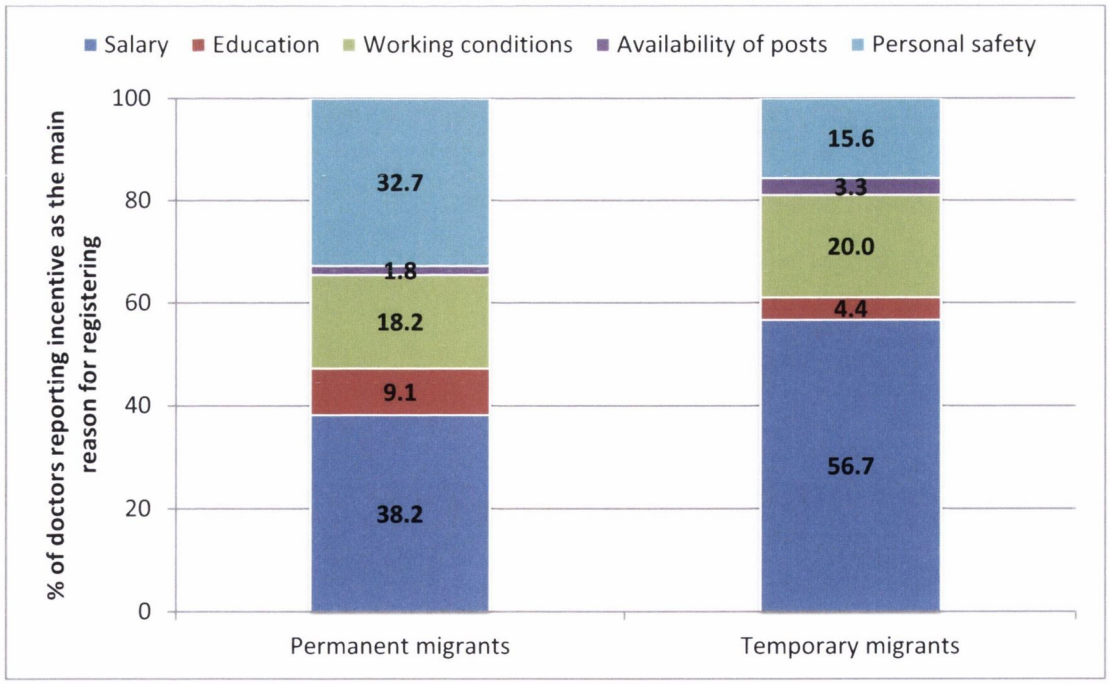
10.4 The main incentive why doctors had registered in Ireland

Survey respondents were asked to determine their main reason for registering at the IMC by scoring each incentive 1-5, with 1 ranked as the most important and 5 as the least important. As for component three, the incentive variables were re-coded into binary variables. Therefore, if the respondent had scored the incentive as 1 this was re-coded as 1 "the main incentive" and if the doctor had scored the incentive 2-5 this was re-coded as 0 "not the main incentive".

In order to see whether there were differences between the main reasons cited by permanent migrants and temporary migrants, Figure 22 shows the summary statistics for doctors from this component (n=55) and the temporary migrants who were identified from the previous component (n=90).

Figure 22 shows that although the largest proportion of permanent migrants chose salary as their main reason for registering in Ireland this proportion was smaller than that found for temporary migrants. This suggests that salary is less important to permanent migrants compared to temporary migrants. Conversely personal safety was found to be more important to permanent migrants than temporary migrants. Nearly one third of permanent migrants scored personal safety as their main reason for registering in Ireland compared to 15.6% of temporary migrants.

Figure 22: Main reason for registering at the IMC for permanent and temporary migrants



Similar proportions were seen for permanent migrants as for temporary migrants choosing opportunities for further education, working conditions or availability of posts.

Interestingly, the permanent interviews found that there was no main reason behind the decision to migrate. These reasons will be outlined further below in section 10.5 which provides more information about the pull factors to Ireland.

10.5 Further reasons for registering in Ireland: Push and Pull factors

Reasons for registering and ultimately migrating to Ireland were further explored in through open-ended questions in the survey and in the in-depth interviews. These reasons provided further information as to what the push factors from South Africa and what the pull factors to Ireland are.

10.5.1 Reasons for wanting to leave South Africa

HIV was only mentioned twice in component two (once in the survey and once in the interviews) and both times it was regarding the why in which the epidemic is being handled "*Complete inertia regarding dealing with HIV epidemic*", rather than as a reason for wanting to leave South Africa. However, for the permanent migrants HIV emerged as a major push factor, both in the interviews and in the survey.

"*HIV is a threat to you if you work in the health care system in South Africa. It's a constant threat*" (Doctor 27, PM).

"*There was a lot of HIV and AIDS. And I found that after a while got soul-destroying*" (Doctor 22, PM).

Other endogenous push factors reported by the permanent interviewees included:

- Lack of resources: "*at some stage sterile gloves will just finish and you just have to make do with whatever*" (Doctor 20, PM).
- Poor working conditions: "*old hospital, falling through the floors, things like that*" (Doctor 23, PM).
- Lack of opportunities: "*it wasn't that we disliked South Africa, it was just the opportunities were not there and I wasn't going to hang around*" (Doctor 18, PM).
- Staff shortages: "*you were often the only one in a 70-bed hospital*" (Doctor 23, PM).
- Safety at work: "*I've been shot at in A&E...It's like a war zone when you are at work*" (Doctor 19, PM).
- Burn out: "*I think the work thing, I just got overwhelmed, I got tired*" (Doctor 22, PM).

Whereas the doctors in component three had overcome most of the endogenous push factors by working within the private system, all of the permanent interviewees (bar one) were working in the public system prior to migration. One permanent doctor acknowledged this by saying *'If I was going to stay in South Africa, I definitely wouldn't have stayed working in the state care; I would have gone private, definitely*" (Doctor 19, PM).

Endogenous push factors reported by permanent migrants were mainly associated with personal safety and concerns for the future:

- Safety *"safety for my children. Safety reasons are probably paramount"* (Doctor 27, PM).
- Political situation: *"seeing how the situation in South Africa is turning out in terms of crime and the political situation and that sort of thing*" (Doctor 20, PM).
- Crime *"We had had a couple of break-ins and safety was an issue with me going out on calls*" (Doctor 22, PM).
- Concerns for the future *"security and future, a lot of people are worried about their future, so they go*" (Doctor 21, PM).

10.5.2 Reasons for wanting to migrate to Ireland

The overwhelming pull factor to Ireland was the fact that South African doctors did not have to do exams in order to register at the IMC. Also Ireland is an English speaking country, and is perceived to be not as geographically far from South Africa, compared to Canada and Australia. Both temporary and the younger permanent migrants also mentioned that they saw migration to Ireland as an 'adventure' or a way to experience different working environments.

Most doctors cited that several reasons had contributed to their motivation to migrate. However, it appeared that participants who migrated aged 35 years or less were more likely to mention salary, training and/or the opportunity to travel:

"the plan was to come over, earn some Euros to pay off my student loan, get the primary exam and tour a bit of Europe and go back" (Doctor 18, PM).

"Our primary aim was always to travel" (Doctor 25, PM).

Doctors who had migrated to Ireland in this age group had arrived with the intention of only staying for a defined period of time, generally citing a couple of years. After spending this period in Ireland they had planned to return to South Africa. However, for some of these doctors the intention to leave Ireland after a few years had changed. Reason for this tended to be due to

changes in personal circumstances, or the emergence of 'stay factors' and this will be explored further in section 10.9.

Doctors who had migrated to Ireland aged 35 years or over were less concerned about career development or salary. Reasons cited by doctors in this age group included insecurity in South Africa and a desire to provide better opportunities for their children.

"We didn't come here for career or experience, which probably doesn't make sense. Came more for the children's sake in the long run" (Doctor 20, PM).

"We were looking really for a country with a low crime rate" (Doctor 23, PM).

10.6 Employment actors

As for temporary migration, recruitment agencies played a role in facilitating permanent migration, with 45.5% (n=24) of survey respondents registered with a recruitment agency in Ireland.

Recruitment agencies were also mentioned during the in-depth interviews. As for the temporary migrants, in many cases, a recruitment agency (often Locumotion) had been instrumental in finding employment, particularly the first position, for many doctors. The recruitment agency, as well as placing doctors had also assisted doctors with getting work permits, accommodation and other administrative issues, such as organising PPS numbers[51]. After the first position, most doctors then found their own employment.

"We arrived, Locumotion paid for two nights to stay in Dublin while they orientated us" (Doctor 25, PM).

"They (Locumotion) were excellent, really, really, good sorting out work permits. They booked me into a guest house. Basically they take care of everything"
(Doctor 19, PM).

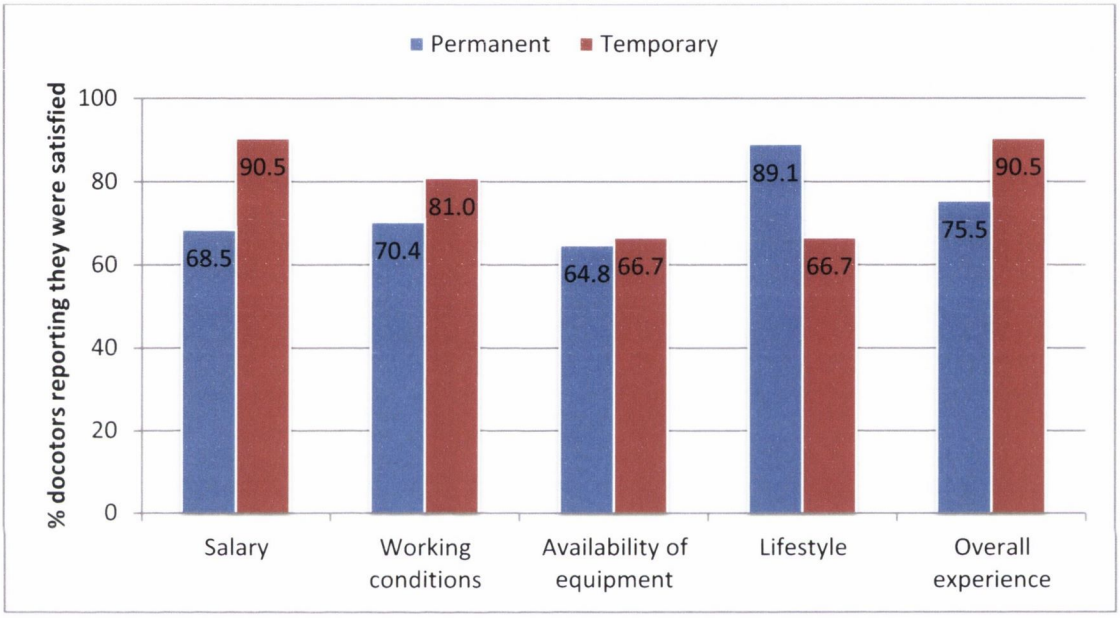
"It's just that first year I really had dealings with them...it was very convenient in the way that they set you up" (Doctor 18, PM).

[51] PPS (Personal Public Service) numbers are unique identifiers issued by the Department of Social Protection and is needed by everyone who works in the Republic of Ireland (similar to the National Insurance numbers in the UK).

10.7 Experience of working in Ireland

As for the temporary migrants, the permanent migrants were asked to rate their satisfaction on a scale of 1-5 with salary, working conditions, availability of equipment, as well as, lifestyle and overall experience in Ireland. Each variable was re-coded into a binary outcome; namely satisfied or not satisfied. Figure 23 shows the summary statistics for permanent and temporary migrants.

Figure 23: Comparison of permanent and temporary migrants reporting satisfaction with factors in Ireland



A higher proportion of temporary migrants reported that they were satisfied with salary and the overall experience than permanent migrants. Conversely a higher percentage of permanent migrants were satisfied with (Irish) lifestyle than temporary migrants.

10.8 Challenges of working in Ireland

The interviews found that on the whole doctors had adjusted to living and working in Ireland on a permanent basis and had not encountered many challenges. There were no issues around working in a different culture and most doctors reported that once they had got to grips with accents, that doctors, particularly the English speaking ones, found Ireland very easy to '*slot into*' (Doctor 24, PM).

The survey asked doctors about their working environment. All survey respondents (100%) felt accepted by their patients and colleagues, as one interviewee stated: "*the Irish, I think they are*

very used to having foreign doctors treating them, so not once have I felt that someone felt that because I'm a foreigner that I won't be able to give them the correct care" (Doctor 18, PM).

Table 36: Permanent migrants' experiences of working within the Irish health care system

Variable	Category	% (n)
Accepted by colleagues	No	5.4 (3)
	Yes	94.6 (52)
Accepted by clients	No	0 (0)
	Yes	100.0 (55)
Same chances as Irish doctors	No	61.1 (33)
	Yes	38.9 (21)
Satisfied with opportunities for professional development	Dissatisfied	59.6 (28)
	Neither	14.9 (7)
	Satisfied	25.5 (12)

The majority felt accepted by their colleagues. However, a high proportion of survey respondents felt that they did not have the same chances as Irish doctors and nearly 60% were dissatisfied with the opportunities that they have had for professional development. This theme also emerged in the interviews and the majority of doctors reported that they did not have the same opportunities as Irish doctors for career advancement. This was found by some to be quite a challenge to the extent that it forced some doctors to leave public practice:

"You feel like you're being treated as a second class citizen, especially if you try to get onto a recognised training post, it's really, really, difficult. I was working in [names speciality] and you reach kind of a glass ceiling and you know that you are not going to get past that....I think in the end you just get fed up with it"

(Doctor 19, PM).

"There's definitely a two-tiered system and I am being definitely discriminated against within the core system. It's equal, but not quite" (Doctor 22, PM)

Doctors acknowledged that they had to work that much harder to prove themselves. However, there was an understanding that that Irish-trained doctors should be first preference for jobs as they were working in their home country as the system could only train so many doctors per year.

"If I was Irish I would have liked a foreign doctor to actually prove herself before she moves on in my country. So, no, it's not equal but I understand why it's not equal. But I'm prepared to work so much harder to prove myself" (Doctor 20, PM).

There were three other major challenges that emerged from the permanent interviews, namely:

i) **Recognising prior experience**: Some doctors were frustrated that their work experience in South Africa (as well as other countries where applicable) was not recognised.

"I thought I would be able to get my work experience in South Africa and [names other country] recognised towards the basic surgical training and it later transpired not to work out. So it took me a little while to get around to the training schemes" (Doctor 20, PM).

"I had to get my South African speciality registered in this country and they required me to do a year of what they call senior registrar time, so I was then set back as such" (Doctor 21, PM).

ii) **Rotations**: Non-consultant hospital doctors (NCHDs) in Ireland have to apply for jobs every six months and this can involve moving to different hospitals in different parts of the country. This was found to be a challenge for those doctors working within the hospital setting.

"I think the transient nature of the contracts has been a big thing for us. We don't have any children so we're quite flexible, but to get a post and stay anywhere is very difficult" (Doctor 25, PM).

"I'd say the biggest challenge is moving around every 6 months" (Doctor 20 PM).

iii) **Working conditions**: Doctors reported some challenges in the different working conditions and these mirrored the challenges that were raised by the temporary migrant. Challenges related to issues around the referral system. Additionally, junior doctors reported that in South Africa they had a lot more clinical freedom:

"I just couldn't get my head around it when I came here, that it was 22 months to see an orthopaedic consultant. In South Africa you would wait probably 6 weeks" (Doctor 22, PM).

"It's frustrating as well, the lack of responsibility afforded to you, especially junior NCHDs" (Doctor 26, PM).

10.9 Future intentions

Table 37 shows the future intentions of the permanent migrants, of whom just over half (51.9%) said that they were planning on staying in Ireland. Of those who were not planning to stay in Ireland, over half (52.0%) planning to go South Africa and others were planning to Australia or other destinations, which included the UK.

Table 37: Future plans for permanent migrants

Variable	Category	Permanent migrants %(n)
Are you planning to stay in Ireland?	No	48.2 (26)
	Yes	51.9 (28)
Of those not planning to stay in Ireland, where planning to go to next?	South Africa	52.0 (13)
	Australia	20.0 (5)
	Other	24.0 (6)
	Unsure	4.0 (1)

Of the interviewees, 5/11 said that they planned to stay in Ireland and 2/11 said that they did not plan to stay in Ireland and both had already left their posts in Ireland in preparation for onward migration. The remainder (4/11) said that they were unsure of their plans and that it would depend on circumstances such as access to training and job availability in Ireland.

There were several reasons behind decision to either stay or leave Ireland. These were identified in the open-ended survey questions and later explored in the interviews.

Endogenous concerns that were creating reasons to leave Ireland were found to relate to the terms of employment within the Irish health care system. There was a lot of dissatisfaction particularly with the terms and conditions of contracts for hospital doctors working for the HSE.

"*the big thing that put us off in terms of administration was the six-month contract, so if that could be changed somehow it's going to guarantee a slightly more permanent position*" (Doctor 25, PM).

"*I could have been convinced to stay in Ireland if I found a permanent contract*" (Doctor 27, PM).

The main endogenous reason why doctors were planning to leave Ireland was however, the lack of training opportunities in Ireland and the subsequent lack of specialist posts. As one doctor in the survey wrote "*Really like living in Ireland but: 1) Specialist registration is really difficult. 2)*

The lack of permanent posts, or fixed time contracts (e.g. 5 years), makes settling in Ireland much more difficult compared to places like Canada.....after almost 3 years I am still struggling to get the basics in place. This may eventually drive me away. In such a case, I will either return to South Africa, or go to a country that is more upfront and accessible for long term stay (e.g. Canada, Netherlands or Australia)".

Exogenous factors, such as family ties in South Africa were also mentioned a reason to leave Ireland. However, it appears that endogenous factors play a more dominant role in determining whether doctors were planning to leave.

"*We both realised that moving forward in our careers would be very difficult, that's the feeling we were getting. And that, together with the fact that our families are back home and my wife's parents aren't very well in terms of their health, so I think those two things together would have pushed us back home anyway*"
(Doctor 25, PM).

The economic down-turn in Ireland was found to both a reason for leaving Ireland (with the possibility of returning to South Africa) but conversely it was also found to be a reason why doctors were not able to leave Ireland. It was felt by those who had brought property during the boom time of the Celtic Tiger that they would not be able under the current economic climate to recover the investment that they had made in their houses.

"*Bearing in mind the second budget and the reduction in salaries...I want to keep my options open...Ireland is very expensive*" (Doctor 28, PM).

"*We bought a house so we're kind of stuck at the moment. We bought it back in 2006*" (Doctor 23, PM).

Reasons for staying in Ireland tended to relate to personal rather than professional factors. Personal reasons included staying for children's education, having met an Irish partner, or having applied for Irish citizenship.

"*We thought of leaving because the workload is onerous...but at the moment we've got a house, I've got staff I'm responsible for and I wouldn't leave because of the staff basically, I would hate to up and leave them*" (Doctor 22, PM).

"*I would be happy to live in another country but as I said, the roots are here now and I'm happy enough to be here*" (Doctor 24, PM)

Table 38: Summary of reasons why doctors plan to stay or leave Ireland

	Reasons to leave Ireland	**Reasons to stay in Ireland**
Endogenous	Lack of consultant posts Lack of opportunities for development Length of contracts for NCHDs Less clinical freedom	Practicing a specialty not common in South Africa
Exogenous	Economic climate Family ties in South Africa Lack of outdoor lifestyle Strong SA currency	Children settled in Ireland Fear of crime in SA Irish partner Undergoing Irish citizenship process Property in Ireland

10.9.1 Multiple logistic regression analysis of intention to leave Ireland

Table 39 shows the predictor variables that affect intention to leave Ireland. Intention to leave Ireland was coded as a binary variable, namely intending to leave and not intending to leave and then multiple logistic regression analysis was conducted.

Table 39: Multiple logistic regression of intention to leave Ireland

Predictor variable		Coef.	Std. Error	P-value
Age		-0.47	0.05	0.40
Gender	Male	-	-	-
	Female	-1.73	0.97	0.08
Marital status	Not married	-	-	-
	Married	-0.61	0.60	0.08
Number of dependent children		-0.34	0.43	0.44
Number of years in Ireland		-0.04	0.07	0.56
Specialty	Other specialty	-	-	-
	General Practitioner	-0.53	1.00	0.60
Satisfaction with current income	Not satisfied	-	-	-
	Satisfied	-0.07	0.85	0.94
Satisfaction with overall Irish experience	Not satisfied	-	-	-
	Satisfied	-0.92	0.95	0.33
Satisfaction with opportunities for professional development	Not satisfied	-	-	-
	Satisfied	-2.11	1.01	0.04

n=45, X^2 (9) = 12.96, p=0.16

The analysis found that intention to leave Ireland was not statistically associated with age, gender, marital status, children; number of years worked in Ireland, specialty, satisfaction with the overall Irish experience or satisfaction with current income. However, there was a significant association between doctors who were not satisfied with opportunities for professional development and intention to leave Ireland (p=0.04).

10.10 Is temporary migration a stepping stone to permanent migration?

Table 40 shows that 41.8% of the permanent migrants had worked in Ireland on a temporary basis prior to migrating permanently. Of those who had worked in Ireland on a temporary basis over half had worked on one occasion and just under half had worked on two or more occasions.

Table 40: Prior temporary work in Ireland prior to permanent migration

Variable	Category	% (n)
Temporary work in Ireland prior to permanent migration	No	58.2 (32)
	Yes	41.8 (23)
Of those who had worked in Ireland on a temporary basis, number of times to Ireland	Once	56.5 (13)
	Twice or more	43.5 (10)

Only one interviewee had worked in Ireland on a temporary basis before migrated permanently. It was through the contacts that this interviewee made whilst working on a temporary basis that the opportunity arose to have a longer contract (6 month initially) and then this became longer term.

"it was quite easy at that stage to just go to Ireland for two, three weeks and do a short locum during your holiday....then almost year later I received a phone call out of the blue, if I was interested to do a six month locum...and me and my wife thought about it, said it would be quite interesting to do" (Doctor 27, PM).

Interviewees who had not done prior locum work in Ireland before moving permanently (10/11 doctors) were asked whether they had considered working on a temporary basis in Ireland, instead of migrating permanently. Interestingly it revealed that the characteristics of temporary and permanent migrants are different and it would appear that different types of migration do not appeal to everyone.

"I know there are a lot of South African doctors that do that, but that's not really the way my life has panned out, that would never have really been an option" (Doctor 24, PM).

"No, we move, we move everything" (Doctor 23, PM).

10.11 Factors associated with temporary and permanent migration

Figure 22 identified that approximately one third of permanent migrants ranked salary as their main incentive and one third ranked personal safety. This was compared to over half of temporary migrants who ranked salary as their main incentive and just under a sixth who ranked personal safety as their main incentive. The characteristics of temporary migrants from

Component 3 (n=90) and the permanent migrants from this component (n=55) were compared in order to determine what predicts temporary migration as opposed to permanent migration[52].

Table 41 shows that following variables are not predictors for temporary migration: age, gender, children, marital status, specialty, satisfaction with the overall Irish experience, or with satisfaction with Irish salaries.

Five predictor variables were however identified. Salary as the main incentive for registration in Ireland was a predictor for temporary migration. Sticking with the issue of salary, another predictor variable was found to be whether doctors felt the income they currently received was a fair reflection of their skills and training. The negative coefficient indicates that temporary migration was predicted by doctors who felt that their income was not a fair reflection of their skills. It would therefore appear that doctors in South Africa who are not satisfied with the salary that they receive migrate to Ireland in order to increase their income. However temporary migrants do not want to leave their current position (in South Africa). It could be that doctors have to establish themselves in their position before they are able to negotiate the time off from their job to go and work in a country on a temporary basis. Interestingly satisfaction with Irish lifestyle was also found to be a predictor for temporary migration. Temporary migration was predicted by doctors who were not satisfied with Irish lifestyle.

[52] Temporary migration is used as the outcome variable as the predictors for temporary migration, as opposed to permanent migration, is the focus of this thesis.

Table 41: Multiple logistic regression to determine the predictor factors for temporary migration

Predictor variable		Coef.	Std. Error	p-value
Constant		*1.46*	*2.14*	*0.49*
Age		0.01	0.03	0.64
Gender	Male	-	-	-
	Female	-0.32	0.73	0.66
Marital status	Not married	-	-	-
	Married	-0.20	0.73	0.78
Number of dependent children		-0.36	0.26	0.16
Salary as the main incentive	Not the main incentive	-	-	-
	The main incentive	1.43	0.65	0.03
Specialty	Other specialty	-	-	-
	General Practice	1.28	0.78	0.10
Satisfaction with Irish lifestyle	Not satisfied	-	-	-
	Satisfied	-1.78	0.87	0.04
Satisfaction with the overall Irish experience	Not satisfied	-	-	-
	Satisfied	023	0.86	0.79
Satisfaction with Irish salary	Not satisfied	-	-	-
	Satisfied	0.96	0.83	0.25
Income received is a fair reflection of skills and training	Disagree	-	-	-
	Agree	-3.04	0.73	<0.01
Would take the first opportunity to quit current job	Disagree	-	-	-
	Agree	-2.50	0.99	0.01

n=94, X^2 (11) = 47.99, p<0.01

10.12 Summary

This Chapter aimed to understand the dynamics of permanent migration and then to compare these to those seen by temporary migrants. There were similarities and differences between the two migratory types.

As for temporary migrants, permanent migrants reported that they had chosen Ireland as opposed to other countries due to the ease of registration procedures at the IMC. Some permanent migrants reported that they would not have chosen Ireland if they would have had to sit exams to register. Overwhelmingly, the PLAB exams were mentioned as a reason why doctors had not chosen to go to the UK, on a permanent or temporary basis. Many permanent and temporary

migrants had considered other English speaking countries such as Australia; however, distance from South Africa was given as the main reason why doctors had not chosen to go there.

Interestingly, the role of a recruitment agency in facilitating positions emerged as being important for permanent migrants, as it had emerged for temporary migrants. Permanent migrants reported that, particularly their first position had been found for them through a recruitment agency. Recruitment agencies were also instrumental in helping doctors in the first few days in Ireland, assisting with visas, accommodation and other administrative issues.

There appeared to be more overwhelmingly dominant reason for permanent migration. Similar proportions of survey respondents ranked personal safety and salary as the main incentive for registering in Ireland. The interviews found that doctors who were younger at the time of migration were more likely to mention salary, training and/or the opportunity to travel. These doctors tended to state that they had planned to come to work in Ireland for a defined period of time and then return to South Africa. However, it was often the case the personal circumstances changed this, such as meeting an Irish partner. Doctors who were older at the time of migration were more concerned about personal safety and opportunities for their children, maybe reflecting that they themselves grew up in a different era in South Africa and therefore were less optimistic about the country's future.

Permanent migrants reported that they had faced challenges whilst working in Ireland and that these were creating push factors to leave. Indeed of those surveyed, just under half said that they were planning to leave Ireland. This suggests that Ireland was not the final destination for doctors who have been classified here as permanent migrants as any additional movement implies that migratory category could change. Some doctors were simply not sure of what their plans were and that it totally depended on what opportunities were available to them and that they would migrate in order to further their careers: *It's all about opportunities actually, that's what it is. If I finish my training and I just don't get a consultant job then I'll have to think about what I'll do, do I hang on here, or will I have to go abroad to further my training and then go back, or do I go somewhere else and settle wherever*" (Doctor 18, PM).

Of those doctors saying there were planning to leave Ireland many were returning to South Africa (therefore becoming return migrants); however some were going to other European countries (and become onward migrants). It may be that some of these doctors are just more predisposed to migration and will be settle in one place and then move again, as one doctor put it "*I'm certainly a migratory bird, no doubt about that*" (Doctor 21, PM). This issue will be considered further in the discussion as it highlights an issue raised by Kingma (2006) in the literature review that '*the adventurer migrant is a neglected category*" [125].

Multiple logistic regression analysis showed that the major difference between permanent and temporary migrants was their motivation for registering at the IMC. Salary was found to be the dominant motivation for doctors to migrate on a temporary basis, when comparing to permanent migrants. This was irrespective of age, gender, marital status and having dependent children. However, although salary seemed to create a draw to Ireland, the draw of exogenous factors was not felt by temporary migrants as dissatisfaction with Irish lifestyle was found to be a predictor for temporary migration.

11 *Limitations to the Research*

The results found in all four components have limitations. These need to be carefully considered in order to determine how they may have affected the results that were found.

The main limitation of using the Motivation Project data is that they were not primarily designed to answer the questions raised by this thesis. I extracted doctors from a much larger group and the resulting sample is quite small for much statistical analysis. Large samples are needed for statistical analysis as they minimise the probability of errors and maximise the accuracy of population estimates. It is unlikely that these results can be generalised. However, the results provide an invaluable insight into the attitudes of doctors who work within the South African public health system. This perspective is important as the majority of doctors in component three were working within the private health system in South Africa.

Using registration data to measure migration has four main limitations [212]. The limitation which applies most widely here is that registration to the IMC signifies intent to practice, rather than certainty that the doctor is actually working in Ireland. This was found to be the case for South Africans, whereby 24.2% of sample had registered in Ireland in order to have a 'safety net'.

Often visa data is used to provide a further indication of doctor migration [76]. Visa data and registration data can then be triangulated to obtain a more accurate picture of inflows. However, the aim of this thesis was to determine motivation for temporary migration. Whilst it is prudent to have a complete as possible picture of temporary migration, visa data, which may actually underestimate the number of doctors arriving (due to visa regulations), would not have contributed towards answering the research question.

A major limitation of component three is that over a third (35.6%) of doctors who were categorised as temporary migrants had not actually been to Ireland. Although they stated that the sole reason for registering in Ireland was to work there on a temporary basis, it may not be appropriate to classify them as temporary migrants until they have experienced one episode of temporary mobility.

In terms of however representative the sample is of South African doctors who are registered in Ireland two issues need to be highlighted. The first is that whereas the temporary migrants were selected from 3 purposively chosen provinces in South Africa, the permanent migrants in Ireland could have originally come from any province of South Africa. This may mean that different provinces which were not selected for the temporary migrants may have had different push factors. For instance, for many permanent migrants HIV was highlighted as an important push

factor. These migrants may have come from a province where the HIV prevalence was higher than that found in Gauteng, Limpopo or Mpumalanga (i.e. the provinces which were selected for the temporary migrants).

The second issue is the low response rate, found in both components three and four. Non-response is a major disadvantage when using postal questionnaires [269]. Despite attempts made to increase the response rate, for both the survey in South Africa and in Ireland, the response rate was 30%. A low response rate can introduce bias into the sample.

A previous postal survey of South African doctors in 1975 resulted in a response rate of 44.8% which was noted as being *'satisfyingly high for surveys of this kind'* [283]. A review of response rates of GPs to 25 postal surveys found in 2009 (the year before this thesis sent out postal questionnaires) an average response rate of 54.8% [284]. What is important to note is that this thesis surveyed migrants who are a more mobile population, as can be seen from the large number of questionnaires that were returned as undeliverable. A recent postal survey of migrants (2006) obtained a response rate of 23.8% [279], which is more in line with what was found in this thesis.

The only contact information available from the IMC was doctors' postal addresses. As some questionnaires were returned as undeliverable, it a higher response rate may have been achieved through email. Due to data protection laws though it was not possible to contact doctors through the email address which some of them have provided to the IMC. A questionnaire sent through email to migrant Sudanese doctors in Ireland obtained a response rate of 43.7% [285] and therefore it is probably that emailed surveys obtain higher response rates than postal surveys. An article advertising the research was placed in the Wits Medical Alumni magazine. However, seeing as agencies such as Locumotion advertise through the SAMJ, it would have been a good strategy to place an advertisement for potential participants in this Journal. A similar strategy recently used to recruit non-EU migrant doctors for a study in Ireland resulted in an increased interests and participation in the said study [133].

12 *Discussion*

12.1 Introduction

This thesis has made several valuable contributions. There is very limited information about temporary doctor migration. The results presented here provide an example of South African doctors who migrate to Ireland to work on temporary basis. Whilst not all doctors surveyed in component three (registered at the IMC and residing in South Africa) could be classified as temporary migrants (some were planning a permanent move and others had registered as a safety net) 70.3% had registered at the IMC with the intention of working in Ireland on a temporary basis. Of these doctors 64% had been to Ireland once or more to work on a temporary basis. By providing a quantitative and qualitative analysis of their experiences it was possible to understand more about the dynamics of temporary migration. These results therefore increase the evidence base that is available.

The results are undoubtedly context specific and reflect unique conditions within South Africa and Ireland. A known limitation to case study methodology is that sometimes results cannot be generalised. However, by using this specific case study it has been possible to study an example of temporary doctor migration. This phenomenon has previously been anecdotally reported, but never subjected to scientific analysis. Additionally themes have emerged which contribute to the debate on temporary doctor migration. This is particularly regarding what duration of temporary migration is seen by doctors as being most beneficial to them.

The case study of South African doctors working in Ireland presents five important issues with regard to temporary doctor migration. These are:

1) The need for better migration data
2) Migration patterns are multifaceted and can alter
3) Motivation for migration varies and this influences migration type
4) Conditions in the destination country have to appeal to doctors enough to attract them there, but not enough to convince them to make a permanent move, i.e. doctors have to want to return home.
5) Temporary doctor migration is occurring without the need for a formalized program to manage the process. Formalised programs are not likely to be the appropriate response when trying to manage doctor migration

This Chapter explores each of these issues by together the cross cutting themes that have been identified in the four results components. This Chapter will also revisit the conceptual

framework proposed in Chapter 5 in order to see whether and how it was accurate for outlining the process of temporary migration and where new issues need to be considered.

12.2 Migratory data

Although there are limitations to the data presented in this thesis, the results provide important evidence on a phenomenon about which there is currently very little information. The data from the IMC show the increased numbers of doctors migrating from South Africa to Ireland over the decade 2000-2010. This increase was found to be high in comparison to doctors migrating from other countries.

Based on the IMC statistics it may have been assumed, prior to this thesis, that all registered South African doctors were working within the Irish healthcare system. That is clearly not the case. The results presented here found that 87.4% of doctors registered at the IMC do not reside in Ireland. There is no way of instantly knowing from the IMC register whether these doctors have worked or are planning to work in Ireland and there is no way to distinguish between temporary and permanent migrants. Additionally, as indicated in the limitations section (Chapter 11), IMC registration does not mean that migration has taken actually place [128] and that is clearly the case with South Africans, many of whom (24.2% of those surveyed) have registered in Ireland in order to have a safety net.

The inability to distinguish between temporary and permanent migrants is not unique to Ireland. The lack of data on permanent and temporary flows of migrants in countries makes international comparison difficult. Registration data may distort figures for numbers of doctors globally as some doctors may be registered in more than one jurisdiction. Some countries, such as Australia, Canada and Switzerland, have got around this issue, by reporting the number of temporary work permits issued to doctors [58]. However, there are no data to confirm how many temporary work permits become permanent.

The need to improve the evidence base on doctor migration has been emphasized [1, 76]. In particular there are very little data about what migration is permanent and which is temporary. Each country must have reliable information about the numbers of doctors arriving, departing and those who return again. These data are essential for workforce planning, in both the source country, in terms of outflows and in the destination country in terms of inflows [1]. Where possible, data needs to contain information about socio-demographic characteristics, reasons for migration and future intentions. As part of the WHO Global Code of Practice, member states are encouraged to provide information on migration. This data is due to be reported to the World

Health Assembly in 2012 [148] and so it is hoped that this data will go some way towards harmonizing core data sets across countries and improving decision-making.

12.3 Categorizing migration and associated challenges

The results from Chapters 7, 9 and 10 identified that doctor migration is multi-faceted. Amongst the South African doctors working in Ireland there were several different types of migration patterns occurring. Component 3 identified four types of migrants. The first were the circular migrants, who went to Ireland on a regular basis (sometimes a couple of times a year) for short periods (approximately 4-6 weeks). This group of migrants were the ones who were most motivated by economic gain. The second group of migrants fell into a category outlined Table 4 (page 31) of 'holiday migrants'. These doctors enjoy working in Ireland and use it as an opportunity to have a working holiday. They work in Ireland on a temporary basis (for roughly 4-6 weeks) but do not do it in such a repetitive style as the circular migrants. The third group of migrants fell into one of King's [35] classification of 're-emigrants'. Some doctors had worked on a temporary basis and were now thinking about a permanent move. With no follow-up in place it is not possible to know whether these doctors moved to Ireland and are now re-emigrants or not. The fourth group of migrants were not identified by King (1986), nor are they mentioned in the IOM's (2004) glossary of migration terms [38].

These are the potential migrants, or 'safety net' migrants, as they have been classified in this thesis. These doctors are not planning to migrate in the near future, but the potential is there for them to migrate at any time, and this would likely occur when push factors in the source country became overwhelming. It would be an interesting area of further research to find out whether other categories of workers are also safety net workers, or whether it is something that is specific to doctors, due to their ability to register with a Medical Council in another country and not physically have to work there. It may also just be a migrant type that is specific to South Africa, given its unique political and social contexts.

Component 4 also identified a large range of categories of migrants. There were those who had emigrated permanently from South Africa. There were re-emigrants, whereby doctors had gone to Ireland for work, returned to South Africa and then at some point returned to work in Ireland. By questioning future intentions of doctors it was found that there would soon be instances of return migration – i.e. doctors who were planning to return to South Africa (mainly after having been in Ireland for 1-2 years). Finally, transient migrants, whereby doctors were planning to leave Ireland and go on to another country (often the UK) were also identified.

What adds to the complexity of trying to put migrants into categories is that sometimes migratory intent changes, often through changes in personal circumstances. For instance, some migrants may have intended to remain in the destination country for a defined period of time, however they develop strong ties (i.e. 'stay' factors appear) there, for instance they may find a new partner or they may invest (e.g. through property) in the destination country. These migrants therefore lose interest in returning home, thereby becoming permanent migrants [32]. Issues around the influential nature of stay factors are under-researched and it may be a useful avenue to explore further in order to further understand the complicated dynamics of migration. As Kingma (2006) states '*there is a tendency for temporary to become permanent at any time*' [125]. There are also instances when there may have been no firm intentions with regard to migration to begin with, as one (now) permanent migrant put it that settling in Ireland '*was by accident more than by design*'.

12.4 Motivation for migration and how this influences migration type

The push and pull theory of migration was identified in section 2.5 as being the most commonly used for understanding why doctor migration occurs. The results presented in this thesis confirm that push and pull factors are extremely influential and both create the desire to migrate. What this thesis also adds to the knowledge base of push and pull factors is that the way doctors react to them will determine what type of migration they will undertake.

Table 42 summarises all the reasons that were identified during the open ended survey questions and during the interviews for components three and four. What the table shows is that similar push and pull factors were identified for both permanent and temporary migrants. Whilst these are specific to South Africa they highlight that temporary and permanent migrants are affected by different push and pull factors. For instance, permanent migrants reported more exogenous factors, such as crime in South Africa and a general concern that facilities (both medical and non-medical) were declining in the country. Although these concerns were also raised by temporary migrants it appears that issues such as crime did not affect them to the extent that it made them want to leave South Africa. For example whereas permanent migrants would refer to crime in South Africa in the following way: "*Level of crime and corruption has gone from bad to worse. Even if I try to be optimistic I see no future there*" (Doctor 23, PM) and "*It's so unsafe, it's ridiculous how unsafe you are*" (Doctor 19, PM). The temporary migrants however, refer to crime in the following way: "*The crime, I think the crime is definitely challenging, for patients' sake, family and so on. But it (South Africa) is still where I want to be*" (Doctor 11); and "*Political instability is part of living in Africa and that's just what you have to get used to if you live here*" (Doctor 14). It would be useful to explore whether different push and pull factors are reported by different migratory types in other country settings. This is because retention

strategies implemented to address permanent migration have tried to address push factors within countries [143, 286]. However, if initiatives to do this are addressing push factors that are reported by temporary migrants, as opposed to permanent migrants the strategies may have a limited impact at improving long-term retention within a country.

Table 42: Factors affecting doctors' decision to migrate to Ireland

		Factor	Permanent	Temporary
Reasons to leave South Africa	**Endogenous**	Heavy workload/burn out	X	X
		HIV	X	
		Lack of opportunities	X	
		Lack of resources	X	X
		Long hours	X	X
		Low salary		X
		National health proposals		X
		Poor management	X	X
		Poor working conditions	X	X
		Staff shortages	X	X
		Lack of safety at work	X	
	Exogenous	Crime/personal safety	X	X
		General decline/concern for future	X	
		Political instability	X	
Reasons to work in Ireland	**Endogenous**	Ease of registration/no exams	X	X
		Gain work experience	X	X
		Good working conditions	X	X
		High remuneration	X	X
		Qualified in Ireland	X	X
	Exogenous	Change in environment	X	X
		Location (Close to the UK/Europe)	X	X
		Education opportunities for children	X	
		English speaking	X	X
		Friends in Ireland		X
		Irish descent/Irish partner	X	
		Safety net		X
		Travel opportunities/adventure	X	X
		Low crime rates	X	

It would therefore appear that temporary migrants are less affected by push factors, than permanent migrants. The results of this thesis suggest that temporary migrants are more

motivated by economic gain when compared to permanent migrants. This confirms the findings of other studies [9] and indeed, similar features were seen in this thesis, as in other studies of temporary migration. For instance Hugo's study (1977), found that many migrants stated by moving to the city alone they were able to keep costs low by putting up with accommodation which was unsuitable for their family members [40]. A similar scenario was found amongst the doctors who were working in Ireland on a temporary basis, solely for financial gain, as one doctor stated: "*You're not going on holiday; you're going to earn a living*".

There are also the issues of costs that involved with migration and the results presented here emphasize that there are 'fixed costs' (in terms of family, friends, travel costs etc.) involved with each migration. The results of this thesis illustrate the importance of Dustmann's model (2000), which states that duration of migration is '*determined by equalizing the benefits of remaining a further unit of time abroad and the costs*' [39].

Haour-Knipe & Davies (2008) argue that at the micro level economic influence is contextual rather than paramount [14] and it appears to be the case here that although remuneration is important, there other issues that influence decision to migrate temporarily. For instance, the opportunity to have an 'adventure' was reported as a motivator for temporary migration.

The category of 'adventurer migrant' is not often found in the literature and indeed Haour-Knipe and Davies (2008) note that this is a neglected category of migrants [14]. The results presented in this thesis show that 'adventurer migrants', as well as 'holiday workers' (a category identified by Buchan (2006) [37]) are important categories to be considered when discussing doctor migration. These migrant categories are important to consider because they emerged as a one of the reasons why doctors were working in Ireland. It seems reasonable to assume that other countries are receiving migrants who could be classified as 'adventure migrants'. Based on this knowledge it would be advisable to include this theme when future research is being conducted into the motivation for migration as it would be useful to quantify it to determine how influential it is.

Interestingly, the notion of migration being an adventure was also identified amongst the permanent migrants. Additionally, this theme was alluded to in component two amongst the doctors in South Africa, where it was found that those who were most dissatisfied with entertainment were significantly more likely to consider emigration. Whilst likening a desire for an adventure to dissatisfaction with entertainment as predictors for emigration, a study has found that some migrants do it in part to '*cultivate their interests and enjoy themselves*' [287].

Skill acquisition did not feature as a reason why doctors wished to migrate on a temporary basis. Indeed, this is likely to correlate with the fact that the optimum length of time for migration is so short that this may well not allow time for skill development, but it also correlates to the fact that temporary migrants are already fully qualified.

The results of this thesis show motivation for migration is the foundation to what type of migration will occur on that occasion. If the doctor's motivation changes then the migration type will change. Motivations cannot be regarded as static and may come under influence of the conditions in the destination country, leading to new expectations and consumption patterns. Maintaining that migration remains temporary involves a fine balancing of several factors. The case study of South African doctors working in Ireland on a temporary basis highlighted what these aspects are and these will be discussed below in section 12.5, with regard to how they correlate with the original conceptual framework.

12.5 Revisiting the conceptual framework

It would appear that the major factors which determine temporary migration were well represented in the original conceptual framework. The conceptual framework identified 7 hypotheses. These need to be confirmed or rejected in order to assess whether the conceptual framework was valid. Where necessary the conceptual framework will need to be revised in order to reflect the dynamics of temporary migration, as illustrated by the case study. Each hypothesis is therefore outlined below in Table 43, together with the findings of this thesis which confirms or rejects these hypotheses.

Table 43: Hypotheses generated by the conceptual framework and evidence to support them or not

Hypothesis	Supported or refuted by the results found in this thesis
1. Doctors who migrate temporarily are primarily motivated by financial gains	Doctors who migrate on a temporary basis are motivated by financial gains. However, this is not the primary motivation for all temporary migrants. The desire for 'adventure' or to have a 'working holiday' was found to be influential motivating factors. As this was not in the original conceptual framework it will be added to the revised version.
2. Doctors who migrate permanently are primarily motivated by career development or to escape political instability within their own country	The results found that permanent migrants were motivated by a greater variety of reasons. Career development did not emerge as a primary motivator. Doctors were more motivated by a desire to escape from endogenous push factors rather than exogenous factors. This change will have to be reflected in the revised conceptual framework.
3. Employment contracts needs to be attractive to the doctor in terms of length, financial remuneration and fitting their skill set.	The temporary migrants reported that they were satisfied with their working conditions, particularly with the salary and employment length (they could choose how many weeks they wished to work). Additionally, the majority of the temporary migrants were GPs and locum positions in Ireland were for GPs, thereby fitting their skill set. It would therefore appear that locum positions in Ireland are attractive to South African doctors to work there on a temporary basis
4. Overseas employment has to be promoted. This is through promotion activities of Recruitment Agencies	The promotion activities of medical recruitment agencies (particularly when these promotional activities were carried out in South Africa as 'road shows') were found to be influential in advertising positions and promoting Ireland. Recruitment agencies were also able to facilitate temporary migration both in terms of placing doctors and arranging logistics such as accommodation on arrival.

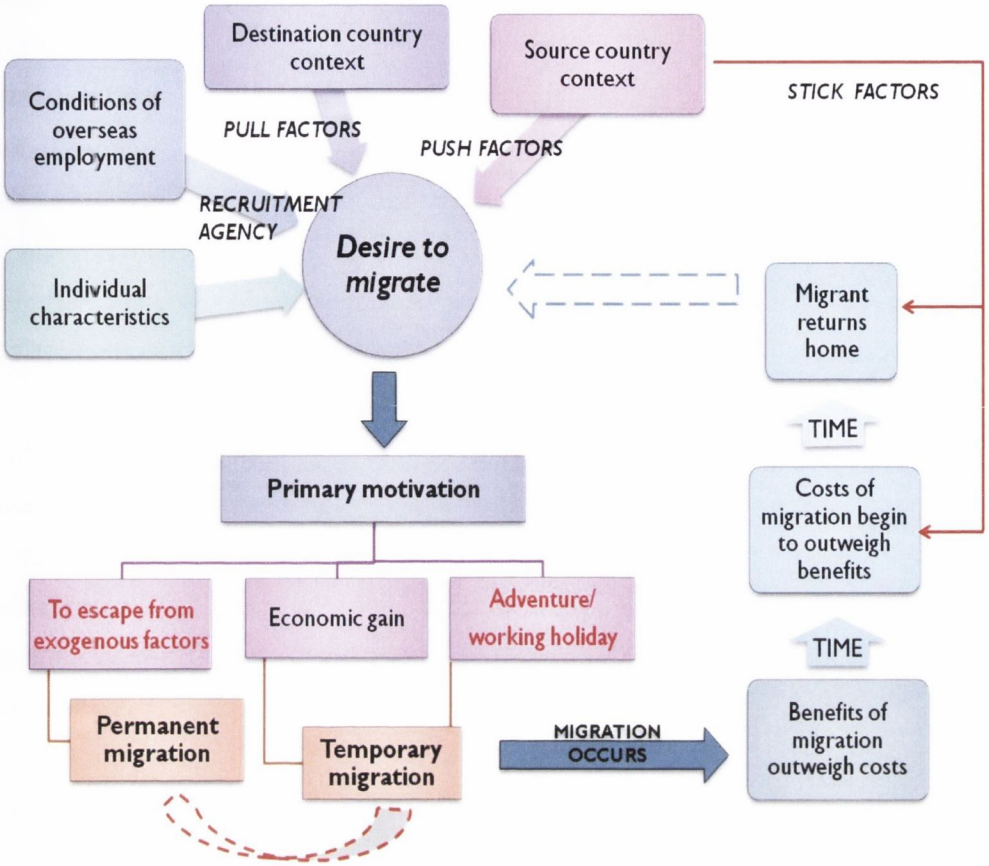
5. Overseas employment has to be facilitated by the ability of doctors to work overseas and for it not to affect their employment circumstances at home	It was essential that temporary migrants were able to return to their positions at home. Temporary migrants had worked out different ways to organise this. The majority of South African doctors worked in private practice this may make it easier to facilitate time away.
6. Doctors will reap the maximum benefits of migration within a few weeks. After this time the costs of their migration will outweigh the benefits and they will return to South Africa.	This hypothesis is at the heart of ensuring temporary migration. When doctors first arrive, the benefits of being away from home outweigh the negative (i.e. they are earning a high salary in Ireland). However these benefits decrease over time and the costs of being away (even earning the same salary) then outweigh the benefits and this tips the balancing scale the other way. Time was highlighted as an important issue in the original framework and the results reinforce its importance.
7. Desire to migrate is a cyclical process. After the migrant has returned to their home country the desire to migrate may start to build up again.	This hypothesis was confirmed as the majority of migrants were planning to migrate on a temporary basis again. Obviously, cost-benefit factors formed the focus of when this migration would occur. For some at this point in their lives the costs would outweigh the benefits of temporary migration (e.g. their children were at school). However once the benefits of temporary migration outweighed the costs the doctors would then again temporarily migrate (e.g. once their children were a bit older).

The original conceptual framework did not feature stick factors. It seems that 'stick' factors within South Africa play a much more influential role than push and pull factors when it comes to maintaining temporary migration. It is clear that return needs to be attractive and social factors contribute towards this. Dustman (2000) says desire to return home by migrants is simple in that *'it may give more pleasure for an immigrant to consume a bottle of wine with friends and family at home than alone in a foreign country....the potential time in the home country becomes more precious the longer the migrant remains abroad, which leads to an increase in the costs of staying abroad'*. This philosophy is evident among the South African doctors working in Ireland on a temporary basis, who, although like the experience of working in Ireland are not as drawn to the Irish lifestyle. Haour-Knipe & Davies (2008) identify that often reasons for return are family ties and that feelings of 'patriotism' are important motivators return home [14]. The findings of this thesis confirm the importance of nationalism for wanting to return, with many doctors talking about how proud they were of South Africa. All of these things relate to 'stick' factors. As this was not in the original conceptual framework it will be added to the revised version as this shows the dynamics of temporary migration in the South African context. Whilst stick factors have been found to be influential within the South Africa it is unclear how influential they are in other countries.

The results presented here indicate that temporary migration is rarely a stepping stone for permanent migration. This contradicts Dawson (2006), who writes that *'conventional wisdom says that temporary workers gravitate towards permanent migration opportunities'* [159]. The results in component three found that only 3% of the migrants had done temporary work in Ireland and were now considering a permanent move. The interviews revealed that only one doctor had worked temporarily and was now planning a permanent move. This left the majority of doctors who were happy to work on a temporary basis in Ireland, but had no intention of working there on a permanent basis. Although the results from component four show that some doctors had worked in Ireland on a temporary basis before permanently migrating there, due to the smaller numbers in this sample, it would be stretching the point to argue that the majority of doctors embark on temporary migration as a prelude to permanent migration. For this reason the arrow between temporary and permanent migration remains, but has been changed to from solid to dashed.

Taking into consideration all these changes, the revised conceptual framework is presented below in Figure 24. For ease of reference any changes made have been done in red.

Figure 24: Revised conceptual framework showing the dynamics of temporary migration from South Africa to Ireland



12.6 Management of doctor migration

Whilst temporary migration is portrayed as a solution to mitigate the effects of permanent loss of doctors, it is important to highlight that any migration will result in labour loss within the source country. For instance, when the South African doctors are in Ireland they are not working in South Africa and this could affect the provision of care that is available to patients. Whilst the South African doctors reported no problems in this regard (as their colleagues looked after their patient load and this is undoubtedly more feasible in the private health care setting) it may be useful to estimate the impact.

A crude calculation can be conducted to suggest how migration affects the time that a doctor is able to provide care in their home country. It is estimated that out of 52 weeks in year, 3 are annual leave[53]. This means that there are 49 working weeks. If a doctor is to spend, for instance 6 weeks a year working in Ireland[54] this equates to 12% of their working time. This is based on

[53] Annual leave entitlement in South African is 15 working days (3 weeks). Additional leave entitlements are at the discretion of the employer (www.labourguide.co.za/conditionsofemployment)
[54] 6 weeks was the median migration length found in the survey in component three

one migration of 6 weeks, and it is plausible that a doctor could migrate twice in a year (and the results suggest that some doctors did indeed migrate more than once a year).

It is evident that all types of migration will affect the availability of labour in the source country. Consequently, although the issue cannot be completely resolved it is clear that there needs to be a way to ensure that migration doesn't result in a 'win-lose' situation [1]. It is critical that countries implement strategies to address issues around doctor migration, whilst recognising that doctors are free to migrate if they so desire. The goal of a temporary migration policy would be to foster migration that is beneficial to the migrants, the source and destination country [32]. For this reason, temporary migration has been proposed as a strategy to mitigate the effects of the brain drain.

It is argued that temporary migration could be facilitated by having more favourable working arrangements, such as longer (i.e. more than a year) and more flexible contracts [32]. However, the results presented in this thesis argue that in order for temporary migration to be successful, the length of time in the destination country actually has to be very short. Indeed, although Ireland's recruitment of doctors from Pakistan and India has been portrayed as 'temporary' this thesis predicts that unlike the South African doctors who are keen to get home after their 6 weeks in Ireland, the Pakistani and Indian doctors may be less keen to return home after their 2 year contracts are finished as they will be susceptible to stay factors within Ireland, or alternatively be attracted onward migration. However, this predication may be unfounded as Aly & Taj (2008) report that '*No one wants to give up the comfort of home and loved ones in exchange for living amongst strangers...we'll come back*'[167]. This finding implies that whilst the conceptual framework presented in this thesis is specific to the South African context, it could relate to other contexts. This needs to be further explored.

It can be argued that many of the potential interventions that have been recommended to help address migratory flows [1] could be addressed through TMPs. The objectives of such programs would be the same as for unskilled workers, with conditions for success including efficient recruitment mechanisms and bilateral agreements to ensure that the stay is on a temporary basis [177].

Agunias (2006) proposes that TMPs could be used as a measure to facilitate return migration [33]. The counter argument is that TMPs have a limited role in labour migration policies [90]. Such schemes have had faults, but could be an innovative way to ensure doctor migration is temporary. However, while TMPs could be beneficial for facilitating less-skilled work seasonal agricultural work or the construction sector [32] in terms of facilitating temporary doctor migration formalised programs do not seem to be the most appropriate mechanism for this.

Instead, it would seem one of the reasons that temporary migration has been so successful amongst South African doctors is that measures have been taken to 'foster' migration. This is, as Mejía highlighted, over thirty years ago, a more effective way to manage migration [10].

Ways to foster temporary migration include attractive overseas posts which doctors are able to take up, but without jeopardising the positions at home. It has been argued that temporary migration assignments are not feasible, unless there is the incentive that a permanent contract will come from it [159]. However, the results of this thesis indicate otherwise and temporary migrants do not want a permanent contract and instead wish to return to their jobs in South Africa.

Indeed, Haour-Knipe (2008) proposes that policies should be developed to accommodate temporary migration, for instance by allowing leave of absences from places of employment [14]. Whilst there is no formal policy in place in South Africa, there has been a natural process whereby it doctors have been able to easily organise time off work off to go to Ireland. However, as already highlighted in the discussion above, the majority of South African doctors in this study worked in private practice and this may make it easier to facilitate time away

Certain circumstances also clearly play a role in fostering temporary links. Buchan and Perfilieva (2006) note that modern transport links have enhanced the feasibility of temporary migration [37]. Indeed, good transport is a key factor. Doctors reported that it was too far to go to other countries, such as Australia for temporary work. The fact that Ireland and South Africa are perceived by doctors to not be very geographically far apart, and with small changes in time-zone, make the commute to Ireland more appealing than that to further away destinations.

Also, Ireland had a particular draw to South African doctors due to the ease of registration procedures at the IMC until 2009. Prior to March 2009 doctors who trained in a South African medical college had their qualifications recognised as part of a reciprocal arrangement (Section 26 of the Medical Practitioners Act 1978) and this meant they did not have to sit exams and were automatically able to join the full register. The Medical Practitioners Act 2007 replaced this in March 2009 and this meant that doctors who trained in South African no longer had their qualifications automatically recognised and indeed may need to sit the PRES exams [176]. It will be interesting to see how this affects the attraction of working in Ireland for South African doctors.

It may be that some doctors are more pre-disposed to wanting to work overseas on a temporary basis than others are. Maniscalco (2003) notes that working as a locum can be an opportunity to '*learn about local culture, see how practices are organized, learn adaptability, and broaden*

clinical skills' [182]. The findings here substantiate this, with many of the doctors who migrate on a temporary basis saying that do it in order to learn about different practices and to broaden their skills. Additionally one temporary migrant doctor noted: '*You get colleagues who have locum personalities and colleagues who will never touch it'*.

13 *Conclusion*

This thesis sought to understand what motivates doctors to migrate on a temporary basis. With shortages of doctors reaching critical levels in several countries, particularly LMICs, it has become more necessary than ever to develop strategies to manage migration so as to mitigate any negative consequences. Previously there was extremely limited information on the phenomenon of temporary doctor migration. The aim of this thesis was therefore to provide a better understanding of the dynamics of temporary doctor migration in order to guide future policies that are developed to manage migration. In order to achieve this aim, case study methodology was used, whereby the example of South African doctors was used to test validity of the conceptual framework. A theoretical framework was developed from the migration literature. This in turn was used to generate hypotheses on the dynamics of temporary doctor migration, which guided the analysis.

This final Chapter will summarise the main findings, provide policy recommendations for Ireland and South Africa (as well as other countries), provide methodological recommendations and will suggest areas for further research.

13.1 A summary of the main findings of this thesis

A major finding of this thesis is that migration patterns are very diverse and can shift rapidly. These characteristics make it even harder to develop and implement strategies to manage migration. Temporary migration is not necessarily a 'stepping stone' for permanent migration, however it is important to acknowledge that personal circumstances will always change and this will mean that there will be crossovers between types of migration.

It is evident that the motivation of the doctor will influence what type of migration they undertake. Additionally migration type will be influenced by circumstances and context. The evidence suggests that temporary migrants are more motivated by economic gain and permanent migrants are more motivated by longer term factors, such as future prospects for their children. However, a category of migrant which does not receive enough coverage in pervious literature is the 'adventurer' or 'holiday migrant'.

The illustration provided in this thesis of South African doctors working in Ireland appears to be an example of a 'triple-win' situation: 1) Ireland is able to fill shortages, particularly in the out-of-hours services, 2) South African does not loss the doctor permanently and 3) doctors are able to earn additional income. Whether this experience is typical and replicable in other contexts is debatable and further research in this area needs to be done. This example does however highlight that temporary migration occurs under very delicate balance of specific conditions.

Length of employment in Ireland is critical as there are financial and personal costs incurred whilst the doctor is away from South Africa. The role of Recruitment Agencies for facilitating employment needs to be acknowledged as well as the ability of doctors to take time off from their jobs in South Africa.

13.2 Options for future policy

This thesis reviewed strategies that have been suggested, and in some cases implemented, to manage temporary migration of doctors. First and foremost there needs to be cooperation between source and destination countries to facilitate temporary migration. Previous studies have found that effective interventions to manage doctor migration require co-operation at the economic, political and social level, whilst taking into account human rights and market realities [159].

The following actions are proposed on the part of countries, employers and professional associations to support temporary migration of doctors:

- **Develop HRH policies** need to be developed to accommodate temporary migration. These policies must allow doctors to take a leave of absence from their workplace. How this absence is facilitated so as to not affect provision of services is not immediately clear, particularly in the public systems. The experience that is gained overseas should be recognized on return. Also, there needs to be a guarantee that social benefits (where applicable) are not affected whilst away

- **Develop bilateral agreements between source and destination country**. These should acknowledge professional qualifications and therefore facilitate registration procedures within the source country. There needs to be easy access to visas/work permits, which allow re-entry.

  Regulate the use of Recruitment Agencies. Recruitment Agencies can be instrumental in advertising posts and then placing migrants. Their actions though need to be regulated though to ensure that their practices are fair to migrants.

- **Development of favourable employment contracts within the source country**. Length of employment is critical. For return migration this can be longer, but for repeated locum work contracts should be flexible and typically aim to employ doctors for 4-6 weeks.

13.3 Methodological recommendations

This thesis highlighted the challenges of conducting research which involves migrants. Migrants, as highly mobile individuals, are not the easiest population to study. However, this thesis managed to collect data on two sets of migrants (temporary and permanent) and while some findings may not conclusive, previously there were very few studies of temporary migration. Development of a conceptual framework allowed for theorised relationships to be identified and validated against relationships that occur in practice.

Without a doubt, this thesis has shown it is extremely difficult to use postal questionnaires. If this research were to be repeated, a better response rate may be obtained if temporary migrants are approached, for instance via the Recruitment Agencies, whilst they were actually working in Ireland. It would not be sufficient to target temporary migrants working in the out-of-hours services (the 'Co-ops') as this would mean only GPs would be sampled. Future migration studies will need careful consideration as to how to best access participants.

A major strength of this thesis was the use of case study methodology which involved triangulation of the data sources. Such an approach could be beneficial for future migration studies.

13.4 Areas for further research

There are several areas for future research. In particular it is important to identify other cases of temporary doctor migration in order to ensure that the case study presented here is not a unique situation.

The findings presented here suggest that temporary work appeals to some doctors more than others. The category of adventurer or holiday migrants needs further exploration. In particular it could be that promotion of short-term locum positions to these categories or migrants could address shortages in high-income countries.

Although it was a not a significant predictor for temporary migration, the results suggest that GPs are more likely to migrate on a temporary basis than other specialities. This needs further investigation, with a larger sample, to determine whether speciality influences determining temporary migration - it may be that GPs have more portable skills in an international context.

With regard to the Irish context, there needs to be specific research into how changes in IMC registration procedures for South African doctors and the economic climate will affect Ireland's ability to attract locum doctors from South Africa. This is an important area of research,

particularly for workforce issues within Ireland. Further research needs to be done, in collaboration with the recruitment agencies that place South African doctors and with the out-of-hours services, in order to determine how any changes affect the inflow of locum doctors.

13.5 Final reflections

Migration of doctors cannot be stopped. In an ever increasing global world, even trying to manage migration is likely to prove problematic. Temporary migration is governed by the fact that migrants want to return to their home country. This desire is undoubtedly country specific. It is only be achieved by reducing the push and pull factors and increasing the draw of 'stick' factors.

There needs to be a simultaneous, two pronged approach to the addresses the issues of shortages within countries. This will ultimately tackle issues of migration. Firstly, destination countries need to implement measures to ensure that there are enough doctors are being trained and retained, thereby removing their dependence on foreign-trained doctors. Secondly, source countries need to address push factors, thereby decreasing the desire to migrate. Until such time as both these facets are addressed it is likely that the issues of doctor migration that Mejia first presented over thirty years will continue to remain.

References

[1] Buchan J. How can the migration of health service professionals be managed so as to reduce any negative effects on supply? In: Permanand G, editor. WHO European Conference on Health Systems. Estonia, 2008.

[2] Bach S. International Mobility of Health Professionals: Brain Drain or Brain Exchange? Research Paper 2006/82. Helsinki: UNU World Institute for Development Economic Research (UNU-WIDER), 2006.

[3] Stilwell B, Diallo K, Zurn P, Dal Poz M, Adams O, Buchan J. Developing evidence based ethical policies on the migration of health workers: conceptual and practical challenges. Human Resources for Health 2003; 1.

[4] Buchan J. Migration of health workers in Europe: policy problem or policy solution? In: Dubois C-A, McKee A, Nolte E, editors. Human Resources for Health in Europe. England: Open University Press, 2006.

[5] Snowden L. Collective Versus Mass Behaviour: A Conceptual Framework for Temporary and Permanent Migration in Western Europe and the United States. International Migration Review 1990; 24.

[6] Bell M, Ward G. Comparing Temporary Mobility with Permanent Migration. Tourism Geographies 2000; 2:97-107.

[7] Martineau T, Decker K, Bundred P. Briefing Note on international migration of health professionals: levelling the playing field for developing country health systems. Liverpool School of Tropical Medicine, 2002.

[8] Abella M. Policies and best practices for management of Temporary Migration. International Symposium on International Migration and Development, Population Division, Department of Economic and Social Affairs. Turin: United Nations Secretariat, 2006.

[9] Rogerson C. Medical Recruits: The Temptation of South African Health Care Professionals. In: Crush J, editor. SAMP Policy Series. Cape Town: South African Migration Project (SAMP), 2007.

[10] Mejia A. Migration of Physicians and Nurses: a World Wide Picture. International Journal of Epidemiology 1978; 7:207-15.

[11] Bach S. Migration patterns of physicians and nurses: still the same old story? Bulletin of the World Health Organization 2004; 82:624-5.

[12] WHO. The World Health Report - Working Together For Health. Geneva: World Health Organisation, 2006.

[13] Chen L, Evans T, Anand S, Boufford JI, Brown H, Chowdhury M, Cueto M, Dare L, Dussault G, Elzinga G, Fee E, Habte D, Hanvoravongchai P, Jacobs M, Kurowski C, Michael S, Pablos-Mendez A, Sewankambo N, Solimano G, Stilwell B, de Waal A, Wibulpolprasert S. Human Resources for Health: overcoming the crisis. The Lancet 2004; 364:1984-90.

[14] Haour-Knipe M, Davies A. Return Migration of Nurses. Philadelphia: International Centre on Nurse Migration, 2008.

[15] Alexis O, Vydelingum V, Robbins I. Overseas nurses' experiences of equal opportunities in the NHS in England. Journal of Health Organisation and Management 2006; 20:130-9.

[16] Allan H, Aggergaard J. 'We need respect' experiences of internationally recruited nurses in the UK. Presented to the Royal College of Nursing European Institute of Health and Medical Sciences, 2003:1-147.

[17] Buchan J. Here to stay? International nurses in the UK. Royal College of Nursing, 2003:1-30.

[18] Withers J, Snowball J. Adapting to a new culture: A study of the expectations and experiences of Filipino nurses in the Oxford Radcliffe Hospitals NHS Trust. Nursing Times Research 2003; 8:278-90.

[19] Hagopian A, Ofosu A, Fatusi A, Biritwum R, Essel A, Hart G, Watts C. The flight of physicians from West Africa: Views of African physicians and implications for policy. Social Science & Medicine 2005; 61:1750-60.

[20] Awases M, Gbary A, Nyoni J, Chatora R. Migration of Health Professionals in Six Countries: A Synthesis Report. Brazzaville: World Health Organisation Regional Office for Africa, World Health Organisation, 2003:1-77.

[21] OECD. International Migration of Healthworkers: Improving International Co-operation To Address The Global Health Workforce Crisis. Organisation for Economic Co-operation and Development (OECD), 2010.

[22] Dussault G, Fronteira I, Cabral J. Migration of health personnel in the WHO European Region. Lisbon: Instituto de Higiene e Medicina Tropical, 2009.

[23] Chen L, Evans T. Human Resources for Health: Overcoming the crisis. Joint Learning Initative (JLI). Cambridge, Massachusetts: Global Equity Initiative, 2004.

[24] Kinfu Y, Dal Poz M, Mercer H, Evans D. The health worker shortage in Africa: are enough being physicians and nurses being trained? Bulletin of the World Health Organisation 2009; 87:225-30.

[25] Chen L, Boufford JI. Fatal Flows - Doctors on the Move. The New England Journal of Medicine 2005; 353:1850-2.

[26] Mullan F. The Metrics of the Physician Brain Drain. New England Medical Journal 2005; 353:1810-8.

[27] Hagopian A, Thompson MJ, Fordyce M. The migration of physicians from sub-Saharan Africa to the United States of America: measures of the African brain drain. Human Resources for Health 2004; 2:17-26.

[28] Kirigia J, Gbary A, Muthuri L, Nyoni J, Seddoh A. The cost of health professionals' brain drain in Kenya. BMC Health Services Research 2006; 6:89.

[29] GCIM. Migration in an interconnected world: New directions for action. Retrieved at http://wwwgcimorg/en/finalreporthtml (26 April 2011). Switzerland: Global Commission on International Migration, 2005.

[30] Pillay R. A conceptual framework for the strategic analysis and management of the brain drain of African health care professionals. African Journal of Business Management 2007.

[31] Martineau T, Decker K, Bundred P. "Brain Drain" of health professionals: from rhetoric to responsible action. Health Policy 2004; 70:1-10.

[32] Agunias DR, Newland K. Circulation Migration and Development: Trends, Policy Routes and Ways Forward. Policy Brief: Program on Migrants, Migration and Development. Washington DC: Migration Policy Institute, 2007.

[33] Agunias DR. From a zero sum to a win-win scenario? A literature review on circular migration. Washington DC: Migration Policy Institute, 2006.

[34] CDMG. Temporary migration for employment and training purposes. Strasbourg: European Committee on Migration, 1996.

[35] King R. Return Migration and Regional Development: A Overview. In: King R, editor. Return Migration and Regional Economic Problems. London: Croom Helm, 1986:1-37.

[36] Lowell BL, Findlay AM. Migration of highly skilled persons from developing countries: Impact and policy responses. International Migration Papers No44. Geneva: International Labour Office, 2001.

[37] Buchan J, Perfilieva G. Health Worker Migration in the European Region: Country Case Studies and Policy Implications. Copenhagen: WHO Regional Office for Europe, 2006.

[38] IOM. Glossary on Migration. Geneva: International Organization for Migration (IOM), 2004.

[39] Dustmann C. Temporary Migration and Economic Assimilation. Germany: Institute for the Study of Labor (IZA), 2000:Discussion Paper No. 186.

[40] Hugo G. Circular Migration. Bulletin of Indonesian Economics 1977; 13:57-66.

[41] Ruhs M. Temporary Foreign Workers Programmes: Policies, Adverse Consequences and the Need to Make Them Work. Working Paper 56. San Diego: The Center for Comparative Immigration Studies (CCIS), University of California, 2002.

[42] Ruhs M. The potential of temporary migration programs in future international migration policy. Paper prepared for the Policy Analysis and Research Program of the Global Commission on International Migration, 2005.

[43] Castles S. Back to the Future? Can Europe meet its Labour Needs through Temporary Migration? Working Paper No1. University of Oxford: International Migration Institute, 2006.

[44] Wiskow C. Health worker flows in Europe: Overview and case studies in selected OECD countries - Romania, Czech Republic, Serbia and Croatia. Geneva: International Labour Office, 2006.

[45] Salmon M, Yan J, Hewitt H, Guisinger V. Managed Migration: The Caribbean Approach to Addressing Nursing Services Capacity. Health Services Research 2007; 42:1354-72.

[46] Miles M, Huberman AM. Qualitative Data Analysis: A Source of New Methods. California: SAGE Publications, 1984.

[47] Lynch P. Co-ops under the HSE knife? Medical Independent. Dublin: Green Cross Publishing, 2010.

[48] Yin RK. Case Study Research: Design and Methods. California, New Delhi, London, Singapore: SAGE, 2009.

[49] Tellis W. Application of a Case Study Methodology. The Qualitative Report 1997; 3.

[50] Johnson RB, Onwuegbuzie. Mixed Methods Research: A Research Paradigm Whose Time Has Come. Educational Researcher 2004; 33:14-26.

[51] Willis-Shattuck M, Bidwell P, Thomas S, Wyness L, Blaauw D, Ditlopo P. Motivation and Retention of Health Workers in Developing Countries: A Systematic Review. In publication 2008.

[52] OECD. Trends in International Migration: Annual Report 2004. Paris: Organisation for the Economic Co-operation and Development, 2005.

[53] WHO. The WHO Global Code of Practice on the International Recruitment of Health Personnel. Geneva: The World Health Organisation, 2010.

[54] Dhillon I, Clark M, Kapp R. Innovations in Cooperation: A Guidebook on Bilateral Agreements to Address Health Worker Migration. Realizing Rights/Global Health & Development: Aspen Institution, 2010.

[55] UNCTAD. Lists of Economic Needs Tests in the GATS Schedules of Specific Countries. UNCTAD/ITCD/TSB/8: United Nations Conference on Trade & Development, 1999.

[56] Naicker S, Plange-Rhule J, Tutt R, Eastwood D. Shortage of healthcare workers in developing countries - Africa. Ethnicity and Disease 2009; 19:S1 60-4.

[57] OECD. The international mobility of health professionals: An evaluation and anlaysis based on the case of South Africa. Trends in International Migration: OECD, 2004:115-51.

[58] Dumont J-C, Zurn P. Immigrant Health Workers in OECD Countries in the Broader Context of Highly Skilled Migration. International Migration Outlook: OECD, 2007.

[59] Mills E, Kanters S, Hagopian A, Banback N, Nachega J, Alberton M, Au-Yeung C, Mtambo A. The financial cost of doctors emigrating from sub-Saharan Africa: human capital analysis. BMJ 2011; 343.

[60] Henderson L, Tulloch J. Incentives for retaining and motivating health workers in Pacific and Asian countries. Human Resources for Health 2008; 6.

[61] Hamilton K, Yau J. The Global Tug-of-War for Health Care Workers. Migration Information Source. Washington, DC: Migration Policy Institute, 2004.

[62] Bidwell P, Thomas S, Stringhini S. Understanding how incentives influence motivation and retention of health workers. In: Kabene S, editor. Human Resources in Healthcare, Health

Informatics and Healthcare Systems. Hershey PA: Medical Information Science Reference (an imprint of IGI Global), 2011.

[63] Buchan J. Solving nursing shortages: a common priority. Journal of Clinical Nursing 2008; 17:3262-8.

[64] O'Brien M, Fallon A. The effect of breastfeeding self-efficacy on breastfeeding duration. Birth Issues 2005; 14:135-42.

[65] Hongoro C, McPake B. How to bridge the gap in human resources for health. Lancet 2004; 364:1451-56.

[66] Labonté R, Packer C, Klassen N. Managing health professional migration from sub-Saharan Africa to Canada: a stakeholder inquiry into policy options. Human Resources for Health 2006; 4.

[67] Thomas S, Layte R. General Practitioner Care. In: Layte R, Barry M, Bennett K, Brick A, Morgenoth E, Normand C, O'Reilly J, Thomas S, editors. Projecting the Impact of Demographic Change on the Demand for and Delivery of Healthcare in Ireland. Dublin: The Economic and Social Research Institute (ESRI), 2009.

[68] Zurn P, Dumont J-C. Health Workforce and International Migration: Can New Zealand Compete? OECD Health Working Paper No 33. Paris, France: OECD, 2008.

[69] Nabudere H, Asiimwe D, Mijumbi R. Task shifting to optimise the roles of health workers to improve the delivery of maternal and child healthcare. Regional East African Community Health (REACH) Policy Initiative, Uganda and Supporting the Use of Research Evidence (SURE) for policy in African Health Systems Projet, 2010.

[70] Chu K, Ford N, Trelles M. Providing surgical care in Somalia: A model of task shifting. Conflict and Health 2011; 5.

[71] Clemens M, Pettersson G. New data on African health professionals abroad. Human Resources for Health 2008; 6.

[72] Muula A. Nationality and country of training of medical doctors in Malawi. African Health Services 2006; 6.

[73] Kangasniemi M, Winters A, Commander S. Is the medical brain drain beneficial? Evidence from overseas doctors in the UK. London: Centre for Economic Performance, London School of Economics and Political Science, 2004.

[74] Young R, Noble J, Hann M, Sibbald B. The International Market for Medical Doctors: Perspectives on the positioning of the UK. Manchester: Manchester Centre for Healthcare Management, 2003.

[75] Watanabe M, Comeau M, Buske L. Analysis of International Migration Patterns Affecting Physician Supply in Canada. Healthcare Policy 2008; 3:129-38.

[76] Bidwell P, Humphries N, Dicker P, Thomas S, Normand C, Brugha R. The national and international implications of a decade of doctor migration in the Irish context. Health Policy 2013; 110:29-38.

[77] Arango J. Explaining migration: a critical review. International Social Science Journal 2002; 52:283-96.

[78] Eastwood JB, Conroy RE, Naicker S, West PA, Tutt RC, Plange-Rhule J. Loss of health professionals from sub-Saharan Africa: the pivotal role of the UK. The Lancet 2005; 365:1893-900.

[79] Ogilvie L, Mill J, E., Astle B, Fanning A, Opare M. The exodus of health professionals from sub-Saharan Africa: balancing human rights and societal needs in the twenty-first century. Nursing Inquiry 2007; 14:114-24.

[80] Stilwell B, Diallo K, Zurn P, Vujicic M, Adams O, Dal Poz M. Migration of health care workers from developing countries: strategic approaches to its management. Bulletin of the World Health Organisation 2004; 82:595-600.

[81] Carrillo de Alborornoz S. On a Mission: How Cuba uses its doctors abroad. BMJ 2006; 333:7566.

[82] WHO. Country Cooperation Strategy at a glance: Cuba. World Health Organisation, 2009.

[83] Schiff M. Brain Gain: Claims about its size and impact on welfare and growth are greatly exaggerated. In: Ozden C, Schiff M, editors. International migration, remittances and the brain drain: A co-publication between the World Bank and Palgrave MacMillan, 2006.

[84] Merry C. Moving overseas to work. Medical Council Newsletter. Irish Medical Council, 2006.

[85] Fourie P, Schonteich M. Africa's new security threat. HIV/AIDS and human security in South Africa. Africa Security Review 2001; 10.

[86] Adepoju A. Continuity and Changing Configuration of Migration to and from the Republic of South Africa. International Migration 2003; 41:3-28.

[87] Drager N, Fidler D. GATS and Health Related Services. Managing liberalization of trade in services from a health policy perspective Geneva: World Health Organisation, 2004.

[88] Goldfarb R, Havrylyshyn O, Mangum S. Can remittances compensate for manpower outflows. The case of Philippine Physicians. The Journal of Development Economics 1983; 15:1-17.

[89] McCormick B, Wahba J. Return International Migration and Geographical Inequity: The Case of Egypt. Research Paper No 2004/7. Helsinki: World Institute for Development Economics Research, 2004.

[90] Wickramasekara P. Circular Migration: A Triple Win or a Dead End? GURN discussion paper; no15. Geneva: International Labour Office (ILO), 2011.

[91] Hugo G. Circular Migration: Keeping Development Rolling? Washington DC: Migration Policy Institute, 2003.

[92] Rogerson C, Crush J. The Recruiting of South African Health Care Professsionals. In: Connell J, editor. The International Migration of Health Workers. New York: Routledge, 2008.

[93] Heckmann F, Honekopp E, Currle E. Guest worker programs and circular migration: what works? Immigration Paper Series 09. Washington DC: The German Marshall Fund of the United States, 2009.

[94] Amin M, Mattoo A. Migration from Zambia: Ensuring Temporariness through Co-operation. The Trade, Development Research Group. Washington DC: The World Bank, 2006.

[95] Oberoi S, Lin V. Brain drain of doctors from southern Africa: brain gain for Australia. Australian Health Review 2006; 30:25-33.

[96] Sanders D, Lloyd B. South African Health Review 2005. In: Ijumba P, Barron P, editors. South African Health Review 2005: Health System Trust, 2005.

[97] Khoo S-E, MacDonald P, Voight-Graf C, Hugo G. A Global Labor Market: Factors Motivating the Sponsorship and Temporary Migraiton of Skilled Workers to Australia. International Migration Review 2007; 41:480-510.

[98] Maslow AH. A theory of human motivation. Psychological Review 1943; 50:370-96.

[99] Iredale R. The Migration of Professionals: Theories and Typologies. International Migration 2001; 39:7-26.

[100] Mitchell T. Motivation: New Directions for Theory, Research and Practice. Academy of Management Review 1982; 7:80-8.

[101] Benson S, Dundis S. Understanding and motivating healthcare employees: integrating Maslow's hierachy of needs, training and technology. Journal of Nursing Management 2003; 11:315-20.

[102] Reichlová N. Can the theory of motivation explain migration decisions. IES Working Papers. Czech Republic: Institue of Economic Studies, 2005.

[103] Oleson M. Exploring the relationship between money, attitudes and Maslow's hierarchy of needs. International Journal of Consumer Studies 2004; 28:83-92.

[104] Dolea C, Adams O. Motivation of Health Care Workers - Review of the theories and empirical evidence. Cahiers de Sociologie et de Demographi Medicales 2005; 45:135-62.

[105] Kanfer R. Measuring health worker motivation in developing countries. Bethesda, Maryland: Partnerships for Health Reform Project, Major Applied Research Working Paper, 1999:1-19.

[106] Franco LM, Bennett S, Kanfer R. Health sector reform and public sector health worker motivation: a conceptual framework. Social Science and Medicine 2002; 54:1255-66.

[107] Herzberg F. One more time: how do you motivate employees? Harvard Business Review 1968; 46:53-62.

[108] Dieleman M, Viet Cuong P, Vu Anh L, Martineau T. Identifying factors for job motivation of rural health workers in North Vietnam. Human Resources for Health 2003; 1.

[109] Stilwell B. Health worker motivation in Zimbabwe. Geneva: World Health Organization, 2001:1-29.

[110] Greenberg J. Equity and the Workplace: A field experiment. Journal of Applied Psychology 1988; 73:606-13.

[111] Locke E, Latham G. Building a Practically Useful Theory of Goal Setting and Task Motivation: A 35-Year Odyssey. American Psychologist 2002; 57:705-17.

[112] Bennett S, Gzirishvili D, Kanfer R. An In-depth Analysis of the Determinants and Consequences of Worker Motivation in Two Hospitals in Tbilisi, Georgia. Major Applied

Research 5, Working Paper 9. Bethesda, MD: Partnerships for Health Reform, Abt Associates Inc., 2000:1-80.

[113] Bennett S, Franco LM, Kanfer R, Stubblebine P. The development of tools to measure the determinants and consequences of health worker motivation in developing countries. In: 5 MAR, editor. Technical Paper 2. Bethesada, MD: Partnerships for Health Reform Project, 2000.

[114] Franco LM, Bennett S, Kanfer R, Stubblebine P. Determinants and consequences of health worker motivation in hospitals in Jordan and Georgia. Social Science and Medicine 2004; 58.

[115] Peters D, Chakrabarty S, Mahapatra P, Steinhardt L. Job satisfaction and motivation of health workers in public and private sectors: cross sectional analysis from 2 Indian states. Human Resources for Health 2010; 8.

[116] Agyepong IA, Anafi P, Asiamah E, Ansah E, Ashon D, Narh-Dometey C. Health worker (internal customer) satisfaction and motivation in the public sector in Ghana. International Journal of Health Planning and Management 2004; 19:319-36.

[117] King LA, McInerney PA. Hospital workplace experiences of registered nurses that have contributed to their resignation in the Durban metropolitan area. Curationis 2006; 29:70-81.

[118] Dovlo D. The Brain Drain and Retention of Health Professionals in Africa. A case study prepared for a Regional Training Conference on Improving Tertiary Education in Sub-Saharan Africa: Things that work! Accra, 2003.

[119] Padarath A, Chamberlain C, McCoy D, Ntuli A, Rowson M, Loewenson R. Health Personnel in Southern Africa: confronting the maldistribution and the brain drain. EQUINET Discussion Paper No.3, 2003.

[120] Lindelow M, Serneels P, Lemma T. The Performance of Health Workers in Ethiopia: Results from Qualitative Research. Policy Research Working Paper: World Bank, 2005.

[121] Vujicic M, Zurn P, Diallo K, Adams O, Dal-Poz MR. The role of wages in the migration of health care professionals from developing countries. Human Resources for Health 2004; 2.

[122] Hongoro C, Normand C. Health Workers: Building and Motivating the Workforce. In: Jamison D, Breman J, Measham A, Alleyne G, Claeson M, Evans D, Jha P, Mills A, Musgrove P, editors. Disease Control Priorities in Developing Countries. New York: Oxford University Press, 2006:1309-22.

[123] Bach S. International Migration of Health Workers: Labour and Social Issues Working Paper. Geneva: International Labour Office 2003.

[124] McIntosh T, Torgerson R, Klassen N. The Ethical Recruitment of Internationally Educated Health Professionals: Lessons from Abroad and Options for Canada. Ontario: Canadian Policy Research Networks, 2007.

[125] Kingma M. Nurses on the move: migration and the global health care economy. London: ILR Press, 2006.

[126] Meeus W. 'Pull' Factors in International Migration of Health Professionals. School of Public Health. South Africa: University of Western Cape, 2003.

[127] Wasswa H. Rich countries are accussed of 'snatching' doctors from poor ones. BMJ 2008; 336.

[128] Humphries N, Brugha R, McGee H. Overseas Nurse Recruitment: Ireland as an illustration of the dynamic nature of nurse migration. Health Policy 2008; 87:264-72.

[129] Yan J. Health services delivery: re-framing policies for global nursing migration in North America - a Caribbean perspective. Policy, Politics and Nursing Practice 2006; 7:71S-5S.

[130] IMC. Medical Council enewsletter - Autumn Edition, 2011. Dublin: Irish Medical Council (IMC), 2011.

[131] OECD. The Looming Crisis in the Health Workforce. How can OECD Countries Respond? OECD Health Policy Studies. Paris: OECD, 2008.

[132] Bezuidenhout M, Joubert G, Hiemstra L, Struwig M. Reasons for doctor migration from South Africa. South African Family Practice 2009; 51:211-5.

[133] Humphries N, Bidwell P, Tyrell E, Brugha R, Thomas S, Normand C. *'I am kind of in Stalemate'.* The Experiences of Non-EU Migrant doctors in Ireland. Volume II: Health professional mobility and health systems Evidence from 17 European countries, forthcoming.

[134] Robinson V, Carey M. Peopling Skilled International Migration: Indian Doctors in the UK. International Migration 2000; 38.

[135] Joudrey R, Robson K. Practising medicine in two countries: South African doctors in Canada. Sociology of health and illness 2010; 32:528-44.

[136] Blitz B. 'Brain circulation': the Spanish medical profession and international medical recruitment in the United Kingdom. Journal of European Social Policy 2005; 15.

[137] Chandra R. The skilled South Asian diaspora and its role in source economies. http://southasiandiaspora.org/the-skilled-south-asian-diaspora-and-its-role-in-source-economies/8/, 2008.

[138] Troy P, Wyness L, McAuliffe E. Nurses' experiences of recruitment and migration from developing countries: a phenomenological approach. Human Resources for Health 2007; 5:15.

[139] Buchan J, Dovlo D. International Recruitment of Health Workers to the UK: A report for DFID. DFID Health System Resource Centre London: DFID, 2004.

[140] Skeldon R. Of Skilled Migration, Brain Drains and Policy Responses. International Migration 2008; 47.

[141] Dovlo D. Using mid-level cadres as subsitutes for internationally mobile health professionals in Africa. A desk review. Human Resources for Health 2004; 2.

[142] Chomitz K, Setiadi G, Azwar A, Ismail N, Widiyarti. What do doctors want? Developing incentives for doctors to serve in Indonesia's rural and remote area. Policy Research Working Paper (1888). Washington DC: Development Research Group, The World Bank, 1998:1-48.

[143] Ilpinge S, Dambisye Y, Loewenson R, Chinbarl M, Ndetel D, Munga M. Incentives for health worker retention in east and southern Africa: learning from country research. EQUINET Discussion Paper 78, 2009.

[144] World Health Organization. Malawi's Emergency Human Resources Programme. GHWA Task Force on Scaling Up Education and Training for Health Workers, 2008.

[145] Connell J, Buchan J. The Impossible Dream? Codes of Practice and the International Migration of Skilled Health Workers. World Medical & Health Policy 2011; 3.

[146] Watkins S. Migration healthcare professionals: practical and ethical considerations. Clinical Medicine 2005; 5:240-3.

[147] Commonwealth. Commonwealth Code of Practice for the International Recruitment of Health Workers. Geneva: Adopted at the Pre-WHA Meeting of Commonwealth Health Ministers, 2003.

[148] WHO. WHO Global Code of Practice on the International Recruitment of Health Professionals. Draft guidelines on monitoring the implementation of the WHO Global Code. Geneva: The World Health Organisation, 2011.

[149] WTO. Understanding the World Trade Organisation. Geneva: The World Trade Organisation 2008.

[150] Adlung R, Carzangia A. Health Services under the General Agreement on Trade in Services. Bulletin of the World Health Organisation 2001; 79:352-64.

[151] Bettcher DW, Yach D, Guindon GE. Global trade and health: key linkages and future challenges. Bulletin of the World Health Organisation 2000; 78:521-34.

[152] Bettcher DW, Yach D, Guindon GE. Global trade and health: key linkages and future challenges. Bulletin of the World Health Organisation 2000; 78:521-34.

[153] Winters A. The Economic Implications of Liberalising Mode 4 Trade. In: GATS PpftJW-WBSotmoNPMut, editor. Geneva: World Trade Organization, 2002.

[154] Basok T. Canada's Temporary Migration Program: A Model Despite Flaws. Migration Information Source. Washington DC: Migration Policy Institute, 2007.

[155] Saxenian A, Motoyama Y, Quan X. Local and Global Networks of Immigration Professionals in Silicon Valley. Public Policy Institute of California, 2002.

[156] Martin P. Managing Labor Migration: Temporary Worker Programs for the 21st Century. Geneva: International Institute for Labour Studies, 2003.

[157] Findlay A. From Brain Exchange to Brain Gain: Policy Implications for the UK of Recent Trends in Skilled Migration from Developing Countries. International Migration Papers No 43. Geneva: International Labour Office, 2001.

[158] Venturini A. Circular migration as an employment strategy for Mediterranean countries. CARIM analytic and synthetic notes 2008/39. Florence: Robert Schuman Centre for Advanced Studies, 2008.

[159] Dawson L. A Managed Temporary Program for Nurses from the Caribbean to Canada: The Short (but Interesting) Life of a Policy Advocacy Proposal. Ottawa: The Canadian Foundation for the Americas (FOCAL), 2006.

[160] Walsmsley T, Winters A, Ahmed A, Parsons C. Measuring the Impact of the Movement of Labour Using a Model of Bilateral Migration Flows. 5th PEP Research Network General Meeting. Addis Ababa, Ethiopia: MPIA Network Session Paper, 2006.

[161] Ilahi N. Return Migration and Occupational Change. Review of Development Economics 1999; 3.

[162] Dustmann C, Kirchkamp O. The Optimal Migration Duration and Activity Choice after Remigration. Journal of Development Economics 2002; 67:351-72.

[163] Brown D. Workforce Losses and Return Migration to the Caribbean: A Case Study of Jamacian Nurses. In: Pessar P, editor. Caribbean Circuits New Directions In The Study Of Caribbean Migration. New York: Centre for Migration Studies, 1997.

[164] Martin P. Highly Skilled Labor Migration: Sharing the Benefits. Geneva: International Institute for Labour Studies (ILO), 2003.

[165] Mutume G. Reversing Africa's 'brain drain': New initatives tap skills. Africa Recovery 2003; 17:1.

[166] IDC. Migration and Development: How to Make Migration Work for Poverty Reduction. London: International Development Commitee. UK House of Commons, 2004.

[167] Aly Z, Taj F. Why Pakistani medical graduates must remain free to emigrate. PLoS Medicine 2008; 5.

[168] Vaughan J. Some lost jobs never leave home, skilled foreigners flow in to fill them. The Washington Post. Washington DC: The Washington Post Company, 2004.

[169] Kapur D, McHale J. Chapter 10: Policy Options. Give Us Your Best and Brightest: The Global Hunt for Talent and Its Impact on the Developing World. Washington DC: Centre for Global Development: Brookings Institution Press, 2005:177-209.

[170] Deshingkar P, Start D. Seasonal Migration for Livelihoods in India: Coping, Accumulation and Exclusion. Working Paper 220. London: Over, 2003.

[171] Efionayi D, Niederberger J, Wanner P. Switzerland faces common European challenges. Migration Information Source, 2005.

[172] Ellerman D. Policy Research on Migration and Development. World Bank Policy Research, Working Paper 3117. Washington DC: World Bank, 2002.

[173] FJ. How Guestworker Programs work. Washington DC: Farmworker Justice, 2010.

[174] Agunias D. Managing Temporary Migration: Lessons from the Philippines model. Migration Policy Institute, 2008.

[175] Humphries N, Brugha R, McGee H. "I won't be staying here for long": a qualitative study on the retention of migrant nurses in Ireland. Human Resources for Health 2009; 7.

[176] IMC. A guide to the application procedure and registration rules for registration in the Register of Medical Practitioners in the: Trainee Specialist Division, Specialist Division and the General Division. Dublin: Irish Medical Council (IMC), 2011.

[177] Dumont J-C. Managing Labour Migration: recent challenges and trends with a special focus on health workers. Internation Migration: Trends and Challenges 4th Annual Conference OECD-CEPII. OECD, 2008.

[178] Commonwealth. Commonwealth Secretariat's action on health priorities 2005/6. Commonwealth Health Ministers Meeting. Geneva, 2006.

[179] Record R, Mohiddin A. An economic perspective on Malawi medical 'brain drain'. Globalization and Health 2006; 2.

[180] Wójcicka A, Bobek A, Salamonska J. National report: Ireland. Warsaw, Poland: Mobility of Health Professionals (MoHProf), 2009:1-140.

[181] Sheriff C. Code of Practice In the Appointment and Employment of HCHS Locum Doctors. Leeds: NHS Executive, 1997.

[182] Maniscalco M. A Physician's Guide to Working as a Locum Tenens. The Journal of the American Board of Family Practice 2003; 16:242-5.

[183] McKevitt M, Morgan M, Hudson M. Locum doctors in General Practice: Motivation and Experiences. British Journal of General Practice 1999; 49:519-21.

[184] Larsen L, Derksen D, Garland J, Chavez D, Lynch D, Diedrich R, Proctor D, Sava S. Academic Models for Practice Relief, Recruitment and Retention at the University of New Mexico Medical Centre and East Carolina University School of Medicine. Academic Medicine 1999; 74.

[185] Arnold P, Lewinsohn D. Motives for migration of South African doctors to Australia since 1948. Medical Journal of Australia 2010; 192:288-90.

[186] Pick W. Human Resource Development. South African Health Review. Durban: Health Systems Trust, 1995.

[187] HSE. Annual Report and Financial Statement 2011. Dublin: Health Services Executive, 2011.

[188] DoHC. Health in Ireland, Key Trends. Dublin: Department of Health and Children, 2007.

[189] SLAN 2007 Survey of Lifestyle, attitudes and nutrition in Ireland. Dublin: Department of Health and Children, 2008.

[190] DOHC. Tackling Chronic Disease: A Policy Framework for the Management of Chronic Disease. Dublin: Department of Health and Children, 2008.

[191] Balanda KP, Barron S, Fahy L. Making Chronic Conditions Count: Hypertension, Coronary Heart Disease, Stroke, Diabetes. A systematic approach to estimating and forecasting population prevalence on the island of Ireland. Dublin: Institute of Public Health in Ireland, 2010.

[192] FÁS. Healthcare Skills Monitoring Report. Dublin: FÁS, 2005.

[193] Thomas S, Normand C, Smith S. Social Health Insurance: Further Options for Ireland. In: Society TAH, editor. Dublin: Trinity College Dublin, Health Policy and Management, 2008.

[194] DOHC. Report of the National Task Force on Medical Staffing: The Hanly Report. Dublin: Department of Health and Children (DOHC), 2003.

[195] DOHC. Opening Address by the Minister for Health to the Joint Committee on Health and Children. Dublin: Department of Health and Children (DOHC) 2011:(http://www.dohc.ie/press/speeches/2011/20111006a.html).

[196] HSE. February 2011 Performance Report on NSP 2011. Dublin: Health Services Executive (HSE), 2011.

[197] FÁS. National Skills Bulletin 2009. A study by the skills and labour market research unit (SLMRU) in FÁS for the expert group on future skills needs. Dublin: FÁS, 2009.

[198] HSE, DOHC. An Integrated Workforce Planning Strategy for the Health Services 2009-2012. Dublin: Health Service Executive (HSE) and Department of Health and Children (DOHC), 2009.

[199] McDaid D, Wiley M, Maresso A, Mossialos E. Ireland: Health System Review. 2009.

[200] DOHC. The Health Service Reform Programme. Dublin: Department of Health and Children, 2003.

[201] Colombo F, Tapay N. Private Health Insurance in Ireland: A Case Study. OECD Working Paper No10. Paris: OECD, 2004.

[202] Doctor X. The Bitter Pill: an insider's shocking exposure of the Irish health system. Ireland: Hodder Headline, 2007.

[203] Wren M-A. Unhealthy State: Anatomy of a Sick Society. Dublin: New Island Books, 2003.

[204] Wall M. Subsidy for private treatment in public hospital to be abolished. Irish Times. Dublin, 2011.

[205] Reilly J. Minister Reilly's speech on 'Reforming the Health System' at today's launch of the 2011 National Healthcare Conference. 2011 National Healthcare Conference, Dublin, 2011.

[206] Burke S. Programme for Government health commitments, potentially 'revolutionary'. http://saraburkewordpresscom/2011/03/20/programme-for-government-health-commitments-potentially-revolutionary/. SaraBurke.com, 2011.

[207] IMO. IMO Submission to the Department Of Health and Children on the Department's Strategy Statement 2011-2014. Dublin: Irish Medical Organisation, 2011.

[208] DOHC. Medical Education in Ireland: A New Direction. Report of the Working Group on Undergraduate Medical Education and Training - The Fottrell Report. Dublin: Department of Health and Children (DOHC), 2006.

[209] Indecon. The Cost of Undergraduate Medical Training in Ireland. Indecon International Economic Consultants, 2005:1-211.

[210] IMC. A Review of Medical Schools in Ireland. Dublin: Irish Medical Council (IMC), 2007.

[211] HSE. Annual Assessment of NCHD Posts July 2011 to June 2012. Dublin: Health Services Executive (HSE) - Medical Education and Training Unit, 2011.

[212] Buchan J, Parkin T, Sochalski J. International nurse mobility: Trends and policy implications. Geneva: WHO, 2003.

[213] Quinn E. Managed Migration And The Labour Market - The Health Sector in Ireland. Ireland: European Migration Network, 2008:1-40.

[214] FÁS. A Quantitative Tool for Workforce Planning in Healthcare: Example Simulations. Dublin: FÁS & Expert Group on Future Skills Needs, 2009.

[215] PGMDB. Survey of NCHD Staffing at 1 October 2008. Postgraduate Medical and Dental Board, 2008.

[216] HSE. National Audit of SHO and Registrar Posts. Dublin: Health Executive Board (HSE), 2007.

[217] IMO. Submission to the Oireachtas Joint Committee on Health and Children - Non Consultant Hospital Doctors. Dublin: Irish Medical Organisation (IMO), 2011.

[218] Subramanian N. Much more needs to be done to retain NCHDs. Irish Medical Times (IMT). Dublin, 2011.

[219] Garcia-Perez M, Amaya C, Otero M. Physicians' migration in Europe: an overview of the current situation. BMC Health Services Research 2007; 7.

[220] IMO. Benchmark NCHD Survey 2011. Dublin: Irish Medical Organisation (IMO), 2011.

[221] HSE. HSE Implementation of the Reform of the Intern Year. Second Interim Report. Dublin: HSE Medical and Training Unit (HSE MET), 2012.

[222] HSE. Update on the work of the MET Unit: December 2010. Dublin: Health Service Executive (HSE), Medical Education and Training (MET) Unit, 2010.

[223] IMC. Comhairle na nDochtúirí Leighis Medical Council Report 1994-1999. Dublin: Irish Medical Council (IMC), 1999.

[224] DOHC. Preparing Ireland's doctors to meet the Health Needs of the 21st Century. Report of the Working Group on Undergraduate Medical Education and Training (the "Buttimer Report"). Dublin: Department of Health and Children (DOHC), 2006.

[225] Breier M. The Shortage of Medical Doctors in South Africa. Scarce and Criticial Research Skills Research Project, 2008.

[226] Bhorat H, Meyer J-B, Mlatesheni C. Skilled Labour Migration from Developing Countries: Study on South and Southern Africa. International Migration Paper No 52. Geneva: International Labour Office, 2002.

[227] Meyer J-B, Brown M, Kaplan D. Assessing the South African Brain Drain: A Statistical Comparison. DPRU Working Paper No 00/40. Cape Town University of Cape Town, 2000.

[228] Reid S. Community service for Health Professionals. In: Petrida I, editor. South African Health Review 2002: Health Systems Trust, 2002.

[229] Bateman C. Government 'Shooting itself in both feet'. South African Medical Journal 2009; 99:490-6.

[230] Hagopian A. Recruiting primary care physicians from abroad: is poaching from low income countries morally defensible? Annals of Family Medicine 2007; 5:483-5.

[231] Ditlopo P, Blaauw D. The Impact of Selected Human Resource Interventions on the Motivation and Retention of Health Professionals in South Africa. Johannesburg: The Centre for Health Policy, University of the Witwatersrand, 2010.

[232] Walker L, Gilson L. 'We are bitter but we are satisified': Nurses as street level bureaucrats in South Africa. Social Science and Medicine 2004; 59:1251-61.

[233] Lee N. Cuban doctors take South Africa by storm. The Lancet 1996; 347.

[234] Padarath A, Ntuli A, Berthiaume L. Human Resources. South African Health Review 2003/04. Durban: Health Systems Trust, 2003.

[235] Mathews V. Information for Human Resources. South African Health Review 2005 Durban: Health Systems Trust, 2005.

[236] van Rensburg D, van Rensburg N. Distribution of human resources. South African Health Review. Durban: Health Systems Trust, 1999.

[237] Hall E, Erasmus J. Medical Practitioners and Nurses. Human Resource Development Review: education, employment and skills in South Africa. Cape Town: HSRC Press, 2003:522-52.

[238] DOH. Strategic priorities for the national health systemm 2004-2009. Pretoria: Department of Health, 2004.

[239] Ditlopo P, Blaauw D, Bidwell P, Thomas S. Analyzing the implementation of the rural allowance in hospitals in North West Province, South Africa. Journal of Public Health Policy 2011; 32.

[240] HPSCA. Total number of persons registered (as of March 2012). Pretoria: Health Professionals Council of South Africa (HPCSA), 2012.

[241] Mohammed SE. Community service for health professionals to improve services. Focus 2005; 1.

[242] Ross A. The retention of community service officers for an additional year at district hospitals in Kwa-Zulu Natal and the Eastern Cape and Limpopo Provinces. South African Family Practice 2009; 51.

[243] Reid S. Monitoring the effect of the new rural allowance for health professionals. Durban: Health Systems Trust, 2004:1-7.

[244] MOH. Substantial allowances to roll for health professionals. Press release (28 January 2004) by Dr Manto Tshabalala-Msimang, Minister for Health, 2004.

[245] PHWSBC. Recruitment and Retention Allowances. Agreement No 1 of 2004: Public Health & Welfare Sectoral Bargaining Council (PHWSBC), 2004.

[246] Kahn T. Salary review for health workers. Health Systems Trust News, 2006.

[247] Mahlathi P. Occuptional Specific Dispensation for. Presentation to the Select Committte on Social Services, 2009.

[248] Parker F. Nurses will take the pain. Mail & Guardian. Cape Town: M&G Media, 2010.

[249] Johnson W. South Africa's Winter of Discontent. The Nation. New York, 2007.

[250] Tshabalala-Msimang M. Statement by the Minister of Health at the signing of a collective agreement on occupational specific dispensation for nurses. In: Health Mo, editor. http://www.doh.gov.za/docs/sp/2007/sp0914.html (Accessed on 2 July 2008), 2007.

[251] de Villiers J. Striking doctors. South African Family Practice 2009; 51:201.

[252] DOH. Human Resources for Health South Africa. HRH Strategy for the Health Sector 2012/13-2016/17: Department of Health (DOH) South Africa, 2011.

[253] TAC/PSAM. OSD implementation disrupting health budgeting - TAC/PSAM. Joint Statement by the Treatment Action Campaign (TAC) and Public Service Accountability Monitor (PSAM) on Occupational Specific Dispensation (OSD), 2010.

[254] Barron P, Dobson C, Goldstone C, Gouws H, Loots B, Snyman A, van Nieuwenhuizen K. Gauteng Department of Health: Report of the Integrated Support Team. 20009.

[255] Boulle A, Blecher M, Burn A. Hospital Restructuring. South African Health Review 2000. Durban: Health Systems Trust, 2000.

[256] Sibeko T, Steyn G. Hospital Revitalisation Program. Hospital revitalisation programme and retention of health professionals: department briefings, 2005.

[257] DoRA. Division of Revenue Act 2005 No.1. Government Gazette 2005; 478.

[258] CIHI. Supply, Distribution and Migration of Canadian Physicians, 2008. Ottawa: Canadian Insitute for Health Information (CIHI), 2009.

[259] Michelow I, Silber E, Price M. Emigration of doctors, military service and alternative service. South African Medical Journal 1990; 78.

[260] Stern M. Botox and Bridges: South African Exports of Health and Construction Services. Development South Africa, 2005.

[261] Locumlink. Dr. Tommy Ravenscroft welcomes you to Ireland. http://www.locumlink.ie/rsa.php, 2012.

[262] O'Halloran D. Ireland's Understaffed Medical Sector. http://www.irishjobs.ie/ForumWW/WWIndividualArticle.aspx?ForumTypeID=1936: WorkWise, 2006.

[263] eISB. The Medical Practitioners Act 1978. Irish Statute Book. Dublin: Office of the Attorney General, 1978.

[264] Matthews B, Ross L. Research Methods; A practical guide for the social sciences. Pearson Education Ltd, 2010.

[265] IMC. Guide prepared in accordance with Section 15 & 16 of the Freedom of Information Act. Dublin: Irish Medical Council (IMC), 2007.

[266] eISB. Medical Practitioners Act, 2007. Irish Statue Book. Dublin: Office of the Attorney General, 2007.

[267] Bryman A. Social Research Methods. Oxford: Oxford University Press, 2008.

[268] Calnan M. Quantitative Survey Methods in Health Research. In: Saks M, Allsop J, editors. Researching Health: Qualitative, Quantitative and Mixed Methods. London: SAGE Publications Ltd., 2007.

[269] Edwards P, Roberts I, Clarke M, DiGuiseppi C, Pratap S, Wentz R, Kwan I. Increasing response rates to postal questionnaires: systematic review. BMJ 2002; 324.

[270] Bowling A. Research Methods in Health: Investigating health and health services. Maidenhead: Open University Press, 2002.

[271] Low J. Unstructured Interviews and Health Research. In: Saks M, Allsop J, editors. Researching Health: Qualitative, Quantitative and Mixed Methods. London: SAGE Publications Inc, 2007.

[272] Pope C, Mays N. Qualitative Research in Health Care. London: BMJ Books, 2006.

[273] Green J. The Use of Focus Groups in Research into Health. In: Saks M, Allsop J, editors. Researching Health: Qualitative, Quantitative and Mixed Methods. London: SAGE Publications Ltd, 2008:112-32.

[274] Leung F-H, Savithiri R. Spotlight on focus groups. Canadian Family Physician 2009; 55:218-9.

[275] Cortina J. What is the coefficient alpha? An examination of theory and applications. Journal of Applied Psychology 1993; 78:98-104.

[276] Cook JV, Dickinson HO, Eccles MP. Response rates in postal surveys of healthcare professionals between 1996 and 2005: An observational study. BMC Health Services Research 2009; 9.

[277] Davis P, Scott A. Health Research Sampling Methods. In: Saks M, Allsop J, editors. Researching Health: Qualitiative, Quantitative and Mixed Methods. London: SAGE Publications, 2007.

[278] Hummers-Pradier E, Scheidt-Nave C, Martin H, Heinemann S, Kochen M, Himmel W. Simply no time? Barriers to GPs' participation in primary health care research. Family Practice 2008; 25:105-12.

[279] McGinnity F, O'Connell P, Quinn E, Willliams J. Migrants' Experiences of Racism and Discrimination in Ireland. Dublin: Economic and Social Research Institute (ESRI), 2006.

[280] Fox N. Using Interviews in a Research Project. The NIHR RDS for the East Midlands / Yorkshire & the Humber, 2006.

[281] Fielding J. Coding and Managing Data. In: Gilbert N, editor. Researching Social Life. London: SAGE Publications, 2008.

[282] Lewins A. Computer Assisted Qualitative Data Analysis (CAQDAS). In: Gilbert N, editor. Researching Social Life. London: SAGE Publications Ltd, 2008.

[283] Beaton GR, Mendelow AD, Bourne DE. A career study of medical graduates of the University of the Witwatersrand 1925-1972. South African Medical Journal 1975; 49:2131-9.

[284] Creavin ST, Creavina AL, Mallena C. Do GPs respond to postal questionnaire surveys? A comprehensive review of primary care literature. Family Practice 2011; 0:1-7.

[285] Ibrahim N. Migration of Sudanese doctors: Push and Pull factors. Centre for Global Health. Dublin: Trinity College Dublin, 2010.

[286] Dambisya Y. A review of non-financial incentives for health worker retention in east and southern Africa. EQUINET Discussion Paper, Number 44: Regional Network for Equity in Health in East and Southern Africa (EQUINET), 2007:1-63.

[287] Bieliński J, Radiukiewicz A, Larkowska M. Economic emigration of Poles to Ireland. Warsaw, 2006.

Appendix 1: Non-random sampling methods

Sampling method	Description	Advantages	Disadvantages
Snowballing	Involves the researcher asking an initial group of people who have the characteristic of interest to assist with recruiting by passing on information about the study to people they know who could also be included in the study.	- Used when no sampling frame available. - Allows researcher to reach populations that are difficult to sample. - Simple, cost-effective. - Needs little planning.	- Researcher has little control of the sampling method. - Sampling bias as subjects tend to nominate people they know well and this means they could share the same traits. - Representativeness is not guaranteed.
Convenience sampling	Subjects are selected because of their convenient accessibility (e.g. easy to recruit, likely to respond).	- Fast and inexpensive. - Subjects are easily available. - Useful to document a particular phenomenon.	- Results are not representative to the wider population.
Purposive sampling	A group of people with particular characteristics are chosen.	- Useful for piloting questionnaires. - Generation of hypotheses for future study.	- Representativeness is not guaranteed.
Theoretical sampling	Similar cases of interest are interviewed to gain an understanding of a concept. Cases are then sampled to challenge this.	- An important part of the development of grounded theory.	- Can take a long time to reach data saturation.

(Developed from [270])

Appendix 2: Component Three - Invitation letter

centre for global health

Dear Dr.

Confidential survey of South African doctors registered in Ireland

I am a PhD student at the Centre for Global Health, Trinity College Dublin and my study is focusing on South African doctors who are registered at the Irish Medical Council (IMC). Currently there are 1,632 South Africans registered at the IMC. The aim of the study is to identify migration patterns between South Africa and Ireland, together with the reasons for these patterns. In addition the study hopes to explore experiences of working in Ireland. The outputs of this research will strengthen the knowledge base of doctor migration patterns to Ireland and assess the motivation behind these patterns.

The first part of the study is a questionnaire and you have been chosen at random to take part in this study. The questionnaire will take 10 minutes to complete and can either be done by completing the questionnaire enclosed and returning in the prepaid envelope to me c/o Centre for Health Policy, University of the Witwatersrand, or by completing the survey online at http://www.surveymonkey.com/s/VMXXHNRD (or email bidwellp@tcd.ie to be sent the link directly). If you are completing the questionnaire online please indicate your **study ID number** as indicated on the top right hand corner of the enclosed questionnaire. In-depth interviews will also be conducted with a sub-sample as part of this study. If you would like to take part in this, please indicate so at the end of the questionnaire.

I sincerely hope that you will agree to participate in this research. Participation is however voluntary and you have the right to withdraw at any time. By completing the questionnaire and returning it you are providing your consent to be in the study. All the information you provide is completely confidential and you have been given a unique study number so your answers will be anonymous. Approval to carry out this study has been obtained from the HPM/CGH ethical committee of Trinity College Dublin.

This study complements the existing Motivation Project, a multi-country study aiming to improve understanding of motivation and retention of health workers in order to strengthen the evidence base for effective human resource strategies. The project is a collaboration between Trinity College Dublin (Ireland), the University of the Witwatersrand (South Africa), the College of Medicine (Malawi) and the National Institute for Medical Research (Tanzania).

Many thanks in anticipation for your response. As a thank you for completing the questionnaire you will be entered into a draw for a year's subscription to the Lancet. If you are unsure of anything, or need further clarification, please do not hesitate to contact me.

With very best wishes,

Posy Bidwell
Email: bidwellp@tcd.ie
Tel: South Africa: 011 71703420 or 073 3857838 / Ireland: 01 896 2918

Centre for Global Health
Trinity College,
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Ollscoil Átha Cliath • The University of Dublin
COLÁISTE NA TRÍONÓIDE • TRINITY COLLEGE

Appendix 3: Component Three – Questionnaire

SOUTH AFRICAN DOCTOR STUDY

STUDY IDNO:

COMPONENT ONE
SOUTH AFRICAN DOCTORS RESIDING IN SOUTH AFRICA
QUESTIONNAIRE

For all questions please circle the response which is most appropriate, or specify for other

1. Demographics

1.1	Sex	1 = Male	2 = Female
1.2	Marital Status	1 = Single 3 = Divorced 5 = Other (specify).....	2 = Married 4 = Widowed
1.3	Country of birth	1 = South Africa 2 = Other (specify).....	
1.4	Nationality	1 = South African 2 = Other (specify).....	
1.5	Do you currently hold or have ever held other nationalities?	1 = Yes If yes, specify.....	2 = No
1.6	Ethnic background	1 = African/Black 3 = Indian/Asian 5 = Other (specify).....	2 = Coloured 4 = White
1.7	Your age (*years*)	|__||__|	
1.8	Which language is spoken in your home? (*please tick all that apply*)	1 = English 3 = Xhosa 5 = Sesotho 7 = Other (specify.....	2 = Afrikaans 4 = Zulu 6 = Setswana
1.9	How many children do you have who are financially dependent on you	|__||__|	

2. Education

2.1	University where you obtained your primary medical degree	1 = Cape Town 3 = Stellenbosch 5 = Free State 7 = Limpopo/Medunsa 9 = Other (specify).....	2 = Pretoria 4 = Witwatersrand 6 = Kwa-Zulu Natal 8 = Walter Sisulu/Uni of Transkei
2.2	Year of graduation	|__||__||__||__|	
2.3	Any other qualifications obtained		

3. Registration at the Irish Medical Council

Please find below questions about your registration with the Irish Medical Council. Please indicate the most appropriate response or specify for other

3.1	Do you plan to work in Ireland on a permanent or temporary basis	1 = Permanent (*go to question 3.2*) 2 = Temporary (*go to question 3.3*) 3 = Neither, Ireland is my 'safety net'. I will go there as a last resort 4 = Other (specify).....
3.2	If you answered 'permanent' to the question above, which describes you the best (*go to Question 3.4 after completing this question*)	1 = Have accepted a permanent post in Ireland and planning to move there within the next 6 months 2 = Planning to move to Ireland in the next year, but have not yet applied for a position 3 = Thinking about moving to Ireland at some point, but no definite plans 4 = Other (specify).....
3.3	If you answered 'temporary' to question 3.1 above, which describes you the best	1 = Have done locum work in Ireland 2 = Planning to do Locum work in Ireland 3 = Other (specify).....

3.4	What are your reasons for choosing to register in Ireland as opposed to other countries?	1 = I am of Irish descent 2 = Friends/family are here 3 = Recommendation by friends/family/colleagues 4 = Job offer – permanent 5 = Job offer – temporary 6 = Other (specify.....				
3.5	What are the main incentives attracting you to work in Ireland (***please rank 1 to 5 in order of importance, with 1 as the most important***)	|__| Salary |__| Education/training opportunities |__| Working conditions |__| Availability/variety of posts |__| To escape violence/political instability				
3.6	Please specify if there are any other incentives attracting you to work in Ireland					
3.7	Are you registered with a Medical Recruitment Agency in Ireland If yes, please specify which one	1 = Yes 2 = No				
3.8	How many times have you been to Ireland to work as a Locum *(Please tick relevant box))*	|__| None (*please move onto section 4 'other registrations'*) |__| Once |__| Twice |__| Three times |__| Four times |__| More than five times				
3.9	What is the average length of time that you spend working as a Locum?	|__||__| months |__||__| weeks				
3.10	Thinking about your work as a locum in Ireland, please circle your satisfaction with each of the following:	Very Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
	Salary	1	2	3	4	5
	Working conditions	1	2	3	4	5
	Equipment availability	1	2	3	4	5
	Lifestyle	1	2	3	4	5
	Overall experience	1	2	3	4	5
3.11	Based on your experiences would you go back to work as a locum in Ireland?	1 = Yes		2 = No		

4. Other Registrations

4.1	Are you currently registered in another country apart from Ireland & South Africa?	1 = Yes	2 = No
4.2	If yes, where and when have you registered?		
4.3	Have you worked in another country apart from South Africa?	1 = Yes	2 = No
4.4	If yes, please indicate which countries		

5. Current position in South Africa

5.1	What is your current position in South Africa?		
5.2	Where are you currently working in South Africa?	1 = Private practice 3 = NGO 5 = Other (specify.....)	2 = Public sector facility 4 = Research Institute
5.3	How long have you worked in your current position? (if less than one year, indicate the number of months)	Years |__||__|	Months |__||__|
5.4	What is your approximate net salary per month after all deductions (Rand)	|__||__||__||__||__||__|	

*Please think about your **CURRENT POSITION IN SOUTH AFRICA** (as indicated above in Question 5.1) and use the scale below to indicate how much you agree or disagree with each statement by circling the number that best corresponds to your answer*

	Statement	Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
6.1	My work makes me feel socially valuable	1	2	3	4	5
6.2	Work is a means to foster personal growth	1	2	3	4	5
6.3	My job provides acknowledgment and recognition from my manager and co-workers	1	2	3	4	5
6.4	My job provides acknowledgement and recognition from clients and the community	1	2	3	4	5
6.5	My job provides opportunities for advancement to higher level jobs	1	2	3	4	5
6.6	My job gives me a feeling of achievement and accomplishment	1	2	3	4	5
6.7	The income I receive is a fair reflection of my skills, knowledge and training	1	2	3	4	5
6.8	I have everything I need to do my job effectively	1	2	3	4	5
6.9	I am not able to do my job properly because I do not have the equipment/materials that I need	1	2	3	4	5

6.10	I am satisfied with the management in my health facility	1	2	3	4	5
6.11	I am satisfied with the educational/training opportunities I get	1	2	3	4	5
6.12	I am satisfied with the physical working conditions	1	2	3	4	5
6.13	The health facility where I work really inspires me to do my very best on the job	1	2	3	4	5
6.14	I would take the first opportunity to quit my current job	1	2	3	4	5
6.15	There is not much to be gained professionally by working in my current job	1	2	3	4	5
6.16	**What are you most dissatisfied with in South Africa?**					
6.17	**Is there any further information you would like to add about your reasons for registering in Ireland?**					

Further contact:
It is planned to conduct in-depth interviews with a sub-sample of participants from this survey. These interviews will be done in April/May 2010. If you are willing to take part in this, it would be a great help if you could please provide an email address / telephone number for ease of contact.

Please tick the relevant box to indicate the following:

|__| I am happy to be contacted to take part in the in-depth interviews
|__| I am not able to take part in the in-depth interviews, but I am happy to be contacted about future follow-up studies
|__| I do not wish to be contacted for the in-depth interviews or for follow-up studies.

Your contact details:

Name	
Email address	
Telephone number	
Other	

Many thanks, your assistance is greatly appreciated!

Appendix 4: Component Three - Interview guide

1) Background (demographics, education)

2) Registration overseas
    a. Why decided to register overseas in the first place
    b. How did you decide to register in Ireland as opposed to other countries
    c. What year did you register
    d. Dealings with Locumotion (or other medical agency)
    e. How many times been to Ireland
    f. Registered in any other country / worked in other country

3) Experiences of working in Ireland
    a. Scope of work each time have been / length of time
    b. How do you manage to get the time off from work in SA to come to Ireland
    c. Do you come to Ireland alone or with family
    d. What are the challenges faced in Ireland
    e. Satisfaction in Ireland with:
        i. Working conditions
        ii. Salary
        iii. Overall life style
        iv. Other factors *(probe)*

4) Experiences of working in South Africa
    a. Current position in SA
    b. Problems encountered working in SA
    c. How these could be addressed
    d. Do you know about any policies/strategies/inventions that are being used in SA to attract and retain health care professionals
        i. If yes, what do you think of them?
    e. What do you think could be done to retain health workers?

5) Temporary v permanent migration
    a. Have your expectations changed, having worked in Ireland then going back to SA.
    b. Would you consider permanent migration?
    c. What would be the 'push' factor that would make you leave

Appendix 5: Component Three - Information Sheet for Interviews

Name of the researcher: Posy Bidwell, Trinity College Dublin
Name of Supervisor: Dr. Stephen Thomas, Trinity College Dublin

Description of the study: Currently there are 1,632 South African doctors registered in Ireland. The aim of this study is to gather information about South African doctors who are registered at the Irish Medical Council (IMC) to explore motivational determinants and outcomes. In addition, for those who have worked in Ireland, the study aims to improve understanding of experiences of living and working there.

Study procedures: As part of the study in-depth interviews will be carried out. Firstly, the study will be explained to you and you will be asked whether you would like to take part. If you are willing you will be asked to sign a consent form. It will take about 30 minutes and questions will be around your reasons for choosing to register in Ireland, your experiences of working there (if you have done so) and your experiences of working in South Africa.

Confidentiality: All information that you provide is strictly confidential. You will be given a study number which is unique to you and so your answers will be anonymous and your name will not be used on any information that you provide. Information will be collected in such a way that it will be impossible for anyone to know who it came from. The interviews will be recorded and these will be transcribed verbatim and a copy of the transcript will be made available to you if you wish. Only the researcher will have access to the audio files and they will be destroyed.

Risks: There are no risks involved in taking part in this study. You may find some of the questions difficult to answer. If that is the case, please say so and if you do not wish to continue you may stop at any time.

Benefits: South African doctors provide a vital contribution to the Irish Healthcare system and by participating in this study you will be providing important information on this phenomenon.

Participation: Participation is voluntary and you have the right to withdraw at any time. You should also feel free to consult anyone else to discuss with this information sheet to get their advice on whether you should participate.

Permission: Approval to carry out this study has been obtained from the HRM-CGH Research Ethics Committee of Trinity College Dublin

Further information: If you have any questions about this study, please do not hesitate to contact Posy Bidwell (bidwellp@tcd.ie)

(SA details) Centre for Health Policy, University of the Witwatersrand, Johannesburg. Tel: 011 71703420 or 073 3857838
(Ireland details) Centre for Global Health, Trinity College Dublin, Dublin 2. Tel 00 353 (0) 1 896 2918.

Appendix 6: Component Three - Consent Sheet for Interviews

Lead Researcher: Posy Bidwell (Trinity College Dublin, Ireland)

Background: South African doctors provide a vital contribution to the Irish Healthcare system and currently there are 1,632 South African doctors registered at the Irish Medical Council (IMC). The aim of this study is to gather information about South African doctors who are registered at the IMC to explore motivation determinants and outcomes. In addition this study aims to improve understanding of experiences of living and working in Ireland.

This study is being carried out as part of the Motivation Project, a multi-country study, aiming to improve understanding of motivation and retention of health workers in order to strengthen the evidence base for effective human resource strategies. The project is a collaboration between Trinity College Dublin (Ireland), the University of the Witwatersrand (South Africa), the College of Medicine (Malawi), and the National Institute for Medical Research (Tanzania)

Participant Declaration

1. I have been given an opportunity to ask questions and am satisfied with the answers I have been given.
2. I clearly understand what I will be required to do if I participate in this study.
3. I understand that participation in this study is voluntary.
4. I understand that I have the right to leave at any time if I do not want to continue.
5. I am aware that all the information I give is confidential.
6. I agree that the interview may be audio-recorded which will be transcribed. I understand that the recording will be destroyed and that the transcription will be kept in a password protected PC, accessible only by the lead researcher. I also understand that I am able to have a copy of the transcript if I wish.
7. I agree to take part in this study.

Name	Signature	Date of signature
		|__||__|/|__||__|/|__||__|

Statement of lead researcher's responsibility:
I have explained the nature and purpose of this research study as well as the procedures to be undertaken. I have offered to answer any questions and fully answered such questions. I believe that the participant understands my explanation and has freely given informed consent.

Signature of researcher taking consent

Print name	Signature	Date of signature	|__||__|/|__||__|/|__||__|

Appendix 7: Component Four - Invitation Letter

centre for global health

centre for global health

27 September 2010

Dear Dr.

Confidential survey of South African doctors registered in Ireland

I am a PhD student at the Centre for Global Health, Trinity College Dublin and my study is focusing on South African doctors who are registered at the Irish Medical Council (IMC). Currently there are 1,632 South Africans registered at the IMC. The aim of the study is to identify migration patterns between South Africa and Ireland, together with the reasons for these patterns. In addition the study hopes to explore experiences of working in Ireland. The outputs of this research will strengthen the knowledge base of doctor migration patterns to Ireland and assess the motivation behind these patterns.

The first part of the study is a questionnaire and you have been chosen at random to take part in this study. The questionnaire will take 10 minutes to complete and can either be done by completing the questionnaire enclosed and returning in the prepaid envelope, or by completing the survey online at http://www.surveymonkey.com/s/3H88D5R (or email bidwellp@tcd.ie to be sent the link directly). If you are completing the questionnaire online please indicate your **study ID number** as indicated on the top right hand corner of the enclosed questionnaire. In-depth interviews will also be conducted with a sub-sample as part of this study. If you would like to take part in this, please indicate so at the end of the questionnaire.

I sincerely hope that you will agree to participate in this research. Participation is however voluntary and you have the right to withdraw at any time. By completing the questionnaire and returning it you are providing your consent to be in the study. All the information you provide is completely confidential and you have been given a unique study number so your answers will be anonymous. Approval to carry out this study has been obtained from the HPM/CGH ethical committee of Trinity College Dublin.

This study complements the existing Motivation Project, a multi-country study aiming to improve understanding of motivation and retention of health workers in order to strengthen the evidence base for effective human resource strategies. The project is a collaboration between Trinity College Dublin (Ireland), the University of the Witwatersrand (South Africa), the College of Medicine (Malawi) and the National Institute for Medical Research (Tanzania).

Many thanks in anticipation for your response. As a thank you for completing the questionnaire you will be entered into a draw for a €50 Easons voucher. If you are unsure of anything, or need further clarification, please do not hesitate to contact me.

With very best wishes,

Posy Bidwell
Email: bidwellp@tcd.ie
Tel: 01 896 2918

Centre for Global Health
Trinity College,
3-4 Foster Place,
Dublin 2, Ireland

Tel.: +353 1 896 8594
Fax: +353 1 677 4956
Email: global.health@tcd.ie

Director:
Eilish McAuliffe

Appendix 8: Component Four - Questionnaire

SOUTH AFRICAN DOCTOR STUDY

STUDY IDNO:

COMPONENT TWO: SOUTH AFRICAN DOCTORS RESIDING IN IRELAND QUESTIONNAIRE

For all questions please circle the response which is most appropriate, or specify for other

1. Demographics

1.1	Sex	1 = Male	2 = Female
1.2	Marital Status	1 = Single 3 = Divorced 5 = Other (specify).....	2 = Married 4 = Widowed
1.3	Country of birth	1 = South Africa 2 = Other (specify).....	
1.4	Nationality	1 = South African 2 = Other (specify).....	
1.5	Do you currently hold or have ever held other nationalities?	1 = Yes If yes, specify.....	2 = No
1.6	Ethnic background	1 = African/Black 3 = Indian/Asian 5 = Other (specify).....	2 = Coloured 4 = White
1.7	Your age (*years*)	|__||__|	
1.8	Which language is spoken in your home? (*please tick all that apply*)	1 = English 3 = Xhosa 5 = Sesotho 7 = Other (specify.....	2 = Afrikaans 4 = Zulu 6 = Setswana
1.9	How many children do you have who are financially dependent on you	|__||__|	

2. Education

2.1	University where you obtained your primary medical degree	1 = Cape Town 3 = Stellenbosch 5 = Free State 7 = Limpopo/Medunsa 9 = Other (specify).....	2 = Pretoria 4 = Witwatersrand 6 = Kwa-Zulu Natal 8 = Walter Sisulu/Uni of Transkei
2.2	Year of graduation	|__|__|__|__|	
2.3	Any other qualifications obtained (please specify)		
2.4	Did you work in South Africa after graduation?	1 = Yes	2 = No
	If yes, for how long?		
2.5	What do you think are the major challenges facing doctors working in South Africa? ***(tick all that are appropriate)***	|__| Low Salary |__| Lack of training opportunities |__| Working conditions |__| Hospital management |__| Other (specify).....	

3. Registration at the Irish Medical Council

Please find below questions about your registration with the Irish Medical Council. Please indicate the most appropriate response or specify for other

3.1	When did you first register at the IMC?	|__|__|__|__|
3.2	What year did you start working in Ireland?	|__|__|__|__|
3.3	What are your reasons for choosing to register in Ireland as opposed to other countries?	1 = I am of Irish descent 2 = Friends/family are here 3 = Recommendation by friends/family/colleagues 4 = Job offer – permanent 5 = Job offer – temporary 6 = Other (specify.....

3.4	What are the main incentives attracting you to work in Ireland (***please rank 1 to 5 in order of importance, with 1 as the most important***)	|__| Salary |__| Education/training opportunities |__| Working conditions |__| Availability/variety of posts |__| To escape violence/political instability				
3.5	Please specify if there are any other incentives attracting you to work in Ireland					
3.6	Are you registered with a Medical Recruitment Agency in Ireland If yes, please specify which one	1 = Yes 2 = No				
3.7	Before moving to Ireland did you work in Ireland on a temporary basis?	1 = Yes 2 = No				
3.8	Thinking about your work in Ireland, please circle your satisfaction with each of the following:	Very Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
	Salary	1	2	3	4	5
	Working conditions	1	2	3	4	5
	Equipment availability	1	2	3	4	5
	Lifestyle	1	2	3	4	5
	Overall experience	1	2	3	4	5
3.9	Do you feel that there is discrimination from your colleagues/workers in the hospital?	1 = Yes		2 = No		
3.10	Do you feel that there is discrimination from the patients?	1 = Yes		2 = No		
3.11	Do you feel that you have the same chance as Irish doctors for training opportunities?	1 = Yes		2 = No		

4. Other Registrations

4.1	Are you currently registered in another country apart from Ireland & South Africa?	1 = Yes	2 = No
4.2	If yes, where and when have you registered?		
4.3	Have you worked in another country apart from South Africa and Ireland?	1 = Yes	2 = No
4.4	If yes, please indicate which countries		

5. Current position in Ireland

5.1	What is your current position in Ireland?		
5.2	In what speciality are you working?		
5.3	What type of facility are you working in?	1 = Private practice 3 = NGO 5 = Other (specify.....)	2 = Public sector 4 = Research Institute
5.3	How long have you worked in your current position? (if less than one year, indicate the number of months)	Years |__||__|	Months |__||__|
5.4	What is your approximate net salary per month after all deductions (Euros)	€ |__||__||__||__||__|	

*6. Please think about your **CURRENT POSITION IN IRELAND** (as indicated above in Question 5.1) and use the scale below to indicate how much you agree or disagree with each statement by circling the number that best corresponds to your answer*

	Statement	Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
6.1	My work makes me feel socially valuable	1	2	3	4	5
6.2	Work is a means to foster personal growth	1	2	3	4	5
6.3	My job provides acknowledgment and recognition from my manager and co-workers	1	2	3	4	5
6.4	My job provides acknowledgement and recognition from clients and the community	1	2	3	4	5
6.5	My job provides opportunities for advancement to higher level jobs	1	2	3	4	5
6.6	My job gives me a feeling of achievement and accomplishment	1	2	3	4	5
6.7	The income I receive is a fair reflection of my skills, knowledge and training	1	2	3	4	5
6.8	I have everything I need to do my job effectively	1	2	3	4	5
6.9	I am not able to do my job properly because I do not have the equipment/materials that I need	1	2	3	4	5
6.10	I am satisfied with the management in my health facility	1	2	3	4	5
6.11	I am satisfied with the educational/training opportunities I get	1	2	3	4	5
6.12	I am satisfied with the physical working conditions	1	2	3	4	5
6.13	The health facility where I work really inspires me to do my very best on the job	1	2	3	4	5

7. Future Plans

7.1	Do you plan to stay in Ireland permanently	1 = Yes	2 = No
	If no, where do you plan to go next?	.....	
7.2	Would you consider going back to South Africa to work	1 = Yes	2 = No
7.3	**What are you most dissatisfied with in South Africa?**		
7.4	**Is there any further information you would like to add about your reasons for registering in Ireland?**		

Further contact:
It is planned to conduct in-depth interviews with a sub-sample of participants from this survey. These interviews will be done in July/August 2010. If you are willing to take part in this, it would be a great help if you could please provide an email address / telephone number for ease of contact.

Please tick the relevant box to indicate the following:

|__| I am happy to be contacted to take part in the in-depth interviews
|__| I am not able to take part in the in-depth interviews, but I am happy to be contacted about future follow-up studies
|__| I do not wish to be contacted for the in-depth interviews or for follow-up studies.

Your contact details:

Name	
Email address	
Telephone number	
Other	

Many thanks, your assistance is greatly appreciated!

Appendix 9: Component Four - Interview Guide

1) Background (demographics, education)

2) Registration overseas
    a. Why decided to register overseas in the first place
    b. How did you decide to register in Ireland as opposed to other countries
    c. What year did you register
    d. Dealings with Locumotion (or other medical agency)
    e. How many times been to Ireland
    f. Registered in any other country / worked in other country

3) Experiences of working in Ireland
    a. Current position in Ireland
    b. Did you work in Ireland on a temporary basis before moving permanently?
    c. Do you come to Ireland alone or with family
    d. What are the challenges faced in Ireland
    e. Satisfaction in Ireland with:
        i. Working conditions
        ii. Salary
        iii. Overall life style
        iv. Other factors *(probe)*

4) Experiences of working in South Africa
    a. Problems encountered working in SA *(or perceived problems if never worked there)*
    b. How these could be addressed
    c. Do you know about any policies/strategies/inventions that are being used in SA to attract and retain health care professionals
        i. If yes, what do you think of them?
    d. What do you think could be done to retain health workers?

5) Temporary v permanent migration
    a. Have your expectations changed, having worked in Ireland?
    b. What are your future plans?
    c. Would you consider going back to South Africa to work and under what circumstances?

Appendix 10: Component Four - Information Sheet for Interviews

Name of the researcher: Posy Bidwell, Trinity College Dublin
Name of Supervisor: Dr. Stephen Thomas, Trinity College Dublin

Description of the study: Currently there are 1,632 South African doctors registered in Ireland. South African doctors have become an essential part of the Irish health system, and yet very little is known about them. The aim of this PhD study is to examine issues around migration of South African doctors to Ireland and to improve understanding of experiences of living and working here.

Study procedures: In order to learn about the experiences of South African doctors in Ireland, I will be doing in-depth interviews. They will take place at a time and place that is convenient for you. Interviews will last 30-45 minutes and will be an informal discussion (like a chat) about your experiences of working and living in Ireland. I am particularly interested in how you first heard about opportunities in Ireland and how you came to work here. During the interview I also hope to discuss your experiences of migration, the impact this has had on your life, as well as issues that might influence whether or not you will remain in Ireland.

Confidentiality: All information that you provide is strictly confidential. You will be given a study number which is unique to you and so your answers will be anonymous and your name will not be used on any information that you provide. Information will be collected in such a way that it will be impossible for anyone to know who it came from. The interviews will be recorded and these will be transcribed verbatim and a copy of the transcript will be made available to you if you wish. Only myself as the researcher will have access to the audio files and they will be destroyed after use.

Consent: Your permission is needed to take part in the interviews and you will be asked to sign a consent form if you are happy to take part. Participation is voluntary and you are free to withdraw at any stage if you wish.

Risks: There are no risks involved in taking part in this study. You may find some of the questions difficult to answer. If that is the case, please say so and if you do not wish to continue you may stop at any time.

Benefits: South African doctors provide a vital contribution to the Irish Healthcare system and by participating in this study you will be providing important information on this phenomenon.

Participation: Participation is voluntary and you have the right to withdraw at any time. You should also feel free to consult anyone else to discuss with this information sheet to get their advice on whether you should participate.

Permission: Approval to carry out this study has been obtained from the Health Policy & Management/Centre for Global Health Research Ethics Committee of Trinity College Dublin

Further information: If you have any questions about this study, please do not hesitate to contact Posy Bidwell (bidwellp@tcd.ie): Health Policy & Management, Trinity College Dublin, 3-4 Foster Place, Dublin 2. Tel: 01 896 2918 / 086 3179836

Appendix 11: Component Four - Consent Sheet for Interviews

Lead Researcher: Posy Bidwell (Trinity College Dublin, Ireland)

Background: South African doctors provide a vital contribution to the Irish Healthcare system and currently there are 1,632 South African doctors registered at the Irish Medical Council (IMC). The aim of this study is to gather information about South African doctors who are registered at the IMC to explore motivation determinants and outcomes. In addition this study aims to improve understanding of experiences of living and working in Ireland.

This study is being carried out as part of the Motivation Project, a multi-country study, aiming to improve understanding of motivation and retention of health workers in order to strengthen the evidence base for effective human resource strategies. The project is a collaboration between Trinity College Dublin (Ireland), the University of the Witwatersrand (South Africa), the College of Medicine (Malawi), and the National Institute for Medical Research (Tanzania)

Participant Declaration

1. I have been given an opportunity to ask questions and am satisfied with the answers I have been given.
2. I clearly understand what I will be required to do if I participate in this study.
3. I understand that participation in this study is voluntary.
4. I understand that I have the right to leave at any time if I do not want to continue.
5. I am aware that all the information I give is confidential.
6. I agree that the interview may be audio-recorded which will be transcribed. I understand that the recording will be destroyed and that the transcription will be kept in a password protected PC, accessible only by the lead researcher. I also understand that I am able to have a copy of the transcript if I wish.
7. I agree to take part in this study.

Name	Signature	Date of signature
		|__||__|/|__||__|/|__||__|

Statement of lead researcher's responsibility:
I have explained the nature and purpose of this research study as well as the procedures to be undertaken. I have offered to answer any questions and fully answered such questions. I believe that the participant understands my explanation and has freely given informed consent.

Signature of lead researcher taking consent

Print name		Date of signature	|__||__|/|__||__|/|__||__|
Signature			

Appendix 12: General coding domain - Component Two

Category	Code	Code assigned
Personal characteristics	Age	PERS/Age
	Gender	PERS/Gen
	Marital status	PERS/Ms
	Dependent children	PERS/Child
Job characteristics	Specialty	JOB/Spec
	Career Stage	JOB/CarStage
	Job satisfaction	JOB/Satis
Social characteristics	Ethnicity	SOC/Eth
Individual motivation	Needs	IND/Needs
	Expectations	IND/Expect
	Values	IND/Val
	Attitudes	IND/Att
	Goals	IND/Goal
Situation in South Africa	Infrastructure	SIT SA/Infra
	Career Development	SIT SA/CarDev
	Salary	SIT SA/Sal
	Political situation	SITSA/Polit
	Working conditions	SITSA/WorkCon
Retention issues	Economic	RET/Econ
	Career Development	RET/CarDev
	Instability	RET/Inst
OSD	Implementation	OSD/Imp
	Challenges	OSD/Chall
	Motivation	OSD/Mot
	Satisfaction	OSD/Sat
Rural Allowance	Implementation	RA/Imp
	Challenges	RA/Chall
	Motivation	RA/Mot
	Satisfaction	RA/Sat
Scare Skills	Implementation	SS/Imp
	Challenges	SS/Chall
	Motivation	SS/Mot
	Satisfaction	SS/Sat
Hospital Revitalisation	Implementation	HR/Imp
	Challenges	HR/Chall
	Motivation	HR/Mot
	Satisfaction	HR/Sat

Appendix 13: General coding domain - Components Three and Four

Category	Code	Code assigned
Personal characteristics	Age	PERS/Age
	Gender	PERS/Gen
	Marital status	PERS/Ms
	Dependent children	PERS/Child
Job characteristics	Specialty	JOB/Spec
	Career Stage	JOB/CarStage
	Job satisfaction	JOB/Satis
Social characteristics	Ethnicity	SOC/Eth
Individual motivation	Needs	IND/Needs
	Expectations	IND/Expect
	Values	IND/Val
	Attitudes	IND/Att
	Goals	IND/Goal
Situation in Ireland	Career Development	SIT Irl/CarDev
	Salary	SIT Irl/Sal
	Active recruitment	SIT Irl/ActRec
Situation in South Africa	Infrastructure	SIT SA/Infra
	Career Development	SIT SA/CarDev
	Salary	SIT SA/Sal
	Political situation	SITSA/Polit
	Working conditions	SITSA/WorkCon
Primary motivation for migration	Economic	PRIM/Econ
	Career Development	PRIM/CarDev
	Instability	PRIM/Inst
Type of migration	Temporary	MIG/Temp
	Permanent	MIG/Perm
Conditions of temporary employment	Employment length	TEMP Emp/Leng
	Visa	TEMP Emp/Visa
	Salary	TEMP Emp/Salary
Employment actors	Recruitment agency	EMP Act/RecAg
	Source Country Employer	EMP Act/Source
	Destination Country Employer	EMP Act/Destin
Dynamic of temporary migration	Experience	DYN Temp/Exper
	Frequency occurring	DYN Temp/Freq
	Considering permanent move	DYN Temp/Perm
Dynamic of permanent migration	Experience	DYN Perm/Exper
	Retention	DYN Perm/Reten

Appendix 14: Ethical approval for PhD research

UNIVERSITY OF DUBLIN
TRINITY COLLEGE

Telephone: +353 1 896 2201
Fax: +353 1 677 4956
Email: hsmsec@tcd.ie

Health Policy and Management
3-4 Foster Place
Trinity College
Dublin 2
Ireland

Posy Bidwell
Centre for Global Health
3-4 Foster Place
Trinity College Dublin
Dublin 2

25th August 2010

Re: South African Doctors registered in Ireland: Motivation and Migration Patterns
Application 28/2010/01

Dear Posy,

Thank you for your submission of the above proposal to the HPM/CGH REC.

The REC has given ethical approval to the proposed study.

Yours sincerely,

Prof Charles Normand
Chair of the HPM/CGH REC

Professor Charles Normand
Edward Kennedy Professor of Health Policy and Management

Appendix 15: Motivation Project ethical approval

THE UNIVERSITY OF DUBLIN
TRINITY COLLEGE

SCHOOL OF MEDICINE
FACULTY OF HEALTH SCIENCES

Trinity College, Dublin 2, Ireland
Tel: +353 1 896 1476
Fax: +353 1 671 3956
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Professor Dermot Kelleher, MD, FRCPI, FRCP, F Med Sci
Head of School of Medicine
Vice Provost for Medical Affairs

Ms Fedelma McNamara
School Administrator
email: fmcnamar@tcd.ie

Professor Charles Normand
Edward Kennedy Chair
Health Poilcy & Management, 3-4 Foster Place, College

Friday, 09 November 2007

Study: Recruitment, motivation and retention of health workers in developing countries: designing better strategies based on understanding incentives and aspirations.

Dear Prof Normand

Further to a meeting of the Faculty of Health Sciences Ethics Committee 2007 - 2008, we are pleased to inform you that the above project has been approved without further audit.

Yours sincerely

pp Noelle Costelloe

Dr. Orla Sheils
Chairperson
Faculty of Health Sciences Ethics Committee

HEALTH POLICY
13 NOV 2007
MANAGEMENT

Appendix 15: Motivation Project ethical approval

THE UNIVERSITY OF DUBLIN
TRINITY COLLEGE

SCHOOL OF MEDICINE
FACULTY OF HEALTH SCIENCES

Professor Dermot Kelleher, MD, FRCPI, FRCP, F Med Sci
Head of School of Medicine
Vice Provost for Medical Affairs

Ms Fedelma McNamara
School Administrator

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email: medicine@tcd.ie

email: fmcnamar@tcd.ie

Professor Charles Normand
Edward Kennedy Chair
Health Policy & Management, 3-4 Foster Place, College

Friday, 09 November 2007

Study: Recruitment, motivation and retention of health workers in developing countries: designing better strategies based on understanding incentives and aspirations.

Dear Prof Normand

Further to a meeting of the Faculty of Health Sciences Ethics Committee 2007 - 2008, we are pleased to inform you that the above project has been approved without further audit.

Yours sincerely

pp Noelle Costelloe

Dr. Orla Sheils
Chairperson
Faculty of Health Sciences Ethics Committee

HEALTH POLICY
13 NOV 2007
MANAGEMENT