

**Intention to migrate among recently qualified health professionals: A South African exploratory study**

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I declare that this project is the result of my own work and that all sources have been properly acknowledged.

Signed \_\_\_\_\_

Date \_\_\_\_\_

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## **Abstract**

This dissertation provides an overview of international migration and its relation to development, with specific reference to the issue of health professional migration from the global South to the global North. It aimed to assess the migration intentions and migration potential within a sample of recently qualified health professionals within South Africa through an online survey. Registers comprised of 4804 psychologists and medical practitioners were used to invite participation in an online survey. A low response rate of only 132 respondents was obtained. The analysis included scale validation and multiple regression analyses in order to assess four criterion variables, namely: 'long-term migration plans'; 'migration timeframe'; 'concrete migration plans'; and 'short-term migration plans'.

'Long-term migration plans' was significantly predicted by non-professional factors, such as safety and stability, citizenship salience, information and a comparison with a destination country according to personal factors, such as personal safety and general conditions. 'Migration timeframe' was significantly predicted by information and the expected professional prospects within South Africa. 'Concrete migration plans' was significantly predicted by information and a comparison with a destination country according to professional factors, such as income levels, job satisfaction and professional prospects. The multiple regression model for 'short-term migration' proved to not be significant, with no significant predictors. These findings imply that policy interventions must address multiple levels beyond merely improving professional conditions, which is a common strategy for the management of health professional migration. It is clear from this study that the phenomenon of migration is a complex and dynamic issue at local, regional, national and global levels.

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# 1. INTRODUCTION

Nations from the global South face a variety of systemic challenges which affect national productivity and individual quality of life (Hammar & Tamas, 1997). One such challenge is the area of health and healthcare for its people. While much of the global South is experiencing crises due to infectious diseases such as HIV/AIDS, malaria and TB, it is simultaneously dealing with vast shortages of health professionals to deal with the health needs which arise from its burden of disease (McCoy, McPake, & Mwapasa, 2008; Schrecker & Labonte, 2004). Recently, there seems to be a trend of health professional migration from the global South (hereafter referred to as the 'South') to the global North (hereafter referred to as the 'North') (Martineau, Decker, & Bundred, 2004; Stilwell et al., 2004). The issue of South to North migration has been a phenomenon which has increasingly attracted local and international attention due to its negative impact on sending countries and the seeming lack of ethics and justice exhibited by destination countries in this regard (Connell, Zurn, Stilwell, Awases, & Braichet, 2007; Eastwood et al., 2005; Hagopian, Thompson, Fordyce, Johnson, & Hart, 2004).

Although migration is not a new human occurrence, it has recently attracted a great deal of interest as it has been linked to a number of issues. Noteworthy areas of interest include: development (de Haas, 2007, 2010; Faist, 2008); international movements of skilled labour from the South to the North, or so-called 'brain drain' (Brown, Kaplan, & Meyer, 2002; Duncan, 2008); and questions of social justice and ethics due to unequal distribution of human capital between the South and the North (Hagopian, et al., 2004; Martineau, et al., 2004; McElmurry et al., 2006). The migration of health professionals falls within wider topics of general migration theories, the migration of skilled labour and migration from the South to the North.

Migration has been a topic of theoretical interest since Ravenstein (1885) first published his study focusing on internal migration within the United Kingdom. Since then, migration studies have adopted a range of foci and units of analysis, including macro-level factors which induce and perpetuate migration; micro-level factors which can influence the migration decision; and the relationship between migration and national development, with



special note of topics such as the so-called “brain distribution debate” (Williams & Baláž, 2008, p. 30), of which health professional migration is a significant element.

Many nations from the South, like South Africa, have the double burden of a shortage in the healthcare workforce as well as health crises linked to HIV/AIDS and other infectious diseases (McCoy, et al., 2008). Thus, the question of whether newly qualified health professionals intend to leave or stay in South Africa is a particularly salient one. When skilled professionals migrate, the source country loses both its financial investment in the individual’s education and the contribution that the individual would have made to society through their profession, thus compounding the financial loss with a social cost (Adams & Stilwell, 2004; Duncan, 2008; Williams & Baláž, 2008). This makes the topic of health professional migration intentions one of great local, regional and global importance.

This quantitative study focuses on the intentions of recently qualified health professionals to migrate from South Africa. The migration of skilled labour such as health professionals falls within the wider topic of ‘brain distribution’. Therefore, migration will be discussed in the context of its relationship with development and the dynamics of South to North migration. The ultimate aim of this study is to assess through an online survey the migration intentions and migration potential of a sample of medical practitioners and psychologists.

Through such analysis, input can be made towards policy considerations and other interventions to address the complex burdens experienced as a consequence of health professional migration. Much of the debate within migration policy revolves around the rights of the individual to migrate and the rights of the home country to benefit from that individual’s human capital (Moses, 2006). Questions of justice and workforce sustainability are of key importance within policy considerations. The complexities of issues concerning migration make single policy interventions unlikely to be able to fully and adequately address this problem. Rather, a number of policies aimed at various levels of intervention (e.g. the training of health professionals; improving working conditions; improvements in general national safety and stability; international cooperation and agreements) may be more effective.

## **2. LITERATURE REVIEW**

### **2.1 Drawing the boundaries**

The topic of migration is one which is widely theorised and debated within and between disciplines, largely because there are so many types of migration, reasons for migration, types of migrants, flows and directions of migration and destinations of migration (Samers, 2010). According to Hammar and Tamas (1997, p. 15), “migration is a spatial phenomenon. People move from one place to another, alone or together with others, for a short visit or for a long period of time, over a long or short distance”. While this definition succeeds in encompassing almost every type of migration, it loses its usefulness when the definition is applied to a particular kind of migration. Migration is a highly complex phenomenon and “a key theoretical issue then is that the explanation of migration may be different for different (groups of) people over time and space” (Samers, 2010, p. 52).

Because migration is such a broad topic, it is necessary to situate oneself within the debate by setting clear boundaries regarding the type of migration that will be discussed and studied in this dissertation. This review will focus on particular aspects of migration, namely: international migration; migration from the global South to the global North; the migration-development nexus; and the migration of skilled labour, specifically that of health professionals. While they are presented as separate issues here, in reality they are closely interconnected in any discussion of the international migration of health professionals.

Firstly, this chapter will discuss international migration (as opposed to internal and rural to urban migration), which is considered to involve crossing international boundaries from a country of origin to a destination country for a period of time (Samers, 2010; Williams & Baláž, 2008). Countries of origin can be referred to as home countries, source countries or sending countries, while destination countries can be also referred to as receiving countries. These terms will generally be used interchangeably through this dissertation. To better understand the topic of international migration, a brief overview of the most influential of these approaches is necessary. Because it is not the aim of this discussion to give a full history and analysis of the theories of migration, only a few of the historically dominant approaches to international migration will be briefly reviewed within the migration theory section.

Secondly, there will be an emphasis on international migration from the global South to the global North. The South can be seen as including largely economically developing or poorer nations in Asia, Africa and Latin America, while the North includes destinations such as Europe, North America, Australia and Japan (Hammar & Tamas, 1997). While these two groups are not necessarily internally homogeneous, the distinction can be thought of as an important one when considering the topic of migration, largely because of the history and expected increases in South to North migration (Samers, 2010). Hammar and Tamas (1997, p. 18) argue that the “direction of the flows is a reflection of post-colonial economic, political, cultural and linguistic links and exchanges” and, as such, South to North migration is a complex and dynamic type of international migration.

Thirdly, the migration of skilled labour will be discussed, couched within the topic of international “brain distribution” (Williams & Baláž, 2008, p. 30) or “brain transfer” (Faist, 2008, p. 32), referred to in various forms, such as ‘brain drain’, ‘brain gain’, ‘brain circulation’, ‘brain waste’, ‘brain exchange’, ‘brain training’ and ‘brain chain’ (Williams & Baláž, 2008). Much of the debate around brain distribution relates to the positive and negative effects of international migration from the South to the North. This debate is situated in larger, more general discourses (both optimistic and pessimistic) regarding the relationship between migration and national development, known as the migration-development nexus (de Haas, 2006). The various views within this debate will be discussed in order to better understand brain distribution generally and to then explore whether this generalized debate applies to the specifics of health professional migration.

Finally, these facets of migration will be contextualised within the issue of the South to North migration of health professionals. There has been a growing awareness of health workforce shortages in the South which are being exacerbated by the migration of health professionals from the South to the North (Aiken, Buchan, Sochalski, Nichols, & Powell, 2004; Chen et al., 2004). Central issues related to this topic include: a paucity of reliable data to appropriately assess and respond to international movements of health professionals (Clemens & Petterson, 2008; Mullan, 2005); issues of sustainable workforces within both the South and the North (Buchan & Sochalski, 2004; Chen, et al., 2004); the question of global ethics and social justice with relation to the recruitment strategies of the North (Aiken, et al., 2004; Crush, 2002); and strategies for the management of health professional migration (Martineau, et al.,

2004; Stilwell et al., 2003). While there is debate regarding the terminology used for much of the skilled migration flows, it will be argued that health professional migration is a clear case of 'brain drain' which must be addressed urgently due to the importance of the health workforce within development strategies of both the South and the North.

## **2.2 Migration theories: A brief review**

There are a number of migration theories which have had varying levels of importance, focus and influence within the field. In their evaluation of theories of international migration, Massey et al. (1998, p. 50) note that

...because theories proposed to explain the origins and persistence of international migration posit causal mechanisms at many levels of aggregation, the various explanations are not necessarily contradictory unless one adopts the rigid position that causes must operate at one level and one level only.

In discussing international migration, Samers (2010) reviews a number of relatively deterministic theories, (namely Ravenstein's laws and push-pull models, neo-classical economics, behaviourist approaches, new economics accounts, dual labour market and labour market segmentation models, structuralist understandings) and more integrative or mixed accounts (such as social-network analysis, transnational arguments, gender-sensitive understandings and structurationist analyses). Massey et al. (1998) note that many of these theories can be categorised as explaining the initiation of migration, while theories such as social capital theory and cumulative causation theory address the perpetuation of international migration. The wide variety of models and theories "reflect the different research objectives, focuses, interests, and ways of decomposing an enormously complex subject into analytically manageable parts" (Massey et al., 1993, p. 433). Due to their historically dominant role in understandings of international migration, the following theories will briefly be reviewed: push-pull approaches, neoclassical economic approaches, the new economics approach, segmented labour approaches, structuralist approaches, and cumulative causation theory.

### 2.2.1 Push-pull approaches

One of the earliest theories regarding migration emerged from the work of Ravenstein (1885) in the nineteenth-century through his creation of the ‘laws of migration’. Faist (1997, p. 189) summarises these laws as follows:

- (1) The majority migrate only short distances and thus establish ‘currents of migration’ towards larger centers.
- (2) This causes displacement and development processes in connection with populations in sending and destination regions.
- (3) The processes of dispersion and absorption correspond to each other.
- (4) Migration chains develop over time.
- (5) Migration chains lead to exit movements towards centres of commerce and industry.
- (6) Urban residents are less prone to migrate than rural people.
- (7) This is also true for the female population.

While these laws seem to point to “persistent patterns and processes associated with international migrations” (Samers, 2010, p. 56), Ravenstein’s work has been labelled as extremely deterministic and simplistic. One of the implications of Ravenstein’s analysis is the concept of ‘push-pull factors’, which was later further developed by Lee (1966). This approach argues that there are forces operating in source countries which ‘push’ migrants from their country and forces in destination countries which ‘pull’ or attract those migrants (Samers, 2010). Push-pull approaches have also been criticised and are rarely used in most sophisticated studies due to their determinism, individualistic analysis, simplicity and the exclusively economic nature of their factors (Massey, et al., 1998; Samers, 2010).

However, this criticism does not take into consideration the broadened nature of push and pull factors, which now extend to socio-political issues. Therefore, although it is true that push/pull approaches are somewhat basic, they have developed beyond exclusively economic factors. Some of the push factors which exist in source countries that are frequently cited in the literature include: war, low salaries, poor working conditions, lack of safety and security, political and/or economic instability, high unemployment rates, lack of high-quality education and lack of opportunities for professional development and personal prosperity, including elements such as freedom, happiness and general well-being . Some of the pull factors which exist in destination countries include: higher wages, better professional conditions, greater possibilities for high-quality education and possibilities of prosperity for

the individual and their household (Kline, 2003; Nguyen et al., 2008; Saravia & Miranda, 2004). In their criticism of push/pull approaches, Massey et al. (1998) note that such understandings are useful investigative tools for classifying and ordering migration determinants but that they are not sufficient to be considered a theoretical framework.

### **2.2.2 Neoclassical economic approaches**

Another influential theory is that of neoclassical economics. According to Massey et al. (1998), neoclassical economic approaches are divided into macro and micro theory. Macro-theory posits that migration occurs because of differences in labour supply and demand between different geographical units. Differences in wage levels cause workers to migrate from low-wage countries to high-wage countries, which points to a lack of capital in poorer nations (Samers, 2010). However, macro-theory approaches completely neglect the exploration of individuals and their other reasons for migration, which may be non-economic in nature.

Micro-theory, by comparison, focuses on individual choice as the economic individual rationally chooses where they can be most productive and successful according to perfect information (Tunali, 2000). According to this approach, the individual assesses expected costs and benefits of migration and migrates to where expected returns will be greatest over a certain period of time (Massey, et al., 1998). However, in their critique of micro-theory, Fischer, Martin and Straubhaar (1997b) argue against some of the basic assumptions in this understanding, showing that: migration is neither cost free nor risk free; migrants are not a homogeneous; they do not have perfect information; they are not completely and unconditionally rational; and are not entirely autonomous and/or devoid of any social context. As such, many of the assumptions on which neoclassical theory rests are not possible, thereby causing the approach to be somewhat difficult to apply to actual migration.

### **2.2.3 New economics approach**

The new economics approach to migration shifts the unit of analysis from the individual to larger units such as families, households and communities (Massey, et al., 1998; Samers, 2010; Stark & Taylor, 1989). In this understanding of migration, households attempt to maximise income but also attempt to do so through minimisation of risks by diversifying the allocation of household resources to different geographic locations (Massey, et al., 1998). So

a family member may migrate to another location and, if conditions in the source country deteriorate, the family can use remittances to compensate for the poor local economy. Thus remittances can be used similarly for insurance in case of a poor local economy, poor crop yield, in the event of unemployment within the household, as extra capital to use within local markets and for retirement (Samers, 2010). Therefore, migrant remittances are crucial within this understanding of international migration. Another key component of the new economics theory is the notion of relative deprivation, which occurs when households compare themselves to other households and send family members away to work in order to decrease their deprivation in relation to other local households (Massey, et al., 1998; Stark & Taylor, 1989). However, this approach still functions on a micro level and assumes that decision making, even that of a household, continues to be rational.

#### **2.2.4 Segmented labour market approaches**

Segmented labour market theory is largely based on the work of Piore's (1979) dual labour market theory, which divides the work force into a primary and secondary sector. In his review of this work, Samers (2010) explains that the primary sector is constituted by natives or citizens who are highly paid in relatively stable jobs and the secondary sector is comprised of migrants who are poorly paid and operate in poor working conditions. Because the secondary sector is not desirable, citizens avoid such types of work and thus employers look to other sources of labour, such as migrants. Therefore, migration may be caused less by push factors in source countries and more by pull factors in receiving countries.

According to Massey et al. (1998), the demand for labour stems from basic characteristics of the North, such as structural inflation, hierarchical constraints on motivation, economic dualism and ethnic enclaves, which are defined as containing "low-status jobs characterised by low pay, chronic instability and unpleasant working conditions, jobs that are routinely shunned by natives" (Massey, et al., 1998, p. 31). Segmented labour theory moves away from the more individualistic approaches by viewing migration in terms of structural elements of industrialised economies and begins to hint at the social aspects of 'class', which are attached to certain types of work. However, this body of work has been viewed as too simplistic, as some critics argue that there are more than two types of labour (the primary and secondary sector of the work force), which has led theorists to speak more of 'segmentation' in the labour market, rather than basic dualism (Samers, 2010).

### **2.2.5 Structuralist approaches**

There are many structuralist approaches to migration such as dependency theory, articulation of modes of production theory, world systems theory, globalisation, global cities, neo-liberalism and the migration-development nexus (Samers, 2010). Such approaches stem from Marxist schools of thought relating to topics of modernisation, industrialisation and capitalism (Massey, et al., 1998). Dependency theory, from which many of the other theories developed, argues that “developing nations [are] forced into dependency by structural conditions dictated to them by powerful capitalist countries” (Massey, et al., 1998, p. 34). Massey et al. (1998) argue that because land, raw materials, labour, material links, military links and ideological links move increasingly from local control to the global market, international migration increases as migration flows from the marginalised South to the more powerful North. The directions of such flows are also closely linked to past colonial powers and their former colonies (Hammar & Tamas, 1997).

### **2.2.6 Cumulative causation theory**

Based on the work of Myrdal (1957), cumulative causation theory argues that “capitalist development is inevitably marked by deepening spatial welfare inequalities” (de Haas, 2010, p. 233), meaning that migration is often an individual spatial movement from poverty to prosperity. According to this school of thought, “causation is cumulative in the sense that each act of migration alters the social context within which subsequent migration decisions are made, typically in ways that make additional movement more likely” (Massey, et al., 1998, pp. 45-46). Massey et al. (1998) notes that there has been a focus on ways in which migration is affected through this process: the expansion of networks, distribution of income and land, organisation of farm production, culture of migration, distribution of human capital, social labelling of work and the structure of production. In this approach, migration is seen as somewhat negative for the national and regional development goals of the South, because of the loss of human capital and material resources, while the North benefits from cheap, imported labour (de Haas, 2010). This approach holds to the notion that migration adds to the ‘development of underdevelopment’.



### **2.2.7 A case of simple economics?**

While all of these theories are useful in assessing certain aspects of international migration, it seems that each has significant drawbacks. According to Massey et al. (1998, p. 17),

there is no single theory widely accepted by social scientists to account for the emergence and perpetuation of international migration throughout the world, only a fragmented set of theories that have developed largely in isolation from one another, sometimes but not always segmented by disciplinary boundaries.

One of the significant disadvantages present in most of the theories is the emphasis on economic factors in migration. There seems to be a lack of acknowledgment that non-economic factors, such as happiness, cultural belonging, political participation, hopes and fears are part of migration at all. The migrant in most of these theories seems to be a completely rational individual who is devoid of many of these aforementioned psychosocial facets which are fundamental to the makeup of any person. People do not always act in rational, unemotional ways and, as Fischer et al. (1997b) point out, if everyone rationally assessed the macro-economic situations of the South compared to the North, surely everyone would migrate, especially those who had the financial resources to do so. And yet there is a large degree of immobility that exists. Therefore, it is clear that migration is about more than merely economic issues and that migration theory, even if it is focused primarily on macro-level factors, should also take micro-level psychosocial facets into account in order to give such theories greater levels of ecological validity.

In addition, it seems that many of the theories focus on only one level of analysis. Hammar and Tamas (1997) note that the ways in which different disciplines study international migration vary in focus between macro-, meso- and micro-levels. Macro-studies focus on differences between nation-states as the unit of analysis, while micro-studies focus more on differences that are perceived by individuals and small groups of individuals, such as households and companies. Meso-studies look at links between macro-levels and micro-levels. It seems necessary to take multiple levels into consideration in an analysis of migration, largely because migration itself is a multi-layered and complex phenomenon.

There has been a trend in migration theory, as in many fields within the social sciences, to move away from linear and cyclical models toward more synthetic, interactionist and integrative approaches. Theories which reduce complex, dynamic and multi-layered phenomena into simplistic, one-way models for the sake of academic presentation are no longer as common within much of the social sciences. In addition, it has become unpopular to assess phenomena on only one level without seeing it in relation to other levels of analysis. Massey et al. (1998, p. 50) state that, “rather than adopting the narrow argument of theoretical exclusivity, [they] adopt the broader position that causal processes relevant to international migration might operate on multiple levels simultaneously”. Therefore, a useful and integrative model would attempt to situate the micro-level in relation to its macro-level constraints and enablers. Without an attempt to appreciate the complex, dynamic and multi-layered nature of migration, any model used to explain or predict migration will ultimately be useless for anything other than academic debate.

### **2.3 Fischer et al.’s (1997b) migration framework**

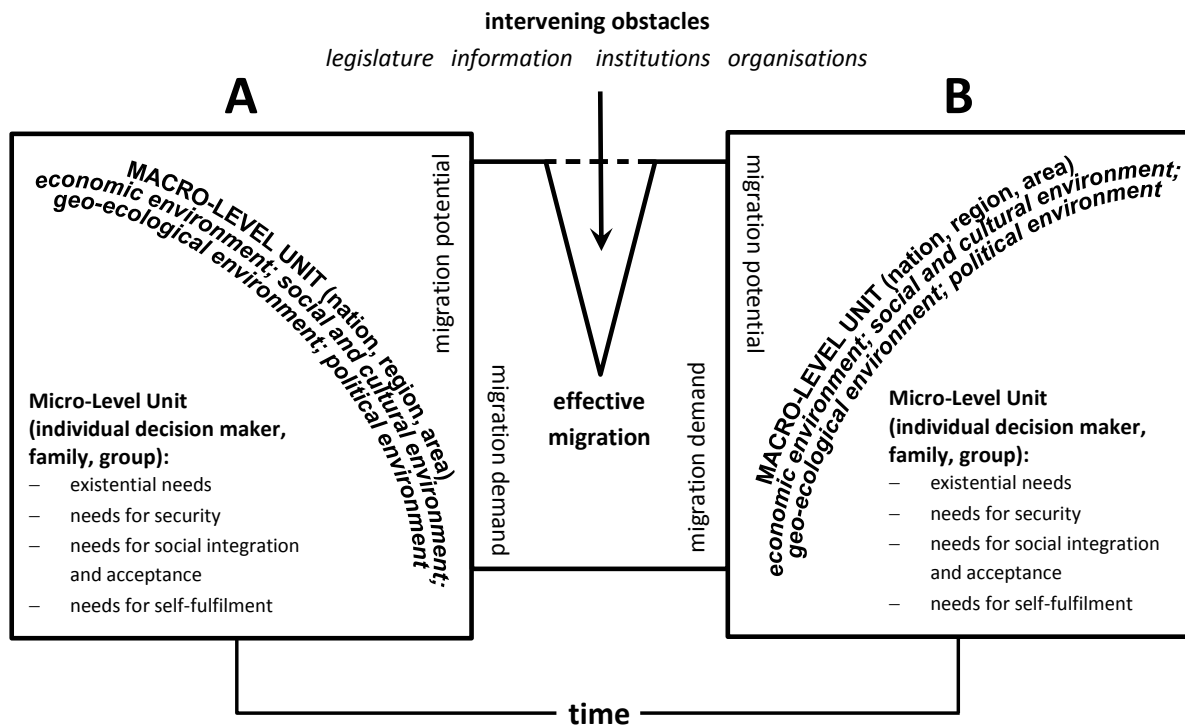
While it is generally accepted that no single theory will be able to explain every facet of migration, it is also useful to adopt a framework which allows one to think through migration theory in particular ways

#### **2.3.1 A holistic migration framework**

Fischer et al. (1997b) propose a framework (see Figure 1) that takes both macro-level and micro-level factors into account. According to their framework, migration is the result of a process of interactions between macro-level units (with A and B representing source and destination countries) in which an individual and their social group belong and are embedded. Migration is more likely to occur “if one expects a relative increase in quality of life at a new place of residence” (Fischer, et al., 1997b, p. 53) and wants to migrate (which is seen as ‘migration potential’). The assertion that quality of life is a crucial factor in migration is supported by previous studies (for example, Hsieh & Liu, (1983). The re-emergence of this more holistic understanding of migration is useful if one is to have a realistic and appropriate conceptualisation of international migration, with all of its complexities. ‘Migration demand’ constitutes opportunities for employment and a new life within the destination country. However, as is suggested by the notion of the individual being embedded in a wider context,

whether and when migration can and/or will occur can be either facilitated or hindered by intervening obstacles such as legislature, information, institutions and organisations.

**Figure 1. An interdisciplinary framework (Fischer, et al., 1997b, p. 52)**



Whereas most classical economic migration theories view the notion of ‘quality of life’ in terms of wealth and income levels, the proposed framework extends this concept beyond strictly economic factors. It goes beyond economic costs and benefits of migration by taking existential and socio-political aspects of life into consideration. Therefore, “on the basis of their own needs, desires and aspirations and under the influence of the macro-framework, individuals decide whether they want to migrate” (Fischer, et al., 1997b, p. 51). Massey et al. (1998, p. 50) argue that one must be “sceptical both of atomistic theories that deny the importance of structural constraints on individual decisions, and of structural theories that deny agency to individuals and families”. Fischer et al.’s framework seems to largely avoid this pitfall which is so common in migration theory.

In addition, Fischer et al. (1997b) extend the concept of ‘distance’ beyond that of geographic value to include notions such as cultural, linguistic or political proximity, where a greater distance in terms of these factors would increase the integration and adjustment costs to the individual. A greater distance (whether narrowly or broadly defined) between two macro-

level units is likely to reduce migratory flows because such a move is more drastic in terms of factors such as “socio-cultural, political and geo-ecological benefits and costs” (Fischer, et al., 1997, p. 57). This then also increases the risks involved in such a move.

This framework is more holistic than many other theories of migration, as it extends beyond purely economic migration theory and sees the migrant as more than simply an economic entity. According to Fischer et al. (1997b, p. 51), this type of model:

has a richer approach to the micro-level decision making, distinguishing between (a) existential economic needs, (b) needs for security, (c) needs for social integration and acceptance, and (d) needs for self-fulfillment. Secondly, it looks not only at the economic costs and benefits of migration but takes non-economic aspects of life such as peace, freedom, security, love, health and happiness, to mention just a few, explicitly into account.

### **2.3.2 A critique of the model**

While the proposed model is helpful in thinking through the phenomenon of migration, there are missing elements that may be crucial within migration theory, namely the issue of citizenship and a conception of time.

Samers (2010) distinguishes between four aspects of citizenship, namely citizenship as a legal status, citizenship as rights, citizenship as belonging, and citizenship as civic and political participation. Citizenship can be viewed as part of one’s identity as a member of one’s home country or as an aim in itself if one wishes to make another country one’s home. On a macro-level, citizenship is a core issue within international migration as the socio-political status of the migrant is at stake within both national policy and practice (Ahmed, 1997). On a micro-level, the political aspect of citizenship, namely direct democracy, which is defined as “individual political participation possibilities” (Frey & Stutzer, 2000, p. 936), is linked with subjective well-being or happiness (Frey & Stutzer, 2000). In other words, possibilities (or lack thereof) to actively participate in one’s socio-political context have direct implications for one’s happiness or sense of subjective well-being. In this sense, elements of citizenship can have an important effect on the psychological state of potential migrants. Thus, any discussion regarding international migration intentions should at least

point towards the concept of citizenship in order to incorporate this important aspect of the process.

In an analysis of migration and non-migration, Ahmed (1997) discusses the notions of voice, exit and migration based on the work of Tung (1981, in Ahmed, 1997). According to this model of exit-voice, there is a dynamic relationship between migration and political participation. If a national government fails to meet the expectations of their citizens and those citizens are unable to effectively participate in the socio-political environment, citizens have three basic possible responses. Firstly, autism occurs when, “rather than trying to change his environment, the individual tries to adjust to the environment” (Ahmed, 1997, p. 175). Secondly, exit occurs when the individual leaves the present environment in favour of a new and different one, usually when it is assumed or believed that it would be impossible to resolve the dissonance between the individual and their environment. This is when migration occurs. Thirdly, voice occurs when one attempts to change the environment from within through “participation and representation” (Ahmed, 1997, p. 175). Because it is suggested that migration or non-migration is linked to the levels of direct democracy, citizenship an important element within the present discussion.

In addition, Mattes and Richmond (2002) argue that decisions about whether to relinquish one’s home country citizenship, apply for citizenship in a destination country or have dual citizenship are all key issues within the discussion regarding migration because these factors can predict one’s intention to stay or return. This is an important consideration within a discussion of health professional migration because whether they opt for permanent or return migration represents either immense losses or immense gains respectively in terms of much needed human capital.

In addition, the notion of time is highlighted within the framework, contributing toward the dynamic nature of the decision to migrate. Although Fischer et al. (1997b) draw attention to the issue of time within migration, the exact nature of what ‘time’ means or consists of is not explicitly discussed. It could be argued that ‘time’ can be viewed as four interpretations of the concept: 1) the timeframe until an intended migration, 2) the duration of migration, 3) a specific time in history and/or 4) a specific time in the life of an individual. These elements of time are discussed further below.

Firstly, as has already been noted, the intended migration duration is of significance when discussing skilled migration. The difference between permanent and return migration holds great importance for nations of the South in terms of the potential loss of human capital in the form of skilled labour (Williams & Baláž, 2008). Permanent migration often includes the transfer of citizenship, financial investments and human capital from the home to the destination country (Mattes & Richmond, 2002). Over time and by the second generation, most ties and commitments in the home country have declined or disappeared completely (Lucas, 2005). In this sense, permanent migration really does represent a loss for the home country which, in the case of skilled labour such as health professionals, can be linked with the brain drain phenomenon which will be discussed in the following section regarding the migration-development nexus.

Short-term migration, on the other hand, can produce gains for the home country as the migrant returns with increased human capital, knowledge of international practices and with any finances which have been saved while abroad (Lucas, 2005). In fact, there has been a renewed interest in policies such as temporary migration programmes, which are argued to be largely beneficial for both sending and receiving countries in terms of meeting labour market needs and maximising developmental impact (Ruhs, 2006). Both temporary and permanent migration will be analyzed in greater detail as part of the discussion around the migration development nexus, with specific reference to the brain circulation debate.

Secondly, the timeframe until an intended migration is also interesting because the passing of time can affect potential migrant's opportunities and abilities to successfully engage in migration (Malmberg, 1997). As stated by Mattes and Richmond (2002, p. 28), "the longer one takes to make the move, the more likely that other factors might come into play to change the decision altogether".

Thirdly, the notion of migration taking place within a certain time in history speaks to the existence of national and global forces, such as colonisation, globalisation and industrialisation, which form the background to a great deal of the current migration theories, policies and trends (Moses, 2006). Malmberg (1997, p. 44) notes that "international migration may to a large extent be determined by occasional and situational conditions" which take place in both home and destination countries. For example, the election of an

oppressive government in nation A coupled with relaxed immigration legislation in nation B may trigger migration flows from A to B.

Finally, the time horizon of individuals is an important aspect of the more general notion of time because of the socio-psychological costs of international migration. Malmberg (1997) notes that factors such as aging, adjusting to a different culture, learning new languages and becoming a citizen of a destination country are all critical considerations within the decision to migrate.

With the incorporation of the concept citizenship and a more specific consideration of time, the framework which has been proposed by Fischer et al. (1997b) is helpful in thinking through the issues related to South to North migration. Many of the issues related to this type of migration are couched within the discourse of development, which will now be discussed in some detail.

## **2.4 The migration-development nexus**

Given the variety of aims, political agendas and units of analysis in migration research, a key emergent discourse in this field focuses on the relationship between skilled migration and development. This discourse is important to consider in this study because one of the critical concerns with health professional migration is tied directly to the implications for development in the South and the relative (unfair) advantage for the North. Samers (2010) notes that the migration-development nexus is not a theory as such but that it is useful in connecting the various themes and issues within international migration literature. There have been conflicting trends and views around the relationship between migration and development, some of which coincide with theories of international politics and economics, often related to the effects of globalisation (Samers, 2010).

As trends in these arenas have shifted, so the academic theories have also varied to suit the discourses of the time. Faist (2008) notes that the notion of 'brain gain' grew in popularity during the 1960s, as it was believed that migration would lead to increased national development among nations of the South through remittances, knowledge transfer and return migration. Then in subsequent decades, the term 'brain drain' gained currency as it was

believed that the migration of skilled labour would be detrimental to national development in the South.

More recently, the term ‘brain circulation’, which is believed to be more neutral, has become popular as theorists claim that the international migration of skilled labour is largely mutually beneficial for both sending and receiving countries. However, the “brain distribution” debate (Williams & Baláz, 2008, p. 30) continues to this day regarding the outcomes of skilled migration for the South. This debate centres on the question of whether skilled South to North migration is mutually beneficial or whether such international movement is only advantageous for the North, leaving the South without the skills and human capital that are necessary for national growth and development. In addition, theorists use these terms in order to speak about international skilled migration by framing the phenomenon in specific ways to suit political, economic and moral agendas. In other words, a theorist protesting against the recruitment of health professionals from South Africa by the U.K., the U.S.A. or Canada is more likely to speak in terms of a ‘brain drain’, whereas a theorist advocating for less restrictive immigration laws to facilitate more fluid movements of professionals across international borders will likely use terminology such as ‘brain gain’ or ‘brain exchange’.

#### **2.4.1 Skills defined**

According to Duncan (2008), migrants who are highly skilled are the most mobile and account for the majority of legal international migration. There is some debate about the definition of ‘skilled migration’ and the utility of such definitions. Generally, the notion of ‘skills’ is measured through somewhat selective means such as “years of schooling, wage levels, formal qualifications, occupations, courses and more formalised types of training” (Williams & Baláz, 2008, p. 26). However, there are many critics of this view of skills as this definition neglects to recognise work experience and special and/or informal training (McDonald & Crush, 2002a). In addition, McDonald and Crush (2002a) argue that what is considered to be a skill is somewhat relative, as shortages of certain skills may exist in some contexts but not in others. Thus, it may be more accurate to think of skilled migration in terms of human capital, which can generally be defined as “the knowledge, skills and experience which a person can acquire” (Jauhiainen, 2008, p. 97).



In his discussion around a broadened definition of development beyond mere economic factors and outcomes, Lucas (2005) notes that some professions are of particular significance to national development. He argues that in order to provide for basic needs and healthcare, access to quality health professionals is important, just as access to competent educators is important in order to provide quality education. This implies the contextual nature of the concept of 'skills'. Likewise, McDonald and Crush (2002a, p. 7) contest that a skilled person is "anyone who has special training or work experience which is in relative short supply in relation to the labour market". In addition, they note that what may be a highly valued skill in one country may be much less important in another, using the example of teachers and artisans in Lesotho, who are considered to be skilled because they are in short supply in Lesotho and are thus an important source of human capital for that nation. Thus the notion of skills and scarce skills are highly context-dependent relative to supply and/or scarcity.

#### **2.4.2 What is development?**

There is also some disagreement among theorists about how broadly to define development. Generally, development is measured in economic terms, such as per capita income, a high degree of industrialisation, significant levels of urbanisation and other income indicators (Hardiman & Midgely, 1982). This type of development is often viewed in terms of macroeconomics, based on national development, and microeconomics, based on community or household development (Massey, et al., 1998).

Yet there are some theorists who argue for a broader understanding of development as "the process of expanding the real freedoms that people enjoy" (Sen, 1999, in de Haas, 2007, p. 833). De Haas (2007) suggests that this broader conceptualising of development, by including not only economic factors but social factors as well, may be more useful in understanding links between migration and development, such as education, access to information, welfare, freedom of expression, safety and security and other social indicators.

Before moving on to discuss views regarding the relationship between migration and development, it is important to first discuss what development entails. This concept alone has been the topic of much heated debate and it is not the intention of this discussion to enter into a full analysis of development as such. Some relevant key theories of development,

namely functionalist theory and structuralist theory, will be reviewed briefly and then development will be discussed in terms of international migration.

#### **2.4.2.1 *Functionalist theory***

Functionalist theories state that “countries [develop] economically by progressing through an orderly series of evolutionary stages culminating in modernisation and industrialisation” (Massey, et al., 1998, p. 34). Modernisation theory, which is an example of functionalist theory, has shaped much of the popular understanding of development. A key modernisation theorist is Rostow (1960), specifically noted for his seminal work entitled ‘The stages of economic growth’. According to this work, development follows a number of sequential stages, namely traditional society, preconditions of take-off, take-off to sustained growth, drive to maturity and age of high mass consumption. The basis of this progression is that traditional values must be replaced with modern, industrialised values in order for any nation to progress through the inevitable process of modernisation where the importance of science and technology lead to economic and industrial progress. Such progress is thought to reap rewards in terms of social welfare programmes, improved formal education, housing, health care, and greater contact with overseas economies (Parr, 2001).

Much of the critique of modernisation theory is linked to its ethnocentrism. Within this approach, the use of the term development is extremely value-loaded as it “implies an assumption that something is moving from a lower, less differentiated status to a higher, better and more differentiated one” (Hammar & Tamas, 1997, p. 18). It is often assumed that there is a natural progression as nations move from being less to more ‘developed’ (read: industrialized and/or Westernised and/or modern). In fact, much of the literature uses the terms ‘South’, ‘developing nations’, ‘Third world’ and ‘less industrialized nations’ interchangeably, implying that the North is the standard to which the South should be compared and that the North has arrived at a stage of progress which the South has yet to achieve.

#### **2.4.2.2 *Historical-structural theory***

In response to functionalist theory, Massey et al. (1998, p. 34) explain that historical-structural theory argues that

...because political power is unequally distributed across nations, the expansion of global capitalism acted to perpetuate inequalities and reinforce a stratified economic order. Rather than experiencing an inexorable progression towards development and modernisation, poor countries in reality were trapped by their disadvantaged position within an unequal geopolitical structure, which perpetuated their poverty.

Structuralist approaches to social and economic change and development have much of their roots in Marxist understandings of capitalism (Ahmed, 1997) and are often referred to as ‘macro’ and/or ‘political economy’ understandings of development (Samers, 2010).

Dependency theory, articulation of modes of production, world systems theory, globalisation, neo-liberalism and the migration-development nexus are all examples of structuralist approaches to development.

Dependency theory, specifically, is often used in discussions around migration and development. Dependency theory holds that every nation participates in a global capitalist economy and can be categorised as either ‘core’ or ‘periphery’. Power is concentrated in the core, which is often also viewed as the North, while periphery countries, namely in the South, are affected by and subject to the interests and movements of the core (Ahmed, 1997). A central theorist within this approach is Frank (1969), who argued that global capitalism has worked to effectively hamper organic development within much of the South. Investments made by the North into the South are said to disrupt natural development, allowing the North to manipulate, use and further marginalise the South. Thus Ahmed (1997, p. 169) argues that “ties of dependence of the periphery vis-à-vis the centre did not allow genuine self-perpetuating development in the periphery”.

While structuralist approaches, and dependency theory in particular, have made great contributions to understandings of development, there have been critiques of this school of thought. Samers (2010) notes that such approaches are often somewhat deterministic and do not take into consideration factors such as human agency, the role of nation-states at different levels and different forms of migration across time and space. Ahmed (1997) argues that dependency theory somewhat oversimplifies the complex relationships between South and North. He posits that a primarily economic focus allows dependency theory to largely neglect the impact of diaspora in both sending and receiving countries. In addition, he also states that the relationship between the South and North is more interdependent due to issues

such as remittances and return migration, although he does concede that “the interdependent relationship remains massively in favour of the center” (Ahmed, 1997, p. 171).

### **2.4.3 Migration and development**

Much of the thought regarding the links between migration and (economic) development relates to cause and effect debates and whether the relationship is a linear one (de Haas, 2007). Some theorists claim that migration leads to development on a macro-scale by means of remittances, increased productivity and an increased incentive for education, i.e. migration can lead to positive development within sending countries (de Haas, 2006; Mountford, 1997). Massey et al. (1998, p. 254) caution that “international migration carries considerable potential for national economic development, but that this potential is often unrealised in practice”. Others suggest that increased development may lead to greater mobility, greater access to information regarding migration and increased aspirations to migrate, leading to an increase in migration itself (de Haas, 2007).

It is generally accepted that “migration is both a cause and effect of broader development processes with which it is intertwined” (de Haas, 2007, p. 838). Thus the migration-development nexus is ultimately a dynamic and complex relationship which cannot be easily generalized about nor should one fall into the trap of determinism that migration will *always* lead to development or that development will *always* lead to migration (de Haas, 2006). Instead one must assess this relationship within the context of specific societies and their policies regarding both migration and development. Much of the potential benefits of the migration-development nexus are dependent on the migration policies of both sending and receiving nations, which still operate as sovereign states despite the increasing changes brought by globalisation (Moses, 2006).

### **2.4.4 International brain distribution**

There has been much debate within migration theory around the impact of skilled migration in terms of development for the South, which Williams and Baláž (2008, p. 30) refer to as the ‘brain distribution’ debate. De Haas (2010) notes that there are optimists and pessimists in the debate regarding the outcomes of skilled migration for development within the South. Generally, pessimists (based on structuralist understandings of social theory) conceptualize South to North migration of skilled labour as ‘brain drain’, whereas optimists (based on

functionalist paradigms of social theory) prefer to refer to the same phenomenon as ‘brain gain’ or ‘brain circulation’ (Samers, 2010). This debate is particularly salient when addressing the topic health professional migration because of the crucial role that such human capital plays in national development strategies.

#### ***2.4.4.1 Migration optimists***

There is a growing body of thought which attempts to construct international skilled migration as ‘brain gain’ (Duncan, 2008; Stark, Helmenstein, & Prskawetz, 1997; Templeton, Deehan, Taylor, Drummond, & Strang, 1997), ‘beneficial brain drain’ (Beine, Docquier, & Rapoport, 2001, 2008; Commander, Chanda, Kangasniemi, & Winters, 2004; Commander, Kangasniemi, & Winters, 2003) and/or ‘brain circulation’ (Duncan, 2008; Saxenian, 2005; Schmitt & Soubeyran, 2006). In some instances, these terms are used interchangeably and, in general, they refer to either direct or indirect benefits which result from the phenomenon of South to North skilled migration.

The ‘beneficial brain drain’ hypothesis rests largely on two characteristics (Kangasniemi, Winters, & Commander, 2004). The first is that society and its economy benefits from higher skills, as is postulated by Stark et al. (1997). Beine et al. (2001) note that, while the emigration has a negative effect by depleting the sending economy of skilled labour (what they call a ‘drain effect’), there is the possibility that there is an indirect beneficial outcome through encouraging human capital because migration prospects promote investments in education (what is termed as the ‘brain effect’).

The second issue is the “mechanism that generates an increased incentive to acquire education but leaves some skilled workers back at home” (Kangasniemi, et al., 2001, p. 5). Stark et al. (1997) argue that there are higher educational returns in high-income countries and this may motivate individuals to obtain higher education in order to emigrate. Employers in the destination country initially pay all workers the same wage based on the average within that industry. However, employers are then able to observe the skills, abilities and productivities of each individual worker and can adjust their wage accordingly. While this is desirable for highly skilled workers who would obtain an increase in wages, low-skill workers’ wages are decreased following the initially higher wages. It is assumed that such a wage adjustment may then prompt return migration in such workers.

#### *2.4.4.1.1 Remittances*

It is widely accepted that remittances play a significantly positive role on both a macro and micro scale for sending countries within the migration of skilled labour, including health professionals (Samers, 2010). Remittances are capital which is either brought back or sent back to the home country from the destination country, usually from the income of the migrant (Lucas, 2005). However, it has not been fully established whether remittances categorically positively affect economic development, because this depends on whether and in what form such income is consumed or invested in the source country (Duncan, 2008).

The two most common uses for remittances are saving and/or sending income home to support relatives, as was found by Kangasniemi et al. (2004). However, among their sample, there were significant differences between countries in term of the purposes for remittances. Immigrants from high-income countries generally saved remittances in order to spend on return and those from low- to middle-income countries generally used remittances immediately to support family in the home country. After having received remittances sent by the migrant, families are immediately able to buy food, pay for education and/or clothing and other household needs or they can alternatively save or invest in the form of land or property (Stalker, 2001). It could be argued that, in terms of impact on individual households, remittances are able to alleviate poverty by providing for basic needs (Duncan, 2008).

At a macro-economic level, remittances can constitute an important source of foreign exchange between the South and the North and is often a strategy for national development (Duncan, 2008; Lucas, 2005). According to Moses (2006, p. 175), remittances have become an important source of foreign income in the South and often “the size of these remittances dwarfs foreign aid, and represents a substantial (and stable) source of development capital in poor countries”.

Despite evidence that remittances are an important source of income, both at the micro and macroeconomic levels, it is only possible for the South to benefit from this resource if policies are in place which allow for the flow of such capital (Duncan, 2008). Stalker (2001) notes that because formal channels of transferring money often cost a great deal in terms of transaction fees, exchange rates and other such financial policies, migrants often send remittances through informal channels or do not send money regularly but simply return with

a lump sum instead. Stalker (2001) therefore argues that it is largely the responsibility of the governments of sending nations to make remittances more easily accessible through amendments to economic policies to ensure that the full benefit of remittances is being achieved.

#### *2.4.4.1.2 Return migration*

It is important to note that not all international migration is permanent and the return of temporary migrants can potentially benefit the sending country (Duncan, 2008).

Kangasniemi et al. (2004, p. 19) state that potential and actual return migration is crucial in because “returning migrants potentially bring human capital, networks and technology with them, and the temporary nature of migration can transform the brain drain into a highly beneficial ‘brain circulation’”.

In his discussion around return migration, Lucas (2005) notes that there are three basic possible reasons for return migration, namely altered circumstances, achieving target saving or failed aspirations. Altered circumstances refers to a change in circumstances in either the sending or receiving nation, either at a macro-level or individual level. Macro-level changes can include either a recession in the receiving country, an economic boom in the sending country or other noneconomic changes, such as changes in governments or a decline in opportunities for prosperity. Individual conditions can include unexpected events at home which require returning or contextual changes due to one’s age. Target saving refers to migrants who planned their return before their actual migration, indicating that the time in the receiving country is relatively fixed. The migration overseas is thus a time used for extreme saving of income which will be used in the sending country. Failed aspirations can also cause a migrant’s return due to either insufficient resources to remain in the destination, a migrant’s true ability may prove inadequate or the migrant may simply feel disillusioned if they find that their migration has not been as positive as was hoped for.

It is possible for governments in both sending and receiving countries to create proactive policies which strongly encourage return migration (Kupfer, Hofman, Jarawan, McDermott, & Bridbord, 2004; Ruhs, 2006), leading to ‘brain circulation’. Such policies include employment guarantees, financial support in the form of travel expenses or housing allowances, policies which limit time in receiving countries and the creation of specialized institutions which would attract return migration (Lucas, 2005).

#### *2.4.4.1.3 Transnational networks*

When a professional migrates, it is very rare that the individual completely cuts themselves off from their country of origin. In fact, Samers (2010) argues that diasporic networks have become a widely accepted benefit of migration, regardless of the duration of their residence in a host country, although Lucas (2005) states that, in the case of permanent migrants, the links and commitments to a home country eventually disappear. Diaspora can be defined as “the spreading out of certain communities from an original homeland to their regrouping and the formation of new communities in a ‘new’ land” (Samers, 2010, p. 95). However, the term ‘transnational networks’ or ‘diasporic networks’ relates to “social, cultural, political and economic links that migrant communities maintain across international borders” (Samers, 2010, p. 95). A crucial role of diaspora connections is that they may be influential in the developmental prospects of the source country (Faist, 2008; Massey, et al., 1998). This occurs when immigrants provide the destination country with ‘insider’ information which informs and promotes bilateral trade, skills transfer and business transactions.

Lucas (2005, p. 208) states that “international migrants often possess better and more reliable information about their own origins, and hence facilitate transaction in this increasingly complex setting”. According to Newland (2003, in Lucas, 2005), globalization and advances in transportation and communication technology have made ongoing links between the diaspora and their home country stronger than was possible in the past. Although it is often assumed that professionals who have migrated are a complete loss to their home country, these mechanisms can create conditions under which the source country can still benefit from the skills and human capital of professional emigrants.

Duncan (2008) notes that the extent of any ‘brain gain’ which may result from transnational networks depends largely on the size of the immigrant network and on the capacity of the source country to benefit from this resource through mechanisms such as policies which encourage ties between migrants and their home country. Lucas (2005) states that benefits from transnational networks depend on the degree to which the migrant is assimilated into the host country’s culture and whether the migrant intends to return to the home country. If the migrant is highly assimilated and does not intend to return, it is possible that links with the source country will decrease over time, negatively affecting gains which could occur due to remittances, trade, capital flows and technology or knowledge transfers. However, Lucas



(2005) also notes that many nations from the South generally do not experience much of the benefits of such ‘brain gain’ because such countries rarely have relevant mechanisms in place.

#### ***2.4.4.2 Migration pessimists***

In much of the literature, it is assumed that skilled migration has largely undesirable consequences for national development, such as the loss of high-skill and highly educated workers or professionals (therefore leading to a loss of human capital) and national economic losses in terms of per capita output and national welfare (Stark, et al., 1997). Samers (2010) notes that migration pessimists focus on two primary negative consequences of migration: the failure of remittances to lead to broader development on a national scale, and ‘brain drain’.

##### *2.4.4.2.1 Remittances*

Although the amount of capital sent back to the South in the form of remittances is substantial (Moses, 2006), it is also important to see, through the examination of remittance-use studies, how remittances and savings from such remittances are actually spent. In their review of remittance-use studies, Massey et al. (1998, p. 258) note that many studies have found that international remittances “are spent on consumption rather than production”. It seems that many households use remittances for consumption, such as cars, houses, clothing, food and education and not necessarily on productive investment for national purposes (Massey, et al., 1998; Samers, 2010).

While remittances are of great use on a micro scale in terms of providing extra income to households to use on basic necessities, much of the evidence points to the reality that “...the effects are essentially short-run and consumptive with no major impact on the underlying socio-economic structure of the sending country” (Fischer, Martin, & Straubhaar, 1997a, p. 126). Samers (2010) adds that remittances may even negatively affect the local economy as some remittance households may withdraw from the workforce and become dependent on their remittance income. Inflationary pressure may result as luxury goods, imported goods and homes are bought, thereby raising prices of basic goods (Fischer, et al., 1997a; Samers, 2010). Thus, according to the pessimistic view of migration and development, migration may actually have a negative effect on the macro-economy and thus diminish national development.

Again, it must be noted that, for the potential for economic development to occur on a macro scale, the sending country must have infrastructure and policies in place for remittances to be invested in the local and national economy (Fischer, et al., 1997a; Massey, et al., 1998). However, because many nations within the South do not have such systems, migrants may not invest their remittances due to a lack of trust in governments where corruption and mismanagement are common (Samers, 2010). Thus it is clear that, while remittances can have a positive economic effect in the South, this potential is largely untapped due to a lack of policies which could make better use of this resource. Until such policies are in place, there is the possibility that remittances may have some negative effects within sending countries, such as the raising of inflation because of purchases of imported luxury goods and the development of a remittance economy as opposed to a more organic, locally-driven, self-sustaining economy.

#### *2.4.4.2.2 Brain drain*

The greatest argument among migration pessimists relates to ‘brain drain’. An overwhelming trend in the flow of skilled international migrants is from the South to the North. Das (1992, in Matlapeng, 2000, p. 200) defines ‘brain drain’ as “a flow of skilled and talented people out of countries where they can make the greatest contribution to human welfare”. The loss of human capital in the form of skilled labour is a significant one as sending nations stand to lose both in terms of the investment into the education of skilled professionals and also the contribution which such professionals would have made to society within the sending country (Lucas, 2005).

Many theorists have constructed skilled migration as a potentially positive phenomenon through terms such as ‘brain gain’, ‘brain chain’, ‘brain exchange’ and ‘brain circulation’. Yet it seems that some of these views ignore the effects of brain drain on nations with the least resources, both economically and in terms of human capital. For example, in his discussion of de Haas’s (2006, p. 32) notion of “global brain chain”, Samers (2010, p. 83) gives the following example: “doctors from Canada migrate to the US, and doctors from South Africa migrate to Canada”, attempting to illustrate that doctors are not all being sourced from one country or region. There are two points that are of interest in this illustration.

Firstly, the level of human and economic capital decreases the farther one moves down the chain. In other words, in line with ‘brain drain’ understandings of migration, more resourced countries are benefitting from skilled migrants from less resourced countries. Secondly, it is interesting that Samers stops the chain at South Africa. If one were to continue the chain, it would probably continue as: ‘...doctors from Zimbabwe migrate to South Africa, and doctors from Ghana migrate to Zimbabwe’. The point is that, if the flow of migration is from ‘developing’ to more ‘developed’ nations, it begs the question of where such a ‘chain’ would end. Surely, within this logic, the chain would eventually stop with the very least resourced nations who would also have some of the greatest needs for health care professionals.

Williams and Baláž (2008, p. 31) note that

there are clear losers and winners in this redistribution of welfare. The losers are the sending countries which paid for the early care and education of the migrants (that is, invested in their human capital, while the winners are the developing countries which have effectively off-loaded their investment costs to the LDCs [Less Developed Countries].

This line of argument is clearly expressed by Matlapeng (2000, p. 201) who states that the South “simply cannot afford to supply countries that are already well supplied with trained and skilled people with their trained staff”.

Duncan (2008, p. 259) maintains that “an increasingly common trend among developed countries – the major destination for many migrants – is the recruiting of global talent. A close look at immigration policies of developed countries reveals an obvious intent by these countries to select immigrants on the basis of skills”. While some would argue that the migration of skilled labour is not great in absolute terms, the issue is often around the relative numbers of skilled migration. In other words, “what constitutes a small proportion of personnel in the North is a large one for the South” (Faist, 2008, p. 33). Therefore, much of the literature addressing brain drain calls for social justice on an international scale, where the North should refrain from recruiting from the South, which is already experiencing economic, health and human capital crises (Crush, 2002; Singh, Nkala, Amuah, Mehta, & Ahmad, 2003).

## **2.5 The case of health professional migration**

In the debate around the semantics of ‘brain drain’, ‘brain gain’ and ‘brain circulation’, there is often a note regarding Africa and its deteriorating public health services. While theorists can argue for positive effects from skilled migration in many sectors and from many destinations, it seems that such gains are scarce within Africa’s health sector. Duncan (2008, p. 266) notes that “human capital flight results in a loss of public investment in education...and a decrease in knowledge-intensive non-tradable services such as medical care.”

Health professionals are often categorised as highly skilled, highly knowledgeable and constitute a great deal of human capital on both a national and an international scale (Williams & Baláž, 2008). The problem of health professional migration from the South should be viewed as a complex and dynamic one. Buchan and Dolvo (2004, p. 180) argue that the international migration of health professionals is not a one-way linear issue, but that

the dynamics of international mobility, migration and recruitment of health workers are complex, covering individual choice, motivations and attitudes to career development; the relative status of health workers in different systems; the differing approaches of country governments to managing, facilitating or attempting to limit outflow or inflow; and the role of recruitment agencies as intermediaries in the process.

### **2.5.1 An unequal global shortage**

The North is facing the dilemma of caring for an aging population while their health care workforce is also aging (Buchan & Sochalski, 2004). In addition, there has been a decrease in the number of people enrolled into nursing programmes, meaning that a shortage of domestically trained health care professionals has developed. The reasons for the shortage of nurses in the North are related to not training, producing and retaining enough health professionals to meet the demand of societies which are experiencing largely chronic conditions (Aiken, et al., 2004). As a result, many nations belonging to the North (such as the U.S.A., U.K., Australia and Canada) must decide how this crisis can be addressed in the long-term, and how more immediate short-term measures should be handled.

However, it must be noted that the notion of what constitutes a shortage of health professionals is relative, both in terms of supply and demand (an economic perspective) or in terms of value judgements (a normative perspective) (Zurn, Dal Poz, Stilwell, & Adams, 2004). Bundred and Levitt (2002, p. 246) argue that “modern medicine in the more-developed world creates an insatiable demand for doctors, and globalisation offers easy solutions to the trade in physicians”. Therefore, although there is a ‘shortage’ of health professionals in the North, this shortage is much less extensive in comparison to that experienced by the South. This can be seen in data presented by Aiken et al. (2004), reporting the ratios of registered nurses (RN) per 100 000 population. Some of these countries included those from the North, such as the US (782 RNs), UK (847 RNs), Australia (941 RNs) and New Zealand (841 RNs), while the numbers for the South were much lower, such as South Africa (472 RNs), Zimbabwe (129 RNs), Nigeria (66 RNs) and India (45 RNs). Clearly, the South is experiencing a much greater normative shortage than are their North counterparts.

In addition, Zurn et al. (2004) also differentiate between a quantitative imbalance and a qualitative imbalance. The former indicates that there are not enough professionals in terms of the quantity of candidates for a particular position and the latter indicates the quality of candidates considered to fill a position. It could be argued that, if the best of the South’s health professionals continue to migrate North, a trend which is evidenced in much of the research and literature around international skills migration (Beine, et al., 2001, 2008; Stark, et al., 1997), the South will experience both a quantitative and qualitative skills imbalance in relation to the North.

### **2.5.2 Recruitment**

According to Buchan and Sochalski (2004), countries within the North have two basic options in order to boost their supply of health professionals. They can either improve retention of professionals who are already working or they can increase their recruitment base. The trend has been for the North to recruit on an international scale (Aiken, et al., 2004) and this is a trend that researchers have noticed has increased in countries such as the U.K., Ireland and the U.S.A. since the mid-1990s (Buchan & Sochalski, 2004). In addition, it appears that these Northern countries are also drawing on a larger number of countries for recruitment, most of which are low-income or lower-middle income countries of the South.

Buchan and Sochalski (2004, p. 591) argue strongly that “from a global perspective however, instead of being a solution, recruiting nurses from overseas often serves only to redistribute the shortage to a country less well equipped to deal with it”.

It is necessary to note the distinction between active and passive international recruitment. Passive recruitment can include employing individuals from other countries who apply for a post, employing immigrants who have been unemployed, employing immigrants who are already employed in another sector within the destination country, or identifying and promoting career opportunities via the internet (Buchan & Dolvo, 2004). Buchan and Dolvo (2004) argue that such recruitment has not been addressed in much of the policy around health professional recruitment and is very common, especially within the private health sector.

A more active mode of recruitment, which has been labelled by some as ‘poaching’ (Crush, 2002; Singh, et al., 2003), occurs when recruitment agencies are contracted within the North to locate and hire health professionals from the South by “using a range of incentives and institutional mechanisms” (Commander, et al., 2003, p. 1). Crush (2002, p. 148), among many others, strongly objects to such practices, calling these methods “organized skills raiding” on a global scale. This has largely been deemed unethical and some countries, such as the U.K., have created regulations such as the Code of Practice on International Recruitment in order to more effectively manage unethical recruitment (Aiken, et al., 2004; Buchan & Dolvo, 2004). However, although the notion of social justice and ethics are part of the international rhetoric used in the South to North migration of health professionals, there seems to be a lack of responsible and ethical management, both within the private and the public sectors (Martineau, et al., 2004).

In addition to the very active recruitment strategies adopted by the North, many such destination countries’ immigration policies explicitly target and attract skilled immigrants. National borders and sovereignty can act as barriers to migration and “the restrictiveness (or laxness) of host country policy influences the magnitude of legal immigration to the destination” (Duncan, 2008, p. 262). Many countries, such as Canada, the U.K., Australia and New Zealand, utilise a points system as part of their immigration policy to attract and ease the immigration of educated and experienced professionals. Points systems are often intended to compensate for local or national workforce shortages in the destination country

and are a speedy and cost-effective means by which to boost its economy and public services (Duncan, 2008).

### **2.5.3 International migration data on health professionals**

A brief glance over local newspaper headlines within recent years reveals troubling trends in health care, health care systems and occupational conditions among health care professionals in South Africa. Some headlines include: “State doctors want to get paid” (Sapa, 2011), “Shortage of rural doctors critical” (McLea, 2010) and “High price to nurse staff shortage at hospitals” (Mokgata, 2007). A trend which has highlighted the crisis within the health sector has been the series of, at times violent and dramatic, health professional strikes, as is seen in headlines such as: “KZN braces for doctors’ strike” (Oellermann, 2009) and “Better not get sick today: striking KwaZulu-Natal and Eastern Cape medics say they will not treat patients” (Lekotjolo & Nair, 2009).

While strikes have been used by many health professionals as a form of mass action, another phenomenon which has occurred relates to health professionals ‘voting with their feet’ as they migrate to countries such as the U.S.A., the U.K., Australia and New Zealand in order to seek better working conditions, pay and general security. This phenomenon has been reflected in headlines such as “Billions lost as doctors flee SA” (Keeton, 2004) and “SA’s doctor brain-drain” (Huisman & Masondo, 2009). One could argue that such media headlines are often sensationalized and may not necessarily reflect the reality presently facing the health sector in South Africa and other similar nations. Agenda-setting research has shown that the media is strongly driven to increase ratings through sensationalised stories (“High cost of sensationalism,” 2004). There are also strong links between media salience and public opinion (Kiousis & McCombs, 2004). However, there are journalists such as Kristof and WuDunn (2009) who call for greater accuracy in both the media and academia so as to present a more accurate view of real world indicators to the public. Because of a possible mismatch between the media agenda and real world indicators, it can be dangerous using such headlines as a gauge of the current state and attitudes of health professionals in South Africa and the South in general.

However, one must also recognize that, while such coverage may be sensationalized, health professionals in much of the South are facing a range of critical professional challenges, such

as human resource crises in the health sector and a high burden of infectious diseases, such as HIV/AIDS (McCoy, et al., 2008), as well as non-professional difficulties which are common in the South, such as personal safety, political and economic stability and the lack of possibilities for prosperity for one's family (Stilwell, et al., 2004). There is an urgent need to collect reliable, valid and relevant data in order to appropriately assess, plan for and address the migration of health professionals from nations such as South Africa. This data must also be responsibly disseminated to the public in order to inform society regarding the reality of health professional migration.

There has been a long-standing interest in the migration of health professionals, both from rural to urban settings within a nation and also at a global level from the South to the North (Buchan & Sochalski, 2004, p. 57). One of the earliest pieces of research addressing the issue was conducted by Mejía (1978), which is noted by Bach (2004, p. 624) to be a “landmark study of physician and nurse migration”, which focused primarily on push and pull factors in health migration.

Despite attempts by early studies to achieve rigorous standards, the reliability of this type of research is difficult to establish (Stilwell, et al., 2004). This problem is common among migration studies because there is no standard for keeping records on migration between countries (Brown, et al., 2002; Diallo, 2004). In addition, much of the research into this area focuses on issues of professional conditions and factors, such as low income, unpleasant and unhygienic working conditions, poor leadership within the health sector and lack of professional opportunities for advancement and additional training (Dolvo, 2005b; Saravia & Miranda, 2004). However, personal factors such as well-being or quality of life, chances for prosperity and issues related to personal safety and national stability seem to be either stated implicitly or are simply neglected. There is a need to investigate the effects of personal factors within migration decisions of health professionals in order to more holistically understand this phenomenon.

Although there is a paucity of rigorous data around this topic, there are some concerning statistics that have been published which give some indication of the magnitude of South to North health professional migration, although the exact extent is difficult to determine precisely. There are some statistics which are frequently cited in recent literature, which highlight the gravity of the extent of health professional migration. Although some of these



cases seem extreme, they are often used to show how devastating this phenomenon can be for the countries of the South which are particularly constrained in terms of economic and human resources. According to Dolvo and Nyonator (1999, in Dolvo, 2005b), an estimated 61% of doctors trained and qualified from one medical school in Ghana emigrated between 1986 and 1995. Martineau, Decker and Bundred (2002, as cited in Buchan & Sochalski, 2004) state that between 1999 and 2001, over 60% (114 nurses) of registered nursing staff at a single medical institution in Malawi emigrated.

Mullan (2005) reports that six of the twenty countries with the highest emigration factors with regards to health professionals are in sub-Saharan Africa, with South Africa being one of them. In terms of South African medical emigrants, Mullan also states that there are at least 6993 South African physicians located in the recipient countries of the U.S.A., the U.K., Canada and Australia, while there are 30740 physicians still located in South Africa. This indicates that 18.5% of locally trained nationals are practicing outside of South Africa. Based on data analyzed by Clemens and Petterson (2008), it is estimated that 21% (7363 physicians) of South Africa's physicians and 5% (4844 nurses) of its nurses are living and practicing abroad, based in nine receiving countries. Based on this same data, Clemens and Petterson state that 11% of the nurses and 28% of the physicians born in Sub-Saharan Africa had migrated to nine receiving countries by 2000. These figures represent a great deal of lost investment in human capital, along with a great deal of important skills which the source countries are not benefiting from.

In terms of understanding the notion of the migration of health professionals, it is often not absolute numbers which are critical, but instead the proportion of trained professionals which is significant (Stalker, 2001). Martineau et al. (2004) argue that the loss of just a small number of health professionals can have a significant impact on a country's health system. Martineau et al. (2004, p. 4) recount the following instance:

The Centre for Spinal Injuries in Boksburg, near Johannesburg, South Africa was the referral centre for the whole region. On the same day in 2000 the two anaesthetists were recruited by a Canadian institution opening a new Spinal Injuries Unit. A consequence of the loss of these two key staff was the temporary closure of the Centre.

Despite some of the anecdotal and statistical evidence presented above, it is widely accepted that data regarding health systems and the health workforce within African countries is generally poor, thereby making it difficult to assess the impact of health professional migration, on both the source and destination countries (Hagopian, et al., 2004; Stilwell, et al., 2003). Data from the North is generally viewed as more accurate than that of the South and there is often a significant disparity between these two sources of data, making any accurate assessment of international migration difficult (Brown, et al., 2002). For example, research conducted by the Southern African Migration Project (SAMP) suggests that it is possible that official South African emigration statistics are potentially undercounting the loss of skilled professionals by around two-thirds (Brown, et al., 2002). While South African emigration records show that 10140 professionals left the country between 1987 and 1997, destination country statistics (Australia, Canada, New Zealand, the U.K. and the U.S.A. combined) show 32296 professional immigrants arriving from South Africa during those same years (Brown, et al., 2002). There is an urgent need for high-quality data in order to accurately assess, plan for and appropriately intervene in the case of health professional shortages in the South.

## **2.6 Migration policy and related challenges**

### **2.6.1 The individual versus the nation-state**

The debate around skilled migration contains a tension between the rights of the individual and the rights of the nation-state. This tension hinges on prioritising community rights over individual rights or vice versa. The acknowledgement of individual rights leads to free mobility, whereas the recognition of the nation-state leads necessarily to borders, migration policies and state sovereignty (Duncan, 2008).

According to Moses (2006), there is a moral argument for free mobility developed within two lines of thought: an instrumentalist argument and the argument for universal rights. The instrumentalist argument contends that, because the current global system produces inequality and injustice by depriving the South of the development opportunities made available in the North, inhabitants of the South have the right to relocate to the North until such injustices are amended. The ‘universal rights’ argument for free mobility states that individuals have an intrinsic human right to move where and when they please. Despite the human capital which one represents and despite the contribution which one could make to the

needs and development of one's 'home country', one should be allowed to live and work wherever one wishes. Soyal (1994, in Giugni & Passy, 2006) maintains that, as part of a human rights perspective, one's national citizenship is superseded by post-national citizenship and notions of personhood. In this way, the idea of a sovereign nation and traditional concepts of citizenship are viewed as immaterial.

However, there is also a strong argument for the rights of the nation-state and for the community or society of which the individual is a part. This perspective recognises that nation-states are sovereign and therefore have the right to operate within their borders as they choose (Duncan, 2008). Nations therefore can create policies around migration which are more or less restrictive than other nations. Through such policies "both the sending and receiving countries play a part in the migration process, in that the former will encourage or limit it while the latter will allow or prohibit it" (Matlapeng, 2000, p. 200).

Because most nations recognise the rights of individuals to have free international movement, it is generally accepted that migration will never cease altogether and thus much of the migration policy attempts to manage migration as opposed to attempting to stop international movement (Moses, 2006). The increased awareness of international migration of health professionals has drawn local, regional and global attention. This has led to attempts to open international dialogues as to how South-North migration can be managed and to create policies to facilitate such management. WHO (2009) is an example of such an attempt as it proposes international codes of practice for health professional recruitment. Within this proposed code of practice, a number of key issues are raised when considering migration management and recruitment policies, namely: international recruitment practices; mutuality of benefits; and national health workforce sustainability. These issues will now be briefly reviewed.

### **2.6.2 International recruitment practices**

Because the governments and institutions of industrialised nations have more resources than are generally available to the strained governments and institutions of the South, "developed countries are positioned to exploit factors that motivate migration among those amenable and able to relocate" (Buchan & Sochalski, 2004, p. 588). Many nations within the South spend a great deal of scarce resources training health professionals, are not able benefit from this

educational investment, and are not able to experience the participation of these professionals in the national health system and the wider socio-economic context (Adams & Stilwell, 2004). Low income countries such as those found in Africa are often dealing with a double burden of a crisis relating to human resources and the pandemic of HIV/AIDS (McCoy, et al., 2008; Schrecker & Labonte, 2004). In addition, it is often the case that nations in the North or host nations have twice as many nurses in relation to their population as the source nations may have (Aiken, et al., 2004).

As already discussed in previous sections, there has been international concern regarding whether the recruitment of health professionals has been handled ethically and in a manner which upholds social justice on a global level. Many countries from the North engage in “aggressive transnational recruiting by both governments and the private sector” (Crush, 2002, p. 149). A key question within this issue is whether both private recruitment agencies and governments alike should be regulated and monitored by an international oversight committee and, if so, according to what standards. An international justice and equity framework would prioritise policies that limit the amount of recruitment which can take place from a country which is experiencing health professional shortages and/or national health crises. There have been attempts to establish codes of practice for the international recruitment of health professionals through both formal (Commonwealth Health Ministers, 2003; WHO, 2010) and informal (WONCA, 2002) declarations and policy documentation.

However, details would need to be explored and specified if such a limitation were to be established. Such details would include whether the recruitment of a newly qualified general practitioner is equivalent to that of an experienced specialist. This means that it may not be beneficial to have a ‘one-policy-fits-all’ approach to restrictions on recruitment. As Lucas (2005) points out, the loss of health professionals from Sub-Saharan Africa can be potentially devastating to the health care system, yet recruitment from the Philippines actually aligns with emigration policies of that nation and is part of its national development strategy. Thus, it is important to remember, as expressed by Fischer et al. (1997a, p. 93), that “we need careful case-by-case analyses based on country- or region-specific macro-conditions. One cannot expect the effects of migration to be uniform for all countries of the South. After all, the South itself is not and never has been uniform”.

### **2.6.3 Mutuality of benefits**

It is clear that professional health migration is beneficial for receiving countries, but the benefits for sending countries are less clear. There have been proposals that bilateral agreements be encouraged between countries from the South and the North. According to WHO (2009, p. 7), such policies could intervene at various levels, such as:

strengthening domestic training/education capacity in source countries, improving quality of education; providing technical assistance, better matching education/training to local population health needs; facilitating educational and staff exchanges between countries through ‘twinning’, and harnessing professional experience of health worker diasporas in recipient countries to encourage return and ‘circular’ migration.

Another policy intervention which has been suggested relates to receiving countries providing some measure of financial reparation to sending countries to compensate for the loss of its health workforce (Hagopian, et al., 2005; Stilwell, et al., 2003). While this particular proposal might sound promising, it may also lead to problems when dealing with the practicalities of such a policy. For example, what is an individual health professional worth in financial terms? Would there be one lump sum given to the source country when the individual exits or would there be a sliding scale according to the length of the individual’s migration period? In addition, which department within the source country should receive financial compensation: the institution that trained the professional, the institution in which the individual was currently employed, the health department, or the state in general? Such details are rarely discussed when considering financial compensation. Furthermore, one must question whether it would be beneficial to equate the human capital and knowledge capital linked to health professionals with pure market value. Surely emigrating health professionals also represent a loss for the country purely by nature of the loss of one of its citizens, representing their (on-going) socio-political contributions and participation.

### **2.6.4 National health workforce sustainability**

Due to the increase in the number of health professionals who opt to migrate, many nations from the South have tried to focus on the retention of health professionals. Some reasons

often cited for migration among such professionals include poor wages, poor working conditions, lack of supervision, lack of professional resources, and lack of opportunities for professional advancement (Nguyen et al., 2008). Dolvo (2005b) also argues that many health professionals experience various degrees and forms of ‘wastage’, which is defined as preventable and/or manageable losses of health professionals’ utility due to attrition and/or poor productivity.

There has been a trend within the health sector that rural and inner-city posts and unpopular shifts are disliked among health professionals and are thus difficult to fill with the appropriate personnel, leading to an unequal workforce distribution (Chen, et al., 2004; Eastwood, et al., 2005). Often, immigrants are used to fill such posts (Massey, et al., 1998). There is a need within the health sector to promote appropriate support and supervision and to improve general working conditions for such difficult posts in order to increase staff retention.

While many strategies aimed at greater health professional retention focus on increasing wages, Vujcic, Zurn, Diallo, Adams & Dal Poz (2004) argue that such changes are often ineffective due to the already massive wage differentials between the South and the North. They state that small changes in salaries among health professionals from the South will not be sufficient to significantly decrease the existing wage differential and the associated pull factors for emigration. Therefore, theorists such as Dolvo (2005b) suggest that non-financial strategies such as professional motivation and morale enhancement, increasing levels of occupational safety, and establishing moral leadership within the health care system may contribute more effectively towards decreasing levels of wastage among health professionals.

However, for the aforementioned policies or future policy implementations to be effective, they must be, among other things, supported and informed by high-quality, reliable data. Therefore, although it is widely known that there is a crisis around the international South to North migration of health professionals, the extent of the crisis and how to address its management, are difficult to measure without exact and standard statistics, as well as reliable data (Connell, et al., 2007; Stilwell, et al., 2004)

### **2.6.5 The importance of the intention to migrate**

An important aspect of assessing, planning for and managing migration is to know how many professionals have *already* migrated but also to know how many professionals *intend* to migrate. While these are two separate types of study, they are linked in that the intention to migrate precedes actual migration. There have been attempts to assess migration intentions of recently qualified health professionals for other nations, such as Uganda (Nguyen, et al., 2008) and Lebanon (Akl et al., 2008). These types of studies are useful as they provide data regarding the prospects for human resources for health. Such studies draw attention to the number of newly qualified health professionals who may be leaving their home country, representing a loss of national investment into education and human capital. In Akl et al.'s (2008) study of Lebanese medical schools, the intention to migrate for further post-graduate studies was used to assess the extent to which participants also intended to return to their home country and to assess which nations were their most likely destinations. This study gives a snapshot of the projected losses through permanent migration and potential gains through return migration which Lebanon could experience in the future.

In addition, such studies also highlight areas of concern to this population, influencing their intentions to migrate. Data from studies regarding migration intentions may work to inform policy makers about which changes must take place if higher health workforce retention and sustainability is to be achieved. For example, in their study of the migration intentions of nursing students in Uganda, Nguyen et al. (2008) found that a preference for practicing in an urban rather than a rural context was a significant predictor of the intention to migrate. In addition, it was found that nursing students prioritise remuneration above all of the other factors measured, including job outlook or country stability and safety. These findings could change policies around recruitment criteria for admittance into nursing schools and focus attention on increasing income levels for these health professionals. In Akl et al.'s (2008) study, the desire to further one's post-graduate education was seen as a contributing factor to migration intentions because of the competitive job market for health professionals in Lebanon itself. These findings highlight the need for opportunities for advancement through additional training and education within one's home country so as to reduce the need to seek such opportunities in the North.

A desire to migrate is necessary but not sufficient for one to actually migrate. Mattes and Richmond (2002, pp. 26-28) suggest that one's emigration potential can be estimated based on the following questions:

- To what extent has a skilled person considered the idea of migration (consideration)?
- To what extent do they actually want to migrate (desire)?
- If they want to leave their home country, to what extent do factors outside the person's direct control (such as financial costs) affect the likelihood of leaving (likelihood)?
- Exactly when do they plan to leave (commitment)?

The present study is an attempt to fill some of the knowledge gaps in terms of data regarding the migration intentions of South African recently qualified health professionals. It is situated in a dynamic, holistic and interdisciplinary framework for migration and seeks to explore predictors of health professional migration intentions and the current degree of migration potential among those health professionals. An assessment of migration potential and significant migration intention predictors is useful to inform and direct future research and to provide suggestions for policy and other interventions to address the issue of health professional migration from countries such as South Africa.



### **3. AIM AND RATIONALE**

The issue of health professional migration is one of great local, regional, national and global importance and has become an especially salient topic within the subject of South to North migration (Aiken, et al., 2004; Clemens & Petterson, 2008; Mullan, 2005). The nations of the South, and those located in Sub-Saharan Africa in particular, are suffering from the double burden of human resource crises and a high burden of infectious diseases, such as TB, malaria and HIV/AIDS (McCoy, et al., 2008). As a result, countries such as South Africa can ill-afford to lose valuable human capital related to the health professions (Hagopian, et al., 2004; Stilwell, et al., 2004).

The aim of this research is to identify variables that are considered important by health professionals when deciding whether or not they intend to migrate, especially in terms of South to North migration. Because the label of 'health professional' is quite a broad one, the sample will be restricted to recently qualified health professionals – that is, professionals who are still beginning their careers and are more mobile than professionals who are more established and settled in their professional and personal lives. This makes recently qualified health professionals a crucial target population when considering the topic of migration. It is hypothesized that, contrary to the historically dominant view that economic factors are of primary concern within migration intentions, psychosocial factors such as personal safety, well-being and fears regarding future national instability are particularly significant when considering the possibility of migration. In addition, it is hypothesized that professional factors, such as poor working conditions and low job satisfaction, will be important predictors of migration intentions.

One of the outcomes of this research will be the development of a model which will attempt to predict intention to migrate among recently qualified health professionals. This data would be useful as it would help to inform policy makers as to the factors which are at play within the intention to migrate from a country such as South Africa and thereby inform policies which can better manage that migration and possibly even assist in retaining health professionals within South Africa's health care system.

## **4. METHODOLOGY**

### **4.1 Research design**

This quantitative survey study aims to make inferences about the wider population of recently qualified health professionals based on findings from a sample of interns and recently qualified health professionals. The aims of such quantitative studies include generalizability and statistical inference (Durrheim & Painter, 2006). As such, a survey was used to collect data from individual health professionals, inviting them to respond to items related to issues which are theoretically important within the topic of international South to North migration. These issues include: citizenship, information about other countries, professional and personal satisfaction, and prospects and comparisons with possible destination countries. A combination of postal and online data collection was utilized as this approach was the most cost-effective and was also more likely to facilitate and encourage participation in the study. The scale was first analyzed to assess item reliability and scale dimensions. The data were then analyzed using multiple regression analyses in order to produce a predictive model of migration intention.

### **4.2 Sample**

The sampling frame included health professionals who were still in training and were receiving some form of supervision, specifically including psychologists and medical practitioners who were completing their internships and community service years (sample hereafter referred to as ‘recently qualified health professionals’). The inclusion of psychologists is motivated by the persuasion that ‘health professionals’ as a category should include mental health professionals, thereby giving the category a wider scope. There is also a paucity of research within the area of mental health professional migration, leading to a lack of data relating to this population. Therefore, when used regarding the sample, the term ‘health professionals’ will hereafter include both medical practitioners and mental health professionals.

It must also be mentioned that attempts were made to include nurses who were in their final year of training or their first year subsequent to the completion of their training. However, due to institutional difficulties and despite persistent efforts by the researcher requesting feedback regarding access to nursing registers, attempts to include nurses within this sample

proved to be futile. Despite permission being obtained, the register data proved impossible to obtain. Therefore, despite the fact that nurses play a crucial role as health professionals, especially within settings where there are health workforce shortages, this population must regrettably be omitted from this study.

The sampling frame was constituted by registers made available by the Health Professions Council of South Africa (HPCSA). The registers included 2713 medical interns, 1275 community service medical practitioners, 682 psychology interns and 134 community service psychologists, resulting in a total population of 4804 potential participants. Because the sampling frame population was quite small, it was decided that the whole population should be accessed and invited to participate in the study. It was assumed that this may decrease the chances of sampling bias and give a more accurate impression of the population in question.

### **4.3 Procedure and data collection**

Numerous data collection strategies were considered for this study. The ideal strategy would have been an online survey, in which e-mail addresses would be used to contact the sample, inviting them to participate in an online survey. This approach would have incurred minimal cost and administration. This method would also have been relatively convenient for the participants. This strategy was included in the original proposal and was approved by the UKZN Humanities and Social Sciences Ethics Committee (see Appendix A). However, it was not possible to acquire such contact details for the population in question due to state and organizational policies, making postal addresses the only contact details which were made accessible. These organizational policies are in line with the Protection of Personal Information Bill (2009), which prohibits organizations from distributing electronic contact details for databases in their possession. One of the aims of such a policy is “to provide for the rights of persons regarding unsolicited electronic communications” (Protection of Personal Information Bill, 2009, p. 2).

A second strategy was then considered whereby an information sheet and survey would be posted to the population. However, this strategy of data collection was deemed to be unfeasible due to the printing and postage costs that would be incurred. The survey was five pages long, plus an information sheet, as well as two sets of envelopes and postage stamps, the second set being for return postage. This strategy was both extremely costly and would

probably yield poor response rates because of the inconvenience posed to participants, such as completing a pen-and-paper survey and return posting the survey once completed.

Finally, a combination of postal and online strategies was created and the proposal amendment was approved by the UKZN Humanities and Social Sciences Ethics Committee (see Appendix B). This data collection strategy was more cost effective for the researcher and more convenient for the participants (Kaplowitz, Hadlock, & Levine, 2004). Firstly, an information sheet (see Appendix C) was posted to every member of the population inviting them to participate in the study. This information sheet provided the URL for the online survey that had been created for the study and also provided the e-mail address of the principal investigator if the participant preferred to receive the survey via e-mail. Thus it was possible for participants to either complete the survey online or to complete an e-mail version.

Once registers for the population had been acquired and a budget had been drawn up, information sheets were posted to the entire population of 4804 potential respondents. These information sheets consisted of two pages, providing details about the study and inviting the recipient to either complete the survey online by accessing the site URL or by contacting the primary researcher to request an e-mail version of the survey. A small incentive was offered in the form of a random draw in which one of three MP3 players could be won. Participants were invited to provide an e-mail address by which they could be contacted if they wanted to be included in the random draw. Surveys which were completed online were automatically entered into a database and the completed e-mail versions were manually inserted into the database by the primary researcher. The database was then used for data analysis.

The possibility of a poor response rate was taken into consideration. Physicians and other health professionals are often surveyed in relation to working conditions, salient issues among health professionals, planning and assessing health care priorities, and in improving public health intervention and prevention strategies (Barclay, et al., 2002; Kellerman & Herold, 2001). However, there is a growing body of literature which suggests that response rates for postal surveys among medical practitioners and other public service providers seem to be falling. Kaner, Haighton and McAvoy (1998) argue that the principal reasons cited for a lack of response among medical practitioners are that questionnaires get lost amongst other

paperwork, and that they add more work to an already demanding and busy workday and are automatically thrown away as junk mail.

There has also been a fair amount of research focusing on how researchers can increase the response rate, thereby increasing the validity of such studies by eliminating and/or accounting for non-response bias. It has been suggested that there is great value in sending out at least three reminders when conducting postal questionnaires aimed at medical practitioners (Barclay, et al., 2002; Cook, Dickinson, & Eccles, 2009). Kellerman and Herold (2009) found that there was no relationship between pre-notification of survey recipients, personalising the survey, and nonmonetary incentives and any significant increase in response rates. However, they did note a positive association between increased response rates and monetary incentives, the use of stamps on all envelopes (both receiving and returning), and less survey items.

Due to financial constraints within this study, it was not possible to follow all of the above guidelines and recommendations. Therefore, measures which were easily carried out included: personalising the envelopes and information letters and a nonmonetary incentive. Strategies such as sending out reminders were not within the budgetary constraints of the research and were therefore not possible.

#### **4.4 Instruments**

The survey used in this study was largely based on the national and international instrument used by the Southern African Migration Project (SAMP) which was published in McDonald and Crush (2002b). Dr Jonathan Crush, who was the director of SAMP, was contacted in order to request permission to use portions of the SAMP survey for the study. Dr Crush granted permission to use the original measure (see Appendix D); however, the survey had to be modified and shortened for two reasons.

Firstly, the original SAMP instrument was used for a sample of 'skilled' South Africans, which is a somewhat broad category which includes "anyone who has special training or work experience which is in relative short supply in relation to the labour market as a whole" (McDonald & Crush, 2002a, p. 7). Therefore, some questions had to be modified and some new questions introduced in order to specifically address the health professional sample.

Secondly, the original SAMP survey used for skilled South Africans included 213 items, which was considered to be fairly lengthy for the purposes of this study. Thus only questions that seemed theoretically applicable were included in the final instrument, guided by a review of the relevant literature.

The final instrument (see Appendix E) was comprised of 71 items which were divided into 7 sections. The majority of the questions were 5-point Likert scale items, reversing some of the scores in order to diminish the extent of response bias, as suggested by DeVellis (2003). There were also a few free-response items in order to allow for a more qualitatively varied response. The sections of the survey will now briefly be discussed.

The ‘Demographics’ section (10 items) focused on issues around gender, race, age, employment sector, language, marital status, province in which the participant works, and the university from which the participant graduated.

The ‘Citizenship’ section (4 items) targeted issues of the importance of South African citizenship and personal contribution to national development. This matter was identified by Mattes and Richmond (2002) in the SAMP study as predicting migration because it is thought that permanent migration is more likely if one is willing to relinquish their South African citizenship or if their citizenship is not of much consequence.

‘Migration of others’ (4 items) focused around the number of family, friends and colleagues who had already engaged in international migration. This section speaks to the notion of social networks as migration is less likely and more difficult when one is the ‘pioneer’ migrant (Fischer, et al., 1997b; Lucas, 2005). However, if one has personal and professional connections abroad, one may be more likely to view migration as more feasible and attractive (Lucas, 2005). The notion of the benefits of migration for one’s personal and professional networks already abroad was assessed through an item which required the respondent to compare their network’s lives before and after migration.

‘Satisfaction and prospects’ (17 items) aimed to assess various aspects of personal and professional life and whether these were expected to improve or worsen within the next five years. The components which were addressed included: job satisfaction, prospects for professional advancement, professional advancement through additional education and/or

training, level of income, personal safety, assessments of national stability, safety when working in urban and rural areas, and opinions regarding national government.

‘Information’ (7 items) assessed how often information was received from the media, friends, family and professional associates regarding living conditions and job opportunities in other countries. In some respects, this section linked the previous two sections, as it addressed sources and types of information gained about other countries.

“‘Most Likely Destination’ comparison’ (9 items) required the respondent to name the country to which they would most prefer to migrate and the country to which they would most likely migrate. The identification of a ‘Most Preferred Destination’ (MPD) and ‘Most Likely Destination’ (MLD) served two purposes. Firstly, it created a profile within the sample of the most popular destinations that health professionals consider migrating to. Secondly, the use of the respondent’s own MLD avoided the use of somewhat generic terms such as ‘developed’ or ‘industrialized’ nations. It may have been difficult and somewhat vague to ask respondents to compare their personal and professional lives in South Africa with that of how they view their lives in ‘developed’ or ‘industrialized’ countries. One could argue that there are many differences between living and working in the U.S.A., the U.K., Italy or Sweden. It would be far too simplistic to view all developed nations as equally attractive as migration destinations. Thus, in choosing a MLD, the respondent is allowed to think in more concrete and certain terms about a particular context. Respondents were then asked to compare their MLD with South Africa in terms of: overall conditions, job, prospects for professional advancement, prospects for professional advancement through additional training and education, level of income, and personal safety.

The final section, ‘Migration intention’ (20 items), attempted to assess the emigration potential of the respondent and was used as a dependent variable within the analysis. This potential is operationalized as a combination of consideration, desire, likelihood and commitment to migration (Mattes & Richmond, 2002). The likelihood and duration of migration invites the respondent to assess how long they would emigrate for. This indicates whether the migration would be temporary, which could imply the return of enriched human resources in terms of training, professional networks, technical knowledge and other relevant skills (Lucas, 2005). The commitment to migration is indicated through decisions about family, finances, citizenship, timing and actual planning that has been put into what it would

take to leave the country (Mattes & Richmond, 2002). Therefore, a respondent who has investigated the processes necessary for gaining a work permit and professional registration in their MLD, would want to become a citizen of their MLD, and would be willing to take family members with them, may be more likely to actually emigrate than a respondent who had not made such enquiries. In addition, a respondent who intends to migrate sooner rather than later is much more likely to actually emigrate, as 'leaving in six months' is much more concrete than is the more abstract and distant 'leaving in the next five years'.

## **4.5 Data analysis**

### **4.5.1 Instrument analysis**

Although the instrument had been used in both national and international studies around international migration, statistics were not published with the instrument and its findings in McDonald and Crush (2002b). In addition, the results from the instrument were largely frequencies and thus inferential tests had not been conducted on the data. The Southern African Migration Project was contacted in order to gain access to any statistical analysis related to their studies. However, because the studies had been conducted 10 years prior to the present research, the South African SAMP member who was contacted was unable to locate statistics which may have been generated for the measure. As such, it was necessary to check the validity and reliability of the measure as a whole, for the scales and subscales, and to check the internal consistency of the scales.

Items for the final scale were grouped into seven sections (as discussed above) based on their face validity. These scales were then assessed for their internal consistency using item analysis. Reliability was established using Cronbach's  $\alpha$  and items which had low item-total correlations were discarded. If the scale achieved a satisfactory level of internal consistency, the reliability of the scale was further investigated by means of Principal Components Analysis (PCA). Scree plots were examined and components with eigenvalues greater than 1.0 were extracted in order to assess the variance explained by each component, as according to Kaiser's criterion (Field, 2009). Components were rotated using Varimax rotation and the component loadings were then analyzed and labeled. Once subscales had been identified, each subscale was once again checked for internal consistency, as indicated through Cronbach's  $\alpha$ . The results of these analyses will be discussed in detail in the results section and data will be presented in tables, as suggested by Field (2009).



#### **4.5.2 Multiple regression analyses**

A primary aim of this study was to produce a regression model based on the predictive value of certain independent variables on the dependent variable of ‘migration intention’.

The dependent variables are contained in the section of the measure entitled ‘Migration intention’. This scale was assessed for multiple latent variables, which were each marked as separate dependent variables dealing with different aspects of the intended migration outcome. Four such dependent variables emerged from the analysis, namely: ‘long-term migration plans’; ‘migration timeframe’; ‘concrete plans’; and ‘short-term migration plans’. Therefore, four separate multiple regression analyses were conducted to assess the varying usefulness of the independent variables in explaining various intentions to migrate, as represented through the four aforementioned criterion variables. Thus the outcome of this study would be four multiple regression models. Multiple regression analyses were conducted using the ‘Enter’ method. Through the internal consistency assessment and PCA which was conducted, seven independent variables were identified within the scale. Each of the variables were included in each of the multiple regression analyses.

There are somewhat conflicting recommendations regarding which statistics to report regarding the model summary. The fit of the model was assessed from the Model Summary and ANOVA tables from SPSS. This study followed the recommendations of Tredoux (2002) regarding the usefulness of  $R^2$  and the standard error of the estimate in assessing the explanatory power of a model. The significance of each variable was reported in terms of its usefulness in predicting the dependent variable.

Field (2009) makes some practical and helpful suggestions for the assessment of assumptions and regression diagnostics, which were closely followed in this analysis. Assumptions of normality, linearity and homoscedacity were assessed through an examination of the histograms and normal P-P plots produced as analysis outputs. The Durbin-Watson was examined to assess whether the assumption of independent errors is tenable, based on how close the statistic was to 2. The issue of multicollinearity was assessed through examining the VIF statistic, the levels of tolerance and the variance proportions as expressed through the eigenvalues. Because individual cases can greatly sway the outcome of multiple regression,

each model was assessed in terms of casewise diagnostics and model assumptions. There are three important aspects of regression diagnostics, especially outliers, namely distance, leverage and influence (Howell, 2007). Field (2009) suggests assessing statistics such as the standardized residuals, Cook's distance, Mahalanobis distance and DFBeta values to assess cases that are identified as problematic through casewise diagnostics. With a sample of 132, it would be reasonable to expect 6.6 (5%) cases to have standardized residuals outside of  $\pm 2$  and 1.32 (1%) cases outside of  $\pm 2.5$  standard residuals (Field, 2009). Following the suggestion of Field (2009), any cases which were outside of these limits were deemed as problematic and were investigated further through checking for: Cook's distance values above 1; a Mahalanobis distance of above roughly 15; DFBeta absolute values greater than 1. All of these statistics were used to assess whether the models were generalizable and whether they fit the data well.

## **4.6 Ethical considerations**

The ethical considerations within this study were largely related to issues of informed consent, as explained by Wassenaar (2006).

### **4.6.1 Autonomy and respect for the dignity of persons**

Respondents were informed of their rights as participants through a written combined information and consent sheet. Participation in the study was through an initiation letter and respondents who decided to participate expressed their informed consent by completing the online survey. This form of consent offers additional protection to participants because there is no need to sign any documentation and thus there is no record of the name of the participant. In this way the identity of participants was completely protected and participation was anonymous.

### **4.6.2 Nonmaleficence**

The survey did not pose any risks to participants. In addition, the survey was based on the work of SAMP (McDonald & Crush, 2002b), which was conducted at both a national and international level, thereby increasing the scientific validity of the instrument.

### **4.6.3 Beneficence and Justice**

While there was little direct harm posed by this study, there is also very little direct benefit offered to participants. The non-financial incentive of a chance to win one of three MP3 players was considered too small to qualify for undue inducement. Participants were invited to provide an e-mail address by which they could be contacted if they wanted to be included in the random draw. The e-mail addresses provided by participants, which were used to contact the random draw winners, were de-linked from their survey responses, making it impossible to link their response set to their contact details.

Beyond the minor direct benefit of the incentive, participants may benefit indirectly if the research is used to inform policies around health professional migration. In addition, it could be argued that this study has a great deal of social value due to the need for research regarding health professional retention within this and other African countries. This notion speaks to the issue of justice at both the micro level (such as fair wages and favourable working conditions) and at the macro level (such as the inequality which is evident when comparing the health care systems of Southern versus Northern nations).

## **5. RESULTS**

### **5.1 Descriptive statistics**

#### **5.1.1 Response rate**

A total of 4804 information sheets were sent out to the population in question and there were 132 respondents who completed the questionnaire. Therefore the response rate was 2.75%, which is considered to be an extremely poor response rate. During data collection, 82 unopened survey envelopes were returned due to invalid or outdated addresses. If these surveys are withdrawn from the original number of possible respondents, changing the number of people who could have been contacted (4722), the response rate becomes 2.8%, which is still extremely poor. The issue of poor response rates will be explored further in the discussion section. However, it is important from the outset of both the results and discussion chapters to emphasize that the extremely poor response rate makes it impossible and reckless in research terms to generalise these results and any conclusions drawn can only be very tentative. If finances had been more readily available, attempts would have been made to improve the present response rate. Yet in order to demonstrate skills in analysing and discussing research findings, it is necessary to continue with the present research process as is found below.

#### **5.1.2 Sample**

Table 1 shows the descriptives of the sample. The sample comprised of 132 participants, 91 (69%) of which were female and 41 (31%) male. 78.8% of the sample categorized themselves as White/European, while 7.6% were Black/African, 5.3% were Coloured, 5.3% Indian/Asian and 3% categorized themselves as “Other”. The majority of the sample spoke either English (61.4%) or Afrikaans (33.3%), which accounts for 96.2% of the total sample. The sample included a subsample of 76 psychologists (57.6%) and 56 medical practitioners (42.4%). 68.2% of the sample fall within the category of 25-29 years of age and roughly half (51.5%) are categorized as single, which seems appropriate as the sample is comprised of professionals in training. Many professionals who are beginning their careers would fall within these categories. Most of the respondents work in Gauteng (41.7%), with the next highest concentration located in the Western Cape (18.2%) and then KwaZulu-Natal (17.4%).

**Table 1. Respondent characteristics**

Categories		Number of respondents	%
Gender	Male	41	31.1
	Female	91	68.9
Age	20-24	13	9.8
	25-29	90	68.2
	30-34	21	15.9
	35-39	3	2.3
	40-44	3	2.3
	50-54	2	1.5
	Relationship status	Married	39
Separated		1	.8
Cohabiting / Living together		24	18.2
Single		68	51.5
Province		Eastern Cape	5
	Free State	5	3.8
	Gauteng	55	41.7
	KwaZulu-Natal	23	17.4
	Mpumalanga	8	6.1
	Northern Cape	1	.8
	Limpopo	5	3.8
	Northwest	6	4.5
	Western Cape	24	18.2
	Race	Black / African	10
White / European		104	78.8
Coloured		7	5.3
Indian / Asian		7	5.3
Other		4	3

**Table 1. (continued)**

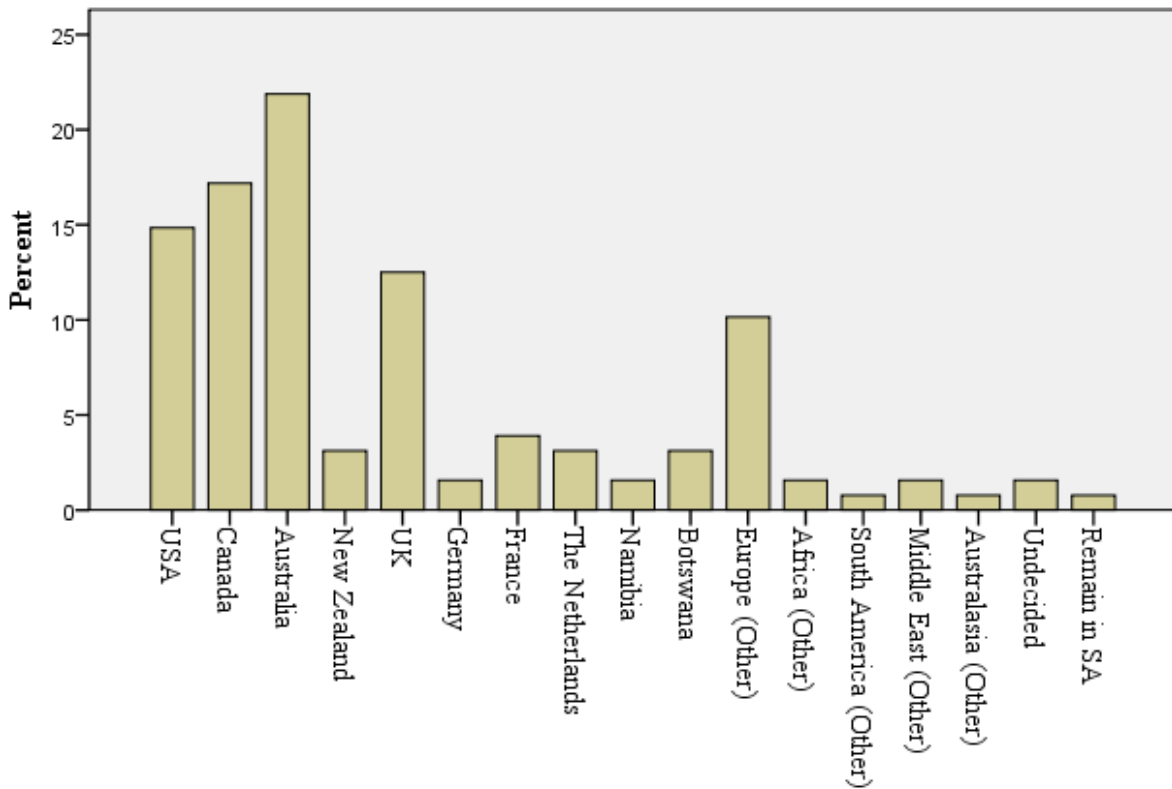
Categories		Number of respondents	%
Language spoken at home	Afrikaans	44	33.3
	English	81	61.3
	IsiXhosa	1	.8
	Northern Sotho	1	.8
	Sesotho	1	.8
	Tshivenda	2	1.5
Profession	Psychologist	76	57.6
	Medical Practitioner	56	42.4

### 5.1.3 Destinations

The choice of destinations was posed through a free response section. This was done so that respondents would not have to choose from a list which had been provided by the researcher and would possibly allow for a wider range of responses. The two questions relating to destinations requested the respondent to name a most preferred destination (MPD) and a most likely destination (MLD). Nations that were common were reported individually, while infrequent destinations were grouped together, either by continent or by region.

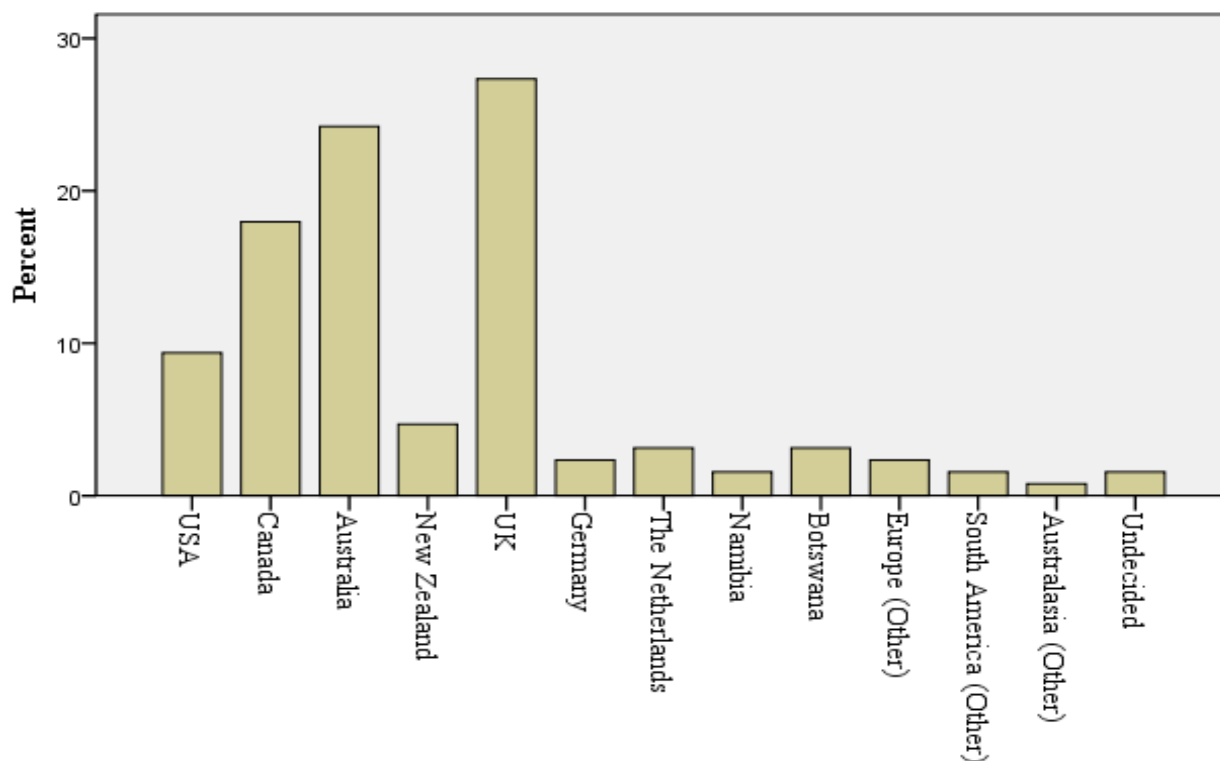
24 nations emerged for the MPD, which were grouped into 17 categories. 88.3% of the sample chose nations belonging to the global North as a preferred destination. Australia (21.9%) was the most common destination indicated, with Canada (17.2%), the USA (14.8%) and the UK (12.5%) being other frequent choices as well. African countries (7.1) were also indicated as preferred destinations, albeit much less than that of global North nations. Figure 2 shows the categories and percentages for MPD nations.

**Figure 2. Most Preferred Destination (MPD)**



15 nations emerged for the MLD, which converted into 14 categories. In terms of the MLD, 91.4% of the sample indicated that they would choose a nation from the global North as their migration destination. Over a quarter of the sample chose the UK (27.3%) as their MLD, which was the most common MLD among those identified by the sample. Australia (24.2%) and Canada (18%) were also identified as common likely destinations. African countries (4.7%) were relatively less well represented within the MLD than among the MPD. Figure 3 shows the categories and percentages for MLD nations.

**Figure 3. Most Likely Destination (MLD)**



### **5.1.4 General migration intentions**

Appendix F shows the summary of responses to the items which were included in the final scale for analysis purposes. Items are categorised according to the scale analysis which will be discussed in later sections. Percentages in this section represent responses of 1 or 2 on a five-point scale which indicated a tendency toward migration or of negative opinions of South Africa. Findings from each section will now be explored.

#### **5.1.4.1 Citizenship and information**

15.3% of the sample indicated that a duty of contributing toward national growth is not relevant to them, which seems concordant with the fact that only 14.65% of the sample believed that their citizenship was not an important part of their identity. However, 63.4% of the respondents also noted that one's citizenship is not as important as one's quality of life.

In terms of information regarding living conditions in other countries, 58.8% of respondents reported getting such information either very regularly or often from friends and family. Friends and family are thus the most frequent source of information regarding living conditions, followed by the media (42%) and then professional associates (26%). However,



in terms of job opportunities in other countries, information was more frequently accessed from the media (30.8%) than from either friends and family (22.9%) or professional associates (20.8%). It is also interesting to note that the frequencies of getting information from the aforementioned sources are much lower in general for job opportunities than for living conditions.

#### ***5.1.4.2 Satisfaction and prospects***

Interestingly, many of the participants did not report an overwhelming amount of professional dissatisfaction. Presently, only 22.7% are experiencing dissatisfaction with their job, 40.2% are dissatisfied with prospects for professional advancement, 30.3% are dissatisfied with prospects for advancement through education and training and 43.9% are dissatisfied with their current income. Within the space of the next five years, only 21.2% believed that their job would get worse, 33.3% believed their prospects for professional advancement would decrease and 31.8% indicated their chances of professional advancement through education and additional training would worsen.

However, the picture changes drastically when issues of safety and stability are introduced. 83.3% of the sample reported being dissatisfied with their personal safety and 59.1% believe that their level of personal safety will deteriorate further in the next five years. 42.7% think that it is unsafe for health professionals to work in urban areas and 58.3% believe rural areas are unsafe for health professionals. While 37.1% believed that South Africa was unstable in the past five years, this percentage increased to 54.6% who believe that the country will be unstable in the next five years. However, only 13% believe their lives are worse than they were five years ago. There also does not seem to be much support for the national government, as 77.3% report disapproval of national government performance in the past year and 84.1% believe that the government does not listen to them.

#### ***5.1.4.3 MLD comparison***

When asked to compare their MLD with their home country, it seems that the respondents view MLD conditions as better than those of South Africa in general. Overall conditions (87.6%), health professional jobs (58.9%), professional advancement prospects (60.6%), professional advancement through additional training and education (53.1%) and income levels (77.2%) are all viewed as worse in South Africa than in specified MLDs. Personal safety in particular stood out, as 93% of the sample indicated that their personal safety was

worse in South Africa than in their MLD. Thus it is clear that South Africa is viewed as unfavourable in many respects when compared to the MLDs within this sample, especially when personal safety is considered.

#### ***5.1.4.4 Migration intention***

Just over half of the sample (59.1%) frequently considered migration. In terms of intended duration of migration, 38.8% of the sample indicated intending to migrate for more than 5 years, 28.7% intend to migrate for 2 to 5 years, 23.3% intend migrating for 1 to 2 years and a total of 9.4% report intending to migrate for a period of 1 year or less. While 74.4% of the sample wanted to migrate for a period of less than two years, this percentage dropped to 50.4% when asked of the likelihood of this duration of migration. Similarly, 58.1% of the sample wanted to migrate for a period longer than two years but only 46.5% reported that this was likely. Very few participants reported the likelihood of migrating within the next six months (5.5%), while this number increased when migration in the next two years (36.2%) and the next five years (56.3%) was stipulated.

In terms of indicators of intentions to permanently settle in their destination country, 60.2% reported a desire to become a citizen of their MLD and 53.5% were willing to take all of their local investments with them out of their home country. In addition, the majority of the sample (61.2%) indicated that their family would encourage them to leave their home country. Although only 10.1% of the sample had either applied or were in the process of applying for professional registration in their MLD, 59.7% of the respondents were investigating the requirements for professional registration. Only 14.1% of the sample was in the process of applying for work permits in their MLD.

## **5.2 Instrument subscales and statistics**

### **5.2.1 Sample and subsample comments**

Before continuing, it is important to note the issue of the large subsample of White respondents within the data analysis. To assess whether it was necessary to speak exclusively about the White portion of the sample and whether this analysis should be conducted using only those respondents, each of these tests were conducted twice: once on the whole sample and once using only the White respondents. It is interesting to note that, for the instrument reliability analysis, there was little marked difference among the scales when tested on the

Whites versus the general sample. The Cronbach  $\alpha$  scores for the scales and subscales were comparable and the PCA led to similar outcomes in terms of the loadings of items on similar components. In fact, the majority of the component matrices showed the same items loading on the same components, albeit with different scores. Therefore, because there was not a marked difference between these two sets of tests, only the results from the general sample will be reported here. However, given the very low response rate for this study, the findings should be generalized with great caution and may only be generalizable to certain subsets within the sample, namely White, English- and/or Afrikaans-speaking health professionals from provinces such as Gauteng, the Western Province and KwaZulu-Natal. Thus the findings of this study should be interpreted and generalized with the low response rate and potential response bias in mind.

### **5.2.2 Scale summary**

The scale includes five main scales, comprised of eleven subscales. The main dependent variable of ‘migration intention’ consists of the subscales ‘long-term migration’, ‘migration timeframe’, ‘concrete plans’ and ‘short-term migration plans’. The independent variables for this study include the scales: ‘citizenship’; ‘information’; ‘satisfaction and prospects’, which is divided into the subscales ‘safety and stability’, ‘satisfaction with professional prospects’ and ‘expected professional prospects’; and ‘MLD comparison’, which is comprised of the subscales ‘professional comparison’ and ‘personal comparison’. Table 2 shows the statistics for each of these scales. The construction of this measure will be explained further in the following sections.

**Table 2. Scale statistics summary**

Scale name	Items	$\alpha$	$\bar{x}$	$s^2$	SD
Long-term migration plans	7	.889	17.25	45.165	6.721
Migration timeframe	4	.838	12.83	16.447	4.056
Concrete plans	4	.668	12.04	4.292	2.072
Short-term migration plans	2	.727	5.020	5.015	2.240
Citizenship	3	.695	9.81	6.885	2.624
Information	6	.837	18.29	24.709	4.971
Safety and stability	9	.841	21.84	31.345	5.599
Satisfaction with professional prospects	3	.715	8.84	7.005	2.647
Expected professional prospects	4	.709	12.48	7.778	2.789
MLD professional comparison	4	.772	8.96	9.474	3.078
MLD personal comparison	2	.439	3.17	1.502	1.226

### 5.2.3 ‘Migration intention’

There were 119 cases without any missing data which were used to check the reliability of the scale in its first version. The first version included 20 items and the measure achieved a Cronbach’s  $\alpha$  of .802, which is considered to be a fairly high level of internal consistency. Five items with very poor item-total correlations ( $< .2$ ) were dropped from the item pool, which raised Cronbach’s  $\alpha$  to .874. This revised scale was based on 123 valid cases and included 15 items ( $\bar{x} = 40.11$ ,  $s^2 = 106.603$ ,  $SD = 10.325$ ).

In order to further explore the data in terms of underlying factors within the scale, an exploratory factor analysis was conducted on the revised scale. Based on Kaiser’s criterion, 4 components with eigenvalues greater than 1.0 were retained by means of Principal Components extraction methods and these 4 factors explain 70.5% of the total variance. After rotating the factors using Varimax rotation, the loadings for the 4 components was analyzed. Table 3 shows the factor loadings after rotation.

**Table 3. ‘Migration intention’ factor loadings**

	<b>Rotated factor loadings</b>			
	Long-term migration	Migration timeframe	Concrete plans	Short-term migration
66. How willing or unwilling would you be to take all your investments out of your home country?	<b>.810</b>	-.071	.122	-.134
59. If you have to move to your most likely destination, how long would you want to stay?	<b>.796</b>	.231	-.071	-.164
62. To what extent would you want to become a citizen of your most likely destination?	<b>.789</b>	-.028	.188	.118
56. To what extent would you want to move to your most likely destination and live and work for longer than two years?	<b>.709</b>	.347	.096	.089
53. Would your family encourage or discourage you from leaving this country?	<b>.682</b>	.140	.099	.089
36. How often have you considered moving to another country to live and work?	<b>.676</b>	.424	.115	.150
58. How likely or unlikely is it that you would move to your most likely destination and live and work for longer than two years?	<b>.663</b>	<b>.575</b>	.159	.117
69. How likely or unlikely is it that you will move from your home country in the next five years?	.271	<b>.828</b>	.103	.181
68. How likely or unlikely is it that you will move from your home country in the next two years?	.125	<b>.820</b>	.275	.205
63. Have you applied for a work permit in your most likely destination?	.112	.077	<b>.850</b>	.079
65. Have you applied for professional registration in your most likely destination?	.125	.267	<b>.817</b>	-.016
67. How likely or unlikely is it that you will move from your home country in the next six months?	.045	<b>.582</b>	<b>.599</b>	-.086
64. Are you aware of what is required for professional registration in your most likely destination?	.408	.023	.439	.340
55. To what extent would you want to move to your most likely destination and live and work for a short period of less than two years?	-.043	.034	-.025	<b>.900</b>
57. How likely or unlikely is it that you would ever move to your most likely destination and live and work for a short period of less than two years?	.082	.392	.112	<b>.763</b>
Eigenvalues	4.070	2.640	2.153	1.707
% of variance	27.136	17.598	14.356	11.379
$\alpha$	.889	.838	.668	.727

*Note: Factor loadings over .50 appear in bold*

### **5.2.3.1 'Migration intention' subscale 1: Long-term migration plans**

Component 1 correlates positively with seven questions, namely items 36, 53, 56, 58, 59, 62, 66. This measure achieved a Cronbach's  $\alpha$  of .889, which is a fairly high level of internal consistency and contains seven items ( $\bar{x}$  = 17.25,  $s^2$  = 45.165,  $SD$  = 6.721), which deal with issues of permanent or long-term migration. These issues include taking investments out of the home country, becoming a citizen of the receiving country, and desire and likelihood of moving for more than two years. Item 58 loads on this component and on 'migration timeframe'. However, it is included on both subscales as it has high loadings and because it makes sense on both subscales from a conceptual perspective. Other issues that are also important within this component include the family's support for migration and frequency of considering migration. These last two issues imply that migration is being discussed with others and is more than a passing thought but is becoming more possible through frequent thought and discussion. This component can therefore be labelled as "Long-term migration plans", with 'long-term migration' being operationalised as a period longer than two years.

### **5.2.3.2 'Migration intention' subscale 2: Migration timeframe**

Component two correlates positively with the questions focusing on likelihood of migration at any time in the future. The measure achieved a Cronbach's  $\alpha$  of .838, which is a good level of internal consistency. The measure includes four questions, specifically items 58, 67, 68 and 69, ( $\bar{x}$  = 12.83,  $s^2$  = 16.447,  $SD$  = 4.056), which ask the respondent about the likelihood of their migration within the next six months, two years, five years. There are two items in this component which load on other components and are included on those components as well. Item 58, which also loads onto 'long-term migration' addresses the likelihood of migration for a period of two years or more. Item 67, which also loads onto 'concrete plans', addresses the likelihood of migration within the next six months. Because both of these items have fairly high loadings for this component and because they fit well on this component in terms of common sense relations to other items, both items are included in this component. These items deal not only with likelihood but also with the intended time frame of migration and, as such, this component can be labelled "Migration timeframe".

### **5.2.3.3 'Migration intention' subscale 3: Concrete migration plans**

Component three has four items which load highly, namely items 63, 64, 65 and 67. As a scale with these four items ( $\bar{x}$  = 12.04,  $s^2$  = 4.292,  $SD$  = 2.072), these items achieved a

Cronbach's  $\alpha$  of .668, which is a satisfactory level of internal consistency. These items all address practical and immediate steps which are being or have been taken in order to migrate, such as applying for work permits and professional registration in the destination country, and the likelihood of exit within the next six months. Although item 64 does not have a factor loading above .5, it loads the most convincingly on this component (.439) and seems to fit well with the other items which load onto this scale. Item 67, which loads highly on 'migration timeframe' as well, is included in this scale because actual migration is more likely if it is intended within the next six months as opposed to a more distant future plan. As such, Component 3 can be labelled as "Concrete migration plans".

#### **5.2.3.4 'Migration intention' subscale 4: Short-term migration plans**

Component four includes two items which have high loadings, specifically items 55 and 57. These items achieved an  $\alpha$  score of .727, which is satisfactory, especially since there are only two items in this scale ( $\bar{x} = 5.02$ ,  $s^2 = 5.015$ ,  $SD = 2.240$ ). These items look at the respondents' desire and likelihood of migration "for a short period of less than two years". Thus, Component 4 can confidently be labeled as "Short-term migration plans".

#### **5.2.4 'Migration of others'**

There were 126 cases without missing data that were used to assess the internal validity of this scale. The scale includes four items ( $\bar{x} = 12.9$ ,  $s^2 = 4.951$ ,  $SD = 2.225$ ). However, these items had a very poor internal consistency, achieving an  $\alpha$  score of only .494. According to the item-total statistics, deleting any of the items from the analysis would only further lower  $\alpha$ . A PCA was run on the data and it was discovered that these items all loaded onto one component but that component only explained 40% of the total variance in the data. The failure of this scale could be due to the low number of items. Although the findings from these items would be interesting in terms of transnational networks, migration flows and household pioneer migrants, the empirical difficulties make this scale unreliable and therefore, although it is a loss in terms of theoretical interest, the scale is not salvageable. As a result of empirical flaws, it was decided that the entire scale should be dropped.

#### **5.2.5 'Citizenship'**

While citizenship was a consideration within the analysis, it was not made a criterion for inclusion in the sample. In hindsight, there may have been members of SADC countries who were included in the sample and this may have influenced the following results. Of the

132 cases, 129 cases did not have any missing data and were analyzed in order to assess the reliability of the first version of this scale. The measure includes four items, namely items 11, 12, 13 and 14, achieving a Cronbach's  $\alpha$  of .488, which is quite poor, largely because the number of items is small. Item 11 had a particularly poor item-total correlation and dropping that item increased  $\alpha$  to .695, which is satisfactory, particularly for a scale with such a small number of items. The revised version of the scale therefore includes three items ( $\bar{x} = 9.81$ ,  $s^2 = 6.885$ ,  $SD = 2.624$ ). The items were then analyzed using PCA, which produced one component with an eigenvalue greater than 1.0 and explains 62.931% of the variance within the scale. These items all address issues around the importance of citizenship with regards to national responsibilities, the relationship between citizenship and quality of life and the personal significance of citizenship to the respondent. Within this scale, item 12 ("Being a citizen of your country is a very important part of how you see yourself") is the most powerful discriminator among respondents. As such, this scale can be labeled as "Citizenship significance". Table 4 shows the factor loadings after rotation.

**Table 4. 'Citizenship' factor loadings**

	<b>Factor loadings</b>
	Citizenship
12. Being a citizen of your country is a very important part of how you see yourself.	<b>.868</b>
14. It is your duty to contribute your talents and skills to the growth of your country.	<b>.767</b>
13. It really does not matter where you are a citizen as long as you have a good quality of life.	<b>.739</b>
Eigenvalues	1.888
% of variance	62.931
A	.837

*Note: Factor loadings over .50 appear in bold.*

### 5.2.6 'Information'

There were 129 cases that were not missing any data and were used to assess the reliability of the first version of this measure, which included seven items, namely items 37, 38, 39, 40, 41, 42 and 43. The scale achieved a Cronbach's  $\alpha$  of .811, which is a fairly good level of internal consistency. However, after inspecting the item-total statistics, it was observed that item 43 ("How easy or difficult would it be for you to leave your country to go and work in another country if you wanted to?") had a fairly low level of item-total correlation (.306). It was assumed that this item should be included in this scale as it seemed to be a result of the



processing of information which had been gained from various sources. Perhaps a different wording of this item would have increased its value in the scale.

When this item is retained, a PCA yields two components, explaining 65.2% of the variance. However, there does not seem to be obvious commonalities between the items in either component. For example, the types and sources of information are spread between the components, making a theoretically meaningful division of the questions into subscales somewhat impossible. When the item is dropped, a PCA shows that there is only one latent variable within the data, explaining 55.4% of the variance. Therefore, for empirical reasons, this item was dropped. Thereafter, Cronbach's  $\alpha$  increases to .837 and the scale includes six items ( $\bar{x} = 18.29$ ,  $s^2 = 24.709$ ,  $SD = 4.971$ ). Table 5 shows the factor loadings after rotation.

**Table 5. 'Information' factor loadings**

	<b>Factor loadings</b>
	Information
39. How often do you get information about living conditions in other countries from professional associates?	<b>.854</b>
41. How often do you get information about job opportunities in other countries from friends and family?	<b>.825</b>
42. How often do you get information about job opportunities in other countries from professional associates?	<b>.802</b>
40. How often do you get information about job opportunities in other countries from the media?	<b>.676</b>
37. How often do you get information about living conditions in other countries from the media?	<b>.649</b>
38. How often do you get information about living conditions in other countries from friends and family?	<b>.629</b>
Eigenvalues	3.326
% of variance	55.441
A	.837

*Note: Factor loadings over .50 appear in bold.*

### 5.2.7 'Satisfaction and prospects'

There were 127 cases that did not have missing data which were used as data to assess the reliability of this scale. The measure included 17 items ( $\bar{x} = 46.61$ ,  $s^2 = 83.114$ ,  $SD = 9.117$ ) and the scale achieved an  $\alpha$  score of .859, which can be interpreted as quite a high level of internal consistency. None of the items had particularly low levels of item-total correlation

and thus all of the items were used in a PCA analysis in order to further investigate the measure's underlying variables. There were 4 components with eigenvalues greater than 1.0 which were extracted, explaining 58% of the variance present within the data. After rotating the factors using Varimax rotation, the loadings for the four components was analyzed.

One of the components only had one item with a high loading, namely item 26. Item 26 deals with expected prospects for changes in income and was among the items with the lowest item-total correlations, achieving .372. It also did not correlate highly with any of the other items in the scale. As a result of these empirical issues, this item was then dropped to see how it would affect the internal consistency and another PCA was conducted. This revised version of the scale, which now included 16 items ( $\bar{x} = 43.23$ ,  $s^2 = 76.696$ ,  $SD = 8.758$ ) had a marginally lower  $\alpha$  score of .856. The PCA that was conducted revealed that the remaining items loaded on the same components as before, meaning that there were three latent variables present within the data explaining a combined 53.8% of the total variance in the data. Table 6 shows the factor loadings after rotation.

**Table 6. 'Satisfaction and prospects' factor loadings**

	Rotated factor loadings		
	Safety and stability	Satisfaction with professional prospects	Expected professional prospects
31. How stable will the country be over the next five years?	<b>.776</b>	.248	.126
28. Please indicate whether you expect your personal safety in this country to get better, stay the same or get worse in the next five years.	<b>.724</b>	.239	.231
32. How stable has the country been over the last five years?	<b>.717</b>	.005	-.257
27. Please indicate how satisfied or dissatisfied you are with your personal safety in this country.	<b>.713</b>	.029	.115
29. How safe is it for someone in your profession to work in urban South Africa?	<b>.616</b>	-.047	.278
30. How safe is it for someone in your profession to work in rural South Africa?	<b>.576</b>	.069	.115

**Table 6. (continued)**

34. Do you approve or disapprove of the way the national government has performed its job over the past year?	<b>.572</b>	.432	.093
35. How interested do you think people in government are in hearing what people like you think?	<b>.524</b>	.439	.132
33. In general would you say that your life today is better, about the same or worse than it was five years ago?	.369	.096	.315
21. Please indicate how satisfied or dissatisfied you are with prospects for professional advancement in your profession in this country.	.041	<b>.794</b>	.255
23. Please indicate how satisfied or dissatisfied you are with prospects for professional advancement through additional education and training in this country.	.223	<b>.743</b>	.164
25. Please indicate how satisfied or dissatisfied you are with your level of income in your profession in this country.	.010	<b>.708</b>	-.051
20. If you were to be in a similar position, please indicate whether you expect your job to get better, stay the same or get worse in the next five years.	.022	.110	<b>.756</b>
19. Please indicate how satisfied or dissatisfied you are with your job.	.081	.003	<b>.697</b>
22. Please indicate whether you expect the prospects for professional advancement in your profession in this country to get better, stay the same or get worse in the next five years.	.299	.376	<b>.650</b>
24. Please indicate whether you expect the prospects for professional advancement through additional education and training in your profession in this country to get better, stay the same or get worse in the next five years.	.429	.409	.464
Eigenvalues	3.931	2.518	2.154
% of variance	24.568	15.737	13.463
$\alpha$	.841	.715	.709

Note: Factor loadings over .50 appear in bold.

### 5.2.7.1 'Satisfaction and prospects' subscale 1: Safety and stability

Component one correlates positively items 27, 28, 29, 30, 31, 32, 33, 34 and 35. These nine items ( $\bar{x} = 21.84$ ,  $s^2 = 31.345$ ,  $SD = 5.599$ ) achieved a Cronbach's  $\alpha$  of .841, which is quite a good level of internal consistency. The items generally deal with issues of government, past, present and future stability, personal safety and professional safety in rural and urban contexts. Items 33 did not have a loading higher than .5; however this item loaded higher on

component one than on the other two components and thus will be included in this component. In addition, these items follow similar themes to other items which load highly on this component. Item 33 has a loading of .368 and deals with a general comparison of the respondent's life five years ago with their present conditions. Item 33 correlates with item 28 (.366) and item 31 (.381). Item 31 ("How stable will the country be of the next five years?") has the highest loading of the items which correlate with this component (.776), giving a sense of the core of this component. Component one can be labelled as "Safety and stability".

#### ***5.2.7.2 'Satisfaction and prospects' subscale 2: Professional prospects satisfaction***

Component two has three items which load highly, specifically items 21, 23 and 25. The scale achieved an  $\alpha$  score of .715, which is a satisfactory level of internal consistency, and includes three items ( $\bar{x} = 8.84$ ,  $s^2 = 7.005$ ,  $SD = 2.647$ ). These items deal with the respondents' level of satisfaction with issues such as their income level, prospects for professional advancement and prospects for professional advancement through additional education and professional training. Item 21 has the highest loading on this component (.794), asking the respondents to indicate their level of satisfaction "with prospects for professional advancement in [their] profession in this country". As such, component two can be labelled as "Professional prospects satisfaction".

#### ***5.2.7.3 'Satisfaction and prospects' subscale 3: Expected professional prospects***

Component three correlates positively with four items, namely items 19, 20, 22 and 24. This scale ( $\bar{x} = 12.48$ ,  $s^2 = 7.778$ ,  $SD = 2.789$ ) achieved a Cronbach's  $\alpha$  of .709, which can be viewed as satisfactory. These items deal with whether the respondents expect improvement or deterioration in their job, prospects for professional advancement and prospects for professional advancement through additional education and professional training. Item 19 differs slightly in that it deals with levels of job satisfaction. While item 24 only has a loading of .464, it has a higher loading on component three than on the other components and has a relatively high correlation of .73 with item 22. Because component three seems to correlate positively with items related to assessment of impending professional conditions, this component can be labelled as "Expected professional prospects".

### 5.2.8 'MLD comparison'

There were 125 cases that were not missing data which were used to analyze the reliability of this scale. The original version included 6 items ( $\bar{x} = 12.1$ ,  $s^2 = 13.846$ ,  $SD = 3.721$ ). This measure was found to have a Cronbach's  $\alpha$  of .754, giving it a fairly satisfactory internal consistency. Although item 51 had a poor item-total correlation (.152), dropping this item would only increase  $\alpha$  to .787 and the theoretical interest of the importance of safety seems to warrant retaining this item. There is also empirical interest in this item since items relating to safety seem to have more extreme responses, with markedly different means from that of other items within this scale. Therefore, despite the relatively poor item-total correlation, item 51 was retained in the analysis.

A PCA was conducted in order to assess whether this scale covers one or more latent variables and to assess whether the retention of item 51 was warranted through empirical analysis. The analysis showed 2 components with eigenvalues greater than 1.0 within the scale, explaining a total of 64.1% of the total variance. After rotating the factors through Varimax rotation, the components were analyzed according to their factor loadings. Table 7 shows the factor loadings after rotation.

**Table 7. ‘MLD comparison’ factor loadings**

	<b>Rotated factor loadings</b>	
	Professional comparison	Personal comparison
49. Would you say that prospects for professional advancement in this country are better, worse or about the same as it would be in your most likely destination (MLD)?	<b>.804</b>	.127
50. Would you say your level of income in this country is better, worse or about the same as it would be in your most likely destination (MLD)?	<b>.783</b>	.092
47. Would you say your job in this country is better, worse or about the same as it would be in your most likely destination (MLD)?	<b>.732</b>	-.130
48. Would you say that prospects for professional advancement through additional education and training in your profession in this country are better, worse or about the same as it would be in your most likely destination (MLD)?	<b>.698</b>	.309
51. Would you say your personal safety in this country is better, worse or about the same as it would be in your most likely destination (MLD)?	-.073	<b>.903</b>
46. In general, would you say the overall conditions in this country are better, worse or about the same as in your most like destination (MLD)?	<b>.508</b>	<b>.589</b>
Eigenvalues	2.547	1.300
% of variance	42.455	21.672
$\alpha$	.772	.439

*Note: Factor loadings over .50 appear in bold.*

### **5.2.8.1 ‘MLD comparison’ subscale 1: Professional comparison**

Component one includes four items that load highly on it, specifically items 47, 48, 49 and 50. As a scale ( $\bar{x} = 8.96$ ,  $s^2 = 9.474$ ,  $SD = 3.078$ ) these four items achieve a Cronbach’s  $\alpha$  of .772, indicating a satisfactory level of internal consistency. The items address comparisons between the home country and the respondents’ MLD around issues of one’s job, income level, prospects for professional advancement, additional education and professional training. Although item 46 also loads highly on this component, it has a higher loading on the other component and seems to fit better within that subscale. While all of the other items in this component address some aspect of professional comparisons, item 46 seems much more general. As such, it was not included in this subscale. Because all of the remaining items are situated within the work or professional context, this component can be labeled as “Professional comparison”.

#### **5.2.8.2 ‘MLD comparison’ subscale 2: Personal comparison**

Component two correlates positively with items dealing with personal and general comparisons, namely items 46 and 51. These two items constitute a scale ( $\bar{x} = 3.17$ ,  $s^2 = 1.502$ ,  $SD = 1.226$ ) which has an  $\alpha$  score of .439. Although the internal consistency is somewhat low, it can be considered satisfactory due to the small number of items in this scale. The items deal with comparisons between the MLD and home country around issues such as personal safety and overall conditions and, as such, this component can be labeled “Personal comparison”.

### **5.3 Multiple regression analyses**

Because the dependent variable of ‘Migration intention’ included the four subscales of ‘long-term migration plans’, ‘migration timeframe’, ‘concrete plans’ and ‘short-term migration plans’, a multiple regression analysis was run with each of these variables being used as a criterion variable. The predictor variables in each of these analyses included: citizenship; information; safety and stability; satisfaction with professional prospects; expected professional prospects; MLD professional comparison; and MLD personal comparison.

#### **5.3.1 Predictor graphical output**

In order to build a model of migration from the variables listed above, it was first necessary to inspect the variables in terms of their descriptives. Firstly, boxplots (see Appendix G) for each variable were inspected. There were no apparent problems with ‘information’ and ‘professional prospects satisfaction’ in terms of distribution and outliers. While ‘citizenship’, ‘safety and stability’, ‘expected professional prospects’ and ‘MLD professional comparison’ seemed to be reasonably symmetrical, these variables had outliers which were identified. ‘Expected professional prospects’ in particular seemed to have outliers on either end of the distribution, indicating that these cases may have unduly influenced the analysis. The ‘MLD personal comparison’ boxplot seems to indicate that the scores in this variable were skewed, implying that this variable may have been problematic within the analysis. Further analysis for these variables will take place within the context of each of the multiple regression analyses that were conducted.

### **5.3.2 Multiple regression 1: ‘Long-term migration plans’**

In order to assess the predictive value of all of the explanatory variables on the dependent variable of ‘Long-term migration plans’, a multiple correlation analysis was conducted using the Enter method.

#### ***5.3.2.1 Assumptions and diagnostics***

It is important to assess the assumptions of the regression model and to assess casewise diagnostics. Assumptions for multiple regression include collinearity, homogeneity of variance, the assumption of linearity and normal distribution (Field, 2009). The Durbin-Watson statistic (1.885) indicates that the residuals in the model are independent. In terms of collinearity, the standard errors were not particularly high for the regression coefficients (none greater than 1.000) and, according to the collinearity diagnostics, there were not large variance proportions on the same eigenvalues. The collinearity statistics of tolerance and VIF did not suggest any serious or potential problems within the data. In addition, there were not high correlations between the predictor variables (all correlations < .5). Therefore, it does not seem that collinearity was a problem within this data for this model. After having inspected the scatterplots, histograms and normal P-P plots for the residuals, it appeared that the assumptions of linearity, homogeneity of variance and normal distribution were all met within this data set.

The casewise diagnostics show 5 potentially problematic cases, namely cases 51, 89, 99, 115 and 118. With a sample of 132, it would be reasonable to expect 6.6 (5%) cases to have standardized residuals outside of  $\pm 2$  and 1.32 (1%) cases outside of  $\pm 2.5$  standard residuals. For this data, there are 5 cases with absolute values above 2, and 2 cases with absolute values above 2.5. Therefore, it can be assumed that this sample appears to conform to what one would expect for a fairly accurate model, especially since there are no cases with standardized residuals greater than 3. None of the cases seemed to have particularly high or unusual levels of influence ( $>1.000$ ), as measured by Cook’s D. The DFBeta statistics showed that none of these cases had absolute values greater than 1, therefore indicating that they had no undue influence over the regression parameters. Thus, according to the casewise diagnostics, the model seemed to be fairly reliable and was not unduly influenced by any subset of cases.



### 5.3.2.2 Summary of model

The  $R^2$  is .508, meaning that 50.8% of the variance in the criterion variable can be explained by the predictor variables in this model. The overall model fit the data moderately well and was found to be significant ( $F_{7,109} = 16.105$ ,  $p = .000$ ,  $SEM = 4.98011$ ). When ‘Long-term migration plans’ was predicted, it was found that citizenship ( $\beta = .247$ ,  $p = .002$ ), safety and stability ( $\beta = .232$ ,  $p = .010$ ), personal comparison ( $\beta = .232$ ,  $p = .008$ ) and information ( $\beta = .226$ ,  $p = .003$ ) were significant predictors. However, professional prospects satisfaction ( $\beta = .096$ ,  $p = .241$ ), expected professional prospects ( $\beta = .030$ ,  $p = .709$ ) and professional comparison ( $\beta = -.049$ ,  $p = .555$ ) were not significant predictors. Table 8 shows the model coefficients. Therefore, in this model, citizenships, safety and stability, personal comparison and information are useful in predicting ‘long-term migration plans’, implying that professional factors are not necessarily significant predictors.

**Table 8. Model coefficients for the DV ‘Long-term migration plans’**

Model	B	SE B	$\beta$
Constant	-7.094	2.717	
Citizenship	.638	.198	.247*
Information	.311	.103	.226*
Safety and stability	.283	.107	.232*
Professional prospects satisfaction	.252	.213	.096
Expected professional prospects	.074	.198	.030
MLD professional comparison	-.108	.182	-.049
MLD personal comparison	1.282	.473	.232*

Note:  $R^2 = .508$  \* $p \leq .01$

### 5.3.3 Multiple regression 2: ‘Migration timeframe’

In order to assess the predictive value of all the independent variables on the dependent variable of ‘Migration timeframe’, another multiple correlation analysis was conducted using the Enter method.

#### 5.3.3.1 Assumptions and diagnostics

According to the assumptions as cited for the above multiple regression, it appeared that collinearity was not a problem in this data and that the assumptions of homogeneity of

variance, linearity and normality were not violated. The Durbin-Watson statistic (1.687) indicated that the assumption of independent errors was almost certainly met within the data.

The casewise diagnostics showed 4 potentially problematic cases, namely cases 51, 65, 109 and 118. For this data, there were 4 cases with absolute values above 2 and 1 with absolute values above 2.5. Therefore, it can be assumed that this sample conformed to what one would expect for a fairly accurate model, especially since there were no cases with standardized residuals greater than 3. None of the cases seemed to have particularly high or unusual levels of influence ( $>1.000$ ), as measured by Cook's D. The DFBeta statistics showed that none of these cases had absolute values greater than 1, therefore indicating that they had no undue influence over the regression parameters. Thus, according to the casewise diagnostics, the model seemed to be fairly reliable and was not unduly influenced by any subset of cases.

#### **5.3.3.2 Summary of model**

The  $R^2$  is .272, indicating that 27.2% of the variance within 'migration timeframe' was explained by the predictors in this model. The overall model was found to be significant ( $F_{7,108} = 74.533$ ,  $p = .000$ ,  $SEM = 3.59786$ ). When 'Migration timeframe' was predicted, it was found that information ( $\beta = .346$ ,  $p = .000$ ) and expected professional prospects ( $\beta = .210$ ,  $p = .036$ ) were significant predictors. However, citizenship ( $\beta = .120$ ,  $p = .203$ ), safety and stability ( $\beta = .002$ ,  $p = .986$ ), personal comparison ( $\beta = .084$ ,  $p = .420$ ), professional prospects satisfaction ( $\beta = -.040$ ,  $p = .691$ ) and professional comparison ( $\beta = .084$ ,  $p = .420$ ) were not significant predictors. Table 9 shows the model coefficients. Therefore, according to this model, information and expected professional prospects appeared to be useful predictors of 'migration timeframe'.

**Table 9. Model coefficients for the DV ‘Migration timeframe’**

<b>Model</b>	<b>B</b>	<b>SE B</b>	<b>β</b>
Constant	1.675	1.964	
Citizenship	.184	.143	.120
Information	.281	.075	.346*
Safety and stability	.001	.080	.002
Professional prospects satisfaction	-.062	.155	-.040
Expected professional prospects	.308	.145	.210*
MLD professional comparison	-.003	.132	-.002
MLD personal comparison	.275	.340	.084

*Note: R<sup>2</sup> = .272 \*p < .05*

### **5.3.4 Multiple regression 3: ‘Concrete plans’**

The predictive value of all of the independent variables on the dependent variable of ‘Concrete plans’ was assessed through multiple correlation analysis using the Enter method.

#### **5.3.4.1 Assumptions and diagnostics**

According to the assumptions as cited for the first multiple regression, it appeared that collinearity was not a problem in this data. The Durbin-Watson statistic (2.037) indicated that the assumption of independent errors was almost certainly met within the data. However, on further inspection of the histogram, normal P-P plots and plots of \*ZRESID against \*ZPRED, it seemed that this model may have violated the assumptions of normality, homogeneity of variance and linearity. As such, the findings from this model should not be generalized beyond this sample.

The casewise diagnostics show 7 potentially problematic cases, namely cases 4, 43, 65, 68, 69, 87 and 116. For this data, there were 7 cases with absolute values above 2, there were 5 cases with absolute values above 2.5, and case 116 had an absolute value greater than 3. This therefore warranted further investigation of the casewise diagnostics, specifically in terms of case 116. None of the cases, even case 116, seemed to have particularly high or unusual levels of influence (>1.000), as measured by Cook’s D. The DFBeta statistics showed that none of these cases have absolute values greater than 1, therefore indicating that they had no

undue influence over the regression parameters. Thus, according to the casewise diagnostics, the model seemed to be fairly reliable and was not unduly influenced by any subset of cases.

#### 5.3.4.2 Summary of model

For this model, the  $R^2$  was .259, meaning that 25.9% of the variance in the criterion variable was explained by the predictor variables included in this model. The overall model fit the data to some degree ( $F_{7,109} = 5.450$ ,  $p = .000$ ,  $SEM = 1.8687$ ). When ‘Concrete plans’ was predicted, it was found that information ( $\beta = .353$ ,  $p = .000$ ) and MLD professional comparison ( $\beta = .208$ ,  $p = .042$ ) were significant predictors. However, citizenship ( $\beta = .012$ ,  $p = .902$ ), safety and stability ( $\beta = .001$ ,  $p = .996$ ), MLD personal comparison ( $\beta = .002$ ,  $p = .982$ ), professional prospects satisfaction ( $\beta = -.070$ ,  $p = .488$ ) and expected professional prospects ( $\beta = .156$ ,  $p = .118$ ) were not significant predictors. Table 10 shows the model coefficients. Therefore, information and MLD professional comparison were useful factors when predicting ‘concrete plans’ for international migration.

**Table 10. Model coefficients for the DV ‘Concrete plans’**

Model	B	SE B	$\beta$
Constant	6.875	1.020	
Citizenship	.009	.074	.012
Information	.150	.039	.353*
Safety and stability	.000	.040	.001
Professional prospects satisfaction	-.056	.080	-.070
Expected professional prospects	.118	.075	.156
MLD professional comparison	.142	.069	.208*
MLD personal comparison	.004	.177	.002

Note:  $R^2 = .259$  \*  $p < .01$

#### 5.3.5 Multiple regression 4: ‘Short-term migration plans’

All of the independent variables were assessed for their predictive value relating to the dependent variable of ‘Short-term migration plans’ through multiple correlation analysis using the Enter method.

### ***5.3.5.1 Assumptions and diagnostics***

According to the assumptions as cited for the first multiple regression, it appeared that collinearity was not a problem in this data. The Durbin-Watson statistic (1.687) indicated that the assumption of independent errors was almost certainly met within the data. The histogram and normal P-P plots indicated that the data was relatively normally distributed. However, on further inspection of the scatterplots of \*ZRESID against \*ZPRED and STUDRESID against \*ZPRED, it seemed that this model may have violated the homogeneity of variance and linearity. As such, the findings from this model should not be generalized beyond this sample.

The casewise diagnostics showed 4 potentially problematic cases, namely cases 44, 51, 69 and 131. For this data, there were 4 cases with absolute values above 2 and none with absolute values above 2.5. Therefore, it can be assumed that this sample conforms to what one would expect for a fairly accurate model, especially since there were no cases with standardized residuals greater than 3. None of the cases seemed to have particularly high or unusual levels of influence ( $>1.000$ ), as measured by Cook's D. The DFBeta statistics showed that none of these cases had absolute values greater than 1, therefore indicating that they had no undue influence over the regression parameters. Thus, according to the casewise diagnostics, the model seemed to be fairly reliable and was not unduly influenced by any subset of cases.

### ***5.3.5.2 Summary of model***

The  $R^2$  for this model is .066, meaning that 6.6% of the variance for 'short-term migration plans' is explained by the independent variables included in this model. The overall model fit was not significant ( $F_{7,110} = 1.111$ ,  $p = .361$ ,  $SEM = 2.23991$ ), indicating that the independent variables were extremely poor predictors of this criterion variable within this data. When 'Short-term migration plans' was predicted, it was found that none of the predictors were significant, although professional comparison ( $\beta = .197$ ,  $p = .083$ ) was the most significant of all of the independent variables. The rest of the predictors, namely information ( $\beta = .056$ ,  $p = .590$ ), expected professional prospects ( $\beta = -.062$ ,  $p = .574$ ), citizenship ( $\beta = -.036$ ,  $p = .735$ ), safety and stability ( $\beta = -.010$ ,  $p = .934$ ), personal comparison ( $\beta = .197$ ,  $p = .083$ ), professional prospects satisfaction ( $\beta = -.076$ ,  $p = .504$ ), achieved very poor significance levels. Table 11 shows the model coefficients. Therefore, none of the stipulated variables were useful in predicting short-term migration intentions.

**Table 11. Model coefficients for the DV ‘Short-term migration plans’**

<b>Model</b>	<b>B</b>	<b>SE B</b>	<b>β</b>
Constant	4.155	1.220	
Citizenship	-.030	.089	-.036
Information	.025	.046	.056
Safety and stability	-.004	.048	-.010
Professional prospects satisfaction	-.064	.096	-.076
Expected professional prospects	-.050	.089	-.062
MLD professional comparison	.143	.082	.197
MLD personal comparison	.229	.211	.127

*Note: R<sup>2</sup> = .066 \* p < .05*

### **5.3.6 Summary of multiple regression findings**

In summary, three of the four models proved to be significant, with the model for ‘short-term migration plans’ having not achieved an acceptable level of significance. Across the models, ‘information’ was significant in most of the regressions, while ‘satisfaction with professional prospects’ did not prove to be significant in any of the models. Professional-oriented factors did not prove to be as useful as had been expected in predicting any of the criterion variables. The usefulness and ways in which the independent variables operated for each dependent variable will be discussed further in the following section. Table 12 shows a summary of the significant predictor variables for each of the regression models.

**Table 12. Summary of significant predictors**

		Predictor Variables							
		Citizenship	Information	Safety and stability	Professional prospects satisfaction	Expected professional prospects	MLD professional comparison	MLD personal comparison	
<b>Criterion variables</b>	<b>Long-term migration plans</b>	*	*	*					*
	<b>Migration timeframe</b>		*			*			
	<b>Concrete plans</b>		*				*		
	<b>Short-term migration plans</b>								

*Note:* \*  $p < .05$

## 6. DISCUSSION

This study attempted to identify and model important factors in predicting the intention to migrate among young recently qualified health professionals and to assess current and salient issues for these professionals in terms of their migration potential. This discussion will analyze the findings of this study, relating the data to recent research and accepted schools of thought within the field of international migration. The findings will first be reviewed in a general sense and then the appropriateness of Fischer et al.'s (1997b) international migration framework will be assessed in light of the findings. The implications of the findings will also be addressed in order to explore policies and methods which may be useful in tackling the issue of health professional migration from the global South, and South Africa in particular. The particular strengths and weaknesses of this study will then be discussed, with recommendations for future research in this area which may build on and improve the present study.

Before continuing to discuss the results of this study in light of the reviewed literature, it is crucial to re-emphasize that the poor response rate obtained by this study makes the generalisation of these results to the wider population of health professionals impossible. The discussion below should be read in light of this restriction.

### 6.1 International South to North migration

It was not surprising to see that the majority of the respondents identified a nation from the North as their MLD, specifically the U.K., Australia, Canada and the U.S.A. According to much of the literature, these four countries are often preferred destinations for many skilled workers, and health professionals are not an exception to that rule (Aiken, et al., 2004; Mullan, 2005).

It is also interesting to note that the number and range of destination countries chosen in this study was much wider among *preferred* destinations than that of *most likely* destinations. This seems to imply young health professionals would like to migrate to a great variety of receiving countries and yet nations from the North such as U.K., Australia, Canada and the U.S.A. are still the most common destinations. This makes sense for two reasons.



Firstly, all four of these major receiving countries claim English as an official language. Mullan (2005, p. 1816) notes that “former colonial ties and the English language are strongly associated with many of the avenues of heavy migration”. It can reasonably be assumed that, as all of the respondents have professional degrees, most of them would be able to communicate relatively well in the medium of the English language, especially since almost two thirds of respondents reported that English was their home language. Therefore, although a respondent may *prefer* to migrate to a less mainstream country such as Spain or Argentina, the practicality and familiarity of practising their profession and living in an English-speaking nation makes migration to the U.K., Australia, Canada and/or the U.S.A. more likely due to increased feasibility and decreased cost (Fischer, et al., 1997b).

Because South Africa is a former British colony, cultural integration may be less difficult in other former British colonies or in the U.K. itself. These observations are in line with Fischer et al.’s (1997b) broadened conceptualisation of ‘distance’ to include political, linguistic and cultural aspects. Therefore, from these findings, it seems that the four major receiving nations are more likely to be migration destinations, at least in part due to their more favourable “socio-cultural, political and geo-ecological benefits and costs” (Fischer, et al., 1997b, p. 57) in terms of non-geographic distance from South Africa.

A second major reason for the selection of the UK, Australia, Canada and the USA as likely destinations is related to the fact that it is widely known that the aforementioned destination countries often attract, and even actively recruit, health professionals and other skilled labour (Crush, 2002; Lucas, 2005). Immigration policies such as the ‘points system’ are key components in global North selectiveness for potential immigrants (Duncan, 2008). The active recruitment conducted by many Northern nations and organisations has made such nations among the most favourable destinations for migrants and has greatly influenced international migration flows (Duncan, 2008; Singh, et al., 2003), even to the extent that *most likely* destinations are not always equivalent with *most preferred* destinations.

## **6.2 A prognosis for health professional migration**

### **6.2.1 Professional satisfaction**

Based on media reports, commonly held knowledge and anecdotal accounts of dissatisfied health professionals and a mass exodus from South Africa, it is surprising that there were not

extreme levels of professional dissatisfaction among this study's respondents. Only a relative minority reported dissatisfaction with various aspects of their profession, such as job satisfaction, prospects for professional advancement (especially through additional training and/or education) and income level.

A possible explanation of the disparity between media reports and the indicators presented in this study could be the presence of sensationalism within the media's agenda ("High cost of sensationalism," 2004). As discussed earlier, sensationalised headlines are a symptom of the ratings-driven culture within the general media. Because of the strong relationship between media salience and public opinion (Kioussis & McCombs, 2004), it could be that commonly held knowledge and media coverage of health professional migration is not consistent with actual indicators around this topic. This, again, emphasises the need to conduct research which produces reliable data regarding this topic, which should then be appropriately disseminated into the public domain. Without such action, there will continue to be a sharp disjunction between real world indicators, public opinion, and the media regarding health professional migration from South Africa.

However, this finding should not allow the South African Department of Health to become complacent about the current state of the health care system and its workforce. The sample in this study is not representative and therefore cannot be generalized to the entire population of health professionals. Measures toward improving working conditions and professional excellence through opportunities for advancement and training should always be high priorities in any field of service, but especially in one such as health care (Dolvo, 2005b). In addition, although it does not seem that many of the respondents were dissatisfied with the specified aspects of their profession, there does seem to be a general consensus that professional conditions in MLDs are better than in South Africa. This indicates that, although professionals are not particularly dissatisfied as health professionals in South Africa, they may be aware that they could be in a better position professionally in another country.

### **6.2.2 Personal distress**

One especially significant finding of this research is related to the importance of personal safety and national stability. While other aspects of the survey seemed to show that respondents were not significantly dissatisfied with professional elements of their life in

South Africa, factors that affect their private lives seem to be a different story altogether. An overwhelming majority of the health professionals sampled for this study were dissatisfied with their personal safety, their safety while operating in a professional capacity, the performance and attentiveness of the national government, and the current and future stability of South Africa in general.

Furthermore, the majority of the sample believed that their personal safety is worse in South Africa than in an MLD. These trends seem to indicate that private factors, as opposed to professional factors, are a major cause of distress and restlessness among health professionals. Despite the fact that most of the sample felt that their citizenship in South Africa is important and that they have a duty to contribute to their nation, the majority of the sample also reported that one's citizenship is secondary to one's quality of life. Therefore, it could be argued that, despite the sense of national loyalty that may be present, the prospect of staying in their home country may become unlikely in the face of national instability, which will affect their personal well-being. This potential exit of health professionals may also be more likely since they feel they are unable to express their voice or their voice to be heard by national government, as suggested by the framework relating to voice and exit developed by Tung (1981, in Ahmed, 1997).

Considering that it was reported that the families of health professionals would largely encourage international migration, it is somewhat troubling that it is also friends and family who frequently provide information regarding living conditions in other countries. This seems to imply that much of the information gathered would be in favour of migration. Under such circumstances, an intention to migrate to a more stable country may become more likely as support from family and unsafe personal conditions create restlessness among such professionals.

### **6.2.3 Migration potential**

Mattes and Richmond (2002) argue that migration potential can be summarised as consideration, desire, likelihood and commitment. When one considers these aspects, there are both some reassuring and disturbing findings which emerge from this study. As one moves from the abstract to the more concrete of these elements, the levels of migration potential for this sample decreased. Furthermore, when commitment was taken into account,

very few of the respondents had actually taken concrete measures, such as applying for work permits and professional registration. While over half of the respondents reported that it was likely that they would migrate in the next five years, only a small minority indicated that they would likely migrate in the next six months.

Even though it is disturbing that so many health professionals state that they will likely migrate at some point in the next five years, such likelihoods could, in time, decrease, as an intention to migrate in the distant future is less likely to become a reality than if migration is likely within the very near future (Mattes & Richmond, 2002). Until concrete and immediate steps are taken toward migration, such as immediate plans and provisions, future migration dreams and plans may remain within the realm of dreams and plans without ever becoming a reality (Mattes & Richmond, 2002). From the current findings, it seems that a mass exodus of these newly qualified health professionals is not likely within the immediate future. However, because most of these health professionals are young and about half are single, they still fall within the category of highly mobile individuals (Fischer, et al., 1997b). Therefore, while these findings suggest that the majority of this sample is unlikely to migrate in the immediate future, this picture could change within the next few years as they make crucial decisions about their personal and professional futures.

### **6.3 Fischer et al.'s (1997b) international migration framework**

When examining the results of this study through Fischer et al.'s (1997b) international migration framework, there are some consistencies and some unexpected discrepancies. Fischer et al.'s (1997b) framework considers both macro- and micro-level factors and argues that migration can be conceptualized as an interaction of these units. While this framework does take economic factors into account, it also recognizes the salience of other issues which are fundamentally non-economic in nature. There are two central distinctive elements to this framework, as has been stated in the literature review, which will be repeated here in order to refresh the reader. According to Fischer et al. (1997b, p. 51), this type of model:

has a richer approach to the micro-level decision making, distinguishing between (a) existential economic needs, (b) needs for security, (c) needs for social integration and acceptance, and (d) needs for self-fulfilment. Secondly, it looks not only at the economic costs and benefits of migration but takes non-economic aspects of life such

as peace, freedom, security, love, health and happiness, to mention just a few, explicitly into account.

### **6.3.1 Personal versus professional influences**

This framework is useful in thinking through this study's results because some of the results are somewhat counterintuitive, especially against the backdrop of the dominance of largely economic migration theories. The basis of many migration theories, especially that of neoclassical economic approaches and other labour-oriented approaches, is the assumption of the economic individual who is *purely* a utility maximizer (Fischer, et al., 1997b; Samers, 2010).

This study has found that 'personal' concerns such as national and personal safety and stability were more salient than that of 'professional' concerns, such as professional satisfaction and the awareness that similar professionals are better off abroad. This implies that one cannot hold the assumption that potential migrants act upon purely financial or economic information, which is contrary to the widely accepted notion of the unconditionally rational, economic individual. This assumption has been debated by many theorists, with differing positions regarding support for this hypothesis (Fischer, et al., 1997b; Tunali, 2000). In their review of historically dominant theoretical approaches to migration, Massey et al. (1998, p. 8) note that "the conceptualization of migrants as rational actors responding to economic disparities between countries" has been called into question by many contemporary social scientists (Fischer, et al., 1997b; Hsieh & Liu, 1983; Massey, et al., 1998; Mattes & Richmond, 2002). Therefore, it has become more acceptable to view the potential migrant as acting upon factors which are essentially non-economic, such as safety and stability in this case, in addition to more economic issues.

This interpretation of the findings seems to fit well with the proposed framework, which posits that the individual makes the decision to migrate in accord with their (or their family's/community's) needs, fears, desires and hopes within the context of macro-level factors (Fischer, et al., 1997b). The relative absence of significant professional factors as migration predictors seems to indicate that, while professional considerations may be somewhat important, migration is about more than just 'finding a better job overseas'.

The tension between personal and professional factors also highlights the notion that individuals operate within the context of wider social, political and economic contexts in which they are situated. This is similar to Fischer et al.'s (1997b, p. 51) argument that "on the basis of their own needs, desires and aspirations and under the influence of the macro-framework, individuals decide whether they want to migrate". Thus, due to anticipated national instability, whether it is perceived or actual, individuals may make the decision to migrate due to their desire for personal safety and prosperity. Furthermore, the greater significance of 'personal' factors over 'professional' factors can also be interpreted as supporting the framework's differentiation between various levels of needs and desires, specifically that of the need for security and the need for self-fulfillment. For example, a health professional may be aware of and convinced that they would be useful and fulfilled in their work as a health professional working in the South, yet may be concerned about their personal security and the safety and security of their household.

This seems to point to the presence of the psychosocial factors at play within migration intentions. Within a large majority of (historically) dominant migration theories, these micro-level features seem to be neglected in favour of macro-level, primarily economic, labour-driven understandings of reasons for migration. However, this study shows that purely professional and economic comparisons between countries are not sufficient to understand migration intentions. As is suggested by Fischer et al. (1997b), migration occurs as a result of the interplay between the individual (and their household) and the wider context of their home country or region. Yet it seems that many studies either focus on the micro- or the macro-level exclusively. Psychology brings a great deal to bear on the topic of migration in terms of understanding: the link between intentions and behaviour (Van Dalen & Henkens, 2008); motivations (Tartakovsky & Schwartz, 2001); well-being (McMichael & Manderson, 2004), acculturation (Colic-Peisker & Walker, 2003; Padilla & Perez, 2003); identity (Waters, 1995); and decision-making processes (Gubhaju & De Jong, 2009; Hardman, 2009). Such elements should become more dominant in 'mainstream' migration theories, as opposed to being specialized studies which are often more peripheral. In addition, it seems that some migration studies have focused on certain aspects of the potential migrant, such as gender, race, marital status or age. Instead, it may be useful to incorporate and better explore the interaction between psychosocial elements to understand the individual as a psychosocial entity rather than as a representative of a demographic.

### 6.3.2 Citizenship

Samer's (2010) discussion on this topic is useful as he explains four aspects of citizenship, namely legal status, rights, belonging and civic and political participation. In this study, there seemed to be significant tension between some of these facets. While it seems that, for this sample, citizenship was an important part of their identity or belonging and they felt a duty toward civic participation, most of the sample were also willing to become a citizen of another country and reported that their citizenship was not as important as their quality of life. When linked with the lack of trust and support for the present national government, it would appear that one may feel home citizenship is important, yet not feel free to fully participate as a citizen because of the (actual or perceived) lack of attentiveness and responsiveness within the government. This may lead one to therefore seek citizenship where one is more approving of the performance and attentiveness of the national government.

This implication is in accordance with findings from Frey and Stutzer's (2000) study, which found that direct democracy is positively associated with subjective well-being. This association was hypothesised to be due to the close monitoring of politicians by actively involved citizens, and because citizens have the possibility of becoming involved in political process within their local and national government (Frey & Stutzer, 2000). Therefore, if citizens feel disempowered due to institutional restrictions or a lack of responsiveness by politicians in their home country, it is likely that their sense of well-being and belonging would be negatively affected.

In this sense, there is a tension between aspects of citizenship – in this case, between belonging and participation. This study's findings seem to suggest that belonging is not fully realised if one cannot fully participate within the socio-political context of one's country. This finding seems to fall within Tung's (1981, in Ahmed, 1997) third type of responses to dissonance between the individual and their environment, which is exit. It seems that, in light of a failure or perceived failure of the exercising of one's voice within the socio-political environment, exit may seem to be the only feasible option for those who wish to participate and belong more fully to a national community (Ahmed, 1997).

### **6.3.3 Information**

At this point, a note regarding the notion and role of ‘information’ should be discussed. ‘Information’ was a significant predictor among three of the four multiple regression models produced by this study. The notion that information would be important for this particular sample was expected. The respondents were all highly skilled and well-educated and would be more likely, by implication, to want to make well-informed decisions. Thus, gathering and integrating information would be a priority for this population, even though it may be a somewhat costly process in terms of resources such as time (Fischer, et al., 1997b).

The variety of sources of information can be both a positive and a negative factor when considering the accuracy of such information. Thus, information gathered from a friend or family member may be very different from that presented by the media, which may also have a different slant from that presented by a professional colleague. In addition, emphasis may be placed on different sources depending on the nature of the information being sought. So a colleague’s information regarding professional prospects may be valued over that of a family member’s, whereas a close friend’s information may be more important than that of the media’s regarding living conditions in a MLD. As pointed out by Fischer et al. (1997b), because one has limited abilities to consider limited amounts of information, one may mistakenly put emphasis on some types of information over others. Therefore, it is important to note that the accuracy of the information is not the focus of this study, but rather the frequency and sources of information.

### **6.3.4 Predicting ‘Long-term migration’**

Long-term migration is of key importance when discussing health professional migration because this type of migration represents more of a loss for the home country than that of return or short-term migration. The long-term migration of health professionals away from areas such as sub-Saharan Africa and other areas within the global South represents a significant loss of investment into, and potential returns from, human capital which is greatly needed within the context of health in the South (Hagopian, et al., 2004).

When predicting long-term migration, which was operationalized as a period of two years or longer, an interesting pattern emerged. Important factors that predicted long-term migration in this study included citizenship, one’s access to various sources of information regarding



migration and destinations, both present and future national safety and stability, and a comparison between one's home country and MLD in terms of personal factors.

The absence of any professional factors as significant predictors in an intention to migrate is surprising, largely because professional factors are often the focus of research related to health professional migration (Dolvo, 2005b, Saravia & Miranda, 2004). However, long-term migration implies that one will settle in another country for an extended period of time to live and work and, as such, one's quality of life in that country in terms of personal aspects must be considered. It seems that when making a decision to migrate for longer than two years, issues that are more private, such as quality of life through safety and stability and a comparison between one's home and destination country along personal factors, are more crucial than professional considerations. This may point to an implication of the costs of migration. One is more willing to migrate for an extended duration if one's quality of life will be improved, which is much more inclusive than an economic approach which would exclusively emphasize professional and economic utility (Fischer, et al., 1997b). This fits well with the suggested framework, which looks beyond purely economic costs and benefits.

The gathering of information is a logical predictor of long-term migration, especially for this population. It is unlikely that one would make an important decision such as that of international migration without first investigating living and professional conditions in one's MLD. The more frequently one accesses information and the more sources one utilizes in order to gain information regarding a variety of aspects about destinations, the more likely it is that one is seriously considering migration (Mattes & Richmond, 2002).

When discussing long-term migration, citizenship seems to be of key importance. This is partly because long-term or permanent migration intentions will have serious implications for one's future. Citizenship is linked with legal status, rights, belonging and civic and political participation (Samers, 2010) and, as such, one's experience of current citizenship may be useful in predicting issues such as national allegiance, voice and exit (Ahmed, 1997). However, it seems that tension exists within the relationship between migration and citizenship. Although most of the participants expressed that their South African citizenship was important to them and that they have a duty to contribute their skills toward national development, most respondents also expressed the belief that one's citizenship is not as important as one's quality of life. This seems to point to the possibility that, although one

feels loyalty toward one's home country, one may decide to emigrate in order to gain increased quality of life in another country. Because citizenship is so closely linked with socio-political factors, it makes sense that a dissonance between citizenship and quality of life may lead to an intention to migrate.

### **6.3.5 Predicting 'Migration timeframe'**

'Migration timeframe' focuses on the likelihood of migration within a given timeframe. Based on available literature, it is more likely that one will actually migrate if one's timeframe is sooner rather than later (Mattes & Richmond, 2002). Thus, the likelihood of migrating within the next six months makes actual migration more likely than an intention to migrate within the next five years.

Findings indicated that 'migration timeframe' was significantly predicted by information and expected professional prospects. The significance of 'expected professional prospects' speaks to the importance of the future of one's profession and, by extension, one's standing as a professional. In this sense, the notion of an individual (or household) weighing up the future of one's profession seems to concur to a degree with the notion of the rational decision-maker who chooses "to move to where they can be most productive, given their skills" (Massey, et al., 1998, p. 19). Therefore, if one is aware that one's future professional situation is likely to deteriorate, it may be more likely that the individual will migrate than if their professional prospects were more favourable.

The notion of information as an important predictor of one's migration timeframe also points to the assessment of feasibility. Therefore, based on information which has been gathered regarding living and working conditions in another country, one may change one's migration timeframe to suit the gathered information. In other words, one may change one's expected departure date (either sooner or later) based on the information which one has acquired. It can also be assumed that greater frequency of accessing information may be a predictor of the expected likelihood of migration within either the near or distant future. In other words, if one is going to migrate within the next six months, one will more actively seek out information pertinent to migration than if one is considering migration after the next five years. Thus, frequency and types of information are important when predicting one's migration timeframe.

### **6.3.6 Predicting ‘Concrete plans’**

In many regards, ‘concrete migration plans’ is closely related to and precedes any type of migration, whether it is short-term or long-term. The act of making concrete migration plans falls somewhere between an intention to migrate and actual migration because it is the beginning of the migration process. One does not apply for work permits and professional registration without an intention to migrate and one cannot actually migrate as a health professional without having acquired these documents. Thus, concrete plans are an important element in any discussion related to an intention to migrate.

When predicting concrete migration plans, the model which emerged from the findings indicates that information and a comparison between one’s home country and one’s MLD regarding professional factors are significant predictors of ‘concrete plans’. Information is important in making concrete plans because a potential migrant must gather vast amounts of information of varying degrees of accuracy (some which may even be contradictory) in order to learn about the professional and personal factors which will affect their quality of life in another country and in order to learn about necessary steps regarding how to migrate. Information would be particularly crucial to health professionals because, unlike unskilled labour, health professional migrants must often register with local professional boards in order to practice in another country. In fact, some nations, particularly those of the North, have examinations in order to test issues such as fluency in English and to ensure professional standards in terms of codes of practice and ethics. As such, it makes sense that information would be a significant predictor for concrete migration plans for health professionals.

The importance of a professional comparison between a home and destination country as a predictor of concrete plans is interesting, considering the relative lack of significant professional factors in most of the other multiple regressions. Because concrete migration plans are a somewhat grey area in the migration process, somewhere between migration intentions and actual migration, it seems that the more serious the intention to migrate, as indicated through a concrete commitment, the more professional comparisons become important. Concrete plans seem contingent on a favourable comparison between the professional conditions in a destination country as opposed to the home country.

### **6.3.7 Predicting ‘Short-term migration plans’**

Short-term or return migration is an important aspect of health professional migration because this type of migration may actually be beneficial for the sending nation (Duncan, 2008). Return migrants can potentially come back to their home country with increased human capital, newly formed professional networks and with technology that can benefit the health system in general and their specific health institution (Kangasniemi, et al., 2004). Furthermore, if return migrants have used wages earned while away for saving or remittance purposes, there may also be economic benefits for the sending country. As such, return migration fits into the ‘brain circulation’ or ‘brain gain’ end of the continuum within the international brain distribution debate (Williams & Baláž, 2008).

At first glance, the findings for the prediction of ‘short-term migration plans’ are disappointing. Firstly, because of statistical issues, such as the violation of assumptions, this model cannot be generalized to the wider population. In addition, neither the model nor any of the individual predictor variables were significant in explaining short-term migration. There could be a number of possible reasons for this outcome.

Firstly, one could argue that the nature of short-term migration is such that a totally different set of factors is needed to predict an intention to migrate for a period of two years or less. This makes sense if one considers that most of the variables were significant in predicting long-term migration but not short-term migration. Because long- and short-term migration include different risks, benefits and motivations for the migrant, it stands to reason that different factors (and thus a different set of questions in a survey) will more appropriately address short-term migration as a specific type of the intention to migrate (Lucas, 2005). It seems that the present survey did not include many of the factors that are related to short-term migration.

Lucas (2005) notes that one common reason for return migration is that of ‘target saving’. In this case, health professionals may go abroad for a specified period of time in order to save significant amounts of money to be used on returning to their home country. Although temporary migration may eventually become permanent migration in the case of the target

saver (Berninghaus & Seifert-Vogt, 1989), it can be assumed that the intention of the target saver is more consistent with short-term rather than with long-term migration.

Another reason for return migration within this specific population could be ‘work experience’. Newly qualified health professionals may be interested in spending time in another country, especially one from the North, in order to learn about emerging technologies, practice and theory within their field. This may also include going overseas for the purpose of further studies. Time spent learning and working in Northern health institutions may give return migrants an advantage over non-migrant colleagues who were not exposed to such knowledge and practices, which could prove invaluable in the competitive job market within the health professions (Akl, et al., 2008).

With the aforementioned issues in mind, items which address factors related to short-term migration might include: intentions to study further in another country or to train (in more practical aspects of their profession) in another country (Akl et al., 2008) ; their main reason for leaving their home country; whether they intend to save money while abroad (Lucas, 2005); and how they intend to use money earned abroad (eg: remittances, savings, to buy property on return) (Lucas, 2005). Because the present study’s questionnaire did not include any items which addressed these issues, which are fairly specific to short-term migration, it stands to reason that this study will be unable to empirically address the matter of return migration.

Another element of interest regarding the topic of short-term migration within this study is the sample population on which the study focused. While the migration patterns of medical practitioners and psychologists vary, there is a definite trend among nurses to use short-term work permits when migrating (Aiken, et al., 2004). Similarly Nguyen et al. (2008) found that financial factors are key in migration intentions for nurses since the majority of their sample intended to return to their home country. This implies that target saving was a high priority among nurses in their sample. If they were leaving for non-financial reasons, such as national instability or poor working conditions, it would stand to reason that they would not intend to return. However, because it was unfortunately not possible to include nurses within the present study, the salience of return migration for this population has not been explored empirically.

## **6.4 Implications for addressing health professional migration**

From the findings which have been discussed above, it is clear that the international migration of health professionals is a dynamic and complex issue. Taking the results of this study in conjunction with the relevant literature that has been reviewed, one is able to consider implications in an integrated way. Although professional factors are often cited as being key reasons motivating migration, this study has found that migration intentions are often predicted by other factors which are non-professional in nature, such as personal safety, prospects for political participation and national stability. In addition, it seems that different elements of migration are predicted by different factors. In some cases, such as migration timeframes, professional factors do play more of a role. Therefore, based on these findings, certain implications for policy seem to emerge and will now be discussed.

Migration has been a fact of human history and is unlikely to cease or even decrease due to any single policy intervention. However, it is widely accepted that international health professional migration has had extremely damaging effects on the health care systems of the South (Dolvo, 2005b; Hagopian, et al., 2004; Stilwell, et al., 2004). As such, it is imperative that individual nations and the international community implement policies which foster a sense of social justice, while still acknowledging the individual's right to movement (Hagopian, et al., 2004; Stilwell, et al., 2003). It is important to tailor any suggested policies to the context in which such interventions will be applied. Not all policies will work across all countries of the South and North, largely because the effects and factors at work within and between nations will be unique, with some general principles at play as well. As noted by many theorists (Dolvo, 2005a; Fischer, et al., 1997b), policy interventions must be tailored to the specific context of each country and region in order to appropriately respond to the specific context.

In addition, the findings of this study clearly show that the intention to migrate and predicting migration are complex, dynamic and multi-layered issues. As such, policies and methods of addressing health professional migration must intervene on multiple levels if such interventions are to be successful. Policies must address methods of collecting and monitoring reliable migration data and must also consider training, working conditions and living conditions of health professionals in South Africa. In addition, because of the global nature of this phenomenon, an international code of practice for the recruitment of health

professionals, with the inclusion of bilateral agreements between nations of the North and the South, will also be necessary, along with the possibility of some form of reparations (WHO, 2009). While the following is not an exhaustive list of possible interventions, it does cover some basic considerations which may be helpful in the development and implementation of policies addressing international health professional migration.

#### **6.4.1 Development of indicators**

A major issue within the study of international migration is the lack of reliable data for sending countries (Brown, et al., 2002; Stilwell, et al., 2004). It is imperative for the South African health department to develop systems in order to monitor the migration of its health professionals. Policy interventions must be based on reliable, high-quality data in order to have a chance of being effective and appropriate. Dolvo (2005b) makes some suggestions regarding possible indicators for such a system. One possibility is the implementation of exit interviews or forms in order to record reasons for leaving and the migrant's intended destination country. Although this is a simple intervention, it may significantly improve the data regarding the number of health professional emigrants and their motivation for leaving. However, this system is heavily dependent on a fairly efficient human resources department, which may vary across institutions and countries. Nonetheless, systems for the development and monitoring of migration indicators must be created and implemented in order to assist in policy development, planning and programme intervention (Chen, et al., 2004).

#### **6.4.2 Training**

Because health professionals often migrate to advance their career through additional education and training in order to remain competitive in their field (Akl, et al., 2008), it may be beneficial to promote student and professional exchange programmes within the health sector. This has the potential to transform permanent or long-term migration, which could be labelled as 'brain drain' into more focused, short-term migration for educational purposes, which would fall under the category of 'brain gain' or 'brain train' (Williams & Baláž, 2008). In this regard, Kristof and WuDunn (2009, p. 115) rightly state that "the purpose of medical training isn't to fuel emigration but to address health needs at home". By promoting contacts between international health institutions, the return migration of health professionals may be more likely and these returning professionals will have significantly benefited from their exposure to practice, theory and ethics in other health institutions (Hagopian et al., 2005). It

is crucial that training encourages increased health professional retention in order to develop a sustainable South African health workforce.

### **6.4.3 Professional-level interventions**

It is clear that the present condition of the health care system in South Africa is in a state of crisis, with national civil servant strikes and breakdowns in service delivery within the health care system often featuring within the media and similar public discourses. There is a need for interventions on a professional level, such as improvements in working conditions, safety and hygiene, increased supervision, fair wages, and improved administrative structures for health professionals. Without such interventions, national strikes and on-going unrest among health professionals will inevitably continue. Although this study has found that professional factors are not always the primary reasons why health professionals choose to migrate, it is still necessary to address any weaknesses in the professional system.

An interesting and yet counter-intuitive implication for addressing the problem of health professional migration and frustration relates to the level of policy intervention. A common method of attempting to encourage health professionals to remain in the global South has been to increase the level of income for these professionals. However, it has been found that such interventions are often fruitless. This could be linked to the findings of this study, specifically that personal satisfaction and quality of life are considered to be more important than professional factors when considering the possibility of migration. It has been argued that small wage increases are unlikely to affect migration because the wage gap between the North and South is so large (Vujicic, et al., 2004). This is not to say that income levels are not important. It is crucial that South African health professionals are paid a fair wage according to their level of training and their role in national health and development strategies. However, although it may seem logical to simply increase wages for health professionals, this intervention addresses a dynamic and complex socio-political phenomenon as if it were a simple economic problem.

According to Dolvo (2005b), there are a number of non-financial interventions which can take place on a professional level in order to decrease or manage health professional migration. These include: increasing safety in the workplace, the development of moral leadership, and enhancing professional motivation through chances for advancement and



additional training and education. Such policy interventions may improve working conditions and professional motivations to remain in South Africa, especially if they make a favourable comparison between the South African health care system and that of other nations. This may increase South Africa's ability to match its Northern counterparts in terms of professional prospects, which seems to be particularly important when considering concrete plans to migrate.

#### **6.4.4 National-level interventions**

Although the aforementioned measures are important in making professional conditions more favourable, it is clear from the findings of this research that such interventions alone will not be sufficient to decrease or manage the international migration of health professionals from South Africa. As has already been discussed, issues of personal safety and national stability are major factors within the migration decision. When viewed in this light, skilled migration can be viewed as a symptom of wider systemic problems which lead to dissatisfaction well-being in a home country. It is crucial that the national government take necessary steps to create a positive socio-political climate in South Africa in order to make the prospect of remaining in this country an attractive option. Classic 'push factors' (such as political and economic instability, lack of safety and security, crime, and lack of faith in national governments in terms of justice and service delivery) seem to be salient in the South African context. Such push factors are unlikely to be negated by a simple increase in wages for health professionals. In a similar vein, Massey et al. (1998, p. 9) argue that "migration typically has not ended with the equalization of wages, but with the attainment of bearable conditions of life in areas of origin, after which people find migration not worth the effort". Without addressing these larger macro-level push factors, any attempts to deal exclusively with professional factors will ultimately be frustrated and fruitless.

#### **6.4.5 The international community**

Because the international migration of health professionals is occurring on a global level, it makes sense that purely institutional and national level interventions will not be sufficient to manage the international movements of individuals. As has been suggested by this study's findings, a simple improvement in working conditions is not necessarily enough to retain health professionals because of wider, systemic 'push factors' which are at play (Dolvo, 2005a). Due to the marginalized state of much of the global South, it is unlikely that these

push factors will ever disappear completely, especially in relation to the North (Dolvo, 2005a).

At the heart of the debate regarding interventions which are aimed at a global level is the tension between the individual's freedom of movement and the nation-state's rights to benefit from investments made into human capital (Moses, 2006; Stilwell, et al., 2003). Health professional migration must be viewed on both macro-levels and micro-levels. At a micro-level, individuals have a basic right to the freedom to exit a country if they so choose (Stilwell, et al., 2003). Stilwell et al. (2003) argue that migration is about more than just push factors, as individuals often leave the South in order to experience greater satisfaction and fulfillment in various aspects of their lives, largely beyond simply economic or financial reasons, including professional, intellectual, emotional, social and (one could add) psychological facets. Therefore, any policies which are initiated on a global level must take this right to the freedom of movement into account.

On a macro-level, social justice in terms of international migration policies is crucial if the South is to experience improved health outcomes (Hagopian, et al., 2004). Martineau et al. (2004) rightfully argue that responsibilities for the monitoring and management of international health professional migration cannot simply be allocated exclusively to the North. Because international migration is such a multi-layered and dynamic issue, a simplistic and unidirectional intervention which locates blame and responsibility with only one party is narrow-minded. Instead, both home and destination countries must develop common indicators which can be used to monitor (and thereby assess) the movement of health professionals (Martineau, et al., 2004). Furthermore, it is crucial for both the South and the North to develop sustainable workforces within their own borders (Chen, et al., 2004; WHO, 2009).

Since responsibilities of the South have already been addressed in the previous section, they will not be repeated here. It is nonetheless important to stress that the South cannot object to the actions of the North without implementing measures to retain its health workforce (Martineau, et al., 2004). That having been said, due to imbalances between the North and South, the North also has a great deal to contribute in any intervention to manage the global skills imbalance. Any attempt to manage migration on the part of the South at a purely national level will ultimately be frustrated due to disparities in terms of political and

economic power between the North and the South. Without the development of ethical recruitment policies, such as suggested by WHO (2009), the North will be allowed to continue to recruit from the South without any accountability (Crush, 2002).

In addition, there is the possibility that destination countries could supply sending countries with reparations in order to compensate for the loss of skills and human capital (Martineau, et al., 2004; Stilwell, et al., 2003). Compensation criteria could include the cost of education for the migrant, to which Stilwell et al. (2003) add the considerations regarding the loss in taxation, professional contributions, and loss of health outcomes to the home population. The nature and amount of compensation is a hotly contested issue with little agreement among parties. What is clear, however, is that if there is to be any sense of social justice and ethics on a global level, it is necessary that all parties become active stakeholders within the process. Without agreement and collaboration between all major stakeholders, the global skills imbalance will likely continue.

As suggested by Dolvo (2005a, p. 0378), because there are so many factors and dynamics at play within international migration of health professionals, “what works for one country may not work for another, and indeed, what works for nurses may not work for physicians”. As such, the development and implementation of blanket policy interventions may be counterproductive and the measures suggested above must each be considered on a case-by-case basis in order to increase the effectiveness of such interventions.

## **6.5 Strengths and limitations**

The strengths of this study mainly relate to its attempt to gather data regarding the migration intentions of recently qualified health professionals. There is a severe paucity of data regarding the actual migration figures in South Africa and even less data for migration intentions. Considering the fact that South Africa is experiencing a health workforce crisis, it is important to assess the future of South African health professional migration so that the necessary policies can be implemented to effectively manage such migration.

There are a number of limitations of this study, which make only limited generalizations possible. One of the main weaknesses of the study is its extremely poor response rate. There are a number of possible reasons for the poor response rate, mainly relating to the trend of

poor response rates among medical professionals (Cook, et al., 2009; Kaner, et al., 1998; Kellerman & Herold, 2001).

This study attempted to follow some of the recommendations discussed in the methodology, such as using stamps on envelopes and decreasing the number of items from 213 items to 71 items. Although 71 items is still relatively lengthy, it is a great improvement in terms of length from the original measure. However, because this study had no formal funding, making financial resources extremely limited, sending out reminders was not feasible. Therefore, other strategies, such as personalising the survey and using nonmonetary incentives were implemented in an attempt to increase the response rate, despite their debatable value. With greater funding, it is possible that the use of reminders and significant monetary incentives may increase response rates and thereby add to the generalizability and validity of future research focused on health professionals.

It is considered good research practice to assess possible non-response bias, possibly by contacting samples of non-responders (Cook, et al., 2009; Templeton, et al., 1997). However, it was deemed too expensive to send out any reminders or to contact non-responders. It would have been difficult to contact non-responders in any case as telephonic contact details were not available for the sample. If financial resources had been greater, the intention would have been to post at least one set of reminders to the entire sample in order to increase the response rate.

A further limitation of this study is the absence of nurses from the sample. Although several attempts were made to include this subsample into the study, such attempts were frustrated due to institutional non-responsiveness, despite permission being granted to access the necessary database. This is a crucial population to access in any study of health professional migration due to their importance in the health care system and because of the large numbers of nurses that have migrated from the South (Aiken, et al., 2004; Buchan & Sochalski, 2004; Kline, 2003). Based on the literature, one could speculate that, if nurses had been included in this study, professional factors, especially that of dissatisfaction with current income levels, would have been significant within this subsample (Kline, 2003). There is often an extremely large wage gap between nurses in the South when compared to their colleagues in the North (Aiken, et al., 2004) and this therefore may have contributed greatly to the other predictors which have already been discussed above for the current sample.

## **7. CONCLUSIONS AND IMPLICATIONS FOR FURTHER STUDY**

South Africa, like many other countries from the global South, is experiencing health crises on multiple levels, particularly in terms of infectious diseases such as HIV/AIDS and TB, and a shortage of the human resources for health in order to address these needs. The international migration of health professionals from South Africa is a possible threat which could only exacerbate these crises. As such, this subject deserves focused research and informed action in order to understand and appropriately respond to this phenomenon.

This study has value because it is among the first to assess the migration intentions of recently qualified health professionals in South Africa. While conventional wisdom holds that health professionals are leaving due to professional-oriented factors (Dolvo, 2005b; Saravia & Miranda, 2004), this study has found that personal factors, such as personal safety and national stability and other issues related to quality of life, are critical in predicting intention to migrate, especially in terms of long-term migration. Thus, this study has shown that the issues involved in health professional international migration intentions are complex, dynamic and multilayered, and that simple, linear models of migration or programmes for intervention will be insufficient to effectively address this matter.

There are, however, many suggestions in order to build on the present study. Future research should aim to collect data based on large samples in order to better generalize to the wider population of health professionals. The population of health professionals should also be widened beyond medical practitioners and psychologists to include other fields of practice. One particular group which must be studied further is that of nurses because of their important role in the health care system. Due to the overwhelming health needs within South Africa, and particularly the extent and range of needs which are experienced by learners within the education system, it is essential to assess the migration intentions of a broad range of health professions. Other health professions that could be incorporated in future studies include occupational therapy, physiotherapy, optometry, dentistry, speech therapy and remedial education. Of course, a longitudinal study would be of great value to assess whether intention to migrate translates into actual migration in order to acquire a realistic picture of the state of health professional migration from South Africa. In addition, there is a

need to evaluate any policies which are implemented in order to assess their impact. Without such research, policy interventions will be relatively uninformed about a subject that is of great local, regional, national and global importance.

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## 9. APPENDICES

### Appendix A: Ethical clearance approval



RESEARCH OFFICE (GOVAN MBEKI CENTRE)  
WESTVILLE CAMPUS  
TELEPHONE NO.: 031 – 2603587  
EMAIL : [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za)

---

24 JUNE 2009

MRS. AM MURRAY (205512353)  
PSYCHOLOGY

Dear Mrs. Murray


**ETHICAL CLEARANCE APPROVAL NUMBER: HSS/0334/09M**

I wish to confirm that ethical clearance has been granted for the following project:

**"Intention to migrate among South African Health Professionals in training: Push and pull factors"**

**PLEASE NOTE: Research data should be securely stored in the school/department for a period of 5 years**

Yours faithfully

  
.....  
MS. PHUMELELE XIMBA  
ADMINISTRATOR  
HUMANITIES & SOCIAL SCIENCES ETHICS COMMITTEE

cc. Supervisor (Vernon Solomon)  
cc. Mrs. B Jacobsen



## Appendix B: Amendment approval



RESEARCH OFFICE (GOVAN MBEKI CENTRE)  
WESTVILLE CAMPUS  
TELEPHONE NO.: 031 – 2603587  
EMAIL : sshrec@ukzn.ac.za

24 MARCH 2010

MRS. A J MURRAY (205512353)  
SCHOOL OF PSYCHOLOGY  
PIETERMARITZBURG CAMPUS

Dear Mrs. Murray

PROTOCOL REFERENCE NUMBER: HSS/0334/09M  
PROJECT TITLE: "INTENTION TO MIGRATE AMONG SOUTH AFRICA HEALTH PROFESSIONALS IN TRAINING:  
PUSH AND PULL FACTORS"

This letter serves to notify you that your application for an amendment has been granted full approval through an expedited review procedure.

**FULL APPROVAL NOTIFICATION – AMENDMENT**

Any alterations to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach/Methods must be reviewed and approved through an amendment /modification prior to its implementation. Please quote the above reference number for all queries relating to this study.

**PLEASE NOTE: Research data should be securely stored in the school/department for a period of 5 years**

Best wishes for the successful completion of your research protocol.

Yours faithfully

PROFESSOR STEVEN COLLINGS (CHAIR)  
SOCIAL SCIENCES & HUMANITIES RESEARCH ETHICS COMMITTEE

cc. Supervisor (Vernon Solomon)  
cc. Vernon Solomon  
cc. Mrs. B Jacobsen

## Appendix C: Information Sheet

School of Psychology  
P/Bag X01 Scottsville  
PIETERMARITZBURG,  
320



### **Health Professional Migration Study Information Sheet and Informed Consent**

#### **WIN one of three MP3 players by taking part in this survey**

Dear Participant,

My name is Amy Jo Murray and I am a Research Psychology Masters student at the University of KwaZulu-Natal Pietermaritzburg campus. I am conducting a research study on migration amongst South African recently qualified health professionals as part of my degree. I would like to request your participation in this study by completing either an online survey or an electronic survey that can be emailed to you. The topic of this dissertation is:

***“Intention to migrate among South African recently qualified health professionals”***

**Please read the following information about the study in order to decide whether you are willing to participate.**

***Intention to migrate among South African recently qualified health professionals.***

I would very much appreciate your participation and invite you to complete an online survey, which should take between 10-15 minutes. This is an anonymous survey, meaning that your opinions and answers cannot be traced back to you and your identity is therefore protected. You do not need to provide your name on the survey form.

It is important that you are aware of your rights as a participant in this study, should you choose to be involved. You are not obligated to become a participant by any means. Participation is completely voluntary. You are free to choose to be involved and, should you become a participant, you are also free to withdraw for any reason at any time during the course of the research without any consequences. Your identity will be protected throughout the study and your responses will be treated in a confidential manner.

If you decide to complete the online survey, or the emailed survey, you may after completion, elect to be entered into a lucky draw in which you could win one of three MP3 players. In addition, your participation will offer you an opportunity to voice your opinion as a health professional in training concerning those factors that influence health worker migration. You will also be adding to a body of knowledge around this issue, which is one of current local, national and international importance.

If you agree to take part, please take note that all responses will be anonymous and confidential. The anonymised data may be retained for on-going research in this field. The research results may be published in academic journals or presented at a conference. However, as there are no personal identifiers in the survey, your anonymity will be protected. If you elect to participate in the draw for one of the prizes, you will be asked to submit contact details but these will be separate and unlinked from the survey responses.

Thank you very much for taking the time to read this document and to consider your involvement in the study. If you would like to participate, please access the online survey at:

<http://snipurl.com/healthmigration>

If you would prefer to complete the survey via an emailed survey form, please send an email to [205512353@ukzn.ac.za](mailto:205512353@ukzn.ac.za) and an electronic version of the survey will be emailed to you. You will also have the opportunity to enter the draw for the MP3 players after mailing the completed survey form back to us. Please kindly complete the survey within 2 weeks.

This study has received ethical approval from the UKZN Social Science Research Ethics Committee. If you have any questions or comments, please contact me or the research supervisor.

Amy Jo Murray's e-mail:  
[205512353@ukzn.ac.za](mailto:205512353@ukzn.ac.za)

Vernon Solomon's e-mail:  
[Solomon@ukzn.ac.za](mailto:Solomon@ukzn.ac.za)

If you have any complaints or queries that the researchers have not been able to answer to your satisfaction, you may contact:

The Social Science Research Ethics Committee, Faculty of Management and Human Sciences, University of KwaZulu-Natal, 031 260 2325 Ms Phumelele Ximba  
[ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za) or the Chairperson of the Social Science Research Ethics Committee Prof. Steve Collings, [collings@ukzn.ac.za](mailto:collings@ukzn.ac.za)

### **Informed Consent - Health Migration Study**

#### **By completing this online survey I understand that:**

This survey is voluntary and completely anonymous. No personal identifying information will be collected within the survey. All the answers you give are confidential. This means that no one apart from the researchers will see your answers. The data (without any identifying details) will be kept in a secure password protected folder by the University of KwaZulu-Natal for a period of five years for comparison with future studies. Results from the survey will appear in reports, peer reviewed publications and conference presentations. No identifying details will appear in these publications.

The survey will take between 10 and 15 minutes to complete. If there are any questions you do not wish to answer, just skip them. None of the questions are expected to cause any distress or discomfort. If you don't feel comfortable answering a question leave it blank.

There will be three prizes awarded by random draw for submitted surveys. If you wish to be included in the prize draw, please complete the separate prize draw application which will be accessible only once after submitting the survey. If you are completing the survey via the

emailed form, please email the separate prize entry form after emailing the completed survey form. Please note that there will be no link between the contact details for the prize draw and the contents of your separately submitted survey.

By completing and submitting or emailing the survey, I understand that I give my voluntary informed consent to participate in the survey on the terms described here. I also understand that I may terminate my participation at any time during completion and prior to pressing the final submit button or prior to clicking send if emailing the form.

**Thank You**

## **Appendix D: Permission for use of instrument**

**From:** Jonathan Crush <crushj@post.queensu.ca>  
**To:** Amy Murray <205512353@ukzn.ac.za>  
**CC:** <vwilliams@idasact.org.za>  
**Date:** 8/21/2009 6:20 PM  
**Subject:** Questionnaire

Dear Amy

Apologies for not getting back to you sooner but I believe you have been talking with Vincent. We would be happy for you to use questions from Destinations Unknown provided that you acknowledge their source. All we would ask is for a copy of your thesis when complete.

Best regards

Jonathan Crush

## Appendix E: Final instrument

### *Intention to migrate among South African recently qualified health professionals*

Thank you for agreeing to participate in this study. There are 71 questions and the survey should take 15 minutes to complete.

#### *Section A: Demographics*

1. What is your gender?

Male

Female

2. What is your age?

20-24

25-29

30-34

35-39

40-44

45-49

50-54

55-59

60+

3. What is your relationship status?

Married

Separated

Divorced

Widowed

Cohabiting / Living together

Single

4. In which province do you work?

Eastern Cape

Free State

Gauteng

KwaZulu-Natal

Mpumalanga

Northern Cape

Limpopo

Northwest

Western Cape

5. Which of the following best describes you?

Black / African

White / European

Coloured

Indian / Asian

Mixed

Other

6. What language do you speak mostly at home?

Afrikaans

English

IsiNdebele

IsiXhosa

IsiZulu

Northern Sotho

Sesotho

Setswana

SiSwati

Tshivenda

Xitsonga

7. What is your highest academic qualification? Please respond in the space provided below.



---

8. At which institution did you achieve your highest qualification? Please write the name of the institution and the country in which it is located in the space provided below.

---

9. Have you been awarded a scholarship, and/or bursary from the government?

Yes

No

Do not know

10. Which one of the following best describes your employment field/sector?

Psychologist

Medical Practitioner

***Section B: Citizenship***

11. How easy or difficult do you think it would be for your employer to find someone else to replace you?

Very easy

Easy

Neutral

Difficult

Very difficult

Do not know

12. Being a citizen of your country is a very important part of how you see yourself.

Strongly agree

Agree

Neutral

Disagree

Strongly disagree

13. It really does not matter where you are a citizen as long as you have a good quality of life.

Strongly agree  
Agree  
Neutral  
Disagree  
Strongly disagree

14. It is your duty to contribute your talents and skills to the growth of your country.

Strongly agree  
Agree  
Neutral  
Disagree  
Strongly disagree

***Section C: Migration of others***

15. How many members of your immediate and extended family have left your country to work and live in another country?

None  
Just one or two  
Several  
Most  
Almost all

16. How many of your close friends have left your country to work and live in another country?

None  
Just one or two  
Several  
Most  
Almost all

17. How many people in your profession that you know have left your country to work and live in another country?

None

Just one or two

Several

Most

Almost all

18. For those people who have left, do you think their lives have been better or worse than they were?

Much better

Better

About the same

Worse

Much worse

***Section D: Life and job satisfaction and prospects***

19. Please indicate how satisfied or dissatisfied you are with your job.

Very satisfied

Satisfied

Neutral

Dissatisfied

Very dissatisfied

20. If you were to be in a similar work position, please indicate whether you expect your job to get better, stay the same or get worse in the next five years.

Much better

Better

About the same

Worse

Much worse

21. Please indicate how satisfied or dissatisfied you are with prospects for professional advancement in your profession in this country.

Very satisfied

Satisfied

Neutral

Dissatisfied

Very dissatisfied

22. Please indicate whether you expect the prospects for professional advancement in your profession in this country to get better, stay the same or get worse in the next five years.

Much better

Better

About the same

Worse

Much worse

23. Please indicate how satisfied or dissatisfied you are with the prospects for professional advancement through additional education and training in this country.

Very satisfied

Satisfied

Neutral

Dissatisfied

Very dissatisfied

24. Please indicate whether you expect the prospects for professional advancement through additional education and training in your profession in this country to get better, stay the same or get worse in the next five years.

Much better

Better

About the same

Worse

Much worse

25. Please indicate how satisfied or dissatisfied you are with your level of income in your profession in this country.

Very satisfied

Satisfied

Neutral

Dissatisfied

Very dissatisfied

26. Please indicate whether you expect your level of income in your profession in this country to get better, stay the same or get worse in the next five years.

Much better

Better

About the same

Worse

Much worse

27. Please indicate how satisfied or dissatisfied you are with your personal safety in this country.

Very satisfied

Satisfied

Neutral

Dissatisfied

Very dissatisfied

28. Please indicate whether you expect your personal safety in this country to get better, stay the same or get worse in the next five years.

Much better

Better

About the same

Worse

Much worse

29. How safe is it for someone in your profession to work in urban South Africa?

Very safe

Relatively safe

Neutral

Relatively unsafe

Very unsafe

30. How safe is it for someone in your profession to work in rural South Africa?

Very safe

Relatively safe

Neutral

Relatively unsafe

Very unsafe

31. How stable will the country be over the next five years?

Very stable

Relatively stable

Neutral

Relatively unstable

Very unstable

32. How stable has the country been over the last five years?

Very stable

Relatively stable

Neutral

Relatively unstable

Very unstable

33. In general would you say that your life today is better, about the same, or worse than it was five years ago?

Much better

Better

About the same

Worse

Much worse

34. Do you approve or disapprove of the way the national government has performed its job over the past year?

Strongly approve

Approve

Neutral

Disapprove

Strongly disapprove

35. How interested do you think people in government are in hearing what people like you think?

Very interested

Interested

Neutral

Not interested

Not at all interested

36. How often have you considered moving to another country to live and work?

Very regularly

Often

Once in a while

Seldom

Never

***Section E: Information***

37. How often do you get information about living conditions in other countries from the media?

Very regularly

Often

Once in a while

Seldom

Never

38. How often do you get information about living conditions in other countries from friends and family?

Very regularly

Often

Once in a while

Seldom

Never

39. How often do you get information about living conditions in other countries from professional associates?

Very regularly

Often

Once in a while

Seldom

Never

40. How often do you get information about job opportunities in other countries from the media?

Very regularly

Often

Once in a while

Seldom

Never

41. How often do you get information about job opportunities in other countries from friends and family?

Very regularly

Often

Once in a while

Seldom

Never

42. How often do you get information about job opportunities in other countries from professional associates?

Very regularly

Often

Once in a while

Seldom

Never



43. How easy or difficult would it be for you to leave your country to go and work in another country if you wanted to?

Very easy

Easy

Neutral

Difficult

Very difficult

Do not know

***Section F: Comparison with "Most Likely Destination"***

44. If you were ever to leave this country, which country would you most prefer to go to live? Please list one country in the space provided below.

---

45. If you were ever to leave this country, which country would you be most likely to end up living in? Please list one country as your most likely destination (MLD) in the space provided below.

---

*(Please note that references to "MLD" hereafter are referring to your response to Question 45.)*

46. In general, would you say the overall conditions in this country are better, worse or about the same as in your most likely destination (MLD) which was indicated in Question 45?

Much better in home country

Better in home country

About the same

Better in MLD

Much better in MLD

47. Would you say your job in this country is better, worse or about the same as it would be in your most likely destination (MLD)?

Much better in home country

Better in home country

About the same  
Better in MLD  
Much better in MLD

48. Would you say that prospects for professional advancement through additional education and training in your profession in this country are better, worse or about the same as it would be in your most likely destination (MLD)?

Much better in home country  
Better in home country  
About the same  
Better in MLD  
Much better in MLD

49. Would you say that prospects for professional advancement in this country are better, worse or about the same as it would be in your most likely destination (MLD)?

Much better in home country  
Better in home country  
About the same  
Better in MLD  
Much better in MLD

50. Would you say your level of income in this country is better, worse or about the same as it would be in your most likely destination (MLD)?

Much better in home country  
Better in home country  
About the same  
Better in MLD  
Much better in MLD

51. Would you say your personal safety in this country is better, worse or about the same as it would be in your most likely destination (MLD)?

Much better in home country  
Better in home country  
About the same

Better in MLD

Much better in MLD

52. Which factor would be most important in determining your decision to leave this country and go to your most likely destination (MLD)? Please respond in the space provided below.

---

***Section G: Planning migration***

53. Would your family encourage or discourage you from leaving this country?

Strongly encourage

Encourage

Neutral

Discourage

Strongly discourage

54. Who would be most likely to make the final decision of whether to leave this country or not?

Yourself

Your spouse

Your parent(s)

Other family members

Together with family

Other

55. To what extent would you want to move to your most likely destination and live and work for a short period of less than two years?

Great extent

Some extent

Neutral

Hardly at all

Not at all

56. To what extent would you want to move to your most likely destination and live and work for longer than two years?

Great extent

Some extent

Neutral

Hardly at all

Not at all

57. How likely or unlikely is it that you would ever move to your most likely destination and live and work for a short period of less than two years?

Very likely

Likely

Neutral

Unlikely

Very unlikely

58. How likely or unlikely is it that you would ever move to your most likely destination and live and work for longer than two years?

Very likely

Likely

Neutral

Unlikely

Very unlikely

59. If you have to move to your most likely destination, how long would you want to stay?

Less than 6 months

6 months to 1 year

1 to 2 years

2 to 5 years

More than 5 years

60. If you moved to your most likely destination, how many family members would you take with you? Please respond in the space provided below.

---

61. If you had to move to your most likely destination, how often would you intend to send money to people in your home country?

More than once a month

Once a month

A few times a year

Once or twice a year

Just once or twice

Never

62. To what extent would you want to become a citizen of your most likely destination?

Large extent

Some extent

Neutral

Hardly at all

Not at all

63. Have you applied for a work permit in your most likely destination?

Yes

No

In the process of applying

64. Are you aware of what is required for professional registration in your most likely destination?

Yes

No

In the process of investigating requirements

65. Have you applied for professional registration in your most likely destination?

Yes

No

In the process of applying

66. How willing or unwilling would you be to take all your investments out of your home country?

Very willing

Willing

Neutral

Unwilling

Very unwilling

67. How likely or unlikely is it that you will move from your home country in the next six months?

Very likely

Likely

Neutral

Unlikely

Very unlikely

68. How likely or unlikely is it that you will move from your home country in the next two years?

Very likely

Likely

Neutral

Unlikely

Very unlikely

69. How likely or unlikely is it that you will move from your home country in the next five years?

Very likely

Likely

Neutral

Unlikely

Very unlikely

70. How many people are totally economically dependent on you? Please respond in the space below.

---

71. How many people are partially economically dependent on you? Please respond in the space below.

---

**Thank you for completing the questionnaire. Please save the document and be sure to retain the protection before returning your completed survey to**

**[205512353@ukzn.ac.za](mailto:205512353@ukzn.ac.za)**

**Your participation is greatly appreciated.**

## Appendix F: Frequency/means summary table of responses

	N	Mean	%
<b>Citizenship</b>			
Being a citizen of your country is a very important part of how you see yourself.	130	3.65	14.6
It really does not matter where you are a citizen as long as you have a good quality of life.	131	2.44	63.4
It is your duty to contribute your talents and skills to the growth of your country.	131	3.73	15.3
<b>Information</b>			
How often do you get information about living conditions in other countries from the media?	131	2.71	42.0
How often do you get information about living conditions in other countries from friends and family?	131	2.31	58.8
How often do you get information about living conditions in other countries from professional associates?	131	3.28	26.0
How often do you get information about job opportunities in other countries from the media?	130	3.12	30.8
How often do you get information about job opportunities in other countries from friends and family?	131	3.39	22.9
How often do you get information about job opportunities in other countries from professional associates?	130	3.53	20.8
<b>Satisfaction and prospects</b>			
Please indicate how satisfied or dissatisfied you are with your job.	132	3.49	22.7
If you were to be in a similar position, please indicate whether you expect your job to get better, stay the same or get worse in the next five years.	132	3.36	21.2
Please indicate how satisfied or dissatisfied you are with prospects for professional advancement in your profession in this country.	132	2.89	40.2
Please indicate whether you expect the prospects for professional advancement in your profession in this country to get better, stay the same or get worse in the next five years.	132	2.81	33.3
Please indicate how satisfied or dissatisfied you are with prospects for professional advancement through additional education and training in this country.	132	3.14	30.3
Please indicate whether you expect the prospects for professional advancement through additional education and training in your profession in this country to get better, stay the same or get worse in the next five years.	132	2.82	31.8
Please indicate how satisfied or dissatisfied you are with your level of income in your profession in this country.	132	2.82	43.9
Please indicate how satisfied or dissatisfied you are with your personal safety in this country.	132	1.75	83.3
Please indicate whether you expect your personal safety in this country to get better, stay the same or get worse in the next five years.	132	2.19	59.1



How safe is it for someone in your profession to work in urban South Africa?	131	2.81	42.7
How safe is it for someone in your profession to work in rural South Africa?	132	2.40	58.3
How stable will the country be over the next five years?	130	2.56	54.6
How stable has the country been over the last five years?	132	3.05	37.1
In general would you say that your life today is better, about the same or worse than it was five years ago?	131	3.36	13.0
Do you approve or disapprove of the way the national government has performed its job over the past year?	132	1.98	77.3
How interested do you think people in government are in hearing what people like you think?	132	1.68	84.1
<b>MLD comparison</b>			
In general, would you say the overall conditions in this country are better, worse or about the same as in your most likely destination (MLD)?	129	1.77	87.6
Would you say your job in this country is better, worse or about the same as it would be in your most likely destination (MLD)?	129	2.27	58.9
Would you say that prospects for professional advancement through additional education and training in your profession in this country are better, worse or about the same as it would be in your most likely destination (MLD)?	127	2.37	60.6
Would you say that prospects for professional advancement in this country are better, worse or about the same as it would be in your most likely destination (MLD)?	128	2.44	53.1
Would you say your level of income in this country is better, worse or about the same as it would be in your most likely destination (MLD)?	127	1.91	77.2
Would you say your personal safety in this country is better, worse or about the same as it would be in your most likely destination (MLD)?	129	1.40	93.0
<b>Migration intention</b>			
How often have you considered moving to another country to live and work?	132	2.37	59.1
Would your family encourage or discourage you from leaving this country?	129	2.36	61.2
To what extent would you want to move to your most likely destination and live and work for a short period of less than two years?	129	2.22	74.4
To what extent would you want to move to your most likely destination and live and work for longer than two years?	129	2.58	58.1
How likely or unlikely is it that you would ever move to your most likely destination and live and work for a short period of less than two years?	129	2.80	50.4
How likely or unlikely is it that you would ever move to your most likely destination and live and work for longer than two years?	129	2.78	46.5
If you have to move to your most likely destination, how long would you want to stay?	129	2.08	67.4
To what extent would you want to become a citizen of your most likely destination?	128	2.42	60.2
Have you applied for a work permit in your most likely destination?	128	2.80	14.1*
Are you aware of what is required for professional registration in your most likely	129	2.02	59.7*

destination?			
Have you applied for professional registration in your most likely destination?	129	2.87	10.1*
How willing or unwilling would you be to take all your investments out of your home country?	129	2.63	53.5
How likely or unlikely is it that you will move from your home country in the next six months?	128	4.35	5.5
How likely or unlikely is it that you will move from your home country in the next two years?	127	3.14	36.2
How likely or unlikely is it that you will move from your home country in the next five years?	128	2.51	56.3

*Note: ‘%’ refers to the proportion of responses which implied a tendency toward migration, as indicated through a response of 1 or 2 on a 5 point rating scale. \* indicates a response of 1 or 2 on a 3 point rating scale.*

## Appendix G: Boxplots for all independent variables

