The Capabilities of Male Migrant Miners in Preventing and Managing HIV: A Lesotho Case Study

Esther Makuena Nako

Submitted in fulfilment of the requirements of the doctoral degree

Doctor of Philosophy *with specialisation in Development Studies*

Centre for Development Support Faculty of Economic and Management Sciences

University of the Free State

Supervisor:Professor Lochner Marais

Co-Supervisor: Professor Michelle Engelbrecht

2022

DECLARATION

I, Esther Makuena Nako, declare that the thesis that I herewith submit for the Doctoral Degree; **Doctor of philosophy, with specialization in Development Studies**, at the University of the Free State, is my independent work, and that I have not previously submitted it for a qualification at another institution of higher education.

Esther Makuena Nako

Student number: 2019004304

Date: 30th November, 2022

Signature: 

DEDICATIONS

I dedicate this work to the memory of my loving parents;

My father, Dinizulu Nathaniel Nako Letsie

My mother, ‘Mantaote Idlete Nako Letsie

To my father; you are forever in my heart.

To my mother; you are forever in my heart. You were supportive, encouraged me to pursue a PhD. You were there during its conception, you were self-sacrificing even when it took away some of the quality time meant for you and me

Your legacy of kindness, love and respect for humanity lives forever

I love you Mom and Dad.

To the twins; my big brother and sister Bereng and Senate. You are in my heart forever!

ACKNOWLEDGEMENTS

TO THE ALMIGHTY GOD, WHO KNEW THIS WORK AND DAY WILL COME.

This work is a culmination of selfless support from many people, without which this study would have been difficult to accomplish.

To my siblings for their encouragement and support throughout the entire length of my studies. My sister 'Manako, who is always my pillar of strength in everything I do. You gave selflessly in order to see this work come to fruition. I salute you!!! My brothers, Ntaote, Shoapane and Sempe for your love and support. I thank you with all my heart. To my nephews and nieces who are wise beyond their years!!

To my dearest best friend Sarah Clemerson who always has my back, supportive even when distance competes with our friendship. You personify true friendship at its best. To me, you are the best friend in the world!!!

To my friend Redemption Chatanga who was always there to de-stress together even when time was not on her side. Swimming in the same pool (PhD research) we understood each other's' mood-swings throughout the research process. Thank you, my friend.

To my Supervisor Professor Lochner Marais who was amazing and patient throughout the execution of this study. I know you got your hands really dirty Prof, getting me out of the mud. Thank you for that. I feel changed for the better and ready to face the research world thanks to your precious guidance Prof. I often look back in wonderment and I cannot believe the transformation, thanks to you Prof. I know I am one of the many whose lives you have touched in a hugely positive way. And Prof, thank you for all the help and assistance (sponsoring my study) you gave me throughout the study. Thank you so much Prof!!

To my Co-supervisor Professor Michelle Engelbrecht. Thank you so much for everything Prof!

To the PhD group I totally value. The insightful presentations and discussions! Valuable ideas were thrown about during those sessions that contributed to the completion of this study.

To Mr. Jan Cloete for helping me to get to the crux of the ethics processes.

Finally, I extend my gratitude to Lesotho migrant miners who against many obstacles posed by time and Covid-19 pandemic, willingly agreed to participate in this study. I salute you!!

I Thank you all

ABSTRACT

Previous research has shown multiple HIV programmes at the mines and in Lesotho. However, despite the availability of these HIV programmes, Lesotho migrant miners who work in South Africa's mines are still plagued by HIV and are amongst the worst-hit groups. Evidence in the literature suggests fragmentation and ineffectiveness in HIV prevention and management strategies for Lesotho migrant miners. Other literature suggests that the ineffectiveness of the HIV prevention and management strategies results from irrelevant theoretical approaches that do not consider aspects of development in HIV prevention and management.

This study used a qualitative approach, underpinned by the capabilities approach framework, to explore the capabilities of Lesotho male migrant miners working in the Free State mines in South Africa in preventing and managing HIV. The Capabilities Approach (CA) is a social justice theory founded by Economist-philosopher Amartya Sen in the 1980s. Fifty returning Lesotho migrant miners (those visiting home) who work in the Free State Province, South Africa and were either HIV positive or negative participated in the study. Data were collected in July 2021 on the streets of Maseru, Lesotho. Structured interviews with open-ended questions using purposive, snowballing and street outreach methods were used. The interviews were audio-taped, transcribed and translated into English and thematic analysis was used as the method of data analysis.

The study concluded that structural factors like the culture at the mines that accept commercial sex often lead to the miners losing control over their daily lives, constricting their capability to prevent HIV. Other structural factors like policies, healthcare quality and the miners' circular migration patterns have characteristics that either expand or constrict the miners' capabilities to prevent and manage HIV. The miners had adequate personal conversion factors and abundant social conversion factors. However, these conversion factors operate amid many social constraints, making the cultivation of capabilities to prevent and manage HIV difficult. The miners' environmental conversion factors were inadequate, particularly those related to accessing ARVs in the mines, denying them some basic freedoms and entitlements. Finally, the miners engage in functionings that either expand or constrict their capabilities to prevent and manage HIV. For those who are HIV positive, functionings like being stigmatised and enduring the side-effects of ARVs, negatively affects their psychological, physical and social wellbeing.

KEYWORDS: Migration, Migrant Labour, Capabilities, Agency, Heath, HIV.

ABBREVIATIONS AND ACRONYMS

ART	Anti-Retroviral Therapy
ARVs	Anti-Retrovirals
HIV	Human Immuno-Deficiency Virus
ID	Identity Document
PEP	Post-Exposure Prophylaxis
PPE	Personal Protection Equipment
PrEP	Pre-Exposure Prophylaxis
MPS	Migrants of Precarious Status
NGOs	Non-Governmental Organizations
SADC	Southern African Development Community
STIs	Sexually Transmitted Infections
UN	United Nations
USA	United States of America
WHO	World Health Organization

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1
INTRODUCTION

1.1 Introduction

Migrant labour is one of the core drivers of communicable diseases, like HIV/AIDS (Lurie & Wiliams, 2014; Crush, Williams, Gouws, & Lurie, 2005). Lesotho miners, who work in South African mines are among the worst-hit groups concerning HIV (Crush et al., 2005). The high prevalence results from a prolonged absence from their families and exposure to high-risk behaviours in South Africa (Cuomo, Franconi, Riva, Bianchi, Digaetano, Santoro, Codeluppi, Bedini, Guaraldi & Mussini, 2019; Crush et al., 2005). In addition, there are reports that the miners are gendering HIV (insinuating that HIV is a women's disease) and having sex with multiple partners (Klein, Eckhoff & Bershteyn, 2015; Crush et al., 2005). Also, they are reluctant to utilise available HIV services (voluntary counselling, HIV test and treatment) (DiCarlo, Mantell, Remien, Zerbe, Morris & Pitt, 2014), which results in late HIV diagnosis and non-adherence to Anti-retroviral Therapy (ART) (Faturiyele, et al., 2018). Consequently, many mineworkers default from ART while working in South Africa (Faturiyele, Appolinare, Ngorima-Mabhena, Fatti, Tshabalala, Tukei & Pisa, 2018; Klein et al., 2018).

While there is a high prevalence of HIV amongst Lesotho migrant miners, biomedical and behavioural theories underpin most research that addresses HIV prevention and management for migrants. The biomedical approach to health regards disease in the human body as a function of negative biological reasons and treatment of the disease is independent of the patient's psychological factors and other contextual and external considerations (Deacon, 2013). Behavioural theories consider people's behaviour, including beliefs and attitudes, as key influencers of health and disease (Kwasnicka, Dombrowski, White & Sniehotta, 2016). This biomedical and behavioural foci neglect the important development aspects of HIV prevention and control, like opportunities, freedom and choices (Campbell & Williams, 1999). HIV prevention and management strategies for migrant miners using the capabilities approach, have not received much attention. The capabilities approach provides a theoretical framework that might close this gap by addressing the social arrangements that are important to Lesotho migrant miners' health, while at the same time identifying the values, opportunities, freedom and choices associated with their well-being and quality of life (Kinghorn & Coast, 2018; Law

& Widdowson, 2008). This research uses the capabilities approach to explore how Lesotho migrant miners in the Free State mines cultivate capabilities to prevent and manage HIV.

1.2 An overview of migration

Migration is a multidisciplinary concept. It has been defined in the literature as changes in residence, a shift in employment or social relations (Piché & Dutreuilh, 2013). It has also been defined in terms of adaptation to resources (Dingle & Drake (2007) and as movement across national borders (Kumpikaite & Zickute, 2012). It is also possible to define migration in terms of "people's capability (freedom) to choose where to live with an option to stay" (De Haas, 2014: 26).

Migration processes have been studied extensively and involve three pathways. King and Skeldon (2010) link internal and international migrations through three pathways. The first pathway uses the lens of labour migration. This pathway explains that international migration occurs when the opportunities provided by internal migration in the country of origin become exhausted or redundant. The second pathway explains international migration by describing internal migration in countries of origin. Large-scale international emigrations from one region create a vacuum into which migrants from different places can move to close the void. The third pathway states that once country-level migration happens, international migration follows. International migration, in turn, creates internal migration. In all three pathways, a U-turn sequence often occurs back to the place of origin (King & Skeldon, 2010). Migration also entails processes like pre-migration, which entails migration planning and preparations, a migration which entails travelling, post-migration which entails settlement and adjustment in host areas and return migration to a place of origin (Adepoju, 1998)

Many factors influence migration. Globalisation and the global economy influence migration and post-migration processes, flows and patterns (King & Skeldon, 2010; Massey, Arango, Hugo, Kouaouci, Pellegrino & Taylor, 2003). Also, migration process depends on how people migrate, their destinations, itinerary and migration policies that control their movement. Post-migration processes focus on what happens when migrants enter a new country and settle. These processes focus on how they integrate, assimilate or form distinct societies from the mainstream and how local citizens perceive and treat them (Martiniello, 2013). Migration studies also focus on discrimination and racism, whether migrants are accepted, tolerated, incorporated or excluded, and whether they have access to citizenship and rights. The policy

responses concerning integration, assimilation and multicultural policies, have also received attention in migration studies (Martiniello, 2013).

Although migration is part of human nature and people have always migrated, the most significant migration occurred during the industrial period in the 19th Century (Lüthi, 1999; Massey et al., 1993). The industrial period resulted from industrial development in Europe and the spread of capitalism to countries and colonies. Industrial developments increased economic and geographical opportunities (Corbett, 2001). These developments also resulted in inter-continental emigrations between 1846-1924. Approximately 48 million people migrated from Europe during this period (about 12% of the European population) (Massey, 2003). Influenced by the increased migration volumes, Ravenstein produced the first migration theory in 1885, setting the tone for what would develop into multiple non-converging migration theories today.

However, to date, there is still no single theory for understanding migration. The lack of a uniform migration theory results from the complexity and volatility associated with migration, its multifaceted nature, different contexts and the multidisciplinary nature of migration studies. The result is the fragmentation of theoretical and empirical work. This fragmentation in theorising has prompted scholars to argue for a universal theory of migration that would take different aspects from different disciplines and incorporate them into a single theory of migration (De Haas, 2014). Sen's capabilities approach holds some promise in this respect (De Haas, 2014).

1.3 Migration and health

Research recognises migration as a determinant of health (Lurie & Williams, 2014; Pithara, Zembylas & Theodorou, 2012; Koehn, 2006). Hence, many global institutions have responded to the health consequences of migration, dating from as far back as 1887. For instance, in 1887, the USA established the Marine Hospital to screen migrants for infectious diseases like yellow fever, tuberculosis and cholera. The USA Government suspected migrants of bringing these diseases from their countries. The US Government set up laboratories to research opportunities created by screening migrants, leading to global health research on migrants (Evans, 1987).

Migration trends shape the relationship between migration and health. Historically, approaches to migrants' health focused on the recognition, identification and management of communicable diseases (Gushulak, Weekers & MacPherson, 2009). Currently, the scope has

widened to include migrants' health during three levels of migration: pre-migration, during, and post-migration. These levels consider migrants' pre-existing health conditions, non-infectious diseases, and the influence of behaviour, morality, genetics and ethnic profiles on migrants' health. Additionally, migrants' health interventions consider the trends in migration, like increasing migration volumes and diversity. These changes in migration trends are vital as they have challenged traditional methods of assessing and managing migrants' health.

The challenges in traditional methods of assessing and managing migrants' health have led to the emergence of population-based migrant health methods, which take a global perspective on migrants' health and disease. The focus is on forces that shape migrants' health and the long-term consequences of long-term movements between locations. There is an emphasis on different determinants of migrants' health and outcomes (Gushulak et al., 2009).

According to Suphanchaimat, Kantamaturapoj, Putthasri and Prakongsai (2015), migrant health concerns are real. The increasing volumes of migrants contribute to existing complexities and increase the demand for appropriate health policies. Additionally, current migrants' health issues are different from historical concerns. For instance, their health issues have expanded from disease-specific care to health promotion and prevention. Migrants' health issues also involve various stages of migration (pre-departure, during travel and post-migration mobile phases). Migrant health issues depend on several social determinants (different gender roles, cultural diversity, migration experiences, and precarious legal status) and the contextual environment of migrant destination countries (like idiosyncratic health systems and cultural values) (Suphanchaimat et al., 2015). Other significant challenges in migrants' health include a lack of sustainable funding resources and improved access to care and protection for migrants of precarious status. These migrants are usually difficult to reach out to, public healthcare system rules are unclear, resource constraints make it difficult to provide adequate and continuing care and advocacy activities are difficult to organise (Belaid, Benoit, Kaur, Lili & Ridde, 2020),

While there have been significant challenges in managing migrants' health, there have been considerable developments and trends in migration and health. However, these developments did not focus much on migrants' health capabilities, and research in this area is still scarce. For instance, past research in Southern Africa has concentrated on the impact of migration on migrants and host health systems (Mou, Griffiths, Fong & Dawes, 2015). However, very little

research focuses on how migrants construct capabilities to cope with the effects of migration and the social arrangements surrounding them.

1.3.1 Migrant labour and health

Migrant labour in South Africa dates back to the discovery of gold in the Transvaal in 1896. This discovery introduced a circular migratory labour practice where miners from rural South Africa and neighbouring countries work in the mines. Historically, migrants were accommodated in single-sex compounds on short-term contracts (18 months) with no assurance of re-engagement (Harington, McGlashan & Chelkowska, 2004). The temporary contracts and poor living conditions contributed to health problems like acquiring HIV and Tuberculosis (TB) (Clark, Collinson, Kahn, Drullinger & Tollman, 2007; Koen, 2006). The temporary contracts also fostered the inter-country spread of epidemics through constant mobility (Crush et al., 2005). Because of their unstable nature, temporary contracts were also a barrier to migrant miners' achievement of their migration goals (Harington et al., 2004). There is evidence of vulnerability, exploitation, violence and threats (Laurence & Blower, 2015; DiCarlo et al., 2014).

During apartheid, mobility, including migrations, were restricted through Acts like the Influx Control Act, the Group Areas Act, the Population Act and the Pass Law (Harington et al., 2004). The Pass Laws, in particular, restricted the mobility of black people into South Africa's cities (Francis, 2021; Marais & Venter, 2006). The end of apartheid opened mobility and opportunities for migrants to trade, shop, access services and seek asylum (Crush et al., 2005). South Africa became a significant recipient of migrants from Southern Africa. The South African Government ratified several international conventions, like Universal Health Coverage, Sustainable Development Goals and the Right to Health. However, despite clear guidelines, health providers often bar migrants from accessing health services (Veary, Modisenyane, Makkan, Charalambous, Smith & Hannefeld, 2016). This brings about a concern about the state of migrants' opportunities for good health in South Africa.

Migrants in the South African mining sector have an increased risk of contracting HIV and TB. South Africa has an HIV prevalence rate of 19% for adults aged 15 to 49 (UNAIDS Report, 2019). Miners between 30-44 years, who migrate between Lesotho, South Africa and Swaziland, are 15% more likely to be HIV-positive than the average population of the same age (WHO, 2018). This figure increases the probability of their female partners being HIV positive by 8% (WHO Health of Refugees and Migrants; Africa Region Report, 2018; Crush

& Dodson, 2010). Factors like their uncertain legal status, short temporary stays and high mobility, play a considerable role in restricting their access to healthcare, thereby increasing their vulnerability to diseases like HIV/AIDS and TB (WHO Health of Refugees and Migrants; Africa Region Report 2018; Crush & Dodson, 2010).

1.3.2 HIV/AIDS in Lesotho

Lesotho has the second highest HIV/AIDS incidence in the world, behind Swaziland, with a prevalence rate of 22.8% for adults aged 15 to 49 (UNAIDS Report, 2019). More than 50% of outpatients and 60% of inpatients display HIV/AIDS-related illnesses (Lesotho's National HIV & AIDS Strategic Plan, 2006-2011). The high population mobility for economic reasons in South Africa contributes to this reality (Lesotho's National HIV & AIDS Strategic Plan, 2006-2011). Cross-border migrants are among the worst affected group, with a prevalence rate of approximately 42.7% (Lesotho's National HIV & AIDS Strategic Plan, 2006-2011).

Crush and Dodson (2010) describe Lesotho's ten border posts with South Africa as 'sites of exceptional HIV vulnerability'. The same applies to TB. The high levels of mobility exacerbate this vulnerability. The literature also provides evidence of TB transmission from South African mine hostels (where the prevalence is high) to rural villages in Lesotho, where the prevalence is low (Stuckler, Steele, Lurie & Basu, 2013). The high transmission of TB results from low take-up and follow-up of healthcare interventions, late diagnosis, migrants' temporary status in the host country, and living conditions like overcrowded hostels or shacks with poor sanitation in the host country (Stuckler et al., 2013).

This background provides a starting point to explore the capabilities of Lesotho migrant miners in preventing and managing HIV in the Free State mines. This will help identify shortfalls and how to improve the migrant labourers' health and well-being.

1.4 Problem statement

The mining industry has contributed to extensive migration between South Africa and Lesotho. The migration of mineworkers has substantial health implications for the workers and the health systems in South Africa and Lesotho. Furthermore, the mining sector in South Africa has provided healthcare for its employees and South African hospitals are amongst the best in Africa, while mining companies run several programmes (Campbell & Williams, 1999; Harington et al., 2004).

However, despite the availability of HIV programmes, Lesotho migrant workers in South Africa are among the worst-hit groups by HIV (Crush et al., 2005; Cuomo et al., 2019). Evidence points to the fragmentation and ineffectiveness of HIV prevention and management strategies (Faturiyele et al., 2018; Klein et al., 2018).

Therefore, it is imperative to investigate Lesotho migrant miners' capabilities to prevent and manage HIV. This could inform and improve the effectiveness of strategies in preventing and managing HIV. To strengthen these linkages, a framework is needed to understand migrant miners' construction of their capabilities to prevent and manage HIV. Additionally, there is a need for research that goes beyond the biomedical and behavioural approaches and considers the broader aspects of migration, health and human development.

This study investigates how Lesotho migrant mineworkers cultivate capabilities to prevent and manage HIV and how structures like healthcare institutions expand or constrict these capabilities.

The study addresses the following secondary objectives:

1. To investigate what valued resources Lesotho migrant miners attach to their expansion of capabilities to adhere to ART and prevention of HIV.
2. To analyse what key activities (functionings and doings) they are engaged in to cultivate their capabilities to prevent and manage HIV.
3. Discuss what opportunities and choices the available programmes (HIV programs, HIV information and access to healthcare) afford Lesotho migrant miners to prevent and manage HIV.
4. Assess how the current Lesotho migrant miners' migratory patterns expand or constrict their capabilities to prevent and manage HIV.
5. To investigate how the legislative environment in both Lesotho and South Africa provides opportunities for migrant miners to access HIV services.
6. In the end, explore how effective the existing strategies are in cultivating migrant miners' capabilities for preventing and managing HIV and how these outcomes might translate into broader health impacts.

1.5 Conceptualisation

This section discusses the major concepts that underpin this study.

1.5.1 Migration

Migration has multiple dimensions. One dimension views migration as shifts in residence, employment and even social relations (Piche, 2013). Another dimension views migration as movement across national borders (Kumpikaite & Zickute, 2012). However, migration can also happen internally within a locality or geographic boundaries (Adepoju, 1998). Migration is also defined as adaptations to resources (Dingle and Drake (2007). Research, using the capabilities approach, shows that migration is essential to human development (Lüthi, 2018; De Haas, 2014). De Haas (2014) says that capabilities drive people's ability to move. That is, people can only move if they have the capabilities to do so. For this study, I define migration as movement across national borders motivated by adaptation to resources (Kumpikaite & Zickute, 2012; Dingle & Drake, 2007). I also interpret migration as essential to human development (Lüthi, 2018; De Haas, 2014). Expanding the capability to migrate through access to social, human and/or economic resources is an expansion of people's choices to exercise their freedom to migrate (De Haas, 2014).

1.5.2 Migrant labour

For this study, migrant labour is the system that fosters sending labourers to South Africa's mines from neighbouring countries like Lesotho. Although this system was enforced by law under apartheid, it has continued, despite not being legally enforced, since the early 1990s. The mining industry in South Africa relies heavily on migrant labour and is one of the highest contributing factors to the high prevalence of HIV in migrant labour-sending countries, like Lesotho (Lurie & Williams, 2014; Crush & Dodson, 2010; Clark et al., 2007). Many miners in South Africa's mines are migrant labourers from rural South Africa and South Africa's neighbours, including Lesotho (Coovadia, Jewkes, Barron, Sanders & McIntyre, 2009; Harington et al., 2004). Often, migrant labour is linked with the spread of epidemics (Stucker et al., 2013; Crush & Dodson, 2010; Clark et al., 2007; Koehn, 2006). For example, migrant labour has contributed hugely to the high prevalence of HIV in Lesotho, through circular migrations that transport epidemics like HIV from places of higher prevalence (the mines) to those of lower prevalence (Lesotho) (Crush et al., 2005).

1.5.3 Capabilities

Capabilities refer to "those sufficient opportunities and freedoms a person has to realise the functioning" (Sen, 2005: 43). They are "notions of freedom", "the ability to achieve", and "the real opportunities you have" (Sen, 1987: 36) . In essence, capabilities are real opportunities to do something or be the person one wants to be (Sen, 2005). Nussbaum (2016) views capabilities as a set of central human opportunities. Both views (Nussbaum, 2016; Sen, 2005) concur that capabilities are not defined by opulence or economic growth. However, both agree that economic goods, basic rights and liberties, are important in achieving capabilities. Nussbaum (2016) further notes that each of the capabilities from her list of capabilities has intrinsic value and that human dignity is a fabric that holds them together. Nussbaum (2016) concludes that a society that pursues opulence and growth at the expense of people's capabilities cannot be minimally just. For this study, I define capabilities as "those sufficient opportunities and freedoms a person has to realise the functioning" (Sen, 2005: 43). I also consider Nussbaum's' idea that human dignity should be the mainstay of peoples' achievement of capabilities.

1.5.4 Agency

For this study, I define agency as a person's role and ability to participate in economic, social and political actions, based on the person's perception of what is good (Sen, 1985). The literature on the capabilities approach notes that one of the significant roles of agency is the ability of people to exploit existing opportunities through the mobilisation of conversion factors (personal, social and environmental) (Nussbaum, 2016; Sen, 1985). The literature further notes that the exploitation of opportunities depends on the freedoms available and social arrangements, as these can expand or narrow opportunities and conditions favourable for agency. While the availability of rights, freedom and conducive social arrangements can provide opportunities to facilitate agency, social and economic disadvantage, how people adapt their attitudes to social influence and structural inequalities, may constrain or impede agency (Lewis, 2012). Agency is essential in the achievement of capabilities as it shows and portrays acquired capabilities like freedom and aspirations.

1.5.5 Health

Health is a subject of concern in migration studies and is surrounded by multiple issues. There are multiple perspectives regarding its definition, a problem of integration with other sectors in migration policy and laws, and a problem of contextual application. Health is defined in multiple ways that are often contradictory. Hence, health is very individual (Law & Widdowson, 2007).

WHO (1948) defines health as either the presence or absence of disease without much emphasis on the social arrangements that influence health.Weaver et al. (2014) define health as the social arrangements determining health and disease. They note that the opportunities people have to achieve health are determined by the availability of resources that link people to bigger social structures that are the custodians of health, enhancing their exploitation of available health opportunities. Ruger (2006) emphasises the intrinsic nature of health and the inherent health of human beings. Ruger's (2006) and Weaver et al.'s (2014) definitions of health are compatible with the capabilities approach in that they do not isolate health and disease, but look beyond the context that gives a platform for health and disease. Furthermore, they emphasise that resources on their own may not be useful, but need to be converted or mobilised and aligned to other structures that can make the realisation of health and prevention of disease possible. For this study, I define health as an inherent feature of human beings that is a product of dynamics and opportunities available and accessible to people to achieve well-being (Ruger, 2006; Weaver et al., 2014).

1.5.6 HIV

HIV prevalence in the SADC region, including Lesotho, is linked to migrant labour migration to South Africa's mines (Lurie & Williams, 2014; Crush & Dodson, 2010; Clark et al., 2007). The mining sector in South Africa influences high circular, and oscillating migration patterns between SADC countries, driving epidemics like HIV. The high prevalence and HIV burden in Lesotho is linked to high population mobility, especially cross-border migration to South Africa (Lesotho's National HIV & AIDS Strategic Plan, 2006-2011). Although the mining sector in South Africa responded early to the HIV pandemic, the programmatic response in South Africa's mining sector has not been able to contain the spread of HIV. Consequently, South Africa's mining sector is one of the worst-hit sectors by HIV (Cuomo et al., 2019; Stuckler et al., 2013; Collinson, Tollman & Kahn, 2007; Crush et al., 2005).

1.6 Structure, processes and outcomes as indicators of migrants' construction of capabilities

The effective operation of any organisation depends on the function of harmonious interactions between the structures and processes. Structures and processes are closely related as they determine the investment of effort that positions an organisation on the continuum of effectiveness and non-effectiveness. The structures and processes, if in harmonious function, will lead to desired outcomes for that particular organisation. If not in harmony, they lead to disgruntlement, inability to solve problems and general dissatisfaction.

For this study, I evaluate the following aspects of migrants' health: structures, processes, and outcomes to understand the effectiveness of these bodies in facilitating the expansion of migrant miners' capabilities to prevent and manage HIV.

Table 1 below highlights the elements of structures, processes and outcomes that are used to guide this study:

Table 1.1: The Input-Output framework to assess migrant miners' capabilities

Structure	**Processes**	**Outcomes**
Instruments of capabilities expansion (e.g. health resources) (objectives 1, 2, 3 and 4) Available HIV-related resources/programs Policies and legislative context (objectives 3 and 5)	Appraisal of health resources (objectives 1 and 2) Activities (access to healthcare, health information, counselling, and test and treatment) (objectives 1 and 2) Policy and legislature implementation (objectives 3 and 5)	Assessment of outcomes in terms of four key variables: Functionings Capabilities Freedoms (negative and positive) Agency (objective 6)

Created by the researcher

1.7 Methodology

This section describes the study design, data collection methods, data analysis, timeframes, and ethical considerations.

1.7.1 Research methods

The paradigm: The study followed a constructionist-interpretivist paradigm. Constructivism emphasises that knowledge emerges through the individuals' interaction with the environment in the course of experience (Evanoff, 2005). In this sense, knowledge is a human product and is socially and culturally constructed. Interpretivism inquiry focuses on understanding or interpreting the meanings, purposes, and intentions (interpretations) participants give to their actions and interactions with others (Pulla & Carter, 2018). In this sense, the meaning is created and negotiated by human actors. In practice, this study relied on participants' views of how they experience their reality regarding the prevention and management of HIV. To achieve this, I expunged all my pre-conceived ideas about how people prevent and manage HIV. Instead, I focused on the participants' view of HIV and the environment around them in terms of enabling or disabling their capabilities to prevent and manage HIV. From these, I derived meanings, purposes and interpretations the participants attach to their prevention and management of HIV.

The approach: The study followed a qualitative approach. Qualitative research is useful in addressing research questions that focus on understanding the meaning and experience dimensions of humans' lives and social worlds. The central focus of qualitative research is to highlight subjective meanings, actions and social contexts, as understood by research participants (Fossey, Harvey, McDermott & Davidson, 2002). For this study, I used the participants' subjective meanings of how they understand, prevent and manage HIV to understand their capabilities to prevent and manage HIV.

Research design: The study used an explanatory case study design. A case study design is appropriate for this study as it allows for an in-depth, detailed description of the phenomenon. I collected raw data from the participants in their language (Sesotho) and contracted a transcriber to transcribe all the interviews. The transcription allowed for a detailed description and an in-depth understanding of the data and how the miners view their world regarding their capabilities to prevent and manage HIV. Although the results generated from this case may not be generalised, they can be used to assess direct outcomes arising from the case and make judgments in similar situations, thus strengthening the achievement of set outcomes (Tetnowski, 2015; Baxter & Jack, 2008).

1.7.2 Sampling

The target population for this study was Lesotho migrant miners who were working in the Free State. A combination of purposive and snowball sampling was used to identify and recruit 50 participants into the study. 50 particpants is a large enough sample to allow for data saturation. Purposive sampling involves the selection of informants, based on who best satisfies the informational needs of the study. Snowball sampling is a technique whereby participants in the study recruit other participants by referral (Given, 2009). Good informants usually possess special knowledge, status or communication skills and are willing to share those skills and experience with the researcher (Tongco, 2007; Streubert, 1991). 50 participants were selected through purposive and snowball sampling from places highly trafficked by Lesotho migrant miners (Maseru Border Post and popular street bars and tarvens in Maseru).

1.7.3 Criteria for inclusion in the study

Participants in the study satisfied the following criteria:

- Lesotho migrant miner working in the Free State,
- Male 18 years or older,
- Willing to participate in the study,
- Either HIV-negative or HIV positive.

1.7.4 Recruitment strategies

Passive and active recruitment strategies were used for this study. For passive recruitment, targeted advertising, using brightly coloured pamphlets in Sesotho was used. The pamphlets bore information regarding the study and the contact details of the researcher, inviting Lesotho migrant miners who met the inclusion criteria (mentioned above) and who were interested in participating in the study to contact the researcher. The pamphlets were posted in areas that were highly trafficked by Lesotho migrant miners, like the Maseru Border Post and popular bars around Maseru. As in many countries, in Lesotho, COVID-19 pandemic management followed Public Health protocols that included a series of isolation procedures to contain and mitigate the spread of the disease. To achieve these, there were periods of restricted movement within and between populations, culminating in total lockdowns of the border posts between Lesotho and South Africa. In other instances, the minimal movement was permitted and people

were conditionally allowed to cross Lesotho-South Africa border posts. It was during this period that data was collected for this study. Because of COVID-19 lockdowns and restricted movement during the data collection period, Maputsoe Border Post and Sekekete Hotel Bar in Maputsoe could not be included in the study. The pamphlets were checked every week and replaced if necessary. An amount of two hundred Rand (R200.00) cash was given as a once-off to each participant who satisfied the inclusion criteria and was willing to participate in the study to compensate them for the time they took to participate. In addition to recruitment using pamphlets, snowball sampling was conducted. At the end of each interview, participants were asked if they knew anyone in a similar position who would like to participate in the study. If the answer was yes, the participant was asked to give the researcher's contact details to the potential participant.

For active recruitment, potential participants were approached using street outreach methods in the areas highly trafficked by Lesotho migrant miners (Maseru Border Post and bars around Maseru). To avoid implied disclosure of their HIV status, the potential participants were given an information sheet (written in Sesotho) and were informed that it was for them to keep or to give other migrant miners whom they may know who might like to participate in the study. If the participant knew another migrant miner who might want to participate in the study, he was asked to give the researcher's contact details to the potential participant.

For this study, only migrant miners who were currently working in the Fress State mines were interviewed. The first participant was identified in one of the tarvens frequented by migrant miners in Maseru. After interviewing the participant, the participant was asked if he knew someone who might be interested in participating in the study. The participant was then given the researcher's contact details and the research information sheet to give to his friends and colleagues who might be interested in participating in the study. This was applied to all the participants who participated in the study.

1.7.5 Data collection

The process of obtaining consent was fully documented, and only individuals who understood the study's information were asked to provide written informed consent and were included in the study. First, I ensured that the participants were comfortable and free from harm, greeting, self-introductions and doing the COVID-19 protocols (wearing masks, sanitising and keeping the prescribed social distance). I then introduced the study to the participants by reading and

explaining the study's objectives from the information sheet. The participants were also given time to read the information sheet (written in Sesotho) that was provided to them before signing their consent to participate in the study. The participants were informed that their decision not to participate in the study would not affect their standing or opportunities in healthcare. After full disclosure of the study, permission (in terms of obtaining informed consent and recording of data) was sought from the participants.

Data were collected through semi-structured interviews with 50 participants. All the participants could read and write. The data collection method was guided by pre-determined questions, derived from the study's framework that sought to understand the miners' capabilities to prevent and manage HIV. The interviews were conducted for 1 hour and 30 minutes per participant. Participants' answers were audio-taped after obtaining their permission. The audio tapes were kept in a safe place, were not shared with unauthorised persons, and will be destroyed upon completion of the research. I also made indirect observations and personal reflections and took notes during the interviews to account for the unspoken things. These field notes were formatted and included during data analysis (Munhall and Oiler Boyd, 1993). To achieve data saturation, I collected and analysed data until no new information (themes or categories) was produced by the data (Tetnowski, 2015). Data was collected from 6th July 2021 to 27th July 2021 with the entire sample (50 participants).

1.7.6 Data analysis

Data were transcribed and analysed using thematic analysis guided by Braun and Clarke, (2006). An inductive approach to data analysis, an approach that allows for codes to emerge from data was used (Braun and Clarke, 2006). To achieve this, open coding was used to break data into smaller parts that reflect repeated instances to create codes as they emerge from the data (Braun and Clarke, (2006). Data from the interviews were read and re-read to familiarize myself with data. Codes were generated and named, using Atlas ti 9. The codes were then examined for recurring themes and repeated patterns and how the participants portray the themes (Braun & Clarke, 2006). The themes were then generated, using Atlas ti 9, categorised and compared to discover how they relate to each other (Joffe, 2012; Braun & Clarke, 2006). Data were also examined to find commonalities, incongruities, puzzles, and repeated unified concerns (Given, 2008). The thematic data analysis method was used to understand the

evolution of behaviours, events and processes that the Lesotho male migrant miners engage in, in preventing and managing and how participants perceived these.

1.7.6.1 Rigour

Rigour refers to ways to ensure the quality of findings in qualitative enquiry like reliability and trustworthiness or merit that can be assigned to that inquiry (Morse et al., 2002). For this study, measures of reliability, including bracketing, intuiting and trustworthiness are applied.

1.7.6.2 Bracketing

Bracketing refers to the process of self-awareness and self-reflection by the researcher to exclude pre-conceived ideas and a judgemental attitude by the researcher (Brink, 1993). For this study, I reflected on my knowledge and attitude towards HIV prevention and management before the interviews and I ensured that these did not cloud or influence the interviews or how the participants viewed their reality.

1.7.6.3 Intuiting

Intuiting refers to "knowledge within a person, in the form of insight that becomes present in consciousness: an idea or thought produced by long process of unconscious work" (Munhall et al., 1993: 42). In order to get the sense of the whole data, I engaged in the process of intuiting by reading and re-reading the transcribed interviews and listening to the audio-tapes. During this process, I compared and contrasted the data in order to identify common themes and threads emerging from the data (Morse, 1989; Brink, 1993).

1.7.6.4 Trustworthiness

Brink (1993) describes trustworthiness as a process of looking for truthfulness and accuracy of research findings. For this study, trustworthiness was determined by comparing common themes from the transcribed interviews. Data from the interviews were also compared with other literature on HIV care and management, like Lesotho's National HIV & AIDS Strategic Plan and South Africa's HIV & AIDS Strategic Plan. Also, the personal information of the participants

that allowed for accuracy checks, was taken so that the participants could be contacted, should this be necessary. However, this personal information was anonymised using codes, kept in a safe-locked cupboard, and was not shared with unauthorised persons. The tapes and personal information will be destroyed five years after the completion of the research. The research process followed a step-by-step progression and sequence. Therefore, this research can be replicated.

1.8 Ethical considerations

Ethical risks taken into consideration for this study, include confidentiality, no harm to participants, respect for participants' autonomy, non-abuse of information conveyed by participants, and dissemination of the results (Hardicre, 2014; Hernandez, et.al., 2013; Kaiser, 2012; Katzenellebogen et al., 1997).

There were risks to confidentiality, including non-anonymity and the possibility that participants may feel that non-anonymity will not put them in "good standing" within their communities or the mines where they work. Non-dissemination of the study results is also a risk that may lead to failure to use the study results, thus compromising Lesotho migrant miners' right to information. The non-dissemination can also lead to the repetition of the same issues addressed by this study, thus compromising the study's cost-effectiveness in terms of resources and time with little or no social benefit to Lesotho migrant miners.

Ethical clearance was sought from the General / Human Research Ethics Committee, University of the Free State. To ensure the participants' autonomy and respect, I obtained informed consent (form written in Sesotho) from the participants prior to conducting any interviews. To ensure the potential participants' comprehension of the information about the study and to improve their decisional capacity, before signing the consent form, information was given orally about the study's aims and objectives and was accompanied by an information sheet (also written in Sesotho). The consent form emphasised voluntary participation, the right to withdraw from the study and confidentiality (including confidential data handling). Participants were also informed that their decision not to participate in the study, would not affect their standing or opportunities in healthcare. Additionally, the consent form provided the contact details of the principal researcher, the affiliated institution, and the Ethics Committee affiliated with the study.

To mitigate the confidentiality risk, the interviews were held at a private venue where no one was listening and the information that the participants imparted, was kept in strict confidence where the researcher could only access it and was not shared with unauthorised persons. To avoid revealing the participants' identities, pseudonyms or codes were used and there was no mention of participants' names in the data, in reports, or in publications. Other people involved in the study, like the transcribers, signed a confidentiality clause. Furthermore, data are kept in strict confidence where the researcher and other co-researchers can only access it. Once used for the research, it will be destroyed after five years.

To mitigate potential harm to the participants, precautions against COVID-19, like sanitising, wearing masks and social distancing, were strictly adhered to. Although counselling did not become necessary during the interviews, a counsellor was arranged for a once-off counselling session in case participants might experience emotional distress as a direct consequence of the study interviews

To mitigate non-dissemination of the study findings, the results of this study will be disseminated widely through seminars, reports and publications to increase the likelihood of their utilisation to strengthen Lesotho male migrant miners' capabilities in preventing and managing HIV.

1.9 The limitations of the study

For this study, sampling relied mostly on snowballing, because of the COVID-19 restrictions. This meant that the study participants were self-selecting and that the dependence on participants to recruit fellow miners may have resulted in participants with a similar outlook participating in the study. Also, HIV is a sensitive topic and the participants might have withheld information that they felt would portray them in bad taste to the authorities and their social networks. The sample was small (50 participants) and focused on miners working in only one province in South Africa. Other stakeholders, like healthcare workers, were not part of the study. However, the literature on migrants' health in South Africa (and the results of this study) suggest that healthcare workers' bad attitudes towards migrants are a barrier to migrants' cultivation of capabilities to be healthy.

1.10 The outline of the study

This section gives an overview of the chapters of this thesis and their alignment with research objectives.

Chapter 2 (*A review of migration theory*) tracks developments in migration theory. This chapter links to objective 4. Reference is made to the methods of analysis in migration studies and how migration theory has developed over time. These include the historical developments of migration theory, Ravenstein's Laws of migration as the first theory of migration, migration theory adaptations across disciplines, methodological nationalism and migration studies, transnationalism and migration studies and other developments in migration theory. This chapter concludes by presenting the capabilities approach and its relevance as a framework in migration theory.

Chapter 3 (*Migration and health)* is a literature review on the link between migration and health. This chapter links to objectives 1, 4, 5 and 6. It discusses the effects of increasing migration volumes on migrants' health and host health systems. It also discusses migration-related health inequalities, the effects of migration patterns, like irregular and circular migration patterns on migrants' health and the regulatory context that influence migrants' health. It links the theoretical ideas from Chapter 2 (the capabilities approach) with the discussion in this chapter.

Chapter 4 (*The history of migration between Lesotho and South Africa*) discusses the migration history between Lesotho and South Africa. This chapter links to objectives 3, 4 and 6. I distinguish between pre-colonial, colonial and post-colonial periods. The discussion includes the influence of conflicts and wars and labour migration policies. The chapter concludes by analysing migration and health in Lesotho and South Africa, focusing on the evolution of epidemics in South Africa's mines and the link between these epidemics to epidemics in Lesotho.

Chapter 5 (T*he role of structures in expanding or constricting Lesotho migrant miners' capabilities to prevent and manage HIV*) analyses the role of structures (the mines and healthcare institutions) in expanding or constricting Lesotho miners' capabilities to prevent and manage HIV, using four themes: the loss of control over daily living, circular migration, policy and legislature context and the quality of HIV services. This chapter links to objectives 1, 3, 4, 5 and 6.

Chapter 6 *(Conversion factors*) analyses the conversion factors that foster Lesotho migrant miners' capabilities to use existing HIV resources to prevent and manage HIV, using one theme and describes the theme using three sub-themes: the personal conversion factors, the social conversion factors and the environmental conversion factors. This chapter links to objectives 1, 3, 4, 5 and 6.

Chapter 7 (*The miners' functionings, "doings" and "beings")* analyses the miners' functionings ("doings" and "beings") that foster their capabilities to prevent and manage HIV. This chapter links to objectives 1, 2, 4 and 6.

Chapter 8 (*Key findings, recommendations and areas for future research)* highlights key findings, recommendations and areas for future research. This chapter links to objectives 1, 2, 3, 4, 5, 6.

CHAPTER 2
A REVIEW OF MIGRATION THEORY

2.1 Introduction

Even though no single theory covers migration aspects, migration theory has evolved quickly over the past century. Migration has multitudes of theorisations emanating from its complex, volatile, multidisciplinary and varying contextual nature. The result is disharmony in theoretical and empirical work. The disharmony in theorising has prompted scholars to argue for a universal migration theory (de Haas, 2014).

Migration, whether by choice or by force, is a universal human experience. For example, in 1965, there were 75 million migrants globally and by 1985 the number had increased to 105 million. In recent times, the number of international migrants is well over 214 million (Lüthi, 2018; Piche, 2018). This roving instinct is intrinsic to human nature and often entails searching for food, pastures, or resources. Migration also includes broader processes of social transformation.

This chapter tracks developments in migration theory. Reference is made to the methods of analysis in migration studies, as well as how migration theory has developed over time. These include the developments of the migration theory, Ravenstein's Laws of migration as the first theory of migration, migration theory adaptations across disciplines, methodological nationalism and migration studies, transnationalism and migration studies and other developments in migration theory. This chapter concludes by presenting the capabilities approach and its relevance as a framework in migration theory.

2.2 The developments of migration theory

This section describes the developments and evolution of migration theory. The discussion includes the different definitions of migration and a discussion on Ernst Ravenstein's theories and theories from disciplines like Geography, Sociology and Economics. I also show the lack of convergence of migration theories.

Migration is a subject of multiple disciplines. Some scholars define it as a change in residence, a shift in employment and a shift in social relations (Piche, 2013). Dingle and Drake (2007)

define migration in terms of adaptations to resources, while other scholars view it in terms of movement across national borders (Kumpikaite & Zickute, 2012). How migration happens, its classifications and determinants, have also been a subject of research.

Internal and international migrations are interlinked and this linkage manifests through three pathways (King & Skeldon, 2010). The first pathway uses labour migration as a lens. The labour migration lens explains that when redundancy and exhaustion of opportunities and labour reserves, resulting from internal migration sets in, people often turn to international migration and international labour recruitment to counteract these effects. The second pathway explains international migration by describing the internal migration in countries of origin. Large-scale international emigrations from one region create a vacuum into which migrants from other places can move in to close the void. The third pathways states that once internal migration happens, it is sequentially followed by international migration, followed again by internal migration. A U-turn sequence often occurs back to the place of origin (King & Skeldon, 2010).

The interface between globalisation and the world economy, has an influence on migration and post-migration processes, flows and patterns (Massey, 2003; King & Skeldon, 2010). The migration process depends on how many people migrate, their destinations, itinerary and migration policies that control their movement. Post-migration processes focus on what happens when migrants enter a new country and settle. These processes focus on integrating, assimilating, or forming distinct societies and how they are perceived and treated by local citizens (Martiniello, 2013).

Despite the multiple views, definitions and theories, research acknowledges that migration is part of human nature (Lüthi, 2018; Kurekova, 2011; Mabogunje, 1970). Although people have always migrated, the most significant period for migration occurred during the industrial period in the 19th Century (Lüthi, 2018; Kurekova, 2011; Massey, 2003). The industrial period was marked by industrial development in Europe and the spread of capitalism in former colonies. The industrial developments in Europe and the former colonies increased economic opportunity and widened the geographical range related to the opportunities (Corbett, 2011). The developments also resulted in intercontinental emigrations during the period between 1846-1924. Approximately 48 million people left Europe - about 12% of the European population at the time (Massey, 2003). Influenced by the increased volumes of human

movements, the first theory of migration by Ravenstein emerged in 1885, setting the tone for what would become an influx of multiple non-converging migration theories today.

2.3 Ravenstein's Laws of migration as the first theory of migration

Ernst George Ravenstein was a Geographer and a Fellow of the Royal Geographic Society, whose work centred on Cartography. His immigration laws (published in 1885 and 1889) were the first scholarly work on migration theory (Corbett, 2011; Briggss, 1977). The laws have their roots in Marxist and Aristotelian thinking and they emphasise utility as a stimulant for migration (Kurekova, 2011). Utility refers to economic growth, achievement and fulfilment of individuals' desires, as a basis for a good life (Lüthi, 2018; Kurekova, 2011). The laws explained both migration patterns internally within countries and internationally between countries.

Ravenstein developed the laws to challenge William Farr's statement that migration is a phenomenon that occurs randomly (Corbett, 2011). Central to Ravenstein's Laws are the concepts of absorption and dispersion. Absorption occurs when an area receives more migrants than it sends out, whereas regions of dispersion send out more migrants than they get in. Absorption areas are characterised by being industrialised and are usually the seats of commerce, whereas the dispersion areas tend to be dominated by agricultural activity (Corbett, 2011).

2.3.1 The analysis of Ravenstein's Laws of migration

Table 2.1 below highlights the areas of emphasis for each of Ravenstein's Laws. Comparisons between the laws help to understand how they influence or contradict each other. The table also highlights the critique of these laws by migration scholars.

Table 2.1: Ravenstein' Laws of migration

Law 1	**Law 2**	**Law 3**	**Law 4**	**Law 5**	**Law 6**	**Law 7**
The majority of migrants go only short distance.	Migration proceeds step by step.	Migrants going long distances generally go by preference to one of the great centres of commerce or industry.	Each current of migration produces a compensating counter-current.	The natives of towns are less migratory than those of rural areas.	Females are more migratory than males within the Kingdom of their birth, but males more frequently venture beyond.	Most migrants are adults: families rarely migrate out of their country of birth.
Suggests distance be a significant determinant of migration decision-making. Shorter distances are favoured over long distances by less skilled migrants and longer distanced by highly ski skilled, highly educated migrants.	Suggests that migration is a gradual linear process. Applies more for rural-urban migrations Suggests a gravity pull towards large centres or urban areas. Emphasises awave-like migration pattern. Migrants subsequently fill up each group of leaving migrants from the furthest location.	Suggests gravity pull towards large centres or urban areas. Emphasises rural-urban migration Distance is a determining factor.	Suggests Migration be a two-way phenomenon. Suggests that there are interactions between in-migration and out-migration.	Emphasise rural-urban migration	Emphasise the gendering of migration.	Suggests scarcity of collective migration, suggests that whole-family migrations only happen in exceptional circumstances.

CRITIQUE OF THE LAWS						
Law 1	**Law2**	**Law3**	**Law 4**	**Law 5**	**Law 6**	**Law 7**
Other migration factors such as ease of access and proximity to areas of attraction not explained by the law (Grigg, 1977). The size of the area of attraction and the source area of migrants, which are significant factors, are not adequately emphasised by this law (Grigg, 1977).	Sequential step by step wave-like motion is unrealistic, given the time it would take for a migrant to reach the desired significant destination eventually (Corbett, 2001; Grigg, 1977). Sample is very small, non-representative based on few censuses (Grigg, 1977 & Corbett, 2001). More skilled and educated migrants tend to take long-distance migration, directly to the centre of attraction instead of short-wave-like steps suggested in law 2 (Grigg, 1977).	The migration phenomenon under study is secondary to the central focus (Forman, 1976)	Very little in-migration and out-migration at the time of the law development to adequately substantiate the effects of streams and the presence of counter-streams (Grigg 1977).	Studies that focus on the sub-group of a population remain tied to that sub-groups empirical situation, limiting generalization about the population (Forman, 1976).	Studies that focus on the nature and characteristics of migrants like sex, education or deviate from important aspects of migration, like migration volumes and generalisations of migration theory (Lee, 1966; Forman, 1976). Sample is very small, non-representative based on a few censuses (Grigg, 1977 & Corbett, 2001).	Sample is very small, non-representative based on few censuses (Grigg, 1977 & Corbett, 2001).

Created by the researcher

Table 2.2 above shows that Ravensteins' Laws of migration have a key dimension that defines migration, like distance, migration processes, who is likely to migrate and who is likely to stay behind. Short distances and easy access to resources promote positive migration decisions, while longer distances and poor access to resources promote negative migration decisions. Migration processes involve a sequence of counter-currents that replace vacuums left by previous migrations. Some dimensions focus on the individual migrant characteristics like age and sex that determine whether migration is possible. The Laws also have criticisms that include; the reliability and validity of the studies that resulted in their emergence,

In essence, Ravenstein's Laws initiated significant scholarly interest in the migration theory, resulting in migration being a subject of multiple disciplines, such as Geography, Economics, Sociology and Anthropology. The laws still inform scholarly work on migration (Lüthi, 2018; Piche, 2018; Kurekova, 2011). Although they only used birthplace information, the laws provided evidence about counter-currents in migration processes. Counter-currents mean that, when out-migration occurs, it is immediately replaced by counter in-migration in sending areas. The laws established the significance of distance in migration decisions. The laws also initiated the study of migration patterns both in-country and internationally and other theories like the distance decay theory, the spatial interaction theory and the push-pull theory (Corbett, 2011).

These laws also received criticism. Some scholars argued that the foundations and the methods used for their formation were not adequate, as Ravenstein only used a few censuses in England, Scotland, Wales and Ireland (Corbett, 2011; Grigg, 1977). These geographical limits also limited empirical evidence and limited the generalizability of Ravenstein' findings. Other scholars viewed these laws as economically deterministic, methodologically individualistic, rigid and not resonating with the current realities of migration (Piche, 2013; Corbert, 2011). Several scholars challenged the practicability of these individual laws (Corbett, 2001; Grigg, 1977) and their mono-directional focus on individuals without considering their environment (Piche, 2013; Corbert, 2011).

For this chapter, Ravenstein's Laws form a baseline to demonstrate how migration theory has evolved. This section highlights the strengths and gaps in theory synthesis during different stages of migration theory evolution. The section also investigates the contribution made by multiple disciplines in these adaptations.

2.4 Migration theory adaptations across disciplines

Migration studies became a reactionary subject of multiple disciplines, since the first launch of Ravenstein's scholarly work on migration in 1885, resulting in non-converging various theories and conceptualisations of migration (Lüthi, 2018).

2.4.1 Migration as a subject of Geography

When Ravenstein (a geographer) published the first scholarly work on migration theory in 1885, it laid a foundation for developing other migration theories (Lüthi, 2018; Kurekova, 2011; Mabogunje, 1970). Migration studies focused more on adapting Ravenstein Laws than developing new theories (Lüthi, 2018).

Initially, Geographers were leading researchers of migration theory (King, 2012). These early theorists adopted a micro-approach to theorising and regarded individuals as migration agents and decision-makers. By the turn of the 20th Century, the migration theory had become a prominent aspect of scholarly work. These micro-approaches used individuals as units of analysis and sole decision-makers in migration decision-making. The decision-making process focused on calculating costs and benefits in which the researchers saw the potential migrant as making rational decisions (Lüthi, 2018; Kurekova, 2011). Accordingly, most researchers concluded that the migration decision emanated from geographical differences in wages between locations or countries. The favourable calculation of benefits against risks evokes the motivation to maximise wages and other personal interests, resulting in migration (Lüthi, 2018).

These early geographical studies used physical laws, such as gravity and the entropy model to analyse migration. This geographic approach resulted in the emergence of the theory of spatial interaction in the 1940s. Spatial interaction theory considers migration flows between locations and transport demand and supply as influencing factors (Rodrigue, 2017). Geographers also considered distance, population, social modernisation, and environmental disasters as the main determinants of human migration (Samir, 2017).

2.4.2 Migration as a subject of Sociology

Although Geographers, like Ravenstein, were the first scholars to study migration (King, 2012), other disciplines like Sociology and Economics started contributing to the migration theory after World War 1. These new developments culminated in multiple migration theories and adaptations (Lüthi, 2018; Massey, 2003). These developments increased the volume of the scholarship of migration theory. The sociology of migration has become dynamic and one of the major themes in migration research (Amelina & Horvath, 2017).

Unlike perspectives from Geography, Sociology studies focused on the social boundaries of belonging, global and local arrangements of inequality and political conflicts and their effects and how these structure migration (Amelina & Horvath, 2017). Simmel (1908) shaped Sociology's involvement through his essay, "Stranger", first published in 1908 and again in 1950. This essay laid the foundation of migration studies in current sociological research. It reflects how spatial relations represent symbols and circumstances of human nature. Simmel (1908) demonstrated the interplay between social arrangements and territorial boundaries through the arrival and staying of a stranger. The stranger concept became one of the major themes in migration studies. This arriving and staying theorisations resulted in the emergence of multiple theories about population movements and post-migration processes and adaptations.

Another migration theory that emerged from Sociology, as a result of the "arrival" and the "staying" of the stranger, is the assimilation theory (Amelina & Horvarth, 2017). The assimilation theory assumes a process where the in-coming immigrant group and the host society become more and more alike over time to the point where no distinguishable differences are noticeable. There is a widespread belief that the in-coming migrant gets assimilated into the host society in terms of values, ideologies, behaviour, and practices (Cole, 2018). However, evidence in the literature suggests there are adaptations by the host society and its institutions (Amelina & Horvarth, 2017).

Other Sociologists who contributed to migration theory, such as Stouffer (1940), used the concept of intervening opportunities as the primary determinant of migration, resulting in the emergence of the push-pull theory of migration. The push-pull theory states that people migrate because of push factors in their country of origin or pull factors in the country of destination (Potocky-Tripodi, 2002). Pull factors include higher salaries, employment opportunities, security and the general welfare of the migrant. Push factors include humanitarian crises,

military conflicts, environmental disasters, poverty, and unemployment. Migrant networks also emerged as pull factors ,mainly through shared friendships and kinships (Samir, 2017).

The theory of cumulative causality also emerged from Sociology. This theory considers evolutionary processes and their effect on institutional and socio-economic changes in countries of origin and recipient countries as significant determinants of migration (Sawyer, 2001). It posits that migration can alter an individual's motivations and social structures in such a way that it makes future migrations possible (Massey, 2003).

Other sociological theories focused on the social and political status of a migrant and how these link to securing a cheap, flexible labour reserve. Inspired by the Marxist ideology on how labour migration depends on global economic and political relationships, these perspectives led to the emergence of multiple theories, such as the theory of segmented labour markets by Michael, J. Piore (1979) and Wallerstein's world system theory (1974). These theories highlight the complex entanglements in the world economy as they position the migrant within global capitalism. However, these theories received criticism for their limitations in addressing post-migration identities (Amelina & Horvath. 2017).

Contemporary sociological approaches to the migration theory, focus on four criticisms of migration theory. These criticisms include: the inactive nature of sociological migration theory and its dependence on underpinnings of established migration research, its immersion in the critique of methodological nationalism, the lack of acknowledgement of the rising awareness of the gendered nature of migration processes and in analyses of assimilation processes (Amelina & Horvath. 2017).

2.4.3 Migration as a subject of Economics

Economics is one of the disciplines that first responded to Ravenstein's Laws by adding income and employment as significant determinants of migration. Economics has contributed to some of the most sophisticated migration theories.

Early migration theory used limited data and it was descriptive. The introduction of Economists changed this. In the late 1930s, Economists began developing theoretical underpinnings leading to the development of the gravity model. Economists placed migration in an investment context and the concept of discounted value became a critical concept in migration decision-making (Greenwood, 2016).

Economics regard migration theory as part of a market process. In this way, people make migration decisions based on economic self-interest, maximising efficiency outputs and public welfare (Portes, 2019). Economists also focused on causal analysis of migration, centring on both the sending and the receiving country (Portes et al. 2017). These resulted in multiple theories, such as the world systems theory and the dual labour market theory to explain the macro-determinants of migration and the micro-neoclassic theories to explain the micro-determinants of migration (Sager, 2012). Meanwhile, over time, migration studies used multiple analysis and tools to study the origins of migration, its directions, and the continuity of migrant flows.

2.4.3.1 The neo-classic theory of migration

To expand Ravenstein's migration Laws, Economists added variables, such as obstacles and opportunities to explain the migration process. The addition of these variables led to the emergence of the neo-classic theories of migration. Neo-classical migration theories were built on Adam Smith's foundations (1723-1790) and those of David Riccardo (1772-1823). Adam Smith was a political Economist whose work centred on analysing the dynamics of wealth within nations and how these impact individuals and societies' welfare. He viewed the significant determinants of economic growth as consisting of division of labour, education, human capital, learning by doing, increasing returns to scale, technological change, externalities, a global free competitive market economy and the role of government (Ucak, 2015). The review of the significant determinants of growth led to the emergence of the neo-classic theory of migration, developed by Sjaastad in 1962. This model builds upon Adam Smith's work and other original models that explain migration in the process of economic development (Harris & Todaro, 1970; Lewis, 1954; Hicks, 1932). Adam Smith highlights migration as a product of wage differentials across markets or countries, influenced by varying degrees of labour market tightness (Kurekova, 2011).

The neo-classic theory adds to migration theory variables, like obstacles and opportunities associated with the migration process. Obstacles include factors that hamper migration, such as costs (both fiscal and psychological) and structural barriers (migration laws and policies) (Lüthi, 2018; Kurekova, 2011). Opportunities refer to the chances to maximise wages and potential (skills) for migrants. The neo-classical theorists assume that rational economic considerations stimulate economic considerations, like costs and benefits (Kurekova, 2011).

The central basis for the neoclassic theory is how differences in wages between countries determine migration. Under the assumption that there will be full employment, the neo-classical theorists predict a linear relationship between wage differences in different geographical contexts and migration flows (Kurekova, 2011). Consequently, according to neo-classical theorists, migration always occurs from low wages to the areas of high wages. Adding to these, neo-classical theorists believe that geographical differences in labour demand and supply drive migration decisions (Kurekova, 2011; Lüthi, 2018). At micro-level, the neo-classic theory views a migrant as a rational individual who makes choices based on costs and benefits calculations.

The macro-level analysis of the neo-classic theory suggests that migration can advance development through the principle of demand and supply of labour (Kurekova, 2011; Lüthi, 2018). The wage differences cause people to move from low-wage high-labour to high-wage low-labour areas, resulting in a wage-convergence between the place of origin and destination. The underlying principle is that countries with abundant labour and low capital have poor wages, whereas countries with high capital and small labour reserves, usually pay high wages (Lüthi, 2018; Piche, 2013; Kurekova, 2011).

The neo-classical theory adjusted the wage differential approach by looking at prevailing wage differentials and the expected income differential, including the probability of finding employment. This development accommodated the destination area's anticipated income, as it depends on the actual wages at the destination and the probability of employment (de Haas, 2010).

Another development of the neo-classic theory was the introduction of the human capital theory (Kurekova, 2011). This theory integrated the socio-demographic attributes of individuals as determinants of migration. Human capital endowments, such as the individual's age, skills, occupation, gender, marital status, preferences, and expectations, are important considerations in this theory. However, to maximise their chance of success, migrants are likely to be relatively skilled (Kurekova, 2011).

The neo-classic theory in migration research emphasises analytic thoroughness and sets testable hypotheses (Lüthi, 2018). Its strength also lies in its ability to analyse the causes and the effects of migration. Researchers regard the neoclassical theory as one of the most sophisticated economics of migration theories (Lüthi, 2018). Although it draws from Ravenstein's Laws of migration, its disparities with the laws are apparent. Ravenstein

emphasised distance and proximity to more prominent centres of commerce as determinants of migration. Still, neo-classical theorists regard wage differences between localities as central in migration decisions, followed by geographical differences in supply and demand of labour (Kurekova, 2011; Massey, 2003).

To demonstrate the significance of wage differentials in migration decisions, the neo-classical theorists use labour commodification to explain some underlying principles in labour demand and supply. Labour commodification refers to labour as a product that the migrant can sell in markets in return for higher wages. The underlying principle is that countries with abundant labour and low capital have low fees, whereas countries with high capital and little labour reserves, usually pay high wages. The flow of workers from labour-abundant to labour-scarce countries depends on the capital flow from capital-rich to capital-poor countries (Kurekova, 2011). The relative shortage of capital in developing countries produces a high-profit rate by international standards, thereby attracting investment. There is also a movement of human capital, for example, highly skilled workers from capital-rich countries migrating to capital-poor countries to maximise their skills' profit (Kurekova, 2011).

However, different perspectives exist regarding wage differentials. Some argue that it is not the wage differentials alone that can produce migrations. Rather, disruptions in societies resulting from economic growth, compounding into disruptions in ways of life, contribute towards migration (Massey, 2003). Furthermore, geographical, sociological, political, and economic factors, such as economic depression, political unrests and general social upheavals, can produce migration (Amir, 2017).

Criticisms for the neo-classic theory include its micro-approach that places individuals as central to migration decision-making. Such a micro-approach disregards the conditions of the sending and host states and the role of policies and politics in migration decisions (Kurekova, 2011; Lüthi, 2018). Secondly, it assumes that the diverse migrant population is homogeneous and disregards other migration determinants and market imperfections (Kurekova, 2011; Lüthi, 2018).

2.5 Methodological nationalism and migration theory developments

Since the early stages of theorising on migration, methodological nationalism has been central to migration studies (Lüthi, 2018; Wimmer & Glick Schiller, 2002; Mabogunje, 1970).

Methodological nationalism is a concept in political and social theory, rooted in Marxism (Sager, 2016). It emphasises nation-building and utilises nationalism or nation-building values as central to migration research. It assumes the nation, the state or the society to be the social and the political form of the modern world. Because of this migration theory lens, migration studies became highly contextual, embracing local values about migration and migrants (Lüthi, 2018; Wimmer & Glick Schiller, 2002; Mabogunje, 1970). Methodological nationalism added multiple definitions and interpretations of migration that in turn added to the fragmentations in the migration theory (Wimmer & Glick Schiller, 2002).

Methodological nationalism is important, because nation-states shape migration flows (Sager, 2016; Wimmer & Glick Schiller, 2002). However, researchers have criticized this approach to migration studies (Wimmer & Glick Schiller, 2002). Some scholars felt that methodological nationalism disregards concerns outside the nation-state's domain, thus contributing to multiple perceptions of migrants and how migrants ought to be or to do. Sager (2016) argued that non-state agents' roles, as well as transnational economic, social and political structures, become blurred when using methodological nationalism and promoting naturalisation, ignorance and territoriality theorising. In naturalisation, theorists treat contextual nation-building values about migration and migrants as unproblematic. Ignorance happens when the nation-state serves as an invisible background and theorists ignore how the concepts of the citizen, immigrant, temporary migrant and tourist shape the invisible nationalist background (Sager, 2016). The invisible nationalist background lacks clarity between many migration concepts, such as a citizen, an immigrant, temporary migrant and a tourist (Sager, 2016).

2.6 Transnationalism and migration studies

Because of the limitations of using methodological nationalism in migration studies, migration research focused on analysing human agency. The human agency provides a platform for analysing conceptual differences of migration, as influenced by gender, race, class, age and other categories. These led to the emergence of theories of transnational migration (Lüthi, 2018).

Transnational theories of migration emerged in 1994, introduced by Linda Basch, Nina Glick-Schiller and Szanton Blanc. These theories highlight new immigrant communities' unique and characteristic features in developed, industrialised and capitalist nations (Kivisto, 2001). Transnational theories argue that migrants sustain various links with their sending countries

simultaneously, as the host nations incorporate them. These links allow for social life, political and cultural ties to thrive across borders. The theory confirms that migration has never been a one-way process, but a simultaneous process in which multiple positions and social layers in which migrants live, surround them (Levitt & Jarworsky, 2007).

Transnationalism emerged during times of high levels of labour migration from under-developed and developing countries to developed countries and high volumes of refugees fleeing conflicts and instability in less developed countries (Kivisto, 2001).

2.6.1 Emigration-Immigration as significant forces in migration theory

Over the past 30 years, the focus on migration analysis shifted towards the use of emigration-immigration as a conceptual framework for migration analysis (Massey et al., 1993). Immigration is vital in migration studies, as it offers multiple levels of analysis. The different levels of investigation include: the periods, directions, destinations, whether the migration in question is temporary or long-term, voluntary or forced (Lüthi, 2018). Immigration also captures migration stages, whether cyclical, mono-directional or varied (Lüthi, 2018). However, the growth of immigration has limitations. Literature suggests that the expansion of migration flows has resulted in changes and disruptions in societies and their practices (Lüthi, 2018; Massey et al., 1993). For example, due to the influx of migrants, destination countries have become more diverse and multi-ethnic. This diversity laid a foundation for subsequent wide-ranging research on multiracial and multicultural societies (Amir, 2017).

2.7 Other developments in migration theory

Globalisation as a phenomenon, became prominent after World War 2. However, immigration became genuinely global in scope during the post-industrial period in the 1960s. Both the number and variety of the sending and receiving countries increased in response to the worldwide supply of immigrants from Europe to developing countries of the Global South (Massey, 2003). This global nature of migration resulted in migration studies focusing more on globalisation and contemporary migration theory. This trend has continued up to the more recent migration studies. These recent studies correct terminological inaccuracies and misconceptions in methodological nationalism and push and pull theories (Lüthi, 2018; Massey et al., 1993).

The actual migration and post-migration processes explain migration, using two themes (Martiniello, 2013). The first theme focused on migration flows and patterns, for example, why people move, how many do so, where they go, and their itinerary and migration policies that control their movement. The second theme focused on post-migration issues, like what happens when migrants enter a new country and settle. These studies focus on finding places to live, whether they integrate, assimilate or form distinct societies from the mainstream society, how they are perceived and treated by the local citizens. There is also a focus on discrimination and racism, whether migrants are accepted, tolerated, incorporated or excluded and whether they have access to citizenship and rights. The policy responses concerning integration policies, assimilation policies and multicultural policies, also received attention (Martiniello, 2013).

While Massey et al. (1993) argue that a single all-inclusive theory is necessary for the migration theory, other scholars like De Haas (2014) views this lack of a single theory as a strength that offers an option to use multiple perspectives to analyse migration. Although there has been a significant evolution of theoretical migration perspectives over the 20th century, these theoretical perspectives have evolved in isolation from one another. Consequently, no single theory can adequately cover all aspects of migration (Lüthi, 2018; Piche, 2013). These multiple theoretical frameworks have led to recommendations of an eclectic approach to migration by some scholars (De Haas, 2010), taking some aspects of existing theories and developing one all-inclusive theory. Although centred on migration and overall human development, De Haas (2014) favours Sen's (1985) aspirations and capabilities framework as a suitable framework to draw together most perspectives from the many migration theories to analyse migration.

2.8 The capabilities approach

The capabilities approach is a human development framework that is based on two core concepts: the "functionings" and capabilities (Sen, 2005). The Capabilities Aproach (CA) recognizes that capabilities are socially shaped, and that people are unique as they can possess capabilities in differing degrees and extents (Entwistle & Watt, 2013). This section describes the origins of the capabilities approach, its conceptual bases, its relevance and application, as a conceptual basis for migration studies.

2.8.1 The origins of the capabilities approach

Sen's Capabilities Approach (CA) is a social justice theory founded by Economist-philosopher, Amartya Sen, in the 1980s. Sen (2005) developed the capabilities approach as an alternaive framework to mainstream Economics. Amartya Sen's scholarly work focuses on the economics of poverty, famine, entitlement and deprivation, as well as social change. These resulted in many research endeavours, such as the Dobb-Sen strategy that seeks to make the best use of surpluses, maintaining constant wages to increase labour productivity using technological change. Sen's work contributed to the development of the social change theory and has significantly influenced development economics. Consequently, Sen's work has hugely contributed to the emergence of the annual Human Development Index published by the United Nations.

The Capabilities Approach (CA) has its roots in classical political economy, like Marx and Aristotle, and more recently, in Rawl's theory of justice (1971). The similarities of the Capabilities Approach (CA) with these older theories, are visible in its emphasis on self-respect and access to primary goods. The concept of capability was introduced first through Sen's Tanner Lectures on Equality in the 1980s (Saigaran, Karupia & Gopal, 2015). Although it has its origins in economic theories, Sen's Capabilities Approach (CA) emerged as an alternative framework that challenged the welfare economics, a theory in Economics that equates wellbeing with opulence and utility (de Haas, 2014; Lewis, 2012; Law & Widdowson, 2007; Clark, 2005; Sen, 2005; Deneulin, 2003).

The utilitarian view's has limitations like focusing on commodities or material wealth that people accrue and their mental reactions to those things they accrue (psychological states like happiness, pleasure and fulfilment). However, Sen (2005) indicates that peoples' mental reactions like happiness, pleasure and fulfilment are not a good measure of well-being, as they tend to perpertuate and normalize deprivation as they resign to it, become fulfilled and do not attempt to get rid of it. Often, they might find pleasure, happiness and fulfilment in small mercies that mask the deprivation (being unable to be adequately nourished, decently clothed and adequately educated). In this case, the normalization of deprivation does not represent the quality of life or well-being (Sen, 2005).

2.8.2 The conceptual basis of Sen's capabilities approach (CA)

The capabilities approach prioritises values, freedoms, opportunities and choices, fundamental to people's well-being. Also, the priority is on the "concentration on freedoms to achieve in general and the capabilities to function in particular" (Sen, 1993: 266). Human development, quality of life and flourishing are consequences of conditions in which people live (Sen, 2005). The capabilities raise the intrinsic aspects of human living that compound into a quality of life, well-being, and a live a person has reason to value, over a focus on material wealth as a measure of development (Sen, 2005).

The Capabilities Approach (CA) revolves around two central concepts: functionings and capabilities. Functionings is a concept that "sees human life as a set of doings and beings" (Sen, 2005: 48). Functionings are also described as " an achievement", commensurate with "different aspects of living conditions" (Sen, 1987: 36). Functionings are those things that a person can be and can do (Robeyns, 2006; Sen, 1990). Being well-nourished, being healthy, being well-educated and having warm friendships are examples of 'beings'. In contrast, travelling, voting in an election, taking part in a debate, taking drugs, or killing animals are examples of 'doings'. There is a spectrum of 'functionings'. Elementary 'functionings' include being adequately nourished, being in good health, avoiding escapable morbidity and premature mortality. More complex achievements include having a decent and valuable job, not suffering from a lack of self-respect, and taking an active part in the community's life (Robeyns, 2006). Functionings can also be defined in a value-based way; the negative value functionings and the positive value functionings. The negative value functionings refer to "bad functionings" that have no value or are "unequivocally bad", such as being raped or being murdered" (Robeyns, 2017: 42). For example, functionings like suffering from a painful debilitating, incurable illness, suffering from huge amounts of stress, and engaging in acts of unjustifiable violence, are examples of bad or negative value functionings. People are better off without those functionings as their outcomes have a negative value and people have "no reason to protect" (Robeyns, 2017: 41). Positive value functionings refer to those functionings that are valuable or are "unequivocally good", such as being in good health (Robeyns, 2017: 42).

Capabilities refer to "those sufficient opportunities and freedoms a person has to realise the functionings" (Sen, 2005: 43). Capabilities are also described as "notions of freedom", "the ability to achieve", and "the real opportunities you have" (Sen, 1987: 36). For Sen (1992), a capability is also a set of functionings that are necessary for a person's freedom to make life

decisions and to achieve a state of well-being. In essence, capabilities represent achievement, those intrinsic values that produce an improved quality of life and what an individual can do, like the feeling of being worthy and secure. Capabilities are also value-based, much the same way as functionings, as the experiences of achievement and an improved quality of life encourage a person to do good and live a life one has a 'reason to value' (Sen, 2005: 43). Capabilities can vary and can range from fundamental freedoms, such as freedom from hunger to more sophisticated capabilities, such as the achievement of self-respect (Preibisch, Dodd, & Su, 2016). Capabilities represent what is possible for a person to achieve in well-being (Robeyns, 2006).

According to the capabilities approach, commodities (income, and goods and services) can facilitate functionings. However, not all functionings lead to capabilities. Hence, the main focus is on the capabilities, rather than just functionings. Also, the capabilities approach notes that structures (laws, norms, rules and environmental conditions) can hinder people from developing capabilities. Therefore, the amount of freedom people have (achievement of capabilities), is shaped by their interaction with structures (De Haas, 2014; Sen, 2005).

2.8.3 Freedom and capabilities

Sen (2005) describes freedom as "the extent to which a person is free to choose particular levels of functionings (such as being well-nourished). Freedom can either be positive or negative. Positive freedom refers to "the possibility or the fact of acting in such a way as to take control of one's life and realise one's fundamental purposes" (de Haas, 2014: 26). Positive freedom also relate to individuals' and groups' agency, which is important in changing peoples' life circumstances and escaping from disadvantaged positions (Preisbisch et al., 2016; de Haas, 2014). Negative freedom refers to "the absence of obstacles, barriers or constraints", in exploiting existing opportunities (de Haas, 2014: 26). Negative freedom also entails the absence of barriers to people's freedom, instigated by "states and politics" (including war and violent oppression) (De Haas, 2014). In essence, having freedom implies removed barriers, whether intrinsic or instrumental, that constrain people's choice and opportunity to exercise agency. Also, people's ability to function, predicts freedom that generates conditions for healthy agency and real opportunities in people's circumstances (Ruger, 2006).

De Haas (2014) further indicates that freedom (positive and negative freedom) provides a link between structures and peoples' achievement of capabilities and aspirations (choice and

agency) by reflecting how structures affect people's agency through simultaneously impinging upon their capabilities and aspirations. However, freedom (negative and positive freedom) does not work in isolation. For example, negative freedom on its own, is not sufficient to drive agency. Agency requires a minimum of both negative and positive freedom to occur. Therefore, freedom equates to the capabilities a person can achieve (Law & Widdowson, 2007). Freedom is important in the capabilities approach, as it is a pre-requisite for the achievement of capabilities and its existence is a reflection that people can achieve (Robeyns, 2018; Sen, 2005). Additionally, freedom influences choice and how people make decisions and brings about the possession of capabilities (de Haas, 2011). Also, the expansion of positive and negative freedom promotes agency and signifies human development (Ruger, 2006).

2.8.4 Agency

In the Capabilities Approach (CA), agency refers to a person's role and ability to participate in economic, social and political actions, based on the person's perception of what is good (Sen, 1985). Agency is viewed as essential and portrays acquired capabilities, such as freedom and aspirations. Central to agency are the conversion factors. Conversion factors refer to the degree to which a person can transform a resource into a functioning (Robeyns, 2016: 9). Three types of conversion factors serve different conversion purposes, based on the context: personal conversion factors, social conversion factors and environmental conversion factors. Personal conversion factors are intrinsic to a person and relate to metabolism, physical condition, sex, reading skills, or intelligence. For example, for a disabled person, owning a bicycle is not enough to ensure a capability to ride, the physical condition of disability will constrict the functioning of riding the bicycle (Robeyns, 2017). Social conversion factors are those influencers that emanate from the society in which one lives, such as public policies, social norms, practices that unfairly discriminate, societal hierarchies, or power relations, related to class, gender, race, or caste. Environmental conversion factors emanate from the physical or built environment in which a person lives. Such things as climate, pollution, the earthquakes, presence or absence of seas and oceans, stability of buildings, roads, and bridges, means of transportation and communication represent environmental conversion factors (Robeyns, 2016). Other conversion factors are the social attributes of a person, such as age, gender, disability, education, deprivation, discrimination and disadvantage (Sen, 1985).

One of the significant roles of agency in the capabilities framework, is to exploit existing opportunities. The exploitation of opportunities depends on the freedom available and social arrangements, as these can expand or narrow opportunities and conditions favourable for agency to occur, either individually or collectively. While the availability of rights, freedom and conducive social arrangements can provide opportunities to facilitate agency, social and economic disadvantage, how people adapt their attitudes to social influence, and structural inequalities, may constrain or impede agency (Lewis, 2012).

Promoting agency ensures that society shares substantive freedom or capabilities and that people have equal opportunities to flourish. Agency can also expand the effects of rights, freedom, policies and social, political and economic arrangements that affect people's capabilities and lives, as well as their well-being (de Haas, 2014; Lewis, 2012; Law & Widdowson, 2007; Ruger, 2006; Sen, 2005; Deneulin, 2003).

While Amartya Sen founded and established the Capabilities Approach (CA), other theorists such as Martha Nussbaum, joined in the further development of the Capabilities Approach (CA).

2.8.5 Martha Nussbaum and the Capabilities Approach (CA)

Martha Nussbaum further developed the Capabilities Approach (CA) in 1993. Martha Nussbaum is a Social Scientist and Philosopher and a current Ernst Freund Distinguished Service Professor of Law and Ethics (Preisbisch et al., 2016; Saigaran et al., 2015). While Sen emphasized the capabilities of individuals, families and communities, Nussbaum expanded the model further to encompass the global environment and provided a separate list of capabilities. Nussbaum's capabilities are: life, bodily health, bodily integrity, senses, imagination and thought, emotions, practical reason, affiliation, other species, play and political and material control over one's environment. Like Aristotle, Nussbaum developed the approach to emphasize the importance of the environment as a platform where human beings can lead a good life with their owned capabilities (Preisbisch et al., 2016; Saigaran et al., 2015; Coast, Smith & Logerlly, 2008). Nussbaum assumes that this list of capabilities is a pre-requisite, basic entitlement, necessary for living a dignified life and recommended its integration in policy and practice (Preisbisch et al., 2016).

Unlike Sen, Nussbaum views capabilities as closely related to human rights, as she defines them as complementary, enhancing rather than competing with human rights. Nussbaum (2011) suggests that capabilities and human rights enhance each other. On the one hand, she argues that capabilities supplement human right's language by clarifying the basic concepts of human rights, by emphasizing the material and social aspect of rights and government responsibility to protect and ensure that people secure rights. On the other hand, she argues that capabilities' human rights can also supplement the language of capabilities and emphasize the significance of capabilities as not an optional entitlement, but an urgent demand that should not be compromised by the pursuits of wealth (Nussbaum, 2011).

2.9 The relevance of the capabilities framework to migration

The Capabilities Approach (CA) became popular in migration studies, because of its strength in linking migration to people's well-being and its ability to highlight migration as a means of achieving other goals, such as improved education, income and personal safety (De Haas, 2014). However, the link between capabilities and migration remains underdeveloped in research. De Haas (2014) recommends a capabilities framework to understand the capability to migrate. De Haas further asserts that people's freedom to choose where to live, is fundamental to human mobility, and thus migration is a freedom and a capability. De Haas (2014) further emphasises that human mobility mostly depends on the capability to migrate and the factors enabling or preventing this capability. He uses the work of Berlin (1969) to show the differences between negative and positive liberty, associated with migration and their importance in migration studies.

However, human rights violations are a subject of concern in migration studies. Often during migration and on arrival and settlement in destination places, migrants suffer human rights violations, such as having to trade their human rights entitlements for opportunities to achieve their migration goals. In this context, the Capabilities Approach (CA) could make the following contributions.

First, the capabilities framework can help to determine the position of migrants' rights and it has a potential to highlight migrants' abuse that results in the impediment of their functionings and agency and how these affect their construction of capabilities to be what they want to be (Preibisch et al., 2016). Secondly, the Capabilities Approach (CA) can help analyse migrants' agency to migrate or not to migrate. For example, when using the Capabilities Approach (CA), whether or not a person decides to migrate, is a function of that individual's intrinsic agency

or collective agency (De Haas, 2014). Furthermore, the presence or lack of agency can either change or perpetuate structural conditions that deplete the migrants' ability to be what they want to be or to be where they want to be. For instance, structural conditions, like immigration procedures can either hinder or facilitate how migrants realise their capability to migrate. This happens because the structures control migrants' space of manoeuvre within which they can make choices (De Haas, 2014). Thirdly, the Capabilities Approach (CA), can enhance and help measure the human development aspects of migration. For instance, expansion of capabilities through access to social, human and economic resources, is an expansion of migrants' choices to exercise their freedom to migrate (De Haas, 2014). Furthermore, the human development aspect of migration materialises when mobility enables other dimensions of a person's life, relevant to their capabilities. For example, the improvement of migrants' income, health, education, and their children's self-respect, signifies their development (De Haas, 2014). Fourthly, migration itself is a capability and an expression of freedom. Migration expresses the migrants' capability in choosing how and where to live. When used as a basis for policies, this capability can augment economic efficiency, social equality, and reduce barriers to human migration (Preibisch et al., 2016).

Figure 2.1 below demonstrates the interaction between structure (in the form of negative and positive liberties), agency and how these influence the decision to migrate or not migrate, based on perceived geographical opportunity structures.

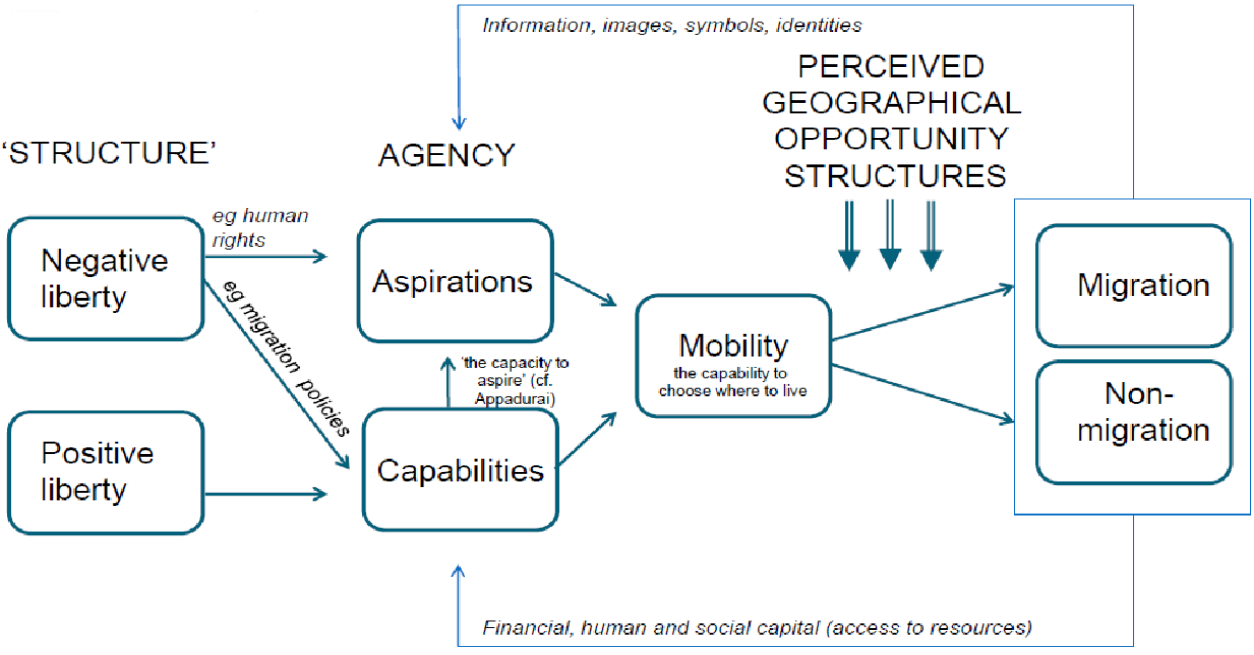

Figure 2.1: The Aspirations-capability framework (Adapted from De Haas, 2014)

Structures drive peoples' possession of freedom (negative and positive freedom). The expansion of negative and positive freedom fosters agency, which manifests in the form of the capacity to aspire to migrate and the freedom to migrate and to choose where to live. The perceived geographical opportunity structures would then determine whether or not migration happens. Also access to resources (financial, human and social capital) are a factor in determining whether or not the capability to migrate can be exercised.

The Capabilities Approach (CA), allows for evaluative, predictive or prospective and descriptive analyses to measure the successes and failures of human development (Alkire, 2008; Sen, 1990).

Table 2.2 below summarises the evaluative, predictive or prospective and descriptive analyses in the capabilities approach (CA).

Table 2.2: Types of the capabilities approach analysis

Evaluative analysis	**Predictive / Prospective analysis**	**Descriptive analysis**
Provides normative evaluation of states, institutions, and policies Compares capabilities at different points in time Focuses on whether capabilities expanded or contracted	Predicts the future and causally explaining past events. Focuses on causality, probability and assumptions Identifies activities that can potentially expand capabilities more Focus is on how and why capabilities expanded or contracted; what changes to institutions, other structures (political, economic, cultural, and social) expand capabilities more. Focuses on equity, durability and sustainability of such expansions. Assesses working sets of policies, activities and recommendations and compares them with existing processes and contexts to establish whether or not they expand or contract capabilities	Provides appropriate descriptions of states and events in the past and the present.
	Concerned with causality	**Concerned with causality**

(*Adapted from Alkire, Roche, Ballon, Foster, Santos & Seth, 2015)*

The Capabilities Approach (CA) is useful in an evaluative, predictive or prospective and descriptive manner. In the evaluative sense, it can be used to evaluate performance, for instance, the performance of individuals, policies or institutions and the influence of the performance on capabilities expansion or contraction. This can be done by comparing performance between different points in time to illuminate whether the capabilities being evaluated, have expanded or contracted. For predictive or prospective purposes, the Capabilities Approach (CA), predicts the future based on causality, probabilities and assumptions. Through this process, the activities that can potentially expand or contract capabilities, are identified and the necessary changes for capabilities expansion are identified. For descriptive purposes, the Capabilities Approach (CA), provides descriptions of events and states that could influence capabilities expansion or contraction (Alkire et al., 2015).

2.10 Chapter summary and conclusion

This chapter has presented the developments in the migration theory over time. It has highlighted how the migration theory has evolved over the years, starting from Ravenstein's migration laws that became the first migration theory. It has also emphasized how Ravenstein's Laws motivated the emergence of subsequent theories in different disciplines, such as Geography, Sociology and Economics. The chapter has also highlighted the methods of analysis used in the migration theory, such as the micro- and macro-perspectives, including discipline-based perspectives and the integration of significant historical developments in the migration theory.

The chapter has also presented the Capabilities Approach (CA), its conceptual basis, relevance to migration theory and health. While migration itself is highlighted as a capability and an expression of freedom, the Capabilities Approach (CA) is highlighted in terms of its ability to determine the position of migrants' rights, analyse migrants' agency to migrate or not to migrate and in terms of its ability, to measure the human development aspects of migration, such as the expansion of migrants' capabilities through access to social, human and economic resources. Overall, the Capabilities Approach (CA) links migration to people's well-being, through its ability to link migration to migrants' achievement of the social determinants of well-being, such as an improved education, income and personal safety.

While the migration theory has been contextualised within the historical developments, broader disciplines, and analysis methods, the link between migration and health is still poorly

understood. Thus in the next chapter, the link between migration and health will be reviewed, considering the influences of increasing migration volumes on individual migrants' health and broader entities, such as health systems and policy.

CHAPTER 3
MIGRATION AND HEALTH

3.1 Introduction

Migration is an essential social determinant of health (Gushulak et al., 2009). For instance, migration can produce, transmit or exacerbate diseases depending on the context (events, location of the causes for migration, etc.) and circumstances (socioeconomic status, gender, etc.) of migrants. This link between migration and health is very old and goes back to ancient times when people moved to escape famine (Marmot, 2016). During this time, global organisations responded to the health consequences of migration. For instance, in 1887, the Marine Hospital in the United States of America (USA) started to screen migrants for communicable diseases, like yellow fever, tuberculosis and cholera. The USA Government suspected that migrants brought these diseases from their countries. Consequently, the USA set up laboratories to screen migrants and these investments gave rise to global research on migrants' health (Evans, 1987).

Global research on migrants' health show that migration adversely affects migrants' health, making migrant health a global health priority (Wickramage, Veary, Zwi, Robinson & Knipper, 2018; Lurie & Williams, 2014; Stuckler et al., 2013; Pithara et al., 2012; Lurie & Stuckler, 2010; Koehn, 2006; Crush et al., 2005). However, the research seldom focuses on migrants' capabilities and how migrants mobilise available resources to secure good health (Kinghorn & Coast, 2018; Ruger & Mitra, 2015; Baros & Manafi, 2009). Current discourses in migration and health studies highlight the importance of human development and capabilities, thus the need for research to get a clearer understanding of the field (see Chapter 2). This need is visible in research exploring the significance of migrants' construction of capabilities to deal with their health issues (Kinghorn & Coast, 2018; Preibisch et al., 2016; Ruger & Mitra, 2015; Baros & Manafi, 2009).

Numerous migration trends that include studies on internal and international migration, have shaped the focus of migration and health research. Historically, early approaches focused on the recognition, identification and management of particular communicable diseases. In recent years, however, the focus has shifted to studies on the effects of migration on health during pre-migration, migration, and post-migration and migration trends, such as increasing

migration volumes, patterns, and their effects on individual or collective government health policy. Although there have been considerable developments and trends in migration and health over the years, research on the link between migration and migrants' health capabilities is still scarce. For instance, past research in Southern Africa has concentrated on the effect of migration on migrants and host health systems (Mou et al., 2015). Very little research focuses on how migrants construct capabilities to cope with the effects of migration.

This chapter provides a link between migration and health. It discusses the effects of increasing migration volumes on migrants' health and on host health systems. It also discusses migration-related health inequalities, the effects of migration patterns, such as irregular and circular migration patterns on migrants' health and the regulatory context that influence migrants' health. It concludes by linking the theoretical ideas from Chapter 2 (the capabilities approach) with the discussion in this chapter.

3.2 Increasing migration volumes, host health systems and migrants' health

Global research on migrants' health identifies factors like increasing migration volumes, and host health systems (including policies) as having the potential to adversely influence migrants' health (Veary et al., 2016; Crush et al., 2005;). These factors create a substantial link, critical in migration and health research. However, preliminary evidence shows that the literature does not understand this link well (Wickramage et al., 2018; Crush et al., 2005). The literature regarding the link between increased migration volumes and migrants' health outcomes, discusses a vast range of issues (Gushulak et.al., 2009; Lurie, Williams, Zuma, Mkaya-Mwamburi, Garnett, Sweat & Karim, 2003). Some are microscopic and are directly associated with individual migrants, while others are macroscopic and are associated with host health systems.

3.2.1 The effects of increasing migration volumes on individual migrants' health

Currently, migration volumes are increasing in both numbers and migrant population diversity and they adversely impact migrants' health (Wickramage et al. 2018; Preisbisch et al. 2016; Veary et al., 2016; Gushulak et al. 2009; Crush et al., 2005). There are an estimated 258 million international migrants globally, of which 150 million are migrant workers (Veary et al., 2016). There are also an estimated 763 million internal migrants, of which about 40 million suffer

displacement by armed conflicts, violence and human rights violations (Veary et al., 2016). These increasing migration flows result from inequalities within and between countries and conflicts that have forced thousands of people to migrate (Barabant & Raynault, 2012). Migration can lead to multiple diverse health risks that can culminate into diverse health needs for different migrant groups (Gushulak, 2009). The increasing migration volumes within the context of migrants' disease vulnerabilities, requires an understanding of migrants' diversity in terms of their population groups and numbers and their reasons for migration and how these create health risks that translate into the acquisition and transmission of diseases (Stucker, Steele & Lurie, 2013; Crush & Dodson, 2010; Clark et al., 2007; Koen, 2006).

Many health risks that migrants face, are related to migration phases. The migration process involves successive stages (the pre-migratory stage, the transit stage and the post migratory stage), each with its disease vulnerabilities (Martinez, Wu, Sandfort, Dodge, Carballo-Dieguez, Pinto, Rhodes, Moya & Chavez-Barayi, 2015; Davies, Basten & Frattini, 2011; Gushulak et al., 2009; Bhugra, 2004). For the pre-migratory stage, lack of planning (lack of assessment of migrants' health statuses, presence of endemic diseases, levels of development, availability and access to care, and differences in linguistic and cultural backgrounds) is identified as a major factor in migrants' disease vulnerability that could pose health risks, much the same way as forced or non-voluntary departure (Strome et al., 2020; Davies et al., 2011; Bhugra, 2004). Additionally, some migration patterns (forced and irregular migrations) are swift and inherently lack pre-migration planning (Strome et al., 2020; Davies et al., 2011; Bhugra, 2004). Davies et al. (2011) corroborate the above evidence by indicating that inadequate planning at the pre-migratory level is common amongst undocumented migrants. Pre-migration planning is crucial in reducing health risks associated with the phases of migration.

Pre-migration planning can mitigate migration-related health risks. There is a consensus in the literature that migrants' lack of agency and self-evaluation are responsible for their lack of pre-migration planning (Gushulak et al., 2009; Davies et al., 2011). Gushulak et al. (2009) state that migrants' assessment of self, the environment and the social factors, constitute pre-migratory planning and can reduce health risks during the migration process. Bhugra (2004) indicates that at the pre-migration stage, migrants' social skills, concepts of the self and the psychological, social and biological vulnerabilities need to be evaluated as they play a crucial role in migrants' interaction with the environmental and the social hazards they might encounter. Pre-migratory assessments can determine migrants' choices and readiness for

migration. There is a link between migrants' poor pre-migration planning, and migrants' assault by health risks during and post migration (Martinez et al., 2015; Davies et al., 2011).

During the travel phase, migrants' health risks are related to their actual encounter with environmental and social hazards. The environmental and social hazards during the travel phase are heavily influenced by whether an individual migrant migrates through regulated channels or not (Davies et al., 2011; Gushulak et al., 2009). Davies et al. (2011) indicate that for migrants who use legal channels, there is better access to social services, like healthcare and safe travel, but for those who use illegal channels, the travel tends to be long and dangerous. Gushulak et al. (2009) indicate that the travel phase has environmental and social hazards, like trauma (physical and mental), deprivation, violence and climatic exposure to injury that often results in a greater prevalence of illnesses. Strome et al. (2020) say that the health services migrants obtain during the migratory process are often arbitrary, fragmented and difficult to access. However, Bhugra (2004) highlights the loss of social support networks during the travel phase as playing a more significant role in the social hazards that occur during the migratory process. The social and environmental dimensions during the travel phase can interact to escalate health threats.

Post-migration, migrants' health threats are related to administrative, social and psychological factors. Poverty, legal restrictions from access to services or care, language and cultural isolation, can have a profound negative effect on migrants' physical and mental well-being post-migration (Rechel et al., 2013; Gushulak et al., 2009). Gushulak et al. (2009) indicate that while health risks, exploitation and abuse may surround migrants' conditions, it is the legal restrictions, their immigration statuses (undocumented migrants), poverty, language, cultural isolation and discrimination that limit their awareness of and access to health services. Martinez et al. (2015), show that migrants have a lower chance of receiving healthcare or having a regular source of care when compared to the local citizens. However, Bhugra (2004) indicates that post-migration, it is the stress of adaptation, discrimination, economic and material difficulties and rootlessness that compromise migrants' mental health. A post-migration environment that does not support migrants' physical, social, and psychological well-being, hinders their development of capabilities to be healthy.

On returning to their places of origin, migrants might face changes in their home environment that either support or compromise their health (Gushulak et al., 2009). For instance, if health systems have declined, migrants and their foreign-born children may be at a higher risk of

diseases and illness. However, return migrants might also be the source of health threats (Davies et al., 2011; Gushulak et al., 2009). Gushulak et al. (2009) suggest that return migrants can bring in newly acquired diseases from their host places, placing an additional burden on home health systems. Davies et al. (2011) indicate that return migrants who have had good jobs (professional jobs) in host areas are likely to return home healthy and to continue affording healthcare in host areas. In contrast, return migrants who were lowly paid or were struggling immigrants, would most likely return in poor health with a possibility of bringing in acquired diseases to their places of origin. The economic and social dimensions of return migrants can thwart or enhance their capability to be healthy, depending on their individual circumstances.

Overall, the migratory stages (pre-migration, migration, post-migration and return travel) provide an interplay that can produce, transmit or exacerbate existing diseases for migrants. In addition, despite the individual-level factors (heredity, age, sex and others), the individual at the centre of the migratory process, is surrounded by social, economic and political circumstances or acquired risks that interact to determine migrants' vulnerability or resilience to diseases (Gushulak et al., 2009).

There is interplay between migratory phases, high migration volumes, the physical environment and disease acquisition and transmissions (Gushulak et al., 2009; Crush et al., 2005). Two perspectives stand out in the literature. On the one hand, there is a consensus that the interplay between the travel phase, high migration volumes and the physical environment, provides an opportunity for diseases to gain entry, fester, and be transmitted from person to person (Gushulak et al., 2009; Crush et al., 2005). On the other hand, another school of thought describes the interplay between the travel phase, high migration volumes and the physical environment as being responsible for bridging geographical zones, thereby facilitating disease transmissions (Apenteng & Ismail, 2019; Gushulak et al. 2009; Crush et al. 2005). For instance, the high migration volumes can merge disease emergence areas of no disease or low disease prevalence to those of high disease prevalence. Studies show that diseases can be transmitted through high migration flows from high prevalence areas to low prevalence areas (Apenteng & Ismail, 2019; Crush et al. 2005). Apenteng and Ismail (2019) demonstrate that if a direct flow of migration into a population is restricted, minimisation of a persistent spread of diseases can be achieved. The underlying claim of these arguments implies both spatial and distance dimensions to disease transmissions. It implies a hypothesis that a disease can be confined in one place if there is no mobility. On the contrary, high mobility demolishes geographical boundaries in disease transmissions, owing to a facilitated, widened infection chain. Thus, high

migration volumes and disease acquisition and transmission between geographical boundaries are intertwined and are driven by migrants' vulnerabilities.

Vulnerable migrants, such as Migrants of Precarious Status (MPS) are at the forefront of disease vulnerabilities, due to their vulnerabilities. Vulnerability refers to a "susceptibility to be harmed" (Adger, 2006: 269). MPS refer to "someone who, owing to illegal entry or the expiry of his or her legal basis for entering and residing, lacks legal status in a transit or host country" (Wickramage, Premaratne, Peiris & Mosca, 2013: 1). A forced migration choice (due to wars and conflicts in migrants' places of origin and the differences in economic and social well-being between migrants' sending and host country) cast migrants into disease vulnerability. For instance, it is noted in the literature that when the forced migration choice is coupled with illegal MPS status and poor socioeconomic status, it results in desperation, helplessness and ensuing disease vulnerability (Fleischman, Willen, Davidovitch & Mor, 2015; Avogo & Agadjanian, 2008). Furthermore, MPS and other irregular migrants usually dwell in substandard housing and lack food security, due to their migration statuses (Wickramage et al., 2018; Fleischman et al., 2015; Avogo & Agadjanian, 2008). There are multiple health risks, an increased burden of disease and marginalisation for vulnerable migrants. These are driven by their inability to claim social services, such as healthcare, due to their lack of documentation. Simultaneously, their poor economic statuses usually force them to live on the margins of the host society, exacerbating their disease vulnerability. Assessing and analysing migrants' vulnerability is vital in determining effective means of promoting remedial action and limiting the impacts of migration on their health. Addressing migrants' vulnerability to diseases can be achieved by supporting their coping strategies, and facilitating their adaptation and protecting them from vulnerability enhancing practices, such as marginalisation (Kelly & Adger, 2000).

The origins and the effects of migrants' marginalisation are identified and described using multiple perspectives. Marginalisation is "both a condition and a process that prevents individuals and groups from full participation in social, economic, and political life enjoyed by the wider society" (Alakhunova, Diallo del Campo & Tallarico, 2015: 10). Migrants' marginalisation emanates from chronic perpetual disadvantages in their countries of origin, host areas detachment from migrants and irregular migrancy. Malmusi (2010) say that migrants' marginalisation results from cumulative disadvantages, perpetual deprivation and harmful living conditions in migrants' home countries that hinder migrants' response to life challenges, including in host countries. For instance, they argue that migrants' identities shift and become subservient, compromising their human rights. Fleischman et al. (2015)

corroborate that migrants' identities shift, due to perpetual disadvantages, the view that they are "the other" and their migrancy casting them into deleterious living and working conditions through being denied access to resources in host areas. However, Wanigaratne, Rashid, Gagnon, Cole, Shakya, Moineddin, Blake, Yidin, Campbell, Ray, Joel and Urquia (2019) see migrants' marginalisation as the result of irregular migrancy. Their study revealed that irregular migrancy prolongs migrants' marginalisation and prohibits them from seeking social services, such as healthcare and prohibits them from adhering to medical treatments. Migrants' marginalisation has psychological and economic dimensions that are far-reaching and have a ripple effect that permeates important spheres of migrants' lives, such as health, enhancing their disease vulnerabilities.

Migrants' marginalisation drives their disease vulnerabilities and is described in varying ways in the literature. Marginalisation perpetuates discrimination, rooted in the view that migrants are "non-deserving" (Grove & Zwi, 2006; Elliot & Gillie, 1998). The "non-deservingness" is expressed through their being separated from host communities, either by being excluded from social services, such as healthcare or by obtaining low-quality social services, like healthcare (Fleischman et al., 2015; Avogo & Agadjanian, 2008; Grove & Zwi, 2006; Elliot & Gillie, 1998). Long-time migrancy is also believed to prolong marginalisation in ways that compromise migrants' health. (Wanigaratne Rashid, Gagnon, Cole, Shakya, Moineddin, Blake, Yudin, Campbell, Ray & Urquia, 2019). A study by Wanigaratne et al. (2019) shows that Canada's migrants of secondary migration statuses were 68% more likely to have HIV than refugees with primary migration. This study also shows that an extended time spent migrating and long-term marginalisation mean a loss of support structure, such as family, resulting in negative coping strategies, such as engagement in risky behaviours, such as having multiple sex partners. These arguments and evidence suggest discriminatory dimensions that compromise coping strategies and are harmful to health. It is clear from the evidence that migrants' marginalisation represents an indirect barrier through which discriminatory practices that disable their capabilities to be healthy can be practised, disabling their opportunities to take charge of their own lives. Migrants' marginalisation fuels their discrimination and disease vulnerability.

Discrimination undermines migrants' access to healthcare. Discrimination refers to an "unequal treatment of persons or groups" that may be motivated by "prejudice, stereotypes, or racism" (Pager & Shepherd, 2008: 182). Migrants' lack of agency perpetuates their discrimination (Wickramage et al., 2018; Pithara et al., 2012). Wanigaratne et al. (2019) show

that migrants' coercion, using deportation threats, form a platform through which healthcare workers can discriminate against undocumented migrants. For instance, the fear of deportation compels migrants to forfeit healthcare or terminate their medical treatments (Wanigaratne et al., 2019). Malmusi (2010) state that migrants' higher morbidities and mortalities result from their unequal treatment (rooted in their migration and socioeconomic statuses) when accessing social services such as healthcare. The evidence highlights the psychological dimensions of migrants' discrimination that can compromise their capabilities to be healthy. Deficiencies in migrants' health management systems in host countries, catalysed by migrants' lack of agency, are highlighted. Discrimination can affect migrants' agency, freedom, and decision-making regarding healthcare, making it difficult to choose the healthcare they want. Research is needed that builds migrants' agency through the exploration of their capabilities to be healthy.

While it is challenging for undocumented migrants to obtain healthcare, they often resort to non-legal, health-threatening healthcare methods. According to the literature, migrants' access to health services depends on their possession of an Identification Document (ID) which MPS and other undocumented migrants usually do not have (Borhade, Dey, Tripathi, Mavalankar & Webster, 2016). However, Ku and Jewers (2013) say that there are alternative ways in which migrants can access healthcare, like through the private sector, which is usually expensive and best accessible through medical aid possession. As such, MPS and other undocumented migrants who often do not possess IDs or medical aid, tend to access healthcare in dubious ways. Masebo (2019) found that undocumented Malawian migrants in South Africa access Anti-retroviral Therapy (ART) through their guardians back in Malawi, who send them ART through truck and bus drivers. Alternatively, these migrants access ART from the South African health facilities with the help of their friends. There are only narrow choices and opportunities for undocumented migrants to secure health in conventional ways. Migrants are perpetually cast into fear, helplessness, and abuse, to obtain healthcare, due to their narrowed choices. The arguments above also imply that undocumented migrants can suffer health risks when obtaining healthcare. For instance, there is a risk of obtaining sub-optimal healthcare or having treatments of their dangerous illnesses delayed. Undesirable healthcare-seeking behaviour for undocumented migrants is a by-product of a complicated procedure that goes with conventional ways of obtaining healthcare, resulting in their constricted capabilities. Migrants' capability to be healthy is a moral entitlement commensurate with the human rights concept of 'human dignity' (Khoo, 2013).

While complicated procedures prohibit migrants' access to healthcare (Wickramage et al., 2018), unaffordable healthcare undermines their access to healthcare. According to Xiaoming et al. (2006), rural to urban migrants often have little to no work-skills training. They often find themselves having to undertake manual labour and personal services such as manufacturing, goods transportation, construction, entertainment, domestic service, and restaurant services with little remuneration. Several studies show that while healthcare costs are expensive, migrants do not have the means to afford them (Lattof, 2018; Britz & MacKee, 2016). For instance, in their study, Lattof (2018) found out that informal migrant workers often do not have health insurance, while, ironically, they are the ones that suffer more significant illnesses and injuries than the rest of the population. Britz and MacKee (2016) found that stakeholders (in the context of the United Kingdom) were cognizant that exorbitant healthcare charges for migrants in England could deter their medically necessary treatments, leading to public health threats. The underlying issue is that unaffordable healthcare (expensive health insurance and out-of-pocket expenditures) has thrown migrants out of the mainstream of conventional healthcare by building barriers that prevent them from accessing healthcare (Ku & Jewers, 2013). Research is needed that establishes new, affordable and inclusive ways of accessing healthcare. These would widen migrants' opportunities and choices for healthcare, while at the same time, it decreases their psychological and physical health risks.

Physical and psychological health risks shape migrants access to healthcare (Brabant & Raynault, 2012). The literature suggests migrant' physical health risks are related to their working and living conditions (Brabant & Raynault, 2012). Undocumented or vulnerable migrants, such as MPS are more inclined to take risky, dangerous jobs that local citizens shun. Simultaneously, they also have difficulties securing standard housing, living in crowded places, such as squatter homes with unsanitary conditions, constituting physical health risks (Wickramage et al., 2018; Brabant & Raynault, 2012). The psychological health risks for migrants are driven by their settlement in industrialised areas that enhance their frustration, due to lack of choice and agency. Chen, Chen and Landry (2013) show that environmental hazards affect migrants' mental health. Preibisch et al. (2016) indicate that migrants' lack of opportunities or choices to exercise agency, while at the same time they suffer human rights violations (such as having to trade their fundamental human rights and entitlements for opportunities to achieve their migration goals on arrival and settlement in host areas), compromises their psychological well-being. In the same vein, Pithara et al. (2012) see migrants' psychological health compromises as the reason they descent into a maelstrom of

distorted personal perception and helplessness that forces them to ignore important things in their health in exchange for those that ensure their survival.

There is a vicious cycle of physical health risks, culminating into psychological health risks that demotivate migrants from pursuing healthy goals and well-being. There is a need to rebuild migrants' capabilities and agency to mitigate physical and psychological risks to their health.

3.2.2 The effects of increasing migration volumes on host health systems

Health systems in migrant-receiving areas have an inadequate capacity to deal with disease burdens created by an influx of migrants. A continued inflow of migrants from high disease prevalence areas brings more diseases to an existing disease base of low incidence migrant-receiving locations, changing their disease profiles (Rechel et al., 2013; Gushulak et al., 2009). Ironically, Gushulak et al. (2009) indicate that the mandatory interventions to deal with migrants' health are generally narrow as they focus only on a few infectious diseases like tuberculosis and yellow fever. Consequently, migrants of diverse health problems (such as diverse infectious diseases) could overwhelm host health systems (Gushulak et al., 2009). Most host health systems are ill-equipped to deal with migrant-related diseases. Overall, the migrant health management systems may not cope with added disease burdens brought by an increased inflow of migrants. More scope for mandatory interventions that deal with migrants' health is needed to address the persistent patient burdens in host health systems. Research is necessary that contributes to the upgrade of migrant management systems to accommodate the existing massive scale of migration-related infectious diseases. More research is needed that builds migrants' capabilities in dealing with diseases by exploring host health systems' capacity to deal with new disease burdens.

Increased patient burdens, associated with a persistent inflow of migrants, can overwhelm host countries' health systems. According to Cuomo et al. (2019), increased patient burdens, resulting from increased migrant inflows, make it difficult for host health systems to determine migrants' health statuses on arrival. For instance, Gushulak et al. (2009) indicate that the host health systems often cannot appropriately accommodate migrants awaiting legal and health processes. Such migrants are usually accommodated in overcrowded, unhygienic reception centres that lack food security. Furthermore, Cuomo et al. (2019) add that these inadequate migrant health control systems and a subsequent failure to timeously screen migrants' health statuses, identify infectious diseases, and take the necessary measures to stop the possible

infection chain, can translate into risks of reactivation and spread of infectious diseases, such as tuberculosis. Host health systems are often dysfunctional and do not have adequate capacity to deal with increased migration-related patient burdens. Migrant health management systems should recognise that a rapidly diversifying patient population requires a re-configuration and refinement of health program delivery service (Wickramage et al., 2018; Gushulak & MacPherson, 2009).

Dysfunctional host health systems may not meet migrants' health information systems standards, compromising migrants' health. Migrants' health information systems ensure health information availability for diverse migrant communities. The information systems should be paired with regulatory frameworks for disease surveillance and reporting to ensure their usefulness. Together the information systems and regulatory frameworks inform and affect organisational and public awareness of potential public health significance (Gushulak et al., 2009). Migrants' health information systems also facilitate public policy to ensure that it provides means for migrants to be healthy. The health information systems constitute migrants' freedom from health threats, allowing migrants to live the life they want to live (Law & Widdowson, 2008). However, most migrants' health information systems are inefficient and dysfunctional (Rechel, Mladovsky, Ingleby, Mackenbach & McKee, 2013; Gushulak et al., 2009). A study by Rechel et al. (2013) shows that most health information systems in Europe are inadequate and cannot accommodate the rising volumes of migrants. The same study shows that in the European Union (EU), migrants' health information systems are sub-standard. Overall, this evidence implies inadequate migrants' health information systems that constrict migrants' health choices and capabilities in dealing with existing health risks (Rechel et al., 2013). Migrants' denial of opportunities to utilise health services, enhances disparities between migrants and non-migrants health statuses (Gushulak et al., 2009; Rechel et al., 2013). More research is needed to upgrade migrants' health information systems to the desired standards and promote migrants' health information systems' importance. Such research will allow migrants to pursue the capabilities they value to be healthy, as it increases their capabilities to deal with health risks, as well as reducing health inequalities between migrants and non-migrants.

3.3 Migration-related health inequalities

The foundations of health inequalities that affect migrants, are related to poverty, power and migration patterns. Health inequalities are "systematic differences in health status between more and less advantaged groups" (McCartney, Popham, McMaster & Cumbers, 2019: 7). The literature reveals an array of the foundations of health inequalities that affect migrants that range from those related to poverty (Malmusi, 2010; Ku & Jewers, 2013) to those related to power relations (Ku & Jewers, 2013). However, Chen et al. (2013) show that health inequalities originate from rural to urban migration and its associated lack of skills and opportunities to grow. The foundations of adverse health inequalities are closely related to migrants' poor socioeconomic statuses, low skills and migration circumstances and are more prevalent for migrants with poor socioeconomic statuses and those who migrate from rural to urban areas.

Migrants who come from low-income areas are at the forefront of adverse health inequalities (Ku & Jewers, 2013; Malmusi, 2010). Malmusi (2010) argue that migrants who come from low-income areas experience more profound health inequalities consistent with their levels of deprivation (poverty and powerlessnes), when compared to local host populations. Ku and Jewers (2013) indicate that low-income migrants are more likely not to have health insurance than the local poor. The foundations of adverse health inequalities are closely related to migrants' socioeconomic statuses.

Gender and social structural arrangements drive migrants' adverse health inequalities. In most cultures, women operate in a pre-determined relationship of subordination to men, which increases their vulnerability in all aspects of their lives, including health. This vulnerability is heightened in migratory processes (Brabant & Raynault, 2010). In developing countries, women's social position is linked to a greater social disadvantage than that of men and often translates into less access to rights, healthcare, education and employment. This social disadvantage is doubled for migrant women (Brabant & Raynaults, 2010; Malmusi, 2010). Physical abuse, rape and sexual exploitation are heightened and more brutal for vulnerable, undocumented and refugee migrant women (Keygnaerta, Vettenburg & Temmerman, 2012). Gender and structural arrangements determine migrants' levels of access to social care. The power relations associated with gender and structural arrangements, determine how migrants (especially women) influence their surrounding environment and access privileges, opportunities and resources. Future preventive measures should consist of a rights-based approach to gender and migration. These measures should incorporate participatory

interventions that build migrant capabilities, regardless of gender, sensitisation to gender-based violence in migration and its risks (Keygnaerta et al., 2012).

The designs and implementations of migrant health policies facilitate health inequalities that adversely affect migrants. Pithara et al. (2012) indicate that health inequalities that affect migrants, are common and depend on the nature of migrant health policies. The literature shows that health policy designs and their implementation promote health inequalities (Wickramage et al., 2018; Veary et al., 2016; Stucker et al., 2013; Crush & Dodson, 2010; Collinson et al., 2007; Koehn, 2006). For instance, a plethora of un-harmonised migrants' health policies between sectors and between countries, drive unequal access to healthcare between migrants themselves and local citizens (Veary et al., 2016; Stucker et al., 2013; Crush & Dodson, 2010; Collinson et al., 2007; Koehn, 2006). Wickramage et al. (2018) indicate that healthcare equity in migrant-receiving areas is limited to host citizens and does not extend to migrants. The regulatory context that surrounds migrants' health governance is not amenable to reducing health inequalities that affect migrants and building their capabilities to be healthy.

3.4 The regulatory context that influence migrants' health

Several treaties and conventions have been ratified globally and locally to ensure adequate access to healthcare by migrants and their families. The UN Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) was signed on 17 July 1980 and ratified on 22 August 1995, by Lesotho. It calls for eliminating both intentional discriminations against women and acts that have a discriminatory effect on women, including employment and healthcare. The UN International Covenant on Economic, Social and Cultural Rights (ICESCR) acceded on 09 September 1992. Article 12 recognizes the right of everyone of the enjoyment of the highest attainable standard of mental and physical health, which includes prevention, treatment and control of epidemic, endemic, occupational and other diseases, as well as the creation of conditions that ensure access to all medical service and medical attention in the event of sickness. The United Nations International Convention on the Protection of the Rights of all Migrant Workers and Members of their families was signed on 24 September 2004 and ratified by Lesotho on 16 September 2005. Article 23 states that "migrant workers and members of their families shall have the right to receive any medical care that is urgently required for the preservation of their life or the avoidance of irreparable harm to their health" (African Centre for Migration & Society, University of the Witwatersrand, South Africa;

Centre of African Studies, University of Edinburgh, UK). The African Union Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa, which was signed on 27 February 2004 and ratified on 26 October 2004 by Lesotho, recognizes the equal rights of African women, including the right to healthcare, sexual and reproductive health and the right to be protected against sexually transmitted infections, including HIV. The Policy Framework for Population Mobility and Communicable Diseases in the Southern African Development Community (SADC) Region guides on:

- The protection of the health of cross-border mobile people in the face of infectious diseases, including source, transit and destination communities.
- The control of infectious diseases in the face of movement of people across borders in the region.

The SADC Protocol on Health - Articles 9 to 12: The protocol focuses on communicable diseases control, emphasizing the three priority diseases: HIV and AIDS, TB and Malaria. Regional plans for dealing with these three critical communicable diseases have been drawn up. Each Member State also has policies and programmes to control communicable diseases within its borders, i.e. harmonisation of policies, programmes and activities; standardisation of systems; and, coordination and sharing of information across the region.

While many countries ratify International Treaties that support migrants' health, counter-restrictions to migrant flows that harm migrants' health are often used (Gushulak et.al., 2009; Rechel et al., 2013). For instance, during the upheavals in North Africa in 2011, the high volumes of migrants fleeing from the upheavals, led to the reinstatement of national passport controls in the European Union (EU). Consequently, irregular migrants who do not comply with entry regulations get excluded from social services, including healthcare. Some face unemployment and job losses (Rechel et al., 2013). Furthermore, inadequate institutional capacities and collaborations shape the context within which the counter restrictions happen, such as the confusing and conflicting migration and health policies and lack of integration between countries and sectors in managing migrants' health (Wickramage et al., 2018; Preisbisch et al., 2016; Veary et al., 2016; Crush et al., 2005). Policy-makers lack concern about the migration that happens between low and middle-income countries (Wickramage et al., 2018). Migrants' access to social services, including health services, are shaped by compliance with restrictions that might harm their health (Fleischman et al., 2015). The unique health problems of migrants from low-income countries remain unrecognised and unresolved

(Fleischman et al., 2015). Counter-restrictions to increased migration volumes compromise migrants' opportunities to be healthy.

While International Treaties and regulations to manage migrants' health exist and are ratified by many countries, their implementation at the country level, remains limited. According to Wickramage et. al., (2018), there is a general lack of commitment by countries that sign International Treaties and regulations to manage migrants' health. For instance, they argue that governments tend to ratify conventions, such as the Universal Health Coverage, Sustainable Development Goals and the Right to Health, but fail to follow up on their implementation through national policies and guidelines. There is a consensus in the literature that the lack of harmonisation of policies and programmes between sectors and within and between countries, coupled with poor implementation at the practice level, adversely affect the successful implementation of the Treaties (Veary et al., 2016; Stucker et al., 2013; Crush & Dodson, 2010; Clark et al., 2007; Koehn, 2006). Overall, the above evidence implies non-efficient organisational structures and processes that might culminate into undesirable health outcomes for migrants, like inaccessibility of their existing health entitlements (such as access to health services and information). Lack of teamwork, when pooling migrants' health resources, contributes to the unsuccessful implementation of the International Treaties and regulations to manage migrants' health. Research is needed that re-enforces adequate translation of International Treaties and regulations that support migrants' health into country-level policies to counteract the inadequacies of migrants' health management systems.

While migrant health policies exist in most countries, they are primarily inequitable and incapacitate migrants' access to health entitlements. Entitlement refers to the fact of having a right to something" (Wickramage et al., 2018). Migrants' health entitlements include access to health services and access to health information. According to the literature, while migrants' health entitlements exist in most countries, they are primarily inequitable and inaccessible across countries (Cuomo et al., 2019). Davies et al. (2011) show that access to migrant health entitlements (as defined by different individual country health policies) differs and is inconsistent across countries. For example, while some countries have no specific legislation regarding undocumented migrants' access to healthcare (Israel's National Health Policy), other countries' legislation only provides essential healthcare or emergency care (South African Constitution). For example, Fleischman, Willen, Davidovitch, and Mor (2015) show that a lack of clear, consistent migrant health legislation was the source of most migrant exclusions from Israel's healthcare. Furthermore, they revealed total migrant exclusions from the National

Health Policy. The evidence shows diversity in the translation and implementation of migrant' health Treaties at national levels that might culminate into migrants' inadequate access and total exclusions from healthcare. Because of existing systems that support exclusion, clear policies for migrant entitlements might not be possible. There is differentiated migrants' access to healthcare that promotes migrants' exclusions from healthcare access. There is a need for prioritisation and strengthening migrants' capabilities to be healthy by promoting effective migrants' health policy implementations and healthcare equity that includes migrants.

While International Treaties and host country policies determine migrants' healthcare access, migrants' healthcare access challenges are also related to hosting countries' policy characteristics (Wickramage et al., 2018). Policies in host countries are restrictive and anti-migrant (Pannetier, Lert, Jauffret Roustide & Desgrées du Loû, 2017), unclear and inconsistent (Fleischman et al., 2015; Pithara et al., 2012; Davies et al., 2011) and dependent on fragmented theories of health and healthcare (Wickramage et al., 2018). These policy characteristics show confusing and ineffective organisation of health services and protocols that form barriers for migrants' access to healthcare (Wickramage et al., 2018). Host country health policies need to be re-aligned to International migrants' health Treaties to improve migrants' capabilities.

While protocols on how migrants access healthcare may be available in most countries, healthcare's actual access is challenging. Evidence indicates that migrant health services are disorganised, inefficient and anti-migrant (Wickramage, Simpson & Abbasi, 2019; Pannetier et al., 2017; Davies et al., 2011). For instance, migrant health services revolve around complicated paperwork, work permits, as well as Identification Documents used as a basis for migrants' entry into host health systems, and some migrants do not have these documents (Borharde et al., 2016; Fleischman et al., 2015; Ku & Jewers, 2013). Additionally, in the literature, there is a collision of cultures, languages, health beliefs and practices between migrants and healthcare practitioners, which complicates the delivery of health service to migrants. The collision is not adequately provided for by most host countries' policies (Müllerschön, Koschollek, Santos-Hövener, Kuehne, Müller-Nordhorn & Bremer, 2019; Wickramage et al., 2018; Borhade et al., 2016). Barring migrants from health services through complicated processes that promote inadequate use of health services, long waiting periods to obtain healthcare, abuse by healthcare workers, low-quality healthcare and poorer health outcomes for migrants, is evident in the literature (Cuomo et al., 2019; Wickramage et al., 2018; Malmusi, 2010; Elliot & Gillie, 1998). Ineffective migrant health policy implementations (as mentioned earlier in the chapter) could contribute to inadequate inputs, outputs and

migrants' health intervention processes that increase migrants' risk of acquiring, sustaining and spreading diseases in both their sending and host countries (Wanigaratne et al., 2019; Cuomo et al., 2019). The evidence show ineffective migrant healthcare services processes, restricted capabilities and mismanagement of migrants' health at both policy and practice levels (Wanigaratne et al., 2019; Cuomo et al., 2010). There is a need for prioritisation and strengthening of migrants' capabilities to be healthy by promoting effective migrants' health policy implementations and healthcare equity that includes migrants.

3.5 Migration patterns and migrants' health

Some migration patterns characteristics are linked to disease transmissions. The movement between poorer and richer economies can transmit diseases between these countries (Lurie & Williams, 2014; Koehn, 2006). The frequency of movement and the instability that characterises migration patterns, such as circular and irregular migration patterns can readily transmit diseases (Wickramage et al., 2018; Lurie et al., 2003). Migration patterns can link geographical areas, linking low disease prevalence areas to high disease prevalence (Lurie & Williams, 2014; Barnes, 2007; Koehn, 2006). Migration patterns, particularly circular and irregular migration patterns, are an essential determinant of migrants' health and disease.

Irregular and circular migration patterns are associated with the physical and psychological trauma linked to the travel and post-migration migration phases (Wickramage et al., 2018; Gushulak et al., 2009). On the one hand, physical trauma results from perpetual exposure to extreme environmental hazards during and after migration. For instance, during the travel phase of migration, migrants without migration documents might travel long distances, often during the night, in bad weather conditions, using dangerous transport modes and passageways, such as the back of trucks, cutting across forests and swimming in rivers (Gushulak et al., 2009). It is also suggested that post-migration, irregular migrants might lack food security and water, medical supplies and live in places with low hygiene standards. Environmental hazards increase if migrants settle in industrialised environments (Crush et al., 2005; Lurie et al., 2003). On the other hand, psychological trauma is an end-product of physical trauma endured during the travel and post-migration migration phases. A study by Chen et al. (2013) shows that the impact of environmental hazards endured during the migration process can affect migrants' mental health. Additionally, it is noted in the literature that the stress associated with frequent movement and social instability puts migrants on a spectrum of psychological disorders. These

disorders can range from low-level anxiety disorders and social dysfunctioning, to more life-threatening disorders, such as cardiovascular disease, alcohol and drug abuse (Zayas, 2019). Overall, there is a vicious cycle of environmental hazards, creating physical traumas, culminating into psychological traumas, disease and ill health (Stuckler et al., 2013; Crush & Dodson, 2010; Seung, Omatayo, Keshavjee, Furin, Farmer & Satti, 2009; Collinson et al., 2007). What is needed, is research that focuses on migrants' exercise of agency across all the migration phases (Stillman, McKenzie & Gibson, 2009). This would broaden migrants' choices and capabilities that would lessen exposures to both the physical and psychological traumas as migrants navigate the many social spaces during the migratory processes.

However, despite the many negative impacts of migration discussed above, there are also positive impacts on health highlighted in the literature. Lassetter and Callister (2009) report improved health for migrants who migrate from low-resource countries to wealthier countries, owing to advanced health systems that effectively respond to diseases. Additionally, the literature points to migration as a significant factor in improving living conditions at the place of origin through remittances, thus supporting good health (Maloka, 1997). However, Song and Sun (2015), using the lens of medical tourism, attribute the positive impacts of migration on health only to short-term migration, as long-term migration is generally costly and often negatively impacts other aspects beneficial to good health. Despite many health challenges associated with migration, migration has elements that support good health.

3.6 The capabilities approach and migrants' health

Chapter 2 discussed the capabilities approach. In this chapter, the health consequences of migration for migrants and health systems received attention. In this section, I link the theoretical ideas from Chapter 2 with the discussion in this chapter.

Using the capabilities approach to migration theory analysis can support people's well-being (De Haas, 2014; De Haas & Rodriguez, 2013; Davies et al., 2011). According to De Haas (2014), a person can derive well-being from the knowledge of the existence of their mobility freedom, irrespective of whether they use the freedom or not. This happens because mobility freedom adds satisfaction to one's life equal to other primal freedoms, such as the freedom of speech and religion and the right to organize protest marches or running for president (De Haas,

2014). De Haas and Rodriguez (2013) indicate that migration can be considered a fundamental capabilities-enhancing freedom. Migration is a freedom. When linked to the capabilities approach, mobility freedom can nurture a person's aspirations, agency and freedom in a way that promotes well-being and quality of life.

Linking the capabilities approach to migration and a health theory analysis provides a more meaningful understanding of migration and health processes' essential concepts. Concepts attached to the capabilities approach, such as freedom of individuals to live the life they have reason to value, identifying relevant capabilities to the achievement of a valued life and assessing the impact of interventions (in terms of achieving a valued life while at the same time respecting individuals' differences), are essential to health. Entwistle and Watt (2013) highlight the value of recognizing individuals' differences (mentioned above) in the perception of the value of functionings, especially when it comes to complex functionings associated with particular ways of life. The above concepts carry broader meanings that can augment people's well-being when applied to migration and health theory (Kinghorn, Robinson & Smith, 2015). The capabilities approach brings a broader scope of meaning to the migration and health theory through its inherent sense of providing a platform for choices that augment people's well-being.

The capabilities approach can create a more evaluative space when applied to migration and health studies. The capabilities approach covers broader aspects such as choices, opportunities and freedom, thus addressing a broader scope of the values that people attach to health (Pithara, 2020; Ruger, 2010). For instance, Pithara (2020) indicates that there are deficiencies in traditional models of evaluating health (such as the health literacy model) that can be improved by incorporating the capabilities approach. For instance, while health literacy can be understood as a functioning (because it captures skills and abilities that enable positive health choices and patient participation during shared decision-making), the frameworks that evaluate health literacy only focus on the levels of health literacy, narrowing the focus. Applying the capabilities approach can broaden the narrowness of the commonly used health analysis frameworks (Pithara, 2020; Ruger, 2010). Deficiencies in the health analysis theory can benefit from the capabilities approach through the broadening of the evaluative space, widening the scope of interventions that improve health outcomes for migrants.

Using the capabilities approach can relocate the conception of migrants' health from focusing solely on disease processes to including people's functionings and capabilities (including choices, opportunities and agency) that improve health outcomes. According to Law and

Widdowson (2007), the capabilities approach considers the background of social context, the opportunities and choices, and the endowments of the individual in the achievement of health, without isolating these concepts from health and disease. In the same vein, Venkatapuram (2013: 272) indicates that the health of an individual can be conceived as "the ability to achieve a basic cluster of beings and doings or having the overarching capability, a meta-capability, to achieve a set of central or vital inter-related capabilities and functionings". This means that the health of an individual can be conceived in terms of a group of "functionings" about what people are able to do and able to be in achieving health. Additionally, health capability itself is an effective way of achieving other important inter-related capabilities and functionings. Ruger (2005) says that an individual's ability to achieve optimal health (health capability) effectively is more a function of a health agency's possession that drives the health goals they value. Possession of a health agency would then make people to be agents of their health. This evidence suggests the importance of bridging the conception of health and disease to social contexts dimensions to include the cultivation and achievement of functionings and capabilities. This reconfigured conception of health and disease in the context of migrants' health might positively affect responses to distributional inequalities in migrants' health, the causes of the constraints on basic capabilities, their persistence, and the differential experiences or consequences of such constraints (Venkatapuram, 2013).

The capabilities approach can be linked to migrants' achievement of desired health outcomes. According to the literature, using the capabilities approach in dealing with migrants' health can reinforce desired outcomes (Pithara, 2020; Kinghorn et al., 2015;Ruger, 2010). For instance, Pithara (2020) indicates that using the capabilities approach can promote people's opportunities or freedoms and achieve desired health-related aims. Other scholars confirm the capabilities approach's ability to illuminate the conditions that affect health and driving genuine opportunities for people to achieve particular functionings, is a way forward to achieving desired health outcomes (Pithara, 2020; Ruger, 2010). Furthermore, Kinghorn et al. (2015) show that particular functionings, such as love and social inclusion, enjoyment, respect and identity, remaining physically and mentally active, involvement in family and societal roles and feeling secure about the future, improve health in people suffering from chronic pain. This evidence shows that the improvement of health outcomes is possible with the cultivation of functionings and capabilities. The achievement of functionings and capabilities is dynamically shaped by the interactions that individuals have with their environments, including their social

relationships. A person's capabilities are the end-product of their environmental and social circumstances, both past and present (Entwistle & Watt, 2013).

The capabilities approach could highlight the significance of human development in migration and health studies (Ruger, 2015). According to Ruger (2015), migration and health and human development can be linked in terms of how migration and health policies enhance or restrict migrants' capabilities to be healthy and also in terms of evaluating medical treatments and their impact in enabling migrants' achievements of the lives they want to live (Ruger, 2015). Moczadlo et al. (in Ruger, 2015), indicate that using the capabilities approach to evaluate medical treatments is particularly important for people with chronic health conditions, such as HIV where the primary focus is to augment their quality of life in the face of ongoing health issues. Kinghorn et al. (2015) show that the most critical capabilities for people who have chronic conditions, include love and social inclusion, enjoyment, respect and identity, remaining physically and mentally active, independence and autonomy, societal and family roles, physical and mental well-being and feeling secure about the future. Moczadlo et al. (in Ruger, 2015), indicate that the capabilities approach can highlight discrepancies between migrants' subjective health and objective health statuses, laying bare migrants' insufficiencies in health awareness and their adaptation. The capabilities approach can augment the human development aspects that are important in migration and health, such as evaluating medical treatments and policies that either constrict or expand migrants' capabilities to be healthy.

Overall, the capabilities approach improves people's well-being as it tends to create more evaluative space, introducing a wider conception of the health theory by relocating the conception of migrants' health from focusing solely on disease processes to including people's functionings and capabilities (including choices, opportunities and agency) that improve health outcomes. It can also highlight the significance of human development in migration and health studies.

3.7 Chapter summary and conclusion

This chapter has presented a literature review on the link between migration and health, particularly the effects of increasing migration volumes on individual migrants' health, host health systems and how they enhance health inequalities and how they influence policy. The role of migration patterns in disease transmission and the relevance of migration studies' capabilities approach has also been reviewed. Although there is a link between migration and

health, it is poorly understood, hence the current difficulties in migrant health management (Wickramage et al., 2018). Overall, this chapter has highlighted that this link exists, particularly the link between increased migration volumes and disease transmissions, which adversely affect migrants' health. For instance, the chapter has highlighted the role of increasing migration volumes in nurturing environmental hazards that can permeate the realms of migrants' physical and psychological well-being, overwhelm health systems by increasing disease and patient burdens, enhancing health inequalities, and posing challenges to migrant health policies. It has also highlighted that factors, such as increased migration volumes, migration patterns, and inefficient health policies can make the migrant health situation worse, adversely influencing their health (Veary et al., 2016; Crush et al., 2005). The situation can be worsened by increased disease and patient burdens and new unfamiliar diseases for host countries (Gushulak et al., 2009). These problems could necessitate a re-orientation of migrants' health policies in host countries.

The chapter has also highlighted a need for research that builds migrants' capabilities through promoting efficient health systems that widen health opportunities and choices for migrants. It has also highlighted the importance of the capabilities approach in improving migrants' well-being, creating more evaluative space for migration and health studies, introducing a wider conception of health theory by relocating the conception of migrants' health from focusing solely on disease processes to including people's functionings and capabilities (including choices, opportunities and agency) that improve health outcomes. It has also highlighted the significance of the capabilities approach in augmenting human development in migration and health studies. This is in terms of policies that enhance or restrict migrants' capabilities to be healthy, evaluating medical treatments and their impact in enabling migrants' achievements of the lives they want to live, evaluating discrepancies between migrants' subjective health and objective health statuses, which might illuminate their insufficiencies in health awareness and adaptation when faced with health challenges.

In the next chapter, the history of migration between Lesotho and South Africa and how the history has influenced trends in Lesotho migrants' health, are explored.

CHAPTER 4
MIGRATION AND HEALTH BETWEEN LESOTHO AND SOUTH AFRICA

4.1 Introduction

South Africa and Lesotho have intertwined topographies and histories, but contrasting economies. These contrasts have influenced migration patterns between the two countries. Lesotho is a small country, a former British Colony that became independent in 1966, poor, mostly rural, mountainous and landlocked by South Africa and with about 2 million people. Lesotho's landlocked status makes it heavily dependent on South Africa. South Africa is a vast country and one of the wealthiest countries in Africa, with a population of about 60 million. It concurrently has better job opportunities, health services and tertiary institutions than Lesotho (Mokoena & Balkran, 2018). These contrasting profiles have fueled high levels of migration between the two countries.

A circular migration pattern has been a prominent feature of the migration between Lesotho and South Africa (Sechaba Consultants, 2002). However, there is little research on migration trends between Lesotho and South Africa (Venter et al., 2021). Furthermore, little research focuses on circular patterns between Lesotho and South Africa on health (Palk & Blower, 2015). Additionally, very little research focuses on how migrants between Lesotho and South Africa construct capabilities to cope with the effects of migration.

This chapter discusses the migration history between Lesotho and South Africa. I distinguish between pre-colonial, colonial and post-colonial periods. The discussion includes the influence of conflicts and wars, as well as labour migration policies. The chapter concludes by analysing migration and health in Lesotho and South Africa, focusing on the evolution of epidemics in South Africa's mines and the link between these epidemics to epidemics in Lesotho.

4.2 An overview of the history of migration between Lesotho and South Africa

Migration between Lesotho and South Africa is an old phenomenon that dates back long before the Lesotho-South Africa colonial boundaries were created (Simelane & Modisha, 2008; Crush et al., 2005). Documented migrations between Lesotho and South Africa started at the

beginning of the 19th century, significantly increasing during the Dutch and the British colonial periods (Peberdy & Crush, 2013; United Nations Report, 2006) and escalating in recent times. Adepoju (1998) says that migration in Africa can be better analysed through the context of African societies' political and historical evolution and the dynamics of pre-colonial, colonial and post-colonial eras.

4.2.1 Migration between Lesotho and South Africa during the pre-colonial period (before 1869)

At the beginning of the 19th century, migration patterns throughout Africa (including Lesotho) were diffuse and undefined. Adepoju (2002) says that during the pre-colonial period, movement throughout Africa was unstructured, clustered and migrants bore undifferentiated demographic characteristics. However, Afani (2013) states that the pre-colonial migration patterns in Africa had seasonal or circular characteristics. During the pre-colonial period, the migration patterns between Lesotho and South Africa were primarily temporary, circular and homeward focused (Mokoena & Balkran, 2018; Cobbe, 1982). Homeward focused migration patterns involve seasonal and circular migrations, characterised by repeated short migrations between destination and place of origin (Mou et al., 2015). Like most of Africa, migration patterns between Lesotho and South Africa in pre-colonial times had various characteristics: being temporary, permanent, diffuse and ranged from structured to unstructured.

Various factors influenced migration patterns between Lesotho and South Africa. These include civil and economic strife like conflicts and wars and droughts that contributed to the decline in Lesotho's agricultural economy (Coplan, 2003; Cobbe, 1982; Murray, 1981).

4.2.2 Civil wars, agricultural decline and migration patterns during the pre-colonial period (1815 to 1845)

The Lifaqane wars influenced migration patterns between Lesotho and South Africa. Between 1815 and 1845, there was civil strife in Lesotho brought by the Lifaqane wars. Mofuoa (2016) say that the Lifaqane wars, originating from the Nguni chiefdoms in Zululand, caused a lot of movement throughout Southern Africa, including in Lesotho. People across Southern Africa, overwhelmed by the Lifaqane wars, scrambled to safety to the mountain fortresses of Lesotho (Mofuoa, 2016). Moshoeshoe of the Bakoena Clan, gathered the run-away fugitives of the

Lifaqane war and built a new nation, Lesotho, at Thaba Bosiu. At first, King Moshoeshoe attempted to make peace after founding Lesotho. However, continuous cattle raiding by his dispossessed subjects and increasing demands for land and labour from the Free State, led to further wars. Conflicts and wars were principal motivators of movement between Lesotho and South Africa during the Lifaqane era.

The Lifaqane wars contributed to agricultural decline and famine in Lesotho, influencing migration patterns. The Basotho's repetitive engagement in wars during the Lifaqane period left little room for agrarian activities, leading to a general decline in agricultural production (Mokoena & Balkaran, 2018; Modi, 2003;Cobbe, 1982). The ravages of the Lifaqane wars also resulted in acute famine in Lesotho as Basotho crops were burned to the ground (Cobbe, 1982; Modi, 2003; Mokoena & Balkaran, 2018). Consequently, Basotho constantly searched for food, resulting in significant internal and international migrations to South Africa, because of famine (Mokoena & Balkaran, 2018; Modi, 2003; Cobbe, 1982). While some Basotho engaged in famine-related-cannibalism, some decided to engage in temporary circular migrations to South Africa to take unskilled jobs. Others stayed behind in Lesotho to fight wars and sustain families (Mokoena & Balkaran, 2018; Modi, 2003; Cobbe, 1982; Murray, 1981). Extreme circumstances influenced migration patterns between Lesotho and South Africa during the Lifaqane wars.

During the second half of the 19th Century, Lesotho experienced further discords and strife by re-encountering conflicts, wars and environmental degradation, fueling circular migration patterns to South Africa (Murray, 1981). Between 1865 and 1868, Lesotho went to war with the Free State, resulting in a further decline in agricultural production (Cobbe, 1982). Basotho's engagement in multiple wars meant little incentive or time to engage in agricultural activities. Additionally, the persistent overuse of soil and the imposition of maise export tariffs by the Free State made Basotho's livelihoods worse (Murray, 1981). These factors, coupled with rapid population growth in Lesotho, meant that Lesotho could no longer adequately sustain the livelihoods of its citizens (Cobbe, 1982; Murray, 1981). Consequently, Basotho turned to "homeward focused" seasonal labour migrations to the Cape and Free State farms. They took short contracts of seasonal labour (Mou et al., 2015; Cobbe, 1982; Murray, 1981).

Lesotho had a successful agricultural economy before descending into agricultural decline. Lesotho was once a leading supplier of crops to its neighbouring countries through the Barter System (consequently known as 'the granary of Southern Africa') (Maphosa et al., 2013).

Murray (1981) says that Lesotho was once prosperous in agricultural production and was dubbed "the granary of the Free State", because of its successful endeavour to export maise, sorghum, and wool to the Free State. However, the literature notes that wars, adverse weather conditions, like severe droughts, undermined Lesotho's agricultural production (Maphosa et. al., 2013; Murray, 1981). Together, these factors caused famine (Maphosa et. al., 2013; Cobbe, 1882; Murray, 1981). Maphosa et. al., (2013) say that the agricultural decline in Lesotho also reduced trading opportunities for the Basotho. They were forced to consider alternative strategies, like migrating to sustain their livelihoods and the subsistence needs for those who remained at home. Ongoing civil and economic strife, coupled with adverse climatic conditions, disabled the agricultural economy in Lesotho, leading to intensified circular migration patterns between Lesotho and South Africa.

The evidence shows that the pre-colonial migration patterns between Lesotho and South Africa have followed similar patterns to migration patterns in the rest of Africa (diffuse and clustered) (Adepoju, 2002). These patterns indicate migration freedom, but are seasonal or circular, influenced by extreme circumstances like wars, droughts and famine, suggesting forced and involuntary migration patterns. During the pre-colonial period, forced and unfree migration patterns between Lesotho and South Africa were evident and continued well into the colonial period and beyond.

4.3 Migration between Lesotho and South Africa during the Colonial period (1869 to 1966)

Much of the internal and external warfare that characterised the pre-colonial period in Lesotho and South Africa ceased or was reduced during the Colonial period. However, political upheavals and social connections, labour migration, and apartheid shaped migration patterns between Lesotho and South Africa.

4.3.1 Political upheavals and social connections

During the last quarter of the 19th century, political upheavals between Lesotho and South Africa created separations and connections that shaped migration patterns to South Africa. In 1869, following the conflicts and wars between Lesotho and the Free State (1865-1868), Lesotho became a British Protectorate. The new Lesotho-South Africa boundaries were created

and endorsed through the Second Treaty of the Aliwal North. This treaty created the border controls between the then Orange Free State Republic and Colony and Basutoland Protectorate (Mokoena & Balkaran, 2018; Simelane & Modisha, 2008).

A bond and a shared heritage between Lesotho and South Africa, birthed by the new boundaries, ensured a solid social connection that shaped migration patterns between Lesotho and South Africa. Coplan (2003) says that many Basotho became South African citizens when the colonial authorities endorsed the new Lesotho-South African borders. Venter et al. (2021) state that the drawing of the Lesotho-South Africa colonial boundaries resulted in many villages along both sides of the Lesotho-South African border, sharing strong social connections and neighbourliness. The literature notes that the strong social relationships and a shared heritage, created by Lesotho's new borders, increased regular circular migration patterns (often day-to-day migrations) between Lesotho and South Africa (Mokoena & Balkaran, 2018; Simelane & Modisha, 2008; Cobbe, 1982). The strong social connections between Lesotho and South Africa were evident in children crossing the borders for schooling and adults socialising together (Venter et al., 2021). Many Basotho also considered South Africa as their second home (Venter et al., 2021). Social connections emanating from political upheavals shaped migration patterns between Lesotho and South Africa.

Strong social links clouded citizenship statuses of Basotho in Lesotho and South Africa, shaping migration patterns between Lesotho and South Africa. Many Basotho in South Africa (especially in the Free State and Gauteng Provinces) could assert their rights to Lesotho's citizenship and vice versa, driving high circular migration rates between Lesotho and South Africa (Cobbe, 1982). Coplan (2003) says that according to Basotho culture, there is a strong connection between the living and the places where their ancestors are laid to rest, hence Basotho's continued strong relationship to the Free State. The literature notes that some Basotho believe that parts of South Africa (mainly the Free State) belong to Lesotho, hence their strong attachment to what they feel is their "conquered territory (Mokoena & Balkaran, 2018; Viljoen & Wentzel, 2007; Marais, 2001). The evidence suggests that the Lesotho-South Africa's colonial borders left Basotho with unresolved issues that enhanced their social connections with South Africa, particularly the Free State. These factors promoted high circular migration patterns between Lesotho and South Africa.

The evidence suggests that while political upheavals shaped migration patterns between Lesotho and South Africa during the colonial period, they also created bonds and a shared

heritage that influenced circular migration patterns between Lesotho and South Africa. The geographical, socio-political and economic circumstances resulted in the emergence of the labour migration system from Lesotho to South Africa, which further influenced circular migration patterns.

4.3.2 Labour migration between Lesotho and South Africa during the colonial period

In 1867, diamonds were discovered in Kimberly, then gold in the ZAR (later the Transvaal and today mainly in Gauteng) in 1886, resulting in the institutionalisation of labour migration in South Africa (Harington et al, 2004; Wentzel, 2003). The opening of the Kimberley diamond fields in 1870 created a massive demand for unskilled labour, resulting in large labour migrations to the mines (Wentzel & Tlabela, 2006).

The discovery of minerals in South Africa accelerated circular migration flows between Lesotho and South Africa, along with other neighbours of South Africa, as they became cheap labour reserves (Harington et al., 2004; Cobbe, 1982). Thousands of cheap mine labourers from rural South Africa and neighbouring countries, like Lesotho, were recruited for short contracts to South Africa's mines (Glover, 2015; Coovadia et al., 2009; Harington et al., 2004). Young, healthy Basotho men were recruited in considerable numbers to South Africa's mines for short contracts, minimal wages and poor living and working conditions Simelane & Modisha, 2008; Harington et al., 2004; (Modi, 2003; Cobbe, 1982). By 1874, Basotho men were amongst the largest groups of migrant miners alongside the Tsongas and the Pedi's (Wentzel, 2003). For instance, by 1875, 15 000 Basotho migrant miners obtained long and short term permits to work in South Africa. By 1884 the number of work permits to Lesotho citizens had increased to 20 000 (Murray, 1981). Over time, Lesotho became the third major supplier of cheap labour to South Africa's mines (Francis, 2021; Harington et al., 2004). Minerals discoveries in South Africa steadily accelerated repetitive, circular, mass out-migration from Lesotho to South Africa (Crush et al., 2005; Wentzel, 2003) (see Table 4. 1 below).

Table 4.1: Migration of Miners from Lesotho to South Africa, 1920-1990

Year	Average No. Employed	Actual No. of Recruits (Est.)
1920	10,439	15,000
1925	14,256	20,000
1930	22,306	30,000
1935	34,778	36,000
1940	52,044	55,000
1945	36,414	36,000
1950	34,467	35,000
1955	36,332	38,000
1960	48,842	53,000
1965	54,819	57,000
1970	63,998	70,000
1975	78,114	83,000
1980	96,309	100,000
1985	97,639	100,000
1990	99,707	127,000
1995	90,735	90,735
2000	64,933	64, 933
2005	52,042	52,042
2010	41,555	41,555
2015	27,949	27,949
2020	20,101	20,101
2021	15,240	15,240

(Source: TEBA, Adapted from Crush & Dodson, 2010; Central Bank of Lesotho, 2022)

Table 4.1 shows a steady increase of out-migrations from Lesotho to South Africa's mines, captured in five year periods. The out-migrations increased steadily with the exception of the period 1980 and 1985 when the out-migrations reached a peak at 100 000 out-migrations. The out-migrations shot upwards again to 127 000 between 1985 and 1990. From 1990 the out-migrations are steadily declining up to 2021.

Various factors influenced the decisions by Basotho men to join the labour migration system to South Africa. The factors ranged from the need to be socially relevant, poor economic prospects and lack of economic opportunities in Lesotho, to the desire to secure cash and to build personal wealth.

The need to fulfill lifelong aspirations and the need to be socially relevant motivated young Basotho men to join the labour migration system to South Africa's mines. Simelane and Modisha (2008) further say that the prospects of becoming a migrant miner were usually captured in children's imagination, especially boys, in labour-sending communities, like Lesotho, through initiation schools. Venter et al. (2021) say that working in the mines has a significant social status among Lesotho peers. Additionally, the literature notes that working at South Africa's mines created forms of socialisation in Lesotho, like a representation of an endorsement of manhood and coming-of-age for Basotho boys (Francis, 2021; Bonner, 2009). Bonner (2009) says that in Southern Africa (including in Lesotho), completing a contract in South Africa's mines was regarded as a rite of passage, an indication of successful manhood and a process of coming-of-age. This evidence suggests that mental inculcation about the good prospects and obviousness of labour migration to South Africa, drove young Basotho men's decisions to join the labour migration system. From childhood, Basotho boys were made to view working in South Africa's mines as a lucrative and obvious career path that would shape their manhood.

Basotho men also joined labour migration to South Africa for economic reasons and lack of choice. The literature notes Lesotho's poor economic prospects, resulting from declining, per capita income from agriculture, was the cause of large male labour out-migrstions to sell their labour (Cobbe, 1982; Murray, 1981). The literature notes that lack of opportunities to sustain livelihoods in Lesotho forced many Basotho to join the labour migration system to South Africa's mines (Mokoena & Balkaran, 2018; Cobbe, 1982). Murray (1981) says that labour migration to South African mines was not optional for Basotho men as they were pressured to pay colonial taxes in cash in Lesotho to avoid jail (Murray, 1981). Simelane and Modisha (2008) say that the economic difficulties and the erosion of the sources of livelihood in Basotho communities forced many Basotho to join labour migration in South Africa. Simelane and Modisha (2008) further say that communities dependent on subsistence farming, like Lesotho, were suddenly thrust into wage labour in South Africa. Dire economic circumstances in Lesotho forced Basotho men to join the labour migration system to South Africa.

The desire to build personal wealth motivated Basotho men to join the labour migration to South Africa. The literature notes that in earlier times, during the pre-colonial period, Lesotho was once dependent on a successful agricultural economy (Maphosa, et.al., 2013; Cobbe, 1982; Murray, 1981). The literature further notes that with time the agricultural economy failed, due to wars and poor farming methods, leaving Basotho poor (Cobbe, 1982; Murray, 1981). Simelane and Modisha (2008) say that joining the labour migration to South Africa's mines became the ultimate way of securing cash and building wealth for Basotho, in order to be able to purchase commodities for the subsistence needs of their families (Maphosa, 2013; Cobbe, 1982; Murray, 1981). Thus, for Basotho miners, having cash represented wealth and prestige and an ability to buy goods like farming implements, guns, radios and livestock like cattle (Cobbe, 1982; Murray, 1981). Maphosa et.al., (2013) says that the return Basotho migrants from South Africa's mines, showed off their success through stylish, expensive clothing, motivating those in Lesotho to join the labour migration system to South Africa. This evidence suggests that Basotho men's migration decisions to South Africa were motivated by re-building wealth in Lesotho to meet the subsistent needs of their families, rather than staying permanently in South Africa. Basotho's lack of opportunities in Lesotho culminated into lack of choices and unfreedoms that forced them into labour migration to South Africa's mines.

4.3.2.1 The impact of South Africa's labour migration system on Lesotho

Labour migration to South Africa's mines impacted Lesotho in various ways that range from impacts on individual miners to country-level impacts. At the individual level are migrant miners' identity changes, gangsterism and violence and poverty. At the country level are Lesotho's impoverishment and under-development.

4.3.2.1.1 The individual-level impacts of labour migration on Lesotho

Basotho's circular migration to South Africa's mines shaped their identities in a way that alienated them from Lesotho's agrarian lifestyle. Mokoena and Balkaran (2018) say that once engaged in labour migration to South Africa's mines, Basotho developed identities that deterred the rural development agrarian activities in Lesotho. Simelane and Modisha (2008) say that migrant miners and ex-migrant miners tended to develop socio-cultural identities, like "rural aristocrats" and urbanised citizens, theories that are often used to explain Basotho

migrant miners' lack of incentive in engaging in Lesotho's agrarian lifestyle, in preference to the lifestyles they have acquired at South Africa's mines. Maphosa et.al., (2013) says that in Lesotho, having no experience working in South Africa's mines, is considered unsophisticated. This evidence suggests a shift in Basotho migrant miners' identities that shun Lesotho's agrarian way of life. The evidence indicates that Basotho miners' identities shift undermined their original valued capability to advance Lesotho's agricultural development.

Gangsterism and violence shaped Basotho migrant miners' lifestyles in Lesotho and South Africa. Basotho migrant miners lamented their "hard" circular migrant lifestyle through concertina and accordion music, sparking gangsterism and violence. Monaheng (2020) say that accordion-based Basotho "Famo" music has its origins in South Africa's mines in the 1920s, symbolising oppression. Monaheng (2020) further say that it is through the" Famo" music that gangsterism, internal displacement and violence escalated in Lesotho.

Joining the labour migration to South Africa's mines drove Basotho migrant miners into further poverty. Coovadia et al. (2009) say that South Africa's mines paid mine labourers low wages, despite generating much wealth. For example, mine labourers earned 20% less in 1960 and 8% less in 1972 than in 1911, which meant the wages remained low and were not adjusted for inflation (Francis, 2021; 2020; Coovadia et al., 2009). Harington et al. (2004) says that minimal wages thwarted migrant miners' capabilities to settle in South Africa or plan long-term for their lives. Marais and Venter (2006) state that migrant labourers' wages were calculated focused on individual miners, not considering costs to their families as a way to sustain the cheap labour migration system. This meant that the cost of living for the miners that included their dependents, was not taken into consideration when calculating their wages, resulting in inadequate wages. Although Sen (2009) says that economic prosperity is not a good measure of a person's capabilities, he also agrees that adequate income can be converted into characteristics of good living. Furthermore, low wages are detrimental to health, as they cause deprivation in most people's lives. On the other hand, higher wages can buy most determinants of good health like nutritious food, bigger houses and safe neighbourhoods (Fourie & Jayes, 2021). This evidence suggests stagnant low salaries for Basotho migrant miners that barred them from opportunities, freedom and choices, and capabilities to advance their lives and to be economically prosperous and live the way they want to live.

4.3.2.1.2 Country-level impacts of labour migration on Lesotho

The labour migration to South Africa impoverished labour-sending areas like Lesotho, while at the same time it enriched South Africa. Glover (2015) says that South Africa's labour migration goal was not to develop labour-sending areas, but to diminish their development as a strategy to advance deprivation, which would in turn enhance labour migration. For instance, the literature notes that as the capital proceeds from South Africa's mining grew and made areas like the city of Johannesburg wealthier, the labour sending areas like Lesotho became steadily impoverished (Harington et al., 2004; Cobbe, 1982; Murray, 1981). Mokoena and Balkaran (2018) say that healthy Basotho men, who could have improved agricultural productivity in Lesotho, participated in labour migration to South Africa.

The evidence suggests that the labour migration system to South Africa had a dual negative impact on Lesotho; a negative impact on individual miners and on Lesotho, as it generated poverty for Basotho miners and Lesotho while it enriched South Africa's economy (Francis, 2021). The evidence also suggests that labour migration from Lesotho to South Africa fueled under-development, poverty, and dependency in Lesotho's labour-sending areas. Migrant labour to South Africa restricted Basotho's capabilities through lack of choice and unfreedom, while reconciling the need for a continuous supply of cheap labour with the apartheid ideology (Vosloo, 2020).

4.3.3 South Africa's apartheid policy and migration between Lesotho and South Africa (1948-1993)

In 1948, the National Party came into power in South Africa. Racist policies became the mainstay of South Africa's governance, permeating resource distributions, labour migration, settlement and mobility (Coovadia et al., 2009). The Apartheid Policy restricted freedom of movement and ensured the separation of races in urban areas. Although labour migration legislation existed before apartheid (Francis, 2021), the Apartheid Laws had a distinct effect. Various Acts like the Influx Control Act, the Group Areas Act and the Population Act restricted mobility and separated races (Harington et al., 2004). The Native Labour Regulation Act of 1911 strengthened migrant worker controls and by the 1920s, the mining industry in South Africa was already using cheap black labour (Marais & Venter, 2006). The new pass laws during apartheid reinforced these restrictions. They restricted the inflow of black people,

particularly to the cities, while at the same time enhancing the supply of cheap labour to the cities through migrant labour (Marais & Venter, 2006).

4.3.3.1 The apartheid policy and migration between Lesotho and South Africa

Adopting the Apartheid Policy in South Africa meant that South Africa and Lesotho practised opposing social systems. South Africa endorsed racial inequality that restricted the movement of black people (Coovadia et al., 2009;Simelane & Modisha, 2008). Lesotho endorsed racial equality and freedom of movement for all. Thus, Basotho found it difficult to be subjected to apartheid regulations in their mobility to South Africa. Most non-white people in South Africa opposed the Apartheid Policy and joined liberation movements. Some crossed the Lesotho-South Africa borders illegally to live as political refugees in Lesotho (Simelane & Modisha, 2008). Thus, Simelane and Modisha (2008) further say that during the apartheid era, Lesotho became a refuge and a primary recipient of South Africa's political refugees. Consequently, political relations between Lesotho and South Africa deteriorated, resulting in South Africa's military forces' raids in Lesotho. For instance, the ANC's safe houses were raided in 1982, killing both the ANC refugees and some Lesotho citizens (Simelane & Modisha, 2008).

Throughout the apartheid period (1948 to 1993), arbitrary movement restrictions between Lesotho and South Africa were common. Political pressure on Lesotho by South Africa through periodic temporary blocking of the border posts closures, was common (Simelane & Modisha, 2008; Cobbe, 1982). Simelane and Modisha (2008) say that the apartheid government barred Lesotho professionals from entering and working in South Africa after the 1982 raid. Cobbe (1982) states that during apartheid times, South Africa's border police intermittently allowed Lesotho citizens who had "six months migration passes" (an endorsement in their passports that enabled them to travel to South Africa for six months) entry into South Africa and denied access to the rest. At other times, the border police allowed only Basotho who have special visas (like work or study permits) in their passports. Alternatively, South Africa's border staff would embark on a "go slow", searching both people and vehicles in the process (Cobbe, 1982). Random restrictions of Basotho's movement into South Africa were common during the apartheid period.

The above evidence suggests diminished migration freedom. It also suggests enhancement of exposures to environmental assaults like cold, heat, and mental distress, caused by stress and uncertainty for migrants, resulting from uncertainty and long queues at the Lesotho-South

Africa border crossings. Long queues, anxiety, and uncertainty can be detrimental to physical and psychological health and can facilitate exposure to environmental and psychological hazards like accidents, injuries, and cardiovascular disorders (Zayas, 2019). Tightening border controls negates migrants' freedoms of movement and limits migrants' choices, encouraging precariousness (Brabant & Renault, 2012).

4.4 Migration between Lesotho and South Africa during the post-colonial period

In 1994, South Africa's Apartheid Laws were lifted and new opportunities for internal and cross-border mobility were created between Lesotho and South Africa. The reconnection of South Africa with the global economy during its democratic transition, facilitated globalisation-associated migrations to South Africa (Peberdy & Crush, 2013). South Africa's reconnection with the worldwide economy opened the country and region to migration, commonly associated with globalisation (Crush & McDonald, 2002).

4.4.1 Migration flows into South Africa post-apartheid

After lifting the Apartheid Policy in South Africa, migration flows were composed of various migrant groups. Most migration flows into South Africa post-apartheid came from neighbouring countries like Lesotho, Swaziland, Botswana, Mozambique, Malawi, Zambia, Zimbabwe and Angola. Migrants ranged from voluntary, economic, and illegal to bogus refugees, abusing the asylum procedure (Mokoena & Balkaran, 2018; Modi, 2003**)**. Thus, the post-apartheid period is marked by further expansion of migrant flows from Lesotho into South Africa, a flexibility in migrant labourers working hours that promoted expansive circular migration and retrenchments that increased return migrations to Lesotho.

The post-apartheid period brought with it expansive migrant flows between Lesotho and South Africa. Post-apartheid, border crossings between Lesotho and South Africa remain the busiest (Viljoen & Wentzel, 2007). Thus, post-apartheid, Lesotho became the largest source of documented migrants into South Africa (see Table 4.2). At the same time, it became the third-largest source of undocumented migrants in South Africa (McDonald, Zinyama, Gay, de Vlerter & Marres, 2000).

Table 4.2: Tourism and migration data for Lesotho

MONTH	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Mean 10 year
January	131 421	165 921	174 466	172 060	167 739	156 571	209 403	227 031	239 647	195 516	204 791	**191 315**
February	78 984	104 132	108 637	105 148	104 430	92 044	128 739	119 441	122 311	108 081	113 820	**110 678**
March	85 482	115 422	119 149	120 271	114 180	107 617	154 690	130 407	126 417	129 159	95 113	**121 243**
April	103 624	128 270	153 925	142 959	124 222	123 066	132 161	159 175	163 989	144 143		**137 553**
May	87 504	130 224	130 441	113 723	110 356	117 318	147 177	141 816	138 328	121 426		**123 831**
June	85 018	117 867	122 564	118 705	118 190	102 880	142 402	135 177	137 171	128 802		**120 878**
July	113 876	134 496	146 965	132 815	123 257	124 988	162 392	169 080	165 478	131 897		**140 524**
August	124 462	120 244	119 796	107 919	117 392	120 861	137 465	121 114	127 398	120 510		**121 716**
September	111 321	117 858	131 271	110 080	117 716	107 998	137 932	136 638	134 028	120 910		**122 575**
October	121 402	133 157	133 321	102 846	133 158	105 400	146 591	144 151	130 174	115 027		**126 523**
November	117 776	121 049	130 954	112 707	135 285	122 578	122 185	125 427	121 722	114 844		**122 453**
December	114 968	137 957	146 734	122 034	135 717	113 592	135 921	137 754	132 525	133 133		**131 034**
TOTAL mean	**106320**	**127216**	**134852**	**121772**	**125137**	**116243**	**146422**	**145601**	**144932**	**130287**	**137908**	**130860**

(*Source: Statistics SA, 2020 - Adapted from Venter et al., 2021*)

Table 4.2 shows a gradual increase in migrant in-flows between 2010 and 2013 and a peak between 2015 and 2017, followed by a decrease in 2019 and 2020. Various opportunities have influenced Basotho's increased migration flows into South Africa, since 1994. The opportunities include shopping, business, holiday, study or visiting relatives (Mokoena & Balkran, 2018). Additionally**,** poverty, hunger and the pursuit of better livelihoods motivate Basotho's migration decisions to enter South Africa either legally or illegally to engage in formal, informal, legal and illegal endeavours, like work or crime (Venter et al., 2021; Crush & Dodson, 2010).

Trade unionism in South Africa expanded post-apartheid and influenced increased movement between Lesotho and South Africa. Venter et al. (2021) say that the lifting of apartheid laws led to the emergence of trade unions in South Africa that negotiated flexible working contracts for migrant labourers. The flexible working hours for migrant labourers in South Africa came in tandem with the rapid development of extensive, efficient transport infrastructure in South Africa, enabling migrant labourers' expansive circular migration flows more than ever before. The flexible working hours increased migration between the two countries. Venter et al. (2021) say that the expansion of trade-unionism in South Africa and the resultant flexibility of working hours for migrant workers further increased migration flows between Lesotho and South Africa.

However, the post-apartheid period is also marked by many downsizing and retrenchments at South Africa's mines, causing social disruptions and poverty in labour-sending areas. Falling mine profits resulted in massive retrenchments of miners, including those from Lesotho (Maphosa, et.al., 2013). Thus, the end of apartheid in 1990 parallels the reduced number of Basotho who work in South Africa's mines, with 58,224 labourers registered in 2000 (Maphosa, et.al., 2013) (see Table 4.3 below).

Table 4.3: Mine Jobs in South Africa for Basotho Migrants (Average No. Employed)

Year	Basotho Workers	Total Workers	% Basotho
1990	99,707	376,473	26.5
1991	93,897	354,649	26.5
1992	93,519	339,485	27.5
1993	89,940	317,456	28.3
1994	89,237	315,264	28.3
1995	87,935	291,902	30.1
1996	81,357	284,050	28.6
1997	76,361	262,748	29.1
1998	60,450	228,071	26.5
1999	52,188	213,832	24.4
2000	58,224	230,687	25.2
2001	49,483	207,547	23.8
2002	54,157	234,991	23.0
2003	54,479	234,027	23.3
2004	48,962	230,771	21.2
2005	46,049	236,459	19.5
2006	46,082	267,894	17.2
2007	54105	166,064	32.5
2008	50686	166,243	30.5
2009	45276	159,926	28.3
2010	41555	157,019	26.5
2011	41427	512,874	8.0
2012	37051	524,869	7.0
2013	33513	509,909	6.6
2014	30386	492,931	6.2
2015	27949	480,205	5.8
2016	26230	458,291	5.7
2017	25771	463,901	5.6
2018	22354	456,438	4.8
2019	20634	460,015	4.5
2020	20101	452,866	4.4
2021	15240	458,954	3.0

(Source:TEBA, Adapted from Crush & Dodson, 2010; Minerals SA, 2022)

Table 4.3 shows the number of Basotho who get employed at South Africas mines in relationship with the total number of miners from 1990 to 2021. The overall number of miners shows a steady decline that is also mimicked by the number of Basotho miners employed at South Africa's mines from 26.5% in 1990 to 3% in 2021. The exception is the years between 1993 and 1998 where, despite a decline in the overall number of miners employed, Basotho miners' employment numbers rose unevenly again only to plunge again, reaching the lowest levels in 2021 at 3%.

4.4.2 Migration patterns between Lesotho and South Africa in recent times

Recently, migration patterns between Lesotho and South Africa have been mainly voluntary (Venter et al., 2021). However, the boundaries between Lesotho and South Africa are mainly porous with non-physical barriers, allowing for dangerous, free illegal crossings between the two countries (Mokoena & Balkaran, 2018; Viljoen & Wentzel, 2007). The literature notes that the permeability of the Lesotho-South African border have made it possible for Basotho migrants to swim across the Mohokare (Caledon) River or cross through "paqama" (crossing under the fence), or simply trespass into South Africa without realising it (Mokoena & Balkaran, 2018; Viljoen & Wentzel, 2007). Additionally, there are numerous partial borders and local convenience crossings along the Lesotho-South-African border, with relaxed or no adherence to immigration laws that allow access to stores and day-to-day amenities in South Africa and Lesotho. At the same time, easy access to travel documents and relaxation of migration laws for Basotho to enter South Africa has enabled an influx of entrants at the Lesotho-South Africa borders. The evidence suggests that porous borders have promoted unregulated movement between Lesotho and South Africa. The evidence also suggest that while Basotho's easy access to travel documents to South Africa have expanded their migration freedom, they have also expanded circular migration flows between Lesotho and South Africa, a consequence that might perpertually congest cross-border services.

Simelane and Modisha (2008) say that the slowness and tediousness of service at the Lesotho-South African border posts drive the informal and illegal crossings between Lesotho and South Africa. The procedures (waiting in a long queue to present valid travel documents to Immigration Offices (border access control points) to endorse entry or departure stamps) are often slow and tedious (Simelane & Modisha, 2008). Consequently, Basotho's preference is to use informal and illegal borders to cross into South Africa (Mokoena & Balkaran, 2018;

Viljoen & Wentzel, 2007). For instance, despite numerous official border posts between the countries (there are 14 official Lesotho-South Africa border posts), illegal entrances appear to be the most preferred mode of entry (Viljoen & Wentzel, 2007). The evidence shows that that the sluggishness of services at Lesotho-South Africa border posts frustrate migration freedom, consequently enhancing negative functioning, like illegal migrancy.

Lesotho migrants are often granted lenient means of crossing into South Africa. Viljoen and Wentzel (2007) say that Basotho are often given preferential opportunities over other neighbouring countries to enter South Africa. For instance, different arrangements (regulations, permits, concessions) in migration laws (like the now rescinded six-month pass) allowed Lesotho migrants to enter South Africa without an endorsement with an immigration stamp, making it easy for Basotho to oscillate between Lesotho and South Africa (Viljoen & Wentzel, 2007). Viljoen and Wentzel (2007) further say that generally, Basotho have easy access to migration documents that facilitate their entry into South Africa, compared to migrants from elsewhere. The relaxation of migration laws and border controls expands Basotho's choices, opportunities, and freedom to migrate into South Africa. However, the relaxation of migration laws also promotes high volumes of oscillatory movement that is harmful to health.

The evidence implies that many factors like porous borders, high influx of cross-border migrants and congested cross-border services, promote unregulated movement between Lesotho and South Africa, including illegal crossings. Unregulated channels of migration are dangerous to health as they attract injuries, exposure to climatic conditions, exploitation or even death. The evidence also means that during epidemics (like the current COVID-19 pandemic), regulation of movement and the associated quarantine practices become difficult, allowing for an uncontrollable spread of inter-country epidemics.

4.5 The history of migration and health between Lesotho and South Africa

Migration between Southern African countries has long been linked to the prevalence of communicable diseases. Southern Africa is one of the regions highly affected by HIV infections. About 30% of the world's people living with HIV reside in Southern Africa. Yet, it is home to only less than 2% of the world's population. The Southern African Development Community (SADC) countries (including Lesotho and South Africa) are the worst affected by HIV prevalence, with one in five adults infected with HIV. The escalation of HIV prevalence in the SADC region is believed to result from migration, especially migration by migrant mine

workers to South Africa (Lurie & Williams, 2014; Clark et al., 2007; Crush et al. 2010). The mining sector in South Africa influences high circular, and oscillating migration patterns between SADC countries, driving epidemics.

4.5.1 Migration and epidemics in South Africa's mines

Many miners in South Africa's mines are migrant labourers from rural South Africa and South Africa's neighbours, including Lesotho (Coovadia et al., 2009; Harington et al., 2004). Often, migrant labour is associated with the spread of epidemics (Stucker et al., 2013; Crush & Dodson, 2010; Clark et al., 2007; Koen, 2006). Although amongst the best in Africa, in terms of health facilities, the mining sector in South Africa tends to be the worst-hit sector by epidemics perpetually and does not have a good track record in containing them, as evidenced by the cases of Small-pox, Silicosis, Tuberculosis, Spanish Influenza and HIV (Fourie & Jayes, 2021; Stuckler et al., 2013; Collinson et al., 2007; Harington et al., 2004). The South African mining sector has experienced challenges over time in containing epidemics at the mines.

4.5.1.1 The evolution of epidemics at South Africa's mines

In 1883, there was an outbreak of Small-pox in Kimberly diamond fields. Smallpox is a highly contagious airborne disease that is transmitted through droplets and direct contact with bodily fluids. Marks (1988) says that the Smallpox outbreak at the Kimberly minefields in 1883 was controversial. There were allegations of a deliberate poor response to the epidemic, resulting in high mortalities at the mine and the surrounding community. The poor response to the Smallpox resulted in the establishment of the Public Health Act in 1883 that made Smallpox a notifiable disease in South Africa (Coovadia et al., 2009). The evidence shows a high risk of infection by Smallpox in closed, poorly ventilated underground working environments and overcrowded living areas.

In 1901, Silicosis became prevalent in South African mines, quickly rising to epidemic levels. Silicosis is an occupational disease and the most prevalent form of pneumoconiosis. The aetiology of Silicosis is linked to exposure to high levels of crystalline silica and manifests by scarring of the lung tissue (Barboza, Winter, Seiscento, Santos & Terra Filho, 2008). In 1901, more than 200 Cornish rock drillers who had recently worked in South African mines died of Silicosis after relocating from South Africa back to Britain, heralding the first Silicosis

investigations in South Africa's mines (McCulloch, 2012). From this point onwards, Silicosis incidences at South Africa's mines rose steadily. By 2008, about one-quarter of all miners in South Africa had Silicosis, about the exact prevalence recorded one century ago (Stuckler et al., 2013). Currently, there are an estimated 480,000 cases of compensable Silicosis in South Africa. Stuckler et al. (2013) say that the high prevalence of Silicosis in South Africa's mines is linked to a lack of will by South Africa's mining industry to reduce silica-ridden dust fumes in South Africa's mines, as this could mean incurring costs for the mines. There is a high Silicosis prevalence in South Africa's mines, compromising miners' capabilities to be healthy.

In 1911, Silicosis and Tuberculosis (Tuberculosis to be discussed in the next section) Laws were enacted in South Africa to compensate South African miners who contract Silicosis or Tuberculosis (Stuckler et al., 2013). The enactment of the laws followed a high incidence of Silicosis and Tuberculosis in South Africa's mines in 1911 (Stuckler et al., 2013). Workers exposed to Silica particles are at an increased risk (2.8 to 39 times higher) of contracting Pulmonary Tuberculosis. This is due to the increased susceptibility of silica-ridden lungs to be infected with Mycobacterium, a bacterium that causes Tuberculosis (Barboza et al., 2008). By the 1920s, each year, about 1 000 miners were compensated with approximately £50 each. By the 1940s, about 1 800 miners received £72 each and from the early 1960s to mid-1980s, 2 500 mineworkers received compensation of R600,00, which became fixed in 1973 (Breckenridge, 2015).

In 1918, another epidemic (Spanish Influenza) became prevalent in South Africa's mines and many miners got infected and many died. It is noted in the literature that in 1918, 1000 miners died of Spanish Influenza in South Africa's mines and 14 000 miners were infected with Spanish flu in the goldmines of Johannesburg, within the timeline of two weeks (Fourie & Jayes, 2021). Shanks, Brundage and Frean (2010) say that the poorly ventilated underground environment in which miners in South Africa worked in during the Spanish Influenza outbreak in 1918, exposed them to high concentrations of pathogens and was a strong factor in the high mortality. The Spanish Influenza epidemic became highly infectious at South Africa's mines in 1918 and was not adequately contained in South Africa's mines (Fourie & Jayes, 2021).

In 1982, the HIV global pandemic started and South Africa' mining sector was amongst the worst hit by HIV, as many miners got infected with HIV and died. The mining industry in South Africa relies heavily on migrant labour and it is one of the contributing reasons (Lurie & Williams, 2014; Crush & Dodson, 2010; Clark et al., 2007). Although the mining sector in

South Africa responded early to the HIV pandemic, the programmatic response against HIV in South Africa's mining sector has not been able to contain the spread of HIV. Consequently, South Africa's mining sector is one of the worst-hit sectors by HIV (Cuomo et al., 2019; Stuckler et al., 2013; Collinson et al., 2007; Crush et al., 2005). In 2019, the HIV prevalence rates at South Africa's mines were: 1 732/10 000 miners in the gold mining sector and 709/10 000 in the platinum mining sector (Fourie, 2015). The high incidence of HIV in South Africa's mines is attributed to the risk environment at the mines and the migration patterns of miners to and from the mines.

The risk environment at South Africa's mining sites is linked to high HIV prevalence rates at the mines. South Africa's migrant miner's adaptation process involves macho male sexuality often expressed through engagement in commercial sex at the mining sites (Quesada, Laurie & Bourgois, 2011; Crush & Dodson, 2010; Churchyard, Kleinschmidt, Corbett, Murray, Smit & De Cock, 2000). Furthermore, the literature indicates that the rates of non-regular and multiple sex partners amongst people in high-risk environments, like South Africa's mines, remain high and condom use in these sites remains low (Lurie & Williams, 2014; Crush & Dodson, 2010). Consequently, educational campaigns, condom distribution and syndromic STIs management do not deter the high incidence of HIV at South Africa's mines (Quesada et al., 2011; Crush & Dodson, 2010; Churchyard et al., 2000). Stuckler et al. (2013) say that about one-third of miners get infected with HIV within 18 months of working in South Africa's mines. Faturiyele et al. (2018) state that miners in South Africa's mines have an increased risk of contracting HIV and Tuberculosis. This evidence suggests that the social environment at the mines highly contributes to the risk environment and constriction of miners' capabilities to prevent and manage HIV. This evidence also indicates a need to analyse the "risk environment" in South Africa's mines in terms of structural constraints and capabilities of miners in preventing and managing and understanding how the structural constraints drive behaviours and loss of capabilities within the context of the mining sites. Structural barriers and destabilising pathways should be studied and their influence on miners' sexual decision-making and capabilities explored.

Migration patterns involved in South Africa's labour migration has contributed to a high incidence of HIV. Clark et al. (2007) say that South Africa's labour migration system involves extended periods of circular migration with more frequent returns home, enabled by transport and infrastructural development. The temporary short-term recruitment practices, common in South Africa's mining sector, promote circular, oscillating migration patterns that influence

risky behaviours that transmit infectious diseases like HIV (Lurie & Williams, 2014). Clark et al. (2007) further say that the cyclical movement from one place to another, leaving one's spouse or partner and living in single hostels where commercial sex is readily available, contributes to the spread of HIV. This evidence suggests the importance of the link between migration patterns and disease transmissions (Lurie & Williams, 2014). The evidence also highlights the importance of migrant miners' adaptations, coping mechanims and capabilities, within the risk environment and beyond and the inter-connectivity of their HIV vulnerability to prevent and manage HIV within these contexts (Lurie & Williams, 2014).

By 2011, South Africa recorded the highest incidence of Tuberculosis globally, with the mining sector reporting the highest incidences. Tuberculosis is an airborne disease that is caused by an infection with Tubercle Bacilli. South Africa recorded an incidence rate of 800 to 1 200/100 000 in 2011, with the mining sector recording an incidence rate of 3 000/1000 000 in 2008 (Vinnycky et al., 2015). Stuckler et al. (2013) say that South Africa's gold mining industry have among the highest incidences of Tuberculosis in the world, with an incidence of between 3 000 and 7 000 cases per 100 000 miners per year, compared with the incidence of 981 per 100 000 people in South Africa overall, and a global incidence of 128 per 100 000 population per year. Tuberculosis in South Africa's mining sector has reached endemic proportions over time, enabling transmissions to labour-sending areas like Lesotho. There is an urgent need to rapidly detect TB amongst workers in South Africa's mines, using radiographic screening and early treatment of active TB (including multi-drug resistant TB) (Stuckler et al., 2013).

The high incidence of tuberculosis in South Africa's mines is linked to poor living and working conditions. Van der Merwe et al. (2010) say that death and disease are common everyday experiences, associated with digging in adverse conditions, lack of natural water, and unsanitary conditions in a mining environment. Historically, mine labourers in South Africa were accommodated in closed, densely populated same-sex compounds (Simelane & Modisha, 2008; Marais & Venter, 2006 Harington et al., 2004; Modi, 2003; Cobbe, 1982). Mine compound could accommodate up to 7 000 miners, with one room accommodating an average of four men. Shanks et al. (2010) say that underground mine workers usually have the highest risk of contracting diseases, due to poorly ventilated confined spaces underground that put them at a greater risk for respiratory illnesses, like Tuberculosis. The evidence suggests overcrowded, uncomfortable living and working conditions, with risks of respiratory diseases, like Tuberculosis. Dense living arrangements in closed compounds are a necessary stimulator for respiratory illnesses, like Tuberculosis and Covid-19. The burden of respiratory conditions

like Tuberculosis is heavier for people living in densely packed living arrangements (Fourie & Jayes, 2021) and might induce psychological distress.

The evidence suggests that South Africa's mining sector has not been able to contain epidemics at the mines, indicating sectoral challenges in the successful management of epidemics. The evidence also suggests a constant health risk for miners at South Africa's mines, should new epidemics occur. Research is needed to situate South Africa's mining sector within the bounds of a successful control of epidemics.

4.5.1.2 Psychological distress and ill-health at South Africa's mines

Many South Africa's miners' health issues are linked to psychological stress arising from their working and living conditions. The literature notes that working underground as a service condition for most mineworkers in South Africa is associated with health hazards (Stuckler et al., 2013; Shanks et al., 2010; Harington et.al., 2004). Harington et. al., (2004) says that as much as recruitment of mineworkers to South Africa's mines include strict health assessments, working underground is inherently dangerous, as evidenced by high mortalities of 470 per 100 000 employees per annum. The literature notes that in the past, stressful practices were common at South Africa's miners, like being "strip-searched" and being confined to closed compounds until the expiration of the work contract to prevent theft of the minerals (Bank et al., 2020; Shanks et al., 2010; Harington et al., 2004). Veary et al. (2016) says that the general environment (physical and social) at South Africa's mines exposes miners to hazardous exposures and disease vulnerabilities that pile on their daily stressors.

The evidence suggests an ongoing heightened exposure to psychological stress for miners in South Africa, associated with stressful working and living conditions. Psychological stress is a risk factor for other diseases, like cardiovascular diseases (hypertension and strokes). Psychological stress could also culminate into anti-social behaviours that destroy capabilities, like alcoholism and prostitution. Migrant miners' experiences of daily stressors and how it affects their physical, emotional well-being, mental health, and eventually, their capabilities to be healthy, are necessary to understand.

4.5.2 The link between epidemics at South Africa's mines and epidemics in Lesotho

At the general disease transmission level, economic factors drive communicable diseases in Lesotho through labour migration. According to the Lesotho Bureau of Statistics (2008), men

from Lesotho are still forced by high unemployment rates (25.3%) to go to the South African mines to support their families (Lesotho Bureau of Statistics, 2008). The literature notes that they assume subordination, discrimination, and exploitation on arrival in South Africa with little or no chance to negotiate conditions for good health (Stuckler et al., 2013; Lesotho Bureau of Statistics, 2008).

4.5.2.1 The link between HIV at South Africa's mines and HIV epidemic in Lesotho

Various factors drive the Lesotho-South Africa HIV epidemic. These include: labour migration, family breakages, due to migration, high cross-border mobility and the shift in HIV burden from South Africa to Lesotho.

There is a high HIV prevalence rate of HIV in Lesotho, which is linked to labour migration to South Africa. The literature notes that Lesotho continues to supply cheap labour to South Africa's mines, consequently contributing to high HIV prevalence rates in Lesotho (Crush et al., 2013; Clarke et al., 2007; Crush et al., 2005). According to UN Report (2019), Lesotho has the second-highest HIV/AIDS incidence globally, with the prevalence estimated at 25%. Cross-border migrants are among the worst affected group with a prevalence of 42%. According to Lesotho's National Strategic Plan (2006-2011), Lesotho's HIV/AIDS burden is very high, with more than 50% of outpatients presenting with HIV/AIDS-related illnesses and more than 60% of inpatients presenting with HIV/AIDS-related illnesses. According to the WHO Health of Refugees and Migrants; Africa Region Report (2018), migrant miners between Lesotho, South Africa and Swaziland, aged 30–44 are 15% are more likely to be HIV-positive. This reality increases the probability of their female partners being HIV positive by 8% (Crush & Dodson, 2010). This evidence suggests that labour migration is one of the driving forces for high HIV incidence rates in Lesotho.

Family breakages in Lesotho, resulting from labour migration to South Africa, drive HIV transmissions. While many Basotho men work in South African mines as migrant labourers, there is no adequate provision for them to be accompanied by their families, as most of them live in single-sex compounds (Crush et al., 2005; Maloka, 1997). The literature notes that while there was a positive change after South Africa's democratic transition, only one-third of foreign migrant miners have family accommodation at the mines. Hence, the majority still live in precarious housing situations (Marais & Venter, 2006). The literature notes that long periods away from home and consequent disruption of social networks, influence risky behaviours for migrants, increasing their vulnerabilities to diseases like HIV (Faturiyele, et.al., 2018; Bygrave,

Kranzer, Hilderbrand, Whittall, Jouquet & Goemaere, 2010). Some respondents said that they took up to four months without visiting home when serving their initial contracts at the mines. Maloka (1997) says that the separation of Basotho families by the labour migration system has led to the heightening of "Bonyatsi" (concubinage), as well as polygamous marriages at both ends of the migration cycle. Maloka (1997) further says that Basotho women face a predicament as their social position of "being looked after by my husband" is eroded by the absence of their men. This leads to their engagement in alternative livelihood strategies, like beer-brewing and prostitution, exposing them to physical and psychological violence and HIV. This evidence suggests that family breakages in Lesotho, resulting from labour migration to South Africa, enhance disease-friendly behaviours for migrants and those left behind, exposing them to HIV. The evidence also suggests health risks driven by lack of choice, inherent in situations of poverty and deprivation.

High cross-border mobility is linked to increased HIV incidence in Lesotho. Crush et al. (2013) say a high prevalence of infectious diseases, like HIV and Tuberculosis exist, among cross-border migrants between Lesotho and South Africa. Crush et al. (2010) state that cross-border migration between Lesotho and South Africa drives devastating epidemics, like HIV/AIDS, gripping the country. They describe Lesotho's ten border posts as "sites of exceptional HIV vulnerability" on both Lesotho and South African sides. Migrants are vulnerable to communicable diseases, like tuberculosis and HIV/AIDS, exacerbated by the mobility of lorry, bus, and taxi drivers, traders, soldiers, migrant and transient workers. Crush et al. (2010) say that the introduction of HIV to Lesotho primarily results from returning migrant miners from South Africa who are infected with HIV in the mines, consequently transmitting HIV to both their families and other partners. High HIV prevalence rates in Lesotho are influenced by cross-border mobility to South Africa.

A shift of the HIV burden from South Africa to Lesotho promotes high HIV incidences in Lesotho. Crush et al. (2010) say that as South Africa's mines become burdened with the effects of HIV prevalence, the burden, in turn, is shifted to neighbouring countries like Lesotho. Crush et al. (2010) further say that Lesotho is particularly vulnerable to South Africa's HIV burden shift, as it is economically dependent on exporting migrant miners to South Africa. The literature notes that when migrant Basotho miners become too sick to work, they return to Lesotho for care, shifting the burden of HIV care to Lesotho's already fragile health systems (Crush & Dodson, 2010; Clark et al., 2007). A shift of the HIV burden from South Africa to Lesotho, is detrimental to Lesotho's health systems.

4.6 Chapter summary and conclusion

This chapter has presented the history of migration and health between Lesotho and South Africa by discussing migration influencers and patterns during the Pre-Colonial the Colonial and the Post-Colonial periods. The chapter highlighted the major influencers of migration decisions during the Pre-Colonial period, such as civil wars, agricultural decline and famine and the dominant migration patterns at the time as being forced, circular, clustered and unregulated. During the Colonial period the chapter highlighted the drivers of migration decisions, like political upheavals and social connections, labour migration and apartheid and the impact these had on Lesotho. The migration patterns highlighted for this phase are also mostly forced and circular. Post-Colonially, the chapter highlighted migration in-flows and pattterns between Lesotho and South Africa during the apartheid period and how the migration patterns have evolved in recent times. Finally, the chapter concluded by highlighting migration and health between Lesotho and South Africa with specific reference to how epidemics evolved in South Africa's mines and the relationship this had on epidemics in Lesotho

Chapters 5, 6 and 7 will present the research findings and the discussion.

CHAPTER 5
THE RESPONSES ON THE ROLE OF STRUCTURE IN EXPANDING OR CONSTRICTING LESOTHO MIGRANT MINERS' CAPABILITIES TO PREVENT AND MANAGE HIV

5.1 Introduction

Structures and structural conditions and processes within institutions can enhance or hamper health capabilities. Structures control migrants' use of space by impinging upon their capabilities and aspirations (de Haas, 2014; Law & Widdowson, 2007). The migrants' capabilities result from their interaction with the structures (De Haas, 2014).

The capabilities approach is a human development framework involving two major concepts: functions and capabilities (see Chapter 2). Functionings refer to things a person can be and can do (Robeyns, 2006; Sen, 1990). Thus, functionings is a concept that "sees human life as a set of doings and beings" (Sen, 2005: 48). Capabilities refer to "those sufficient opportunities and freedom a person has to realise the functioning" (Sen, 2005: 43). The interaction between structures and individuals depicts the amount of freedom (achievement of capabilities) individuals have (De Haas, 2014; Sen, 2005).

Chapter 2 discussed the migration theory that acknowledged the capabilities approach as a framework to analyse migration. Research has established a relationship between the capabilities approaches, migration and healthcare (Kinghorn & Coast, 2018; Law & Widdowson, 2008; Ruger, 2006). However, biomedical and behavioural theories underpin most HIV research (Campbell & Williams, 1999). The capabilities approach provides an alternative theoretical framework to investigate the social arrangements important to Lesotho migrant miners' health, while identifying the values, opportunities, freedom and choices associated with their well-being (Kinghorn & Coast, 2018; Law & Widdowson, 2008).

Chapter 3 assessed the link between migration and health and its influences on how migrants cultivate capabilities to be healthy. Chapter 4 discussed the migration history between Lesotho and South Africa and the effect on migrants' health. Epidemics in South Africa's mines affected health outcomes in Lesotho.

This chapter analyses the role of structures (the mines and healthcare institutions) in expanding or constricting Lesotho miners' capabilities to prevent and manage HIV, using four themes: the loss of control over daily living, circular migration, policy and legislature context and the quality of HIV services. Figure 5.1 below outlines the structure for this chapter, including the themes and the research questions they address.

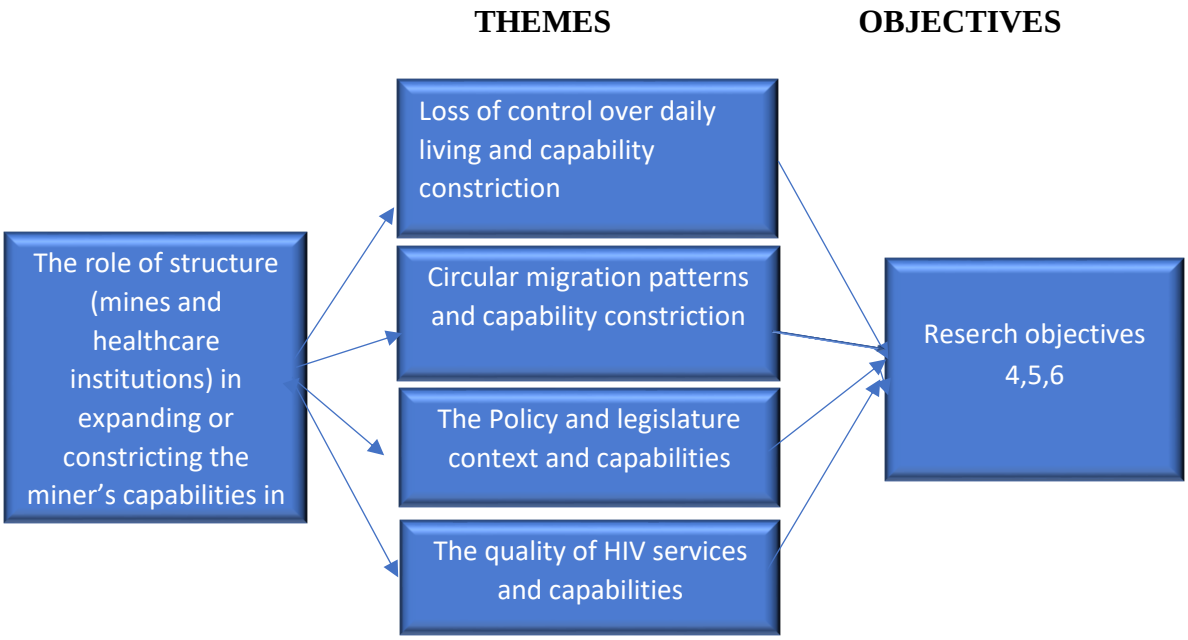

Figure 5.1: The structure for Chapter 5

5.2 The loss of control over daily living

The social context of South Africa's mines plays an important role in preventing and managing HIV. Two sub-themes describe the social context at the mines, relating to the miners' loss of control over daily living: the acceptance of commercial sex and social isolation.

5.2.1 The acceptance of commercial sex

The culture of commercial sex at the mines makes it difficult for Lesotho miners to prevent and manage HIV. The miners' engagement in commercial sex is made worse by their living separately from their wives and partners. Most respondents said that commercial sex is commonly available or normal, but they also acknowledge the risks. The respondents used phrases like, "they are marketing themselves" and "they put our lives at risk" to describe

commercial sex and the activities of sex workers. One respondent elaborated on the abundance of commercial sex in saying:

> *A lot of ladies arrive there intending to seduce men. They are marketing themselves when they go there. We don't finish, because when you have met one and feel like you now trust them, another one comes. And that puts our lives at risk, because you don't know the health condition of the next one* (R17, Q67).

The quotation highlights that commercial sex at the mines is popular and difficult to avoid. The social environment at the mines is risky and dominated by two priority populations (the mine workers and sex workers), increasing the risk of HIV transmission. Priority populations are described in the literature as "most affected by HIV and have a high ongoing HIV risk" (WHO, 2021:25). Other literature has also reported the risky social environment at the mines (Stuckler et al., 2013; Quesada et al., 2011; Crush & Dodson, 2010; Churchyard et al., 2000) (see Chapter 4). Social and physical power inbalances between men and women that contribute to women's lack of negotiation during sex and expose them to HIV, have been persistently reported in the literature (Canadian AIDS Society, 2001). However, the responses in this study suggest a reversed unequal power relation that sees female sex workers dominating male miners, making them helpless and submissive to commercial sex and losing control over their sex lives. This is a new way of looking at the miners' risky sexual behaviours that appear to have not been reported in earlier literature. Earlier studies concentrated on macho male sexuality as a dominant factor and a driver for South Africa's miners' engagement in commercial sex (Quesada et al., 2011; Crush & Dodson, 2010; Churchyard et al., 2000) (see also Chapter 4). The social environment at the mines is risky and makes it difficult for the miners to prevent and manage HIV.

The prominence of commercial sex constricts the miners' internal capabilities to prevent and manage HIV. Internal capabilities include various undefined dynamic states, like personality traits, skills, knowledge and capacities (Tengland, 2020). Most respondents expressed being overwhelmed by the commercial sex lifestyle. The respondents reported a high prevalence of unprotected sex with multiple partners (many being strangers). They used phrases like "it's confusing" and "we don't understand it" to describe their experiences. Many respondents embraced the commercial sex culture, because they wanted to 'fit in'. The evidence supports Ponthieu and Incerti's (2016) theory that accepting commercial sex and risky sexual behaviours, is common among migrants (see Chapter 3). It also supports the literature on South African mines and HIV that associates a high prevalence of HIV with the miners' risky sexual

behaviours (Stuckler et al., 2013; Bygrave et al., 2010; Crush et al., 2005; Maloka, 1997) (see Chapter 4). The social environment at the mines that accepts commercial sex makes it difficult for the miners to prevent and manage HIV.

Despite some respondents saying that they lost control and their values, the respondents also enjoyed the change of scenery. A common comment that "what happens at the mines, stays at the mines" shows that they can do as they wish, but can revert to their traditional values when required. There is also no need to tell their partners when they get home.

Accepting commercial sex as part of a lifestyle at the mines is a social constraint limiting the miners' capabilities to avoid risky behaviours. The portrayal of the miners as helpless victims of commercial sex, deviates from the common notion that men are fearless and dominate against all odds. The evidence shows that the miners' have deficient internal personal capabilities and external capabilities, restricted by the social environment that inhibits their combined capabilities to be dominant and to avoid risky sexual behaviours. Combined capabilities are derived from the harmony between an individual's external environment and internal characteristics, like talents, skills, character traits and abilities (Robeyns, 2017). In this case, there seems to be disharmony between the miners' external environment (that accepts commercial sex) and their internal judgement of risky behaviours.

5.2.2 Social isolation

Some respondents think that the risky social environment at the mines forces them to isolate themselves socially. Parkhurst (2012) reports that social isolation can be found in concert with practices that conflict with peoples' social values. The respondents said that they fear "catching HIV" and therefore isolate themselves from fellow miners for fear of being drawn into risky behaviours that would expose them to HIV. However, the respondents acknowledged that the isolation obscures their access to HIV knowledge from fellow miners. They often used phrases like, "it is not easy to approach other men after isolating ourselves from them" and "we experience difficulties" to socialise with others. One respondent said:

> *As a man, it is not easy to approach other men and be with them all the time. Because you may find that when excluding yourself from them as a male person…. when isolating yourself from other men, when you have difficulties as a man, it is not easy for them to come to you, because they say you are isolating yourself. So, you may find yourself together, having a nice chat*

> *together as males. And your meeting as men… there is no such time when you will find that you advise one another as men* (R35, Q47).

Self-isolation can limit access to informal HIV prevention and management resources, like HIV information and knowledge. However, the informal HIV information acquired from fellow miners might not be accurate. Yet, self-isolation obscures even the acquisition of accurate information and social support from fellow miners. Also, self-isolation can create negative mental states, like uneasiness and difficulties expressing oneself. Social isolation obscures the miners' engagement with fellow miners and their acquisition of informal HIV knowledge and social support from fellow miners.

The respondents described HIV as "bothersome" and "frightening", forcing them into self-isolation. The respondents mentioned that the miners find solace in isolating themselves individually and as groups to deal with their worries and the fear of HIV. The miners said, "we isolate ourselves from others, referring to ourselves as Basotho". One respondent said:

> *As Basotho, AIDS has been bothering us so much that we no longer want to date other people…. to cheat on our wives* (R21, Q99).

The quotation highlights a mineworker being troubled by AIDS. This is in contrast to earlier studies (Klein et al., 2015; Crush et al., 2005) that reported that Lesotho migrant miners were not afraid of HIV. However, these earlier findings rest on an unquestionable assumption that disregards the miners' inner fears about HIV. Worry and fear of HIV can lead to social isolation.

For the miners, self-isolation is both a functioning and a social constraint to their mobilisation of personal and social conversion factors to deal with HIV. The respondents have a perception that self-isolation constricts the miners' acquisition of informal HIV knowledge from other miners. This perception suggests constrained personal and social conversion factors, restricting the miners' acquisition of HIV knowledge from fellow miners and socializing with them. Social constraints and functionings constrict the miners' access to HIV care resources. Similarly, the miners' social conversion factors appear to be constricted by their lack of capability to affiliate with others, a capability in Nussbaum's list of capabilities that could enable the miners to acquire more HIV knowledge and advice from fellow miners. However, these perceptions do not consider other HIV knowledge capability inputs, like the HIV services. Also, fellow miners might not want to talk about HIV, due to stigma attached to it. But social isolation creates a social constraint, even to those miners who might want to talk about HIV.

5.3 Circular migration patterns and capability constriction

Two sub-themes describe the respondents' perceptions of circular migration patterns as either expanding or constricting their capabilities: migration decision-making and means of migration.

5.3.1 Migration decision-making

Historically, migrants lacked the choice in making migration decisions (see Chapter 4). Many respondents said that their work contracts and schedules determined their migrations patterns. They did not have the choice to go home, even if they were off duty. However, circular migration patterns have increased over the years. The following respondents elaborated on their initial lack of control over their migration decisions:

> *You spend the first four months working before signing the contract. So, after signing the contract, you can take a leave of the length you desire* (R9, Q45).
>
> *I didn't come home for a long time, because I was still new to the job..... I came when I got my first leave* (R9, Q43).
>
> *Ah! I did not come often. I came home maybe after four months or five months. It is impossible to come home every month for different reasons* (R13. Q25).

The quotations reflect a lack of migration decision-making and a lack of options. The responses resonate with the original pass systems at South Africa's mines that diminished the miners' choices, regarding migration decision-making (see Chapter 4).

Long-term repetitive migration patterns increase the miners' chances of acquiring HIV. Despite the migration unfreedom above, many respondents mentioned that they had been engaged in long-term repetitive circular migrations after their initial service contract. The proximity of the Free State mines to the miners' homes in Lesotho drives their circular migrations. However, their repetitive travel is risky, as travel on South Africa-Lesotho roads is considered a high risk for sexual HIV transmission (Ponthieu & Incerti, 2016). Distance plays a significant role in repetitive migration patterns (see Chapter 2) that expose the miners to HIV. Cuomo et al. (2019) report that repetitive travel heightens HIV exposure through the repetitive potential for casual sex and the growth of sexual networks. Repetitive migration is an important determinant of sexual HIV transmission and has been highlighted in the literature (Ponthieu & Incerti, 2016; Crush et al., 2013; Malmusi, 2010; Crush et al., 2005) (see Chapter 3). A high prevalence of

HIV in Southern Africa is linked to high mobility (Palk & Blower, 2015; Davies et al., 2011) (see Chapter 3). Long-term repetitive migration patterns expose the miners to HIV.

The miners' living arrangements and migration unfreedom expose them to HIV. For example, many respondents felt that living away from their wives forced them to engage in risky sexual behaviours, like cheating on their wives.

> *My wife only visits….sometimes you find that there is a person you are familiar with who comes from Lesotho…..You may find that, you are not even friends, but you know each other because you come from the same country….When you meet, you will have normal conversation and end up being in a relationship secretly, due to the fact that your wife is far from there. It happens unexpectedly, it is not what I planned, it's just that my wife is far away* (R13, Q22-23).

The quotation re-inforces the notion that the miners' living away from their wives and partners contributes to risky sexual behaviour. The responses resonate with the wider literature that notes that the high burden of HIV at South Africa's mines, is a consequence of the miners' prolonged absence from their families (Cuomo et al., 2019; Crush et al., 2005) (see Chapters 1 and 4). The responses show that structural constraints, like adverse living arrangements that break up the miners' social connections with their families, inhibit choice and incite risky sexual behaviours. Also, this finding supports the literature that the major driver of HIV in South Africa's mines is families' separation (Stuckler et al., 2013; Bygrave et al., 2010; Crush et al., 2005; Maloka, 1997) (see Chapter 4).

Contrary to the migration unfreedom and adverse living arrangements at the mines, some respondents preferred the migration unfreedom over staying jobless in Lesotho. This shows desperation and lack of freedom and choice, created by two opposing choices. Often structures hinder migrants' manoeuvre space within which they make choices, resulting in desperation (De Haas 2014) (see Chapter 2).

The miners' past migration unfreedom have also increased the mobility of their' wives and partners. The respondents said that even though they are often not "free" to socialise, they receive frequent visits from their wives or partners.

> *My wife stays back here at home, but she visits from time to time, because the mine has an accommodation facility for visiting spouses* (R7, Q14).

> *But when she needs me, when she needs us to meet.....She travels and visits me for two days and return home* (R33, Q71).

The quotations highlight the miners' wives' increased mobility. The circular migration by the wives contributes to high levels of sexual HIV transmission (Palk & Blower, 2015; Davies et al., 2011) (see Chapter 3). Women migrants have a heightened risk for sexual violence (Pannetier et al., 2017) and accruement of multiple sexual partners during travel (Pannetier et al., 2017; Stuckler et al., 2013). Although Ponthieu and Incerti (2016) found it was men, rather than women from Lesotho, who have a high risk of HIV infection when travelling, women are more exposed to sexual violence (Pannetier et al., 2017). Amon and Todrys (2009) report that healthcare workers' respond poorly to cases of rape concerning undocumented migrants at South Africa's public health facilities, as they tend to call the police before giving Post-exposure Prophylaxis (PEP) against HIV infection. The miners' wives' high mobility exposes them to HIV and fuels onward sexual HIV transmissions.

5.3.2 The means of circular migrations

Public transport reduces the miners' capabilities to prevent and manage HIV. Most respondents said they depend on public transport. For instance, one respondent mentioned that he and his fellow miners and friends have shifted from using a "steam engine" to taxis, buses and lift clubs. However, public transport is risky. The respondents mentioned that sex workers follow them everywhere. They used expressions like, "These sex workers are everywhere" and "Many things happen there [during travel], which include sex workers". This aligns with earlier responses that suggest that sex workers sexually dominate the miners, making them helpless and unable to avoid risky sexual behaviours that expose them to HIV. Below, the respondents reflected on the dangers of public transport:

> *Most of the time, you find that some men like playing cards at the bus stop. Many things happen there, including sex workers* (R39, Q89).

> *Most of the time, they [the sex-workers] fight, because you find that I come home when I'm on leave...They also have to come home with me…. I tell her when the leave is about to end…. She leaves first…. Sometimes you find we sleepover in Maseru before leaving* (R24, Q203-213).

The quotes show how public transport fosters sexual HIV transmission through repetitive encounters with sex workers. While public transport widens the miners' choices from using only company buses or trains, it also increases their chances of HIV infection. These findings support the literature that for Lesotho male migrants, the chances of having multiple sex partners while travelling, are high (Ponthieu & Incerti, 2016; Palk & Blower, 2015). Palk and

Blower (2015) report that Lesotho male migrants are more likely to pay for sex while travelling. Sex workers dominate the miners' public transport environment and when coupled with the miners' inability to avoid risky sexual behavior, increases the risk of sexual HIV transmission for Lesotho migrant miners.

The historical migration unfreedom, particularly at the initial stages of the miners' contracts, meant a lack of freedom, choice and the capability for return migrations to Lesotho. Specific functionings related to the miners' migration unfreedom support high exposure to HIV: alcoholism, engagement in risky sex with multiple partners (in which many are strangers) and engagement in transactional sex. Similarly, the miners' wives' functionings, like their repetitive circular migrations, compensating for their husbands not visiting home, heighten their HIV exposure through their inherent potential to encounter sexual violence and sexual networking during travel.

Public transport affords the miners freedom and choices they would otherwise not have when using only the mines' bus services. However, public transport reduces the miners' capabilities to prevent HIV through the increased opportunities for functionings that support HIV transmission, like increased encounters with sex workers and casual sex with strangers.

5.4 The policy and legislature context and capabilities

This theme describes the respondents' perceptions of the policy and legislation at the mines and in Lesotho. The theme links to objective five, which investigates how the legislative environment in Lesotho and South Africa provides opportunities for migrant miners to access HIV services. The respondents identified dual characteristics that expand or restrict their capabilities.

5.4.1 Capability expansion

A high prevalence of HIV persists in South Africa's mines (United Nations Report, 2019; Crush et al., 2013; Clarke et al., 2007; Crush et al., 2005). Most respondents believed that the existing HIV prevention and management procedures at the mines increase their opportunities to be healthy. Mines have standard procedures and medical tests. The mines also provide

Personal Protective Equipment (PPE), regular HIV workshops and access to medical care. Some respondents stated:

> *The health services were fine when I first arrived. We attended regular health test sessions [at the mines] to ensure that our health condition was right* (R2, Q10).
>
> *We are taken to hospitals and we are able to see doctors as many times as possible* (R28, Q19).
>
> *In South Africa, the condoms are available. Most of the time when comparing with here at home...* (R31, Q105).

The quotation highlights the mines' efforts to ensure that the miners' are healthy. The mines also provide healthcare and PPE to assist the miners in preventing and managing HIV. The evidence shows that HIV resources that support the miners' good health, exist at the mines. However, the rising levels of HIV among Lesotho migrant miners indicate that the existing HIV strategies may be ineffective. This finding resonates with the wider literature on the ineffectiveness of educational campaigns, condom distribution and syndromic STIs management at South Africa's mines (Quesada et al., 2011; Crush & Dodson, 2010; Churchyard et al., 2000).

The respondents felt that access to HIV services at the mines and in Lesotho is transparent and the guidelines for HIV testing and access to ARVs are clear. Most respondents spoke about "being aware" of HIV care access procedures and "knowing which steps to take should they need HIV services". Some respondents indicated they had accessed HIV care in Lesotho and South Africa. While the miners access HIV care at the mines' health facilities, some prefer the public hospitals in South Africa, as they perceive them to offer more privacy, as nobody knows them. The transparent, unambiguous HIV access procedures at the mines and in Lesotho resonate with WHO's recommendations for a public health approach to HIV prevention, testing, treatment and service delivery (WHO, 2021). The transparent systems align with international standards and promote migrants' agency, choices, autonomy and positive HIV care-seeking behaviour. However, the literature points to migrants experiencing difficulties accessing healthcare in South Africa, even where policy enables it (Wickramage, 2018; Veary et al., 2016) (see Chapters 3 and 4). Veary et al. (2016) argues that the way the frontline staff at health facilities, like the security, receptionists and data clerks interact with migrants, drives their difficulties in accessing healthcare in South Africa. However, these difficulties are not the

result of unclear policies, but the lack of satisfactory policy implementation. Unambiguous HIV access protocols promote agency and choice at the mines and in Lesotho.

The respondents were positive about the HIV testing policies in Lesotho. The respondents indicated that the legislative environment surrounding HIV self-testing in Lesotho gives one a choice to obtain the HIV self-test package, self-test, and call back if the test is positive. The self-testing approach in Lesotho resonates with the WHO's HIV care community models. The responses show freedom, respect for privacy and promotion of agency. HIV self-testing policies in Lesotho promote agency.

Transparent systems expand the miners' freedom, choice, aspirations and agency and foster their capability to access healthcare. In the capabilities approach, transparency is linked to freedom, aspirations, choice and agency (De Haas, 2014). Transparent HIV access protocols foster the miners' achievement of Nussbaum's capabilities to be healthy (fostered by the miners' capability to access HIV care) and the capability for imagination, thinking, practical reasoning and reflecting on life choices. The clear HIV access procedures also reflect two instrumental freedoms listed by Sen: social opportunities and transparency guarantees (see Chapter 2). Transparency is a transformative capability linked to accountability (Ciplet, Adams, Weikmans & Roberts, 2018). Sen (2005) says that when an individual is free to choose particular levels of functioning, it denotes freedom and, in essence, an achievement of capabilities. However, these capability inputs appear ineffective, given the rising prevalence of HIV amongst Lesotho migrant miners.

Overall, the responses show the miners' capability expansion through capability inputs by health institutions, like availing opportunities and resources that facilitate freedom, agency and the capability to access HIV resources. Despite the respondents' earlier view that self-isolation deny them HIV education from fellow miners, regular workshops at the mines foster their HIV knowledge and information as capability inputs and conversion factors that expand their agency and the capability to access healthcare and to be healthy. However, research has shown that knowledge alone does not necessarily lead to a change in behaviour (Wilcork, 2004) as demonstrated by the rising prevalence of HIV amongst Lesotho miners.

5.4.2 Capability constriction

There were also examples where policy and implementation constricted capabilities. The examples included the general mining environment policies, healthcare workers' attitudes and policy implementation and the mines' housing policies.

5.4.2.1 The general mining environment policies

Past disease control policies at the mines were harsh and disease-centred, restricting the miners' opportunities to develop agency and be healthy. A disease-centred approach is a bio-medical approach that focuses solely on diseases without considering their context (the socio-economic and physical environments) (Sturmberg, 2013). The literature notes poor responses to communicable diseases at the mines (Coovadia et al., 2009). Some respondents experienced the mines' harsh and coercive past disease control system. One respondent spoke about past harsh disease surveillance to prevent sexually transmitted infections (STIs). The respondent spoke about the miners getting a "red tab" on their medical booklets if diagnosed with an STI. However, the respondent spoke in the past tense, showing that the current reality differs. This is how the respondent elaborated on the past measures:

> *If one were to catch one of the common sexually transmitted illnesses like gonorrhoea or syphilis, they would have to go through rigorous inquiry by the health authorities to establish where one got infected. One got a red tab in their medical book to inform the authorities that one had a record of such infection. The label in one's medical booklet would then read: 'ACCIDENT WITHOUT COMPANY'* (R4, Q11).

The quotation reflects a past harsh disease-centred approach by the mines. The disease-centred approach contradicts the people-centred approach to healthcare, recommended by WHO that emphasises the needs, preferences and expectations of people and communities, including individual dignity and respect (WHO, 2021).

The WHO "treat all" recommendation for people newly diagnosed with HIV, is to initiate rapid ART. This includes same-day ART initiation if there are no clinical contraindications. Many respondents said that access to initial ART at the mines is difficult and restrictive for foreign nationals. The respondents phrased entry into the ART programme at the mines as 'not easy', "not being able to collect ARVs", and without a referral letter, "being send back home to initiate ART". Migrant health policies in host countries are often anti-migrant (Wickramage, 2018;

Veary et al., 2016) (see also Chapter 3) and revolve around complicated administrative processes (Borharde et al., 2016; Fleischman et al., 2015; Ku & Jewers, 2013) (see also Chapter 4). Many respondents believed that being diagnosed with HIV in South Africa is a barrier to timeous enrollment into ART. One respondent elaborated on the hardships of accessing ART in South Africa:

> *So, my colleague had to spend some days without his medication. They got them here in Lesotho and then sent them to him by couriers* (R12, Q92).

The quotation highlights the miners' hardships when accessing ART at the mines. The responses contrast with earlier perceptions by the respondents that HIV resources are easily accessible at the mines. However, even after being diagnosed with HIV at the mines, enrollment in rapid ART is not easy. The miners have to go home to initiate ART and bring a cross-border referral letter before they can access ARVs at the mines. The evidence shows difficult access to initial ART at the mines that do not align with international best practices like the WHO recommendations, regarding rapid access to ART.

Work commitments at the mines, driven by mine policies, restrict migration freedom, reducing the miners' capability to access HIV care in Lesotho. Some respondents believed that work commitments at the mines are often prioritised over the miners' healthcare needs. One respondent said that Lesotho miners engage in regular, circular migrations to (amongst other things) re-fill their ARVs in Lesotho. However, the respondent indicated that it is not always possible to go to Lesotho, because of work commitments. Other respondents felt that often, their health needs, like going to see a doctor or going for medical "check-ups", are not considered by the mines. One respondent articulated the historic service prioritisation over the miners' health below.

> *When I first entered the mines, one could not come home as often, due to the contract we worked on. One could only come home as the contract dictated; meaning one could only come home after two months or six months* (R7, Q18).

> *But I know one, whereby a person is not able to come home; therefore, they do not collect their ARVs anymore. That is one challenge that I have observed that….. when a person stops coming home, he also stops using the ARVs* (R10, Q127).

> *It is still possible to ask someone to get them for you in Lesotho. Sometimes you find that a person is very sick.....* (R13, Q192).

The quotations should be understood in the context of the miners accessing ART and other HIV services in Lesotho and the health implications of migration unfreedom on them. The quotations highlight migration unfreedom, stemming from structural constraints like mine policies that restrict migration. However, there appears to be more migration freedom currently. But then, migration freedom depends on the miners' off-duties rather than their need to access HIV care. The responses show that work priorities at the mines drive migration unfreedom for the miners, culminating in non-adherence to ART, potential poor health, psychological stress and premature death from AIDS. This finding resonates with the literature that many Lesotho migrants have defaulted from ART while in South Africa, consequently encountering poor health outcomes (Faturiyele et. al., 2018; Klein et al., 2015).

5.4.2.2 Healthcare workers' attitudes and policy implementation

For migrants, the policy environment is also clouded by healthcare workers' attitudes that deny migrants basic healthcare entitlements. Most respondents believed that healthcare workers at the mines have a negative attitude towards foreign nationals, making their access to initial ART worse. The following quotes provide an overview:

> *There are still problems on the South African side, due to attitudes. Foreigners are still viewed condescendingly, perhaps due to the previous regimes or just that people are tribal in their minds* (R4, Q68).

> *So, my colleague was told that he should come home and start the treatment here at home. I don't know about others. He was told to start treatment here at home, since he's a Mosotho. He was told that he would go to work with a transfer. He was told that a transfer would be written so that he should have his transfer document to continue his treatment* (R9, Q179).

The quotes show the difficulties when accessing ART at the mines. The quotes highlight health workers' obstruction of migrants' basic healthcare entitlements, as stipulated by South Africa's Constitution. The evidence shows a lack of fair opportunity between local and migrant miners. Sen (2009) defines fair equality of opportunity as non-discrimination and equality between groups. This finding links to the literature in Chapters 3 and 4, noting that health providers bar healthcare access for migrants, even where the guidelines are clear (Veary et al., 2016). However, other literature notes that healthcare workers are torn between migrant health policies that grant migrants basic healthcare entitlements and migration policies that deny them (Wickramage et al., 2018; Veary et al., 2016). The literature points to migrant abuse by

healthcare workers in South Africa, disregarding existing policy guidelines (Wickramage et al., 2018; Gushulak & MacPherson, 2009) (see Chapter 3). Also, healthcare workers might be unaware of existing migrant health policies (Amon & Todrys, 2009). The literature further points to a persistent lack of will by the host health system to shoulder migrants' disease burdens (Wickramage et al., 2018; Gushulak & MacPherson, 2009) (see Chapter 3). The evidence show that healthcare workers' negative attitudes towards migrants (driven by bias, policies or lack of policies' awareness), distort the implementation of migrant health policies and bar migrants from accessing basic healthcare. The consequences can be dire. It can lead to migrants abandoning ARVs, thus not achieving the capability to avoid morbidity or premature death. The "capability to avoid premature death" and "the capability to avoid escapable morbidity" are identified by Ruger (2006: 408) as important capabilities that should be valued and prioritised in health services (see Chapter 3). Healthcare workers' negative attitudes towards migrants obscure migrants' health policies, contributing to migrants' capability constriction. A gap exists between South Africa's migrants' inclusive health policies and their implementatation (Masebo, 2019; Wickramage et al., 2018; Veary et al., 2016; Amon & Todrys, 2009). Migrants' rights to ART should be respected through synchronization of migrants health policies and immigration policies.

5.4.2.3 Mining housing policies

Mine housing policies do not adequately cover the miners' accommodation problems, fostering living spaces that reduce their capability to prevent HIV. Many respondents felt their living conditions at the mines were inadequate and motivated risky sexual behaviours. Most of the housing at the mines is not conducive for family living, separating the miners from their wives or partners and inciting risky sexual behaviours. Other literature pointed to inadequate living conditions at the mines (Pelders & Nelson, 2019; Marais & Venter, 2006). Many respondents said that while the mines provide family accommodation, it is inadequate, and many resort to "outside" accommodation. However, the "outside" accommodation has problems. The respondents spoke about sharing accommodation and that they could not bring their wives or girlfriends to live with them, because of a lack of privacy. Inadequate family living and lack of privacy drive the miners into the inner city (brothels and bars), where risky sex behaviours are rife. One respondent said:

> *In that room I am staying in, we are eight because it is a big room divided using wardrobes. We are staying in one room, which is divided using those wardrobes. The other is on this side when I am on that side* (R14, Q68).

The quotation highlights inadequate, overcrowded living spaces that lack privacy and are unsuitable for family living. Inadequate access to decent housing for migrants is widespread (United Nations Economic and Social Council, 2017). Mine policies do not adequately provide for the miners' accommodation needs, resulting in inadequate living spaces that incite risky sexual behaviours.

There are many other repercussions of the deficient mine housing policies that drive the miners' exposure to HIV. The respondents mentioned that when living away from their families, they experience loneliness and worry. These factors drive them into alcoholism and risky sexual behaviours. The miners often worry about their wives cheating on them in their absence and often turn to alcohol and sex with multiple partners to numb the stress. Alcoholism has been been linked to HIV transmissions and non-adherence to ART in other literature (Axelsson, Hallager & Barfod, 2015; Hann & Querques, 2015. Two respondents spoke about the difficulties of living away from family:

> *The other thing which increases stress is when you ask favour from your colleagues to take the money and other things to your wife and children…. You may find that, the other man, when delivering the parcel, they end up secretly having an affair with your wife, he cannot tell me, because he knows that I will be angry with him* (R13. Q101).

> *Some people find their wives with children they didn't father when they arrive home. For example, you find your wife pregnant (maybe two months pregnant), but when it's time for labour, she doesn't go into labour, which is proof that she got pregnant after you left* (R9, Q53).

The quotations highlight the residual problems of inadequate housing policies at the mines that ignite risky sexual behaviours. The quotations also highlight an enlarged potential chain of HIV infection within the miners' households. The responses resonate with the wider literature that the inadequate provision by South Africa's mines for the miners to be accompanied by their families drives sexual HIV transmissions through infidelity (Crush et al., 2005; Maloka, 1997) (see also Chapter 4).

Linking to the capability literature, the mine policies and laws restrict the miners' negative and positive freedom, agency and choice. Migration is a meta-capability that fosters the miners' capabilities to access ART and be healthy. The mine policies create migration unfreedom,

constricting the miners' capabilities to access ART in Lesotho, thus constricting their positive and negative freedom. Restricting the freedom can substantially constrict agency and choice (De Haas, 2014; Sen, 2005) (see Chapters 2, 3 and 4). Separation of the miners' families creates unfreedom that disables their internal capabilities to protect themselves from HIV. While the miners can seek accommodation outside the mines' residences, their reduced functionings, driven by inadequate living spaces, persist, culminating into alcoholism and risky sexual behaviours that expose them to HIV.

Historically, coercive and harsh disease control measures disregarded the miners' human rights and limit their freedom, functionings and agency. Lack of respect for migrants' human rights impedes their functionings, agency, and human development (Preibisch et al., 2016); see also Chapters 2, 3 and 4). Currently, the mines' policies reduce the miners' capabilities to access initial ART, to adhere to ART, to equality of opportunity and lack of choice.

The miners' overarching capabilities restricted by the policy environment, are migration freedom, adequate housing, and access to initial ART, a capability Robeyns (2017: 95) would refer to as "key to capturing well-being". These findings support the wider literature that notes a need to re-orientate migrants' health policies to meet their healthcare demands in host countries (Suphanchaimat et al., 2015) (see Chapters 3 and 4).

The overarching capabilities, cultivated by policy and law at the mines and in Lesotho, are the creation of opportunities that pave the way for the miners' capabilities to access HIV resources and be healthy. The overarching capabilities restricted by the policy and legislature, are migration freedom, the capability to live with family, the capability to avoid risky sexual behaviours, the capability to access healthcare, freedom and choice and the capability to be healthy. Often, the miners' capabilities to take charge of their lives and prevent premature death from AIDS and what Sen calls "live the life one has reason to value" (Sen, 2005: 43), are constrained by policies and laws.

5.5 The quality of HIV services in South Africa and Lesotho

This theme describes the respondents' perceptions of the quality of HIV services at the mines and in Lesotho. This theme links to research objectives three and five, which explored the miners' opportunities and choices to prevent and manage HIV through the available programmes. The theme also links to research objective six, which investigated the

effectiveness of the existing strategies in cultivating Lesotho migrant miners' capabilities to prevent and manage HIV and how the outcomes might translate into broader health impacts.

5.5.1 High-quality health services

Most respondents viewed health services at the mines as exceptionally high in quality. Many respondents indicated that there are high healthcare standards at the mines that are relevant to their healthcare needs. Many respondents have obtained high-quality healthcare that restored their health. These reflections support the notion that South Africa's mines provide quality healthcare for their employees, with their health facilities ranking amongst the best in Africa (Harington et al., 2004; Campbell & Williams, 1999) (see Chapters 1 and 4). Despite difficulties in accessing ART, the mines provide a high quality service that supports the miners' agency and good health.

Opinions were divided about the quality of health services in Lesotho, but the majority said the quality of health services is poor. Respondents had a common concern that there is a lack of quality HIV care in Lesotho. One respondent said that people seeking HIV care in Lesotho might be getting less than is medically possible, as healthcare workers seem to take HIV lightly. The evidence resonates with the literature that there is very little written research about HIV in Lesotho, compared to other SADC countries (Faturiyele, et. al., 2018), suggesting inadequate scientific activity.

On the other hand, some respondents felt that HIV services in Lesotho are of high quality and support good adherence to ART. Additionally, the respondents said that the ARVs obtained from Lesotho are more effective than those available at the mines, with little to no side effects. In reality, ART drug combinations are different in Lesotho and South Africa, even though they both work towards the same goal of suppressing HIV. One respondent stated:

> *I can say Lesotho has achieved something...Based on how optimistic people are when they collect their pills….* (R30, Q372).

The quotation highlights the respondents' association of good adherence to ART with high quality of service in Lesotho. The responses show mixed opinions, with the majority attesting to poor health services in Lesotho and only a few referring to high-quality health services. The responses show that the miners' conception of good quality healthcare is based on availability

and easy access to resources. The responses were divided on the quality of healthcare in Lesotho.

5.5.2 Common factors associated with high-quality service at the mines and in Lesotho

Despite the mixed opinions, the respondents identified common elements they associate with a high-quality service at the mines and in Lesotho: coordinated services, commitment to HIV education and the integration of HIV services to other essential health services.

Most respondents believed that HIV care services at the mines and in Lesotho are responsive. This is despite the concerns by many respondents that HIV services are slow in Lesotho. The respondents often said that they experience seamless HIV care in both settings. The respondents said that Lesotho migrant miners are mostly "up-to-date" with their HIV check-ups and schedules. HIV care choices at HIV facilities in Lesotho help miners honour their check-ups and consultancy schedules. Many respondents said they are often "given full consideration as migrant miners" when accessing HIV care in Lesotho. For instance, one respondent said their check-up dates in Lesotho are often synchronised with their "off duties" in South Africa. Some respondents referred to this as a "well-oiled" system. The responses contradict the literature that notes a high incidence of migrants who are "lost to follow-up" by HIV services in Lesotho (Faturiyele, et.al., 2018; Palk & Blower, 2015). However, this is generalised literature on Lesotho migrants in South Africa that is not specific to migrant miners. HIV services in Lesotho and at the mines are coordinated and responsive to the miners' needs, facilitating the miners' efforts to prevent and manage HIV.

In both settings, there is a commitment to HIV education. Most respondents referred to the many educational campaigns at the mines and in Lesotho. The respondents added that HIV had become common knowledge. Supporting this notion, many respondents expressed sufficient general HIV knowledge during the interviews. The respondents used sentiments like "everyone knows how AIDS is transmitted" (giving me a correct account of how HIV is transmitted) and "things that lead to the spread of HIV are those related to lack of knowledge". The reflections show that HIV education is prioritised. However, many respondents felt there is still room for broader, more nuanced HIV knowledge. HIV education effectively cultivates the miners' prevention and management of HIV. This finding contradicts the broader literature that HIV education is ineffective in helping miners prevent and manage HIV (Quesada et al., 2011; Crush & Dodson, 2010; Churchyard et al., 2000) (see Chapters 3 and 4). However, if sustained,

HIV education can have positive health outcomes (Mabsout, 2011). The health services at the mines and in Lesotho are committed to providing the miners with resourceful services that build their agency and capabilities to prevent and manage HIV.

The respondents felt that integrating HIV services with other health services at the mines and in Lesotho improves the quality of HIV services and agencies. One respondent said that the integration makes it easy to seek healthcare. Another respondent articulated the integration of services:

> *The one I went to had facilities that accommodated my pregnant spouse and I had to accompany her there, because of the common need for spouses to do the HIV test together* (R2, Q52).

The quotation highlights that the integration of health motivates agency. The services do not single out a specific service, but offer various services that address various health issues per visit, preventing multiple visits for different health issues. The integration of HIV services into other health services is effective in fostering agency, responsiveness and cost-effectiveness.

5.5.3 Mixed views about the quality of service

Despite many respondents saying there is a low quality of services in Lesotho, many regarded the friendliness of healthcare workers as a sign of high-quality service that fosters agency. The respondents said that healthcare workers in Lesotho have a friendly demeanour and tend to pair service with psychological care. Lesotho healthcare workers include health education, learning materials and psychological upliftment when giving HIV care. Their friendly demeanour is extended to everyone, regardless of who they are, fostering agency. This approach resonates with the WHO recommendations for HIV prevention, testing, treatment, service delivery and monitoring (WHO, 2021).

Additionally, the respondents expressed that the friendliness of healthcare workers makes them not afraid to seek HIV services. Many said they have tested for HIV without fear and now know their HIV status, because of the friendliness of health services in Lesotho. Many respondents said Lesotho's friendly services make the miners not afraid to seek HIV care. Another respondent said the friendly services motivate them to honour their medical check-ups and collect their ARVs on time. One respondent stated:

> *Here at home, I've realised that they give us without complications even though people are different. You can find a different person from the one you got before. You can find that the one*

> *you got before is very friendly despite your condition. Sometimes they give us words of wisdom to cheer us up so that we can gladly use our medication, because they are Basotho children and they understand the situation I'm in* (R9, Q277).

The quotation highlights considerate, friendly healthcare worker attitudes and a general practice of soft skills by healthcare workers in Lesotho. Friendly services motivate agency and adherence to ART and are a sign of good quality service.

Despite the high quality of health services at the mines, the respondents raised concerns that even though the healthcare workers at the mines' are efficient, they experience them as "cold" towards migrants. Respondents believe that healthcare workers at the mines treat foreign national miners differently than the locals. The respondents spoke about being afraid to ask questions or to exercise choice at the mines' health facilities. One respondent stated:

> *I think they [migrant miners] should not be undermined to the point where they feel they are sub-human. This leads to them not being free when they have to go for treatment, which means they have little in terms of choice. There is almost a xenophobic type of attitude on the South African side of the equation when it comes to dealing with HIV patients from foreign countries, because South Africa is considered a bigger power at the moment by its citizens* (R4, Q78).

The quotation highlights the unfriendliness of healthcare workers at the mines towards migrants, preventing them from freely accessing available health services, narrowing their choices and agency.

The respondents believed that having choices is an important sign of good quality service. The respondents equated choice to having an array of health services and high-performing health facilities that aid decision-making at the mines and in Lesotho. Having an array of health facilities to choose from in Lesotho and an array of health facilities to choose from at the mines, signifies non-restrictive quality health systems that provide choices. Despite earlier responses that migrants get unequal treatment when accessing healthcare in South Africa, the respondents mentioned that the mines' health facilities are easy to choose, because of their high healthcare standards. Another respondent said that healthcare services at the mines are "smarter". Hence, they are easy to choose. The choice to use a health facility should be understood from the perspective that if having health issues, Lesotho miners prefer to go to traditional healers over health facilities (as revealed during the interviews). These responses show that choosing where to go when needing healthcare is important in the respondents' perspective of a good quality

service. Health facilities' organisation that allows for choice is an important indicator of a high-quality service.

Although not a fundamental element of good quality service, the respondents had a common feeling that slow services degrade the quality of service. Most respondents associated fast services at health facilities with a high-quality service. This opinion disregards the standard prescribed face-to-face time allocated per patient consultations at health facilities and the fact that rushed services may deliver a substandard service. However, faster services might appear attractive to the miners, as they have work commitments to return to. Many respondents mentioned that HIV services at the mines are faster than those in Lesotho (only a few respondents said that the services in Lesotho are quick), equating the fastness with a good quality service. Most respondents felt that HIV services in Lesotho are too slow, worsening the quality of service. The respondents phrased slow services as, *"spending the whole day standing in a line" and "arriving at around 5 am... until 10 am and the doctors haven't arrived".* One respondent described slow services in Lesotho:

> *Here in Lesotho, there is indeed a problem. You may find that there are long queues…Yes. In Lesotho, there are a lot of weaknesses, because someone can leave the queue and go back home if they have been standing in that line for a long time; say they arrived at 8 am. And they stand in the line until 1 pm or 2 pm. That's a weakness. And you find that this person didn't get a chance to get their pills…* (R23, Q451)

The quote highlights the slowness of services in Lesotho. Long queues disable the miners' agency and adherence to ART. The slow services reflect institutional incapacity to shoulder the HIV burden, contributing to a perceived low-quality service that denies the migrant miners basic healthcare entitlements.

Linking to the capabilities literature, the high standards of healthcare service at the mines (and to a lesser degree in Lesotho) show a high capability input by structures (HIV services), expanding the miners' agency and capabilities to seek HIV care. The capability to seek HIV care is a meta-capability that expands the capabilities to be healthy, carry out work responsibilities at the mines, and live normal lives.

The friendly healthcare services in Lesotho create a suitable external environment for the miners' internal capabilities (motivation or aspirations) and external capabilities (seeking HIV care without fear) to flourish. Friendly services also expand the miners' capabilities to access

healthcare, test for HIV and know their HIV status, honour prescribed check-ups, and adhere to ARVs.

Integrating HIV services into other health services at the mines and in Lesotho means expanded freedom and agency, which fosters the miners' capability to choose from various health services and options in one visit. This suggests the fulfilment, protection and respect of the miners' health by healthcare services, a requisite for a human rights approach to health. Exercising choice shows the existence of options and freedom agency. Robeyns (2017) argues that exercising choice is a functioning that implies the existence of options.

5.5.4 Low-quality health services

The respondents associate Lesotho's healthcare services' lack of organisation and efficiency with low-quality service. Despite earlier responses that healthcare workers in Lesotho are friendly, the respondents expressed a common concern about a general lack of efficiency in Lesotho's HIV services. There are recurring incidences of lost files, general overcrowding, and constant staff rotations. The respondents used phrases like "it's disheartening" and "I lost faith in their services" to describe the lack of organisation and efficiency. One respondent described his experience of lack of organisation at a Lesotho clinic:

> *Because I encountered a challenge whereby my file was missing. Therefore, they concluded that I was not on ARVs. But then they believed me, because I had that day's bottle of ARVs containing the last pill. It was that incident that helped me* (R11, Q393).

The quotation highlights the lack of organisation and efficiency at Lesotho's clinics. The quotation reflects power relations between patients and healthcare workers in Lesotho that work against patients and threaten their healthcare entitlements. These findings contradict the finding presented earlier in this chapter that HIV services in Lesotho are well coordinated. However, the perceived effective coordination was related to the dispensing of ARVs, not the general coordination of HIV services. The responses show a lack of organisation and capacity in Lesotho's HIV clinics. The responses also show alienation of the Lesotho HIV clinics' users, consequently fostering negative health outcomes like interruption or abandonment of ART.

Despite sentiments that the mines provide quality healthcare services, concerns were raised about the negative attitudes of healthcare workers at the mines. The respondents described healthcare workers' negative attitudes at the mines as disabling the miners to access healthcare.

The respondents felt that healthcare workers' bad attitudes reflect poor service. The miners are often ridiculed when seeking HIV services. The respondents used phrases like "they make fun of people", "they laugh", and "they are always on their phones" to describe the health workers' attitudes. The abuse of migrants by healthcare workers when seeking healthcare has been noted in other literature (Cuomo et al., 2019; Wickramage et al., 2018; Malmusi, 2010; Amon & Todrys, 2009; Elliot & Gillie, 1998) (see also Chapter 3). Some respondents referred to the mines' health services as "deteriorating". Another respondent mentioned that HIV service workers at the mines should display a positive attitude. One respondent stated:

> *Because when we first arrived (at the mines), the health workers were elderly people who understood approaching people, especially males. Right now, you find that we're served by younger people who are always on their phones. Sometimes you find that they make fun of people. There's an older man they laugh at, wondering what is wrong with him using ARVs at his age. It makes people scared of going to a hospital when sick* (R12, Q52-60).

The quotation highlights health workers' negative attitudes, consisting of ridicule, humiliation and ageism that evoke fear from HIV care service users. The evidence shows healthcare workers' unethical behaviour, lack of motivation and a disregard for providing a good service. Healthcare institutions should reinforce professional ethics in their services.

The respondents believed that health facilities at the mines and in Lesotho are paternalistic and diminish their choices. Many respondents felt that they get "half choices" as health facilities' guidelines dictate choices within which people can choose. The respondents added that the health facilities' guidelines often conflict with peoples' needs, creating a lack of choice. One respondent mentioned that his choices are often driven by healthcare workers' opinions of what is good for him, not his needs. Another respondent viewed choice as a function of health facilities' performance, including the quality of services they offer and the potential health improvement. The responses show paternalism constraining agency, including a lack of freedom and choice. These responses contradict earlier responses that choices exist at health services in Lesotho. However, the existing choices in Lesotho are not outside the realm of the existing HIV care guidelines in Lesotho. Real choices lie with the health services through their guidelines and their performance.

Linking to the capabilities approach, the lack of organisation and efficiency, and healthcare workers' negative attitudes at healthcare facilities, are capability constrictors that diminish agency and the miners' capability to access HIV services. Lesotho's inefficiently slow services

constrict the miners' freedom and agency and the ability to access and adhere to ART. The slow services also show institutional incapacity that constrains access to HIV resources, consequently obstructing capabilities to access HIV resources and capabilities to be healthy.

The overarching capabilities fostered by the high quality of healthcare for Lesotho miners are the capability to access HIV service, adhere to ART, be healthy, and have choices from various available opportunities and options. Low-quality healthcare restricts agency and the capability to access healthcare, adhere to ART, and be healthy.

5.6 Conclusion

Table 5.1 below summarises the capabilities fostered and constricted across the themes, loss of control over daily living, circular migration and capability constriction, the policy and legislature context and capability expansion, the policy and legislature context and capability constriction and the quality of HIV care and capability expansion or constriction.

Table 5.1: The summary of the capabilities expanded or constricted across the themes

Theme	Capabilities expanded	Capabilities constricted	Practical Example
Loss of control over daily living	No capabilities expanded	-Capability for to avoid risky sexual behaviour. -Lack of freedom, choice and agency -Capability to broaden HIV knowledge through access informal means. -Capability to affiliate with others. -Impediment of both their personal and social conversion factors - Constriction of agency	-Miners' engagement in commercial sex, sex with strangers and multiple ssex partners -Miners unable to avoid risky sexual behaviours that expose them to sexual HIV transmission -Miners isolate themselves from others fearing HIV. -Miners socially isolate themselves from fellow miners -Social isolation impedes the miners general knowledge of HIV, hence they are unable to use existing HIV resources -Inability to access HIV resources due to restricted knowledge about HIV
Circular migration and capability constriction	-Expansion of agency -Capability to re-fill ARVs in Lesotho.	-Capability to migrate -Capability to access initial ART in South Africa -Capability to prevent HIV due to the mining social environment, accommodation and repetitive cicular migration -Lack of freedom and choice due to lack of capability for return migration during the initial contract of service	-The miners migration unfreedom leads to finding capability-restricting functionings like alcoholism, commercial sex and sex with multile partners -The miners' abandonement of efforts to access ART, culminating into advanced HIV disease and premature death. -Miners' engagement with sex workers during travel and growingsexual networks -Engagement in risky sexual behaviours (alcoholism, commercial sex).

Theme	Capability expanded	Capability constricted	Practical Example
Policy and legislature context and capability expansion	-Opportunities to access HIV resources -Expansion of personal and social conversion factors through programmes that foster HIV knowledge leading to the capability for practical reasoning, imagination and think -Freedom, choices, aspirations and agency -Social opportunities and transparency guarantees. -Freedom to choose from a range of available opportunities (HIV resources). -Visibility of available HIV resources. -Capability to be healthy -Expansion of agency		-Baseline medical checks, HIV education, HIV testing, enrolment in ART, medical check-ups and ARVs re-fills. -Miners' access to HIV information through regular HIV campaigns and workshops that foster their use of HIV resources and PPE is widely accessible at the mines -HIV testing opportunities widely accessible, and access to PPE -Unambiguous HIV access protocols and easy access to HIV resources. -Miners have a choice of health facilities and HIV services to to choose from, making seeking HIV care, access to ART and medical support easy. -Unambiguous HIV access protocols and easy access to HIV resources. -Multiple HIV facilities with multiple effective and responsive services to choose from -Easy access to HIV resources -Miners' motivation to seek HIV and make positive changes to one's health
Policy and legislature context and capability restriction.	No capabilities expanded	-Constricted freedoms, choices, agency and violation of the miners' rights through historical harsh disease control measures -Constricted migration freedom -Constricted capability to access initial ART in South Africa and to refill ART in Lesotho	-Miners avoid seeking healthcare when needed, engagement in alcoholism, transactional sex and sex with strangers, harsh historical disease control measures -Alcoholism, engagement in commercial sex and sex with strangers. -Miners do not seek HIV care or abandon ART

		-Limited functionings due to unsuitable living arrangements at the mines created by insufficient housing policy.	-Alcoholism, engagement in commercial sex and sex with strangers.
The quality of HIV services **(high)**	-Expansion of freedom, choices and agency -Access to HIV resources. -Testing for HIV and knowing HIV status. -Adherence to ART		-Miners are keen to seek healthcare due to prospects of restoration of their health -Miners are able to make decisions regarding their health like enrolling into ART if HIV positive -Miners' enroll into ART and access ARVs -Miners become healthy by achieving viral suppression and are able to carry out work responsibilities at the mines.
The quality of HIV services **(low)**		-Constricted capability to access HIV resources -Constriction of the capabilities to be healthy	-Miners make no effort to seek HIV care or abandon ART -Lack of evidence-based HIV care in Lesotho leading to poor clinical decision-making and poor health outcomes (progression to AIDS and premature death)

Table 5.1 summarised the major themes that analysed the role of structure in expanding or constricting the miners' prevention and management of HIV. While all the themes had both the capability of expanding and constricting elements, only one theme (loss of control over daily living) did not have the capability of expanding elements. Circular migration patterns had the least capability-expanding elements, while the policy and legislature context had the most capability-expanding and constricting elements.

This chapter has analysed the role of structure in Lesotho migrant miners' development of capabilities to prevent and manage HIV. The analysis was categorised into four overarching themes: the loss of control over daily living and capability constriction, migration patterns and capability constriction, the policy and legislature context and capability expansion, the policy and the legislature context and capability constriction and the quality of health services and Lesotho miners' capabilities. When individual factors (being separated from their wives, lack of motivation and helplessness and shifting the blame to others), are coupled with the social context at the mines that accepts commercial sex, they restrict the miners' particular capabilities. These include: the capability to avoid risky sexual behaviours, the capability to affiliate with others, the capability to access HIV resources and the capability for the miners to fully take charge of their lives in matters regarding their sexuality, health and HIVstatus and to "live a life one has reason to value" (Sen, 2005:43).

The analysis has highlighted that circular migration patterns build Lesotho migrant miners' capabilities to reunite with their families through repetitive circular migrations and to access ART in Lesotho. However, structures at the mines influence their the circular migration patterns in a way that reduces their capabilities to migrate, to access HIV care in Lesotho, to live with their families, and to reunite with family during the initial service contract. Consequently, the miners engage in capability-limiting functionings like becoming alcoholics, engaging in transactional sex as compensation for migration unfreedom, not being able to live with family and being away from familiar social networks. These functionings reduce their capabilities to prevent and manage HIV. However, the miners who are beyond the initial service contract have the capability for repetitive circular migrations that reduce their capabilities to avoid risky circular behavious during travel, such as casual and transactional sex and growing sexual networks. Similarly, the miners' wives engage in repetitive circular migrations and are exposed to HIV risk through potential sexual violence and growth of sexual networks during travel, exposing them to HIV.

The policy and legislature context has elements that expand and restrict the miners' capabilities. The capability expanding elements include creating opportunities that foster the miners' capability to access HIV resources, like policies that foster baseline medical checks, access to HIV information through regular workshops, access to PPE, access to HIV testing opportunities and access to medical support through ART. The capability restricting policy and legislature context include: migration unfreedom, particularly at the early stages of the miners' careers, restrictive initial ART policies at the mines, and the living arrangements that restrict the miners from living with their wives and partners.

The chapter also highlighted the quality of healthcare at the mines and in Lesotho and the expansion and constriction of the miners' capabilities to prevent and manage HIV. Elements of high quality service, like high healthcare standards at the mines, mutual responsive coordinated services, commitment to HIV education and the integration of HIV services to other essential health services, are capability inputs that expand the miners' capabilities to seek HIV care and to access HIV resources. Elements of low quality service, like lack of organisation and efficiency, particularly in Lesotho and healthcare workers' negative attitudes at healthcare facilities, are capability constrictors that diminish the miners' agency and the capability to access HIV services.

The next chapter analyses the key conversion factors, including the personal conversion factors, the social conversion factors and the environmental conversion factors and how these help the miners to cultivate capabilities to prevent and manage HIV.

CHAPTER 6
CONVERSION FACTORS

6.1 Introduction

Conversion factors are important in creating capabilities. Conversion factors refer to the degree to which a person can transform a resource into a functioning (Robeyns, 2016: 9). The literature points to three types of conversion factors, which serve different conversion purposes based on the context: personal conversion factors, social conversion factors and environmental conversion factors.

Chapter 2 discussed the migration theory and the discussions concluded that the capabilities approach is a key framework for analysing migration. Research concurs that a relationship exists between the capabilities approaches, migration and healthcare (Kinghorn & Coast, 2018; Law & Widdowson, 2008; Ruger, 2006). However, HIV research is dominated by biomedical and behavioural theories (Campbell & Williams, 1999), ignoring the development aspects of HIV prevention and management. The capabilities approach is a preferred alternative theoretical framework to investigate the social aspects important to Lesotho migrant miners' health while identifying the values, opportunities, freedoms and choices associated with their well-being (Kinghorn & Coast, 2018; Law & Widdowson, 2008). Chapter 3 assessed the link between migration and health and its influences on how migrants cultivate capabilities to be healthy. Chapter 3 also emphasised that migration has health consequences. Chapter 4 discusses the migration history between Lesotho and South Africa and the effect on migrants' health. Epidemics in South Africa's mines affected health outcomes in Lesotho. Chapter 5 analysed the role of structures (the mines and healthcare institutions) in expanding or constricting Lesotho miners' capabilities to prevent and manage HIV, using four themes: the loss of control over daily living, circular migration, policy and legislature context and capabilities and the quality of HIV services and capabilities.

This chapter analyses the conversion factors that foster the miners' capabilities to use existing HIV resources to prevent and manage HIV, using one theme and describes the theme using three sub-themes: the personal conversion factors, the social conversion factors and the environmental conversion factors.

6.2 The conversion factors

This theme is related to research objectives one to three and describes the conversion factors for the miners and how the conversion factors foster capabilities to prevent and manage HIV.

6.2.1 The personal conversion factors

Personal conversion factors are the capability influencers that are intrinsic to a person and relate to metabolism, physical condition, sex, reading skills and intelligence (Robeyns, 2016). The interviews revealed that respondents have the capabilities to read, write, and the capabilities to use social media platforms like Google. The miners were also willing to retain and use HIV information from different platforms to prevent and manage HIV.

All the respondents could read and write. Additionally, they valued the HIV information they get from HIV educational campaigns and workshops at the mines. The respondents said they usually read materials, like pamphlets and brochures from the workshops and campaigns. They believed that the information helps them to know what to do, what to avoid and where to go to prevent and manage HIV. The miners possess the functioning to read HIV educational materials and the capability to use the information to prevent and manage HIV.

The miners' access to smartphones and their ability to use social media platforms fosters their access to HIV information. Particularly, the younger miners use social media platforms like Google. Many respondents mentioned that "googling" HIV information has become a hobby. One respondent stated:

> *So, we youngsters get into the internet and Google……looking for the things that we can do to avoid this [HIV]* (R23, Q258-260).

The quotation reflects the miners' ability to use social media platforms to gather information about HIV prevention and management. Google is popular and miners use it to search and accumulate HIV information. Google assists the miners in harnessing their abilities to acquire information about HIV and to use it to protect themselves against HIV.

Most respondents believed that the miners access HIV education and are willing to use the information to protect themselves from HIV. HIV education has become common knowledge for the miners (see Chapter 5). Also, respondents believed condom usage at the mines increases after HIV education sessions. The respondents indicated that after every HIV information

session, the free condom holders at the mines seemed to become empty quickly. Some of the responses included:

> *Yes, here at home, I know what to do, because we are provided with education about the spread of HIV* (R11, Q235).
>
> *I have seen boxes containing condoms…… They use them mostly, because I notice them being depleted even when they are still being refilled now and then* (R14, Q14, 17).
>
> *The measures I have seen are those of mine supplying people with condoms, but within no time, you find them finished…..That teaches you that they might have had an understanding [during HIV education] on how to use them* (R18, Q201,203).

The quotation reinforces the view that the miners obtain HIV information and are willing to use it. However, the prevalence of HIV among the miners shows that the miners' acquisition of HIV knowledge might not necessarily translate into a change in behaviour. There is a lot of HIV information available to the miners, but there is no decline in HIV prevalence rates among them. The quotations show that condom awareness increases after HIV education sessions. However, whether the miners use condoms during sexual intercourse is unclear, given the rising HIV prevalence rates among the miners. While the miners value HIV education and might be willing to use the acquired HIV information to protect themselves against HIV, it is unclear whether they use the acquired HIV information appropriately, given the rising prevalence of HIV among them.

Despite earlier views in Chapter 5 that the miners do not have much control over their sex lives, some respondents held that personal discipline plays a big part in the miners' ability to take precautions against HIV. The respondents felt that the miners' acceptance that HIV exists, plays a big role in sensitising them to use preventive measures against HIV. One respondent said:

> *I think personal discipline plays a large part in this instance. One has to know and acknowledge that this disease is there and therefore has to ensure that they take all the precautionary measures regarding HIV, stick to one partner and avoid multiple partners at all costs. In short, one has to practice fidelity at all times to curb the spread of the disease. Some individuals engage in unprotected sex though they know their positive status and end up infecting others* (R1, Q37).

The quotation highlights that self-discipline can strengthen the miners' resolve to use preventive measures to fight HIV.

The miners' personal conversion factors are active. Their ability to read and write fosters their capability to access HIV information through their capability to read available HIV materials. Their ability to use social media platforms, like Google fosters their capability to search and use HIV information, including the newest developments. Despite some miners losing control over their sex lives (mentioned in Chapter 5), the personal discipline still drives the miners' internal capabilities for judgement and avoidance of risky sexual behaviours.

6.2.2 The social conversion factors

Social conversion factors are the capability influencers that emanate from the society in which one lives, such as public policies, social norms, practices that unfairly discriminate, societal hierarchies, or power relations related to class, gender, race, or caste (Robeyns, 2016). The respondents noted several social conversion factors during the interviews: HIV education, including counselling, the "Test and Treat" policy, the easy availability of PPE (condoms and gloves) at the mines, clinical follow-ups by HIV services, health booklets and gender-sensitive HIV care approach at the mines). Although not mentioned often, free HIV care at the mines and partly free HIV care in Lesotho, are important social conversion factors.

6.2.2.1 HIV education and counselling

HIV education at the mines is accessible and inclusive, fostering the miners' capabilities to acquire HIV information and access HIV resources (HIV testing, ART, PrEP, PEP and condoms) to prevent and manage HIV. Many respondents described HIV education at the mines as accessible and inclusive, helping the miners to know more about HIV and to seek healthcare. The miners spoke about easy access to HIV workshops at the mines. They used expressions like "you can access the HIV workshops whether you are sick or not" to describe the inclusive nature. The miners learn about what is clinically available and how to prevent and manage HIV. Many respondents spoke about having increased HIV knowledge and awareness of existing HIV resources, like HIV testing and medical support, including the importance of regular check-ups.

Below, two respondents elaborated on the easy access and inclusivity of HIV education at the mines:

> *In South Africa, they hold workshops for us whether you're sick or not so that you can know how to take care of yourself. Yes, it is an achievement, because I've seen that there are workshops every two months* (R18, Q392).

> *We are encouraged to go for HIV testing and counselling. We are allowed to go, and test. People from the health facilities still come to give us such education and sometimes self-tests* (R8, Q38).

The quotations highlight inclusive, accessible HIV education approaches at the mines that foster the miners' increased awareness and knowledge about HIV. However, the wider literature (see Chapters 3 and 4) notes ineffective HIV educational campaigns at South Africa's mines (Quesada et al., 2011; Crush & Dodson, 2010; Churchyard et al., 2000) (see Chapters 3 and 4), suggesting that the miners' increased HIV awareness and knowledge might not be adequately assisting them in preventing HIV. However, Mabsout (2011) reports that if there is sustained health education, it can lead to positive health outcomes (see Chapter 4). The evidence shows that HIV education approaches at the mines align with international best practices that support Universal Health Coverage, a principle in the Sustainable Development Goals. The Universal Health Coverage means that people can access healthcare when and where they need it and health education is a component of health promotion, one of the pillars of Universal Health Coverage (WHO, 2019). The inclusive approach to HIV education provides real opportunities for the mines to acquire knowledge to prevent and manage HIV. However, the inclusive approach to HIV education is not necessarily differentiated. Differentiated approaches to HIV care consider the continuum of HIV prevention, care and treatment and adapt HIV care to serve people's needs (WHO, 2021). However, in the context of constant mobility, like with the miners, a differentiated approach might be difficult and HIV education might be fragmented.

Pre-test and post-test HIV counselling are valued resources and conversion factors that improve the miners' psychological health capabilities and the capabilities to seek other HIV care. However, counselling is not adequately available to all the miners. Many respondents mentioned that regular counselling and follow-up provide hope, while at the same time amplifying the opportunities and choices available to access HIV care. Counselling relieves psychological stress and assists the miners in making sense of life after an HIV-positive diagnosis, helping them to exploit existing HIV resources. One respondent stated:

> *There are those people at the mines whom we refer to their spiritual affiliation as Born-Again Christians. Some of them act as counsellors. Your collaboration with such a person relieves one from many things, like sex. It does wonders that counselling session, but the personality still stands out, especially among the alcoholics [the habits and tendencies that defy HIV precautions against HIV are common among alcoholics]* (R11, Q111).

The quotation above reinforces counselling and spiritual upliftment as valued resources and social conversion factors that foster a positive perspective of life after an HIV-positive diagnosis. However, other responses suggested that HIV counselling is not commonly available. Some respondents mentioned that the last time they received formal counselling was the day they obtained an HIV-positive test result. When combined with constant mobility, follow-up HIV counselling is difficult in resource-poor countries. Axelsson et al. (2015) reported challenges, regarding HIV interventions that involve extra monetary costs, like sustained follow-up counselling in resource-poor Lesotho. There are difficulties of accessing regular counselling in the context of insufficient resources and high mobility and the association of this with other literature noting non-adherence (Faturiyele et al., 2018; Axelsson et al., 2015; Palk & Blower; 2015). However, Axelsson et al. (2015) note that regular HIV counselling has merits, like fostering adherence to ART and improving the quality of life. While counselling augments psychological health and helps those diagnosed with HIV to exploit existing HIV resources to take control of their health, counselling is not adequately available for the miners.

6.2.2.2 The Test and Treat policy

The 'Test and Treat' policy is a social conversion factor that provides easy entry into ART, improving engagement in HIV care. 'Test and Treat' is a policy in HIV care in which a patient is placed on treatment immediately following an HIV-positive diagnosis, regardless of the T-cells (CD4) count (Ponthieu & Incerti, 2016). Many respondents reported that 'Test and Treat' is a convenient, common mode of entry into ART. This is despite earlier sentiments that policy restrictions in South Africa make it difficult for foreign national miners to access initial ART (see Chapter 5). The literature notes that migrant health policies in host countries are restrictive, anti-migrant (Pannetier et al., 2017) (see Chapter 3) and unclear and inconsistent (Fleischman et al., 2015; Pithara et al., 2012; Davies et al., 2011) (see Chapter 3). In Lesotho, the miners are offered same-day enrolment in ART, if there are no clinical complications. Many

respondents were optimistic about ‘Test and Treat’ and regarded it as a valued resource that links them to counselling, HIV testing and HIV treatment in one sitting. Amstutz, Lejone, Khesa, Muhairwe, Bienvenu, Tlali, and Kao (2019) reported an effective, same-day ART initiation programme in Lesotho. However, the literature points to the challenges of ‘Test and Treat’, like early initiation to ART that results in a prolonged HIV treatment burden (Jagodzinski et al., 2019), pill burden (Faturiyele et al., 2018) and patient defaults and loss of follow-up, because of early initiation to ART (Amstutz et al., 2019). Axelson et al. (2015) reported that in Lesotho, only 72% of patients are still on ART, twelve months after starting ART. However, more recent literature points to a high engagement in care, following same-day ART initiation in Lesotho (Amstutz et al., 2019). There are overriding benefits of commencing immediately with ART, following an HIV diagnosis (rapid ART), like rapid linkage to HIV care that facilitates viral suppression, longevity and reduction of ongoing HIV transmissions within populations (Amstutz et al., 2019; Jagodzinski et al., 2019). The responses show that ‘Test and Treat’ assists the miners in using ART to manage HIV and live longer. But most miners access ART through ‘Test and Treat’ and remain engaged in HIV care. The ‘Test and Treat’ policy is a valued resource and a social conversion factor that links the miners to ART, improving their health outcomes.

6.2.2.3 Easy accessibility of PPE

Many respondents view the ready availability of condoms at the mines as important in helping the miners to prevent sexual HIV transmissions. The respondents said condoms are more available at the mines than in Lesotho. But usage depends on availability and ongoing education. For example, the respondents spoke about condom usage by the miners surging after HIV education sessions. The ready availability of condoms encourages the miners to take precautions to protect themselves from HIV and makes it easy for the miners to prevent and manage HIV.

6.2.2.4 Community HIV service delivery models

Many respondents felt that HIV services must come to them and were optimistic about the community models of HIV service delivery, like accessing quick HIV services on the streets (HIV tents, marquees, gazebos) and improving their access to HIV care. The respondents often

said they are tired of having only one option: visiting clinics or hospitals when they need HIV care. This confirms earlier research by Masebo (2019), who reported that migrants often hesitate to seek healthcare from clinics and hospitals (see Chapter 3). The respondents felt that accessing HIV care on the streets makes it easy to test for HIV, to know one's HIV status and to seek other HIV care, if HIV positive. The respondents used phrases like "they are everywhere", "they are many", and "so you go to them" to describe the HIV care tents/gazebos/marquees in the communities in Lesotho. One respondent stated:

> *I find numerous facilities like Newstart, so you go to them. Because they are everywhere, they are many. They have upgraded, because you encounter people who issue self-tests when walking. They are everywhere* (P8, Q167).

> *I don't get sick very often, but the health facilities I prefer are the tents……They call you and ask if you want to check your status……You then check your status* (R12, Q213).

The quotations highlight the respondents' appreciation of easy access to HIV care through community HIV service delivery, fostering positive health-seeking behaviours. The responses show that community models of HIV service delivery, like offering healthcare in street tents, enhance freedom, choice and agency. The responses resonate with the WHO recommendation to use community models for HIV care's service delivery. The responses also show that traditional approaches to seeking healthcare from clinics or hospitals, might contribute to structural constraints for the miners' agency. Quick access to HIV care on the streets stimulates agency and provides easy entry into HIV care.

HIV self-testing fosters privacy, stimulates choice, decision-making, and agency and improves linkage to HIV care. HIV self-testing is a model of HIV testing delivery in which people collect their specimen (oral fluid or blood), using a simple, rapid HIV test, perform the HIV test and interpret their results when and where they want to (WHO, 2021). Many respondents were optimistic about the HIV self-testing "starter-packs" available from street tents in Lesotho. They felt that the self-testing "starter-packs" facilitate decision-making to test for HIV in private, know HIV status in private and seek other HIV care. The respondents were also happy about the easy accessibility and convenience of HIV self-testing 'starter-packs'. They spoke about the 'starter packs' being "accessible while walking on the streets", "saving time", and protecting them from "lengthy interviews that interfere with privacy". This is in contradiction with earlier findings that indicated that counselling was a valued resource. The literature notes the successful implementation of community-based HIV service delivery models (including

self-testing) in Lesotho (Amstutz et al., 2019; Faturiyele et al., 2018). Faturiyele et al. (2018) further indicated that the community models of HIV service delivery had achieved the same intended outcomes as facility-based HIV service delivery models, while at the same time decongesting and decentralising health services. The responses show that community self-testing augments agency and access to HIV care. However, the responses also support earlier responses in Chapter 5 that temporary HIV care structures like tents, marquees and gazebos do not prioritise counselling. Self-testing is a community-based mode of HIV service delivery that is convenient, private and fosters choice, agency and access to HIV resources.

6.2.2.5 Facility-based HIV care

Despite earlier responses that the respondents prefer community-based HIV service, many viewed healthcare at clinics or hospitals as a valued resource. Many respondents thought facility-based healthcare was the best way to access curative HIV care. However, facility-based HIV care is expensive and inconvenient, as it interferes with privacy and involves time and travel costs. Many respondents said that consultations with healthcare workers, subsequent clinical follow-ups and medical check-ups have restored their health and assisted them in preventing and managing HIV. During the interviews, there was a common opinion that visiting a doctor or a nurse regularly at a clinic or hospital, restores and maintains health, subsequently improving the miners' abilities to carry out work responsibilities at the mines. The respondents phrased the outcomes of consulting with health practitioners, as seeing "a huge difference" and becoming "strong again". One respondent stated:

> *You can see a huge difference if you consult medical doctors. A big one. Even if a person is weak, but once they see a doctor, they become strong again* (R13, Q264).

The quotation highlights that facility-based HIV care fosters improved health, particularly in an advanced HIV disease. Facility-based HIV care is a valued resource that restores health and improves the miners' abilities to prevent and manage HIV. Community outreach programmes should strengthen health practitioners' community engagement to expand HIV care.

The respondents believed that the male-only HIV clinics expand freedom, agency, and access to HIV resources. Most participants said they feel free and are motivated to access HIV care, where health facilities serve mostly men. The respondents spoke about "feeling uneasy" when seeking HIV care in Lesotho, where there are more women than men at HIV care facilities.

The respondents explained that men are often shy and stop using health facilities crowded with women, interrupting or abandoning ART or getting into extra expenses to get to a male-dominated health facility. The responses show that a gender-sensitive approach to HIV care expands agency and the utilisation of HIV resources. A gender-sensitive approach to HIV care expands freedoms and agency and the use of HIV resources.

6.2.2.6 Health booklets

Health booklets validate the miners' engagement in ART, easing their access to treatment. A health booklet is a patient's medical record book that remains in possession of the patient. It contains a patient's health data and clinical appointments, providing a commitment to entry into HIV services. The respondents felt that a health booklet enhances adherence to ART, as it serves as proof, reminder and tracker to accessing ARVs and medical check-ups. The health booklet also acts as a personal health services access passport. The following respondents said:

> *Oh! I think the issue of a health booklet can help a lot…..Yes, because when you go to a hospital to collect your medications, you are given a date to come to collect your next treatment…..I think the health booklet can prove that this person is still taking their pills* (R23, Q208-210).

> *They [nurses and doctors] just look at your health booklet…. They check and see that this person is getting this treatment* (R25, Q300-302).

> *When the time has passed [for check-ups, clinical consultations of collection of ARVs], they [nurses and doctors] still sign again in their health booklets and new dates are provided* (R14, Q163).

The quotations highlight that health booklets are important in validating patients' enrolment in ART, their progress with continued treatment and easing access to ART. Health booklets are passports and trackers that enhance the miners' clinical monitoring and evaluations by health workers, while at the same time endorsing their continued treatment. Ponthieu and Incerti (2016) reported that "health passports" are useful in adapting the treatment of patients' chronic diseases to their mobility. The health booklets enable easy access and continuation of healthcare for migrants. However, the literature notes that health booklets might not grant migrants access to healthcare in host countries where migrants' healthcare entitlements may be inequitable, inconsistent, or inaccessible (Cuomo et al., 2019; Davies et al., 2011) (see Chapter 3). However, health booklets reinforce the miners' entry, commitment to ART, follow-up, clinical monitoring and evaluation and continued engagement in HIV care in Lesotho.

6.2.2.7 Free HIV care and clinical follow-ups

The health policy in Lesotho provides free HIV care at the outpatient level at public health facilities in Lesotho. Hospitalisations, due to an advanced HIV disease, are not free. HIV care at the mines is free. One respondent mentioned the merits of free HIV care, like not having to worry about financial matters when in need of HIV care. The respondent further stated:

> *And the government, because it is the one which gets involved when you are now sick……Since the pills are also given for free……They are the ones who buy them* (R27, Q159-162).

The quotation highlights the important role of the Government (Lesotho) in providing free HIV care. Free HIV care enhances freedom, agency and access to HIV care.

The respondents believed that telephone technology, like reminders and notifications from HIV services, builds agency and improves access to HIV resources and adherence to ART. The respondents said that telephone reminders and notifications about check-ups, ARVs availability and collection and reminders to take daily medications, enhance their adherence to ART. The respondents mentioned that having HIV associations and social groups that deal with increasing the quantities of specialised HIV services, like sending reminders and related personal care education, facilitate adherence to ART. However, the respondents also mentioned that clinical follow-ups by HIV services through telephone reminders, had limitations. The responses show that while patients' telephone reminders and notifications about ART are important for building the miners' agency and adherence to ART, they are not yet adequately implemented in Lesotho. Axelson (2015) reported that sending text messages in advance to remind patients about ARVs-refills, is important for adherence.

6.2.2.8 HIV associations and social groups as social conversion factors

HIV associations and social groups are effective platforms for conversion factors, like HIV education and knowledge. The miners spoke about "attending HIV classes" organised by HIV associations at the mines and sharing knowledge among themselves and non-members. HIV associations and social groups have changed the miners' lives.

They have contributed to their knowing HIV better, making better decisions about healthcare and taking better care of themselves and others. One respondent said:

> *Mmm! We as men can have a gathering where we can advise each other on how to control the spread of HIV so that we cannot be affected….**..**Where we stay, we come together and talk about them…**…..**And tell one another what to do to protect ourselves* (R5, Q121-156).

The quotation highlights that HIV social groups are one way of acquiring HIV knowledge for the miners, facilitating health decision-making and protecting the miners against HIV. The evidence shows that the miners achieve progressive empowerment and human development through joining HIV associations and social groups. The evidence also shows that while HIV associations operate through groups, the outcomes of their activities benefit both the collective and individuals.

The miners' memberships in HIV associations and social groups foster their participatory engagement in their HIV care and the participation of non-members. Many respondents concurred that membership in HIV associations and social groups enables them to participate in issues about their healthcare and those of non-members. The members acquire roles that improve their lives and those of non-members. While many respondents are ordinary members, some hold more prestigious roles, like organisers, secretaries and chairpersons of the associations and social groups. The respondents noted improvements in their lives since joining HIV associations, like being able to participate in their health affairs and caring for themselves and others. The members' lives change for the better, as they make better choices concerning their health and mentor others who are not members. Caring for others has resulted in their acquiring formal roles within the associations and social groups, such as being mentors, role models, persuaders and inspirers of non-members. One respondent stated:

> *Interest can be from our influence. We, the ones that are already going, can advise them…. We should show them how dangerous HIV is and tell them to go to the lessons to be taught about AIDS* (R1, Q181).

The quotation further highlights the associations' members' acquisition of roles beneficial to themselves and others. Other literature noted that accessing personal benefits through group activities is an important dimension of belonging to associations (Alkire, 2008). Belonging to HIV associations and social groups ensures the miners' engagement in their healthcare. The members of HIV associations and social groups facilitate the engagement of non-members in their healthcare by persuading and mentoring them on HIV matters.

HIV associations and social groups promote distributive justice for HIV care for the miners. HIV associations or social groups at the mines ensure the distribution of HIV resources, like ARVs access and HIV education for their members. The respondents mentioned that the associations often directly distribute ARVs to their members in discrete ways that ensure privacy. One respondent said:

> *They already know that I am going to this person's room at a certain time, since there are no people…. I am going to give them their pills… I am going to another person's room* (R32, Q269).

The quotation further highlights the distributive role of HIV associations or social groups for their members, like ensuring their access to ARVs, blocking the pathophysiological progression of their HIV to AIDS and fostering their achievement of good health.

Belonging to HIV associations fosters the miners' collective and individual voice in accessing HIV resources. The associations respond to the miners' arising personal needs, like advocacy in situations where individual miners cannot act independently. The respondents spoke about the associations' responsibility to meet their personal needs. Robeyns (2017) says that the connections between people, their social relations and embedment are important in realising desired capabilities as individual agency has limitations. Robeyns (2017) argue that group-based processes, like social norms can determine how individuals make choices and achieve well-being. The following respondents stated:

> *Formation of groups will enable them…. to help and ensure that the other person's problems are solved when recognised* (R13, Q125).

> *So that when some challenges occur, we should know that we will put our problems to them. And they should assist us* (R47, Q178).

> *The main benefit I get is that the association takes care of my needs whenever any situation that affects my daily living negatively, arises* (R2, Q97).

The quotations highlight that HIV associations and social groups are valued resources that link, advocate and solve HIV-related problems for the miners. Through HIV associations, the miners can collectively and individually access HIV resources.

HIV associations or social groups link miners and other HIV care groups. Many respondents said that HIV associations and social groups connect them with other organisations that respond to their immediate HIV-related needs and further care. For instance, the respondents stated that

HIV associations and social groups link those living with HIV to HIV support groups, fostering their acceptance of being HIV positive and building their agency to seek ART.

HIV education and counselling are social conversion factors that foster the miners' capabilities to learn more about HIV and prevent it, seek HIV care if they are HIV positive, adhere to ART, and be healthy. HIV knowledge and access to HIV care are meta-capabilities. HIV education fosters the miners' personal and social conversion factors, expanding agency, expanding HIV knowledge, the capability to informed decision-making regarding HIV care, the capability to access HIV care resources and the capability to be healthy. Mabsout (2011) indicates that participation in healthcare decision-making, fostered by access to knowledge, is important in building people's agency, improving functioning and being healthy. The 'Test and Treat' policy fosters the capability to access HIV care through the capability to test for HIV, know one's HIV status, and access ART immediately if HIV positive. Clinical follow-ups and reminders foster the ability to access and adhere to ART.

The community models for HIV service delivery, like accessing HIV care in the communities and self-testing, are social conversion factors that expand freedom and choice and the capability to access HIV care from outside healthcare institutions. The freedom and choices culminate into the capabilities to readily access HIV resources, the capability to test for HIV and seek further care, and the capability to be healthy. Community models of HIV service delivery expand the miners' positive and negative freedom and agency. On the other hand, facility-based HIV care is a social conversion factor that fosters the miners' capabilities to access all levels of HIV care (preventive, curative and tertiary care). Healthcare institutions play an important role in the miners' generation of capabilities to prevent and manage HIV.

HIV associations and social groups are social conversion factors that foster the miners' capability for participatory engagement in their HIV issues, fostered through HIV knowledge and decision-making, regarding HIV care. The associations' conversion factor inputs, like advocacy and HIV education, foster the miners' capability to link to HIV care and access HIV care to be healthy. Additionally, HIV associations foster the miners' capabilities to affiliate and form relationships (a capability in Nussbaum's list of capabilities), expanding their capability to access HIV resources in the process. A capability to affiliate is a meta-capability that fosters the miners' capabilities to mentor, advise and persuade others, as well as a collective capability to have a unified voice to access HIV resources. Other capabilities fostered by the capability

to affiliate through HIV associations, are the capabilities to participate effectively in political choices and control their social environment, fostering a social basis for self-respect.

6.2.3 The environmental conversion factors

Environmental conversion factors emanate from the physical or built environment in which a person lives. Climate, pollution, earthquakes, presence or absence of seas and oceans, stability of buildings, roads, and bridges, and means of transportation and communication, represent environmental conversion factors (Robeyns, 2016).

The high number of HIV service centres in Lesotho and mines is a conversion factor that makes HIV care geographically accessible. The respondents mentioned that the number of HIV facilities is increasing both in Lesotho and at the mines. For example, the respondents spoke about the proliferation of New Start tents in Lesotho's urban areas. Mobile clinics are also increasing in numbers in Lesotho. At the mines there are multiple easy-to-reach health facilities within the mines' premises, making it easy to seek healthcare. Two respondents said:

> *Yes, they are easily available, because there are clinics at the mines that can be easily reached and specifically dedicated to serving us miners* (R1, Q30).

> *Eh.....There are trucks I've seen them moving around here at home [Lesotho], written mobile clinics* (R8, Q239).

The quotations highlight the existence of geographically accessible clinics at the mines and in Lesotho. The responses resonate with the WHOs recommendation of geographical accessibility of primary healthcare services (WHO, 2019). Geographically accessible health facilities facilitate health-seeking behaviour.

The easy-to-reach health facilities at the mines never run out of HIV medicines. Despite earlier perceptions of difficult access to ARVs for foreign national miners, the mines' clinics and hospitals never run out of ARVs. The respondents said that the miners who access ARVs at the mines never get turned away or referred to another HIV care facility, because of ARVs stock shortages. The responses show that the geographically accessible HIV service centres and HIV drugs are available at the mines, facilitating access to HIV care.

The existence of geographically accessible HIV care facilities at the mines and in Lesotho is an environmental conversion factor that fosters the capability to access HIV care, escape

morbidity and premature death, and be healthy. The well-stocked HIV facilities at the mines foster the miners ability to access and adhere to HIV drugs.

6.3 Conclusion

This chapter has analysed the conversion factors for the miners' capabilities to prevent and manage HIV, using three themes: the personal conversion factors, the social conversion factors and the environmental conversion factors. The miners' personal conversion factors revolve around their ability to read and write, their capability to use social media platforms like Google, and their inherent self-discipline to use existing preventive measures against HIV. Their ability to read and write fosters their access to HIV information through their capability to reading available HIV materials. Their capability to use social media platforms like, Google, fosters their capability to search and use HIV information, including the newest developments in HIV science. Personal discipline fosters the capability for judgement and avoidance of risky sexual behaviours.

The social conversion factors were the most abundant and included HIV education and counselling, the "Test and Treat" policy, easy accessibility of PPE, community models of HIV service delivery, facility-based HIV care, free HIV care and clinical follow-ups and HIV associations and social groups. HIV education and counselling are social conversion factors that foster the miners' capabilities to learn more about HIV and to prevent it, seek HIV care, adhere to ART, and be healthy. HIV knowledge and access to HIV information are conversion factors that foster expanded HIV knowledge, informed decision-making and agency. However, migrants' capability to access sustained HIV information and counselling, might be fragmented, due to their constant mobility. However, at the mines, HIV information is readily available for the miners.

The 'Test and Treat policy' fosters the miners' capabilities to test for HIV and know their status and the capability for immediate entry into ART and linkage to HIV care. However, for migrants of foreign nationality, accessing "Test and Treat" at the mines, is not easy. There are conflicting policy guidelines between health policies and migration policies in South Africa, affecting migrants' access to basic healthcare (Veary et al., 2016; Wickramage et al., 2018; see chapters 3 and 5). Also, ART protocols in Lesotho and South Africa are not harmonised. While the "Test and Treat" policy is a valued resource that fosters the miners' capabilities to test for HIV and be rapidly linked to care in Lesotho, migration policies and health policies'

characteristics in South Africa, bar them from accessing rapid initial ART at the mines (see chapter 3). Migration policies should be harmonised with health policies in South Africa to afford migrants improved healthcare. Additionally, HIV treatment protocols in Lesotho and South Africa require harmonisation to improve Lesotho migrants' access to initial HIV care in South Africa.

Community models of HIV service delivery in Lesotho, expand the miners' positive and negative freedom, functionings and agency. The facility-based HIV care at the mines and in Lesotho fosters the miners' capabilities to access all levels of HIV care (preventive, curative and tertiary care). HIV associations and social groups at the mines foster the miners' capability for participatory engagement in HIV issues through increased HIV knowledge and decision-making, regarding HIV care. The associations' advocacy and conversion factor inputs, like HIV education, foster the miners' capability to be healthy through linking miners to opportunities that foster access to HIV resources. Finally, HIV associations foster the miners' capabilities to affiliate and form relationships (a capability in Nussbaum's list of capabilities), expanding their capability to access HIV resources in the process. A capability to affiliate is a meta-capability that fosters the miners' capabilities to mentor and advise others about HIV. Health booklets foster the commitment of entry and adherence to ART.

The environmental conversion factors were the least abundant and included the existence and increasing number of health facilities infrastructure in Lesotho urban areas and the mines. Also, there are dependable ARVs stock supplies in the mines. However, for migrants, it is not easy to access initial ART, despite the ARVs available at the mines. Nonetheless, with a referral letter, these conversion factors are accessible for migrants and foster the miners' capabilities to access HIV care and adhere to ART.

The chapter concluded that the miners have adequate personal and social conversion factors. However, these conversion factors operate amid many social constraints, making building capabilities to prevent and manage HIV, difficult. The miners' environmental conversion factors were inadequate, particularly those related to accessing ARVs in the mines, denying them some freedom and entitlement.

Chapter 7 analyses the miners' functionings ("doings" and "beings") that foster their capabilities to prevent and manage HIV .

Chapter 7

THE MINERS' FUNCTIONINGS, THE "DOINGS" AND THE "BEINGS"

7.1 Introduction

Chapter 2 discussed the migration theory that acknowledged the capabilities approach as a framework to analyse migration. Research has established a relationship between the capabilities approaches, migration and healthcare (Kinghorn & Coast, 2018; Law & Widdowson, 2008; Ruger, 2006). However, biomedical and behavioural theories underpin most HIV research (Campbell & Williams, 1999). The capabilities approach provides an alternative theoretical framework to investigate the social arrangements important to Lesotho migrant miners' health, while identifying the values, opportunities, freedom and choices, associated with their well-being (Kinghorn & Coast, 2018; Law & Widdowson, 2008). Chapter 3 assessed the link between migration and health and its influences on how migrants cultivate capabilities to be healthy. Chapter 3 also emphasised that migration has health consequences. Chapter 4 discussed the migration history between Lesotho and South Africa and the effect on migrants' health. Epidemics in South Africa's mines affected health outcomes in Lesotho. Chapter 5 analysed the role of structures (the mines and healthcare institutions) in expanding or constricting Lesotho miners' capabilities to prevent and manage HIV, using four themes: the loss of control over daily living, circular migration, policy and legislature context and the quality of HIV services. Chapter 6 analysed the conversion factors that foster the miners' capabilities to use existing HIV resources to prevent and manage HIV.

Functionings are "the various things a person may value doing or being such as being nourished, being confident, or taking part in group decisions" (Alkire, 2003: 8). Robeyns (2017) says that every individual's life is composed of a choice of functionings, which follow a never-ending dynamic pattern. Functionings are expressed in terms of "doings", or what a person is able to do and "beings", or what a person is able to be (Robeyns, 2017). This chapter aligns with objectives one, two and three and analyses the miners' functionings ("doings" and "beings") that foster their capabilities to prevent and manage HIV. The chapter is organized, using two sections: functionings that prevent HIV and or help managing HIV.

7.2 Functionings at HIV prevention level

7.2.1 Knowledge and protecting self and others from HIV

Most respondents had a basic general knowledge of HIV and they applied it correctly to prevent and manage HIV. Their knowledge included how HIV is transmitted and the preventive measures, like using condoms during sexual intercourse and not coming into direct contact with blood and bodily fluids. The respondents said that they regularly test for HIV, in order to know their HIV status and if they HIV positive, they enroll in ART. The miners are given opportunities and test for HIV regularly at the mines. However, most respondents said that they test for HIV in Lesotho when they come to visit. Below, one respondent expressed his HIV knowledge:

> *Some things can be minor things, like protecting yourself when helping a person whose wounds are bleeding, you use hand gloves……and in cases of cutting hair, we should not use the same razor……Again, they should stop unprotected sex, because they will be in excessive danger* (R14, Q85,69,107).

The quotation above highlights a miners' expression of accurate HIV knowledge that enables him to prevent HIV.

Despite most respondents having a good general knowledge about HIV, the data revealed that some misinterpret and use ill-informed precautionary measures to prevent HIV. For example, some respondents assess their potential sex partner's physique to make conclusions about their HIV status. A potential sex partner, who is thin or has thin legs, is regarded as HIV positive. Others consider the potential sex partner's level of cleanliness. A generally "dirty' looking potential sex partner is considered a risk factor for contracting HIV. The length of time within a relationship is also a factor. Being in a long-term relationship is regarded as safe and not warranting the use of condoms. However, for most miners, a long-term relationship is often a few weeks or months. Additionally, most miners have concurrent long-term relationships with multiple sex partners (see Chapter 5). Some respondents stated:

> *On the issue of having one partner.....It is not possible……if you have an affair with someone for more than a month, you feel like you know them……You end up saying you will never protect yourself, because that person is yours ……. Yes, you find that we don't even test……. But you conclude that you have done this thing [sex] for a whole month and decide…… it's better to stop using protection. The following month this one leaves and you meet another one. It's still the same problem* (R17, Q92-109).

We start by looking at the legs. When they are wearing trousers, you won't see well……You will see them by getting thinner…... You will see that they are finished (R24, Q233-237).

The quotations above highlight some miners' ill-informed HIV-prevention behaviour and interpretation of precautionary measures against HIV. The quotations also highlight an inconsistent use of protection against HIV, based on an incorrect understanding of precautionary measures against HIV. The responses show the miners' adoption of inaccurate, inconsistent and misleading information and practices about HIV.

Despite some miners' HIV prevention practices being inaccurate, inconsistent or non-existent, there were those who had the capability to use precautionary measures. Some respondents reported using condoms, Pre-exposure Prophylaxis treatment (PrEP) and Post-exposure treatment (PEP). They used words like, "*I should always ensure that I use protection*" and "*the only important tools that can help the miners, are condoms*" to describe how they protect themselves. The respondents volunteered this information without any probing questions about how they engage in sexual intercourse. Some miners do not use protection when confronted by the commercial sex culture in the mines (see Chapter 5). However, other miners protect themselves against HIV by using condoms and other precautionary measures, like PrEP and PEP in preventing and managing HIV. The existing precautionary measures against HIV provided by health systems in Lesotho and at the mines, are important in helping the miners to prevent and manage HIV.

While protecting themselves against HIV when they are away from their families, some miners also protect their wives and partners against HIV. The miners regularly test for HIV when they return to their families after time away at the mines. Also, they do regular tests together with their wives or partners every time they return to their families. Regular testing gives them a sense of responsibility and assurance that despite what happens at the mines, their wives or life partners are protected from contracting HIV. Some respondents stated:

Protecting her (my wife) is what is always on my mind. Whenever I come home to her after the long periods away from her and the fact that there are many challenges, my wife and I always ensure that we visit the healthcare centre to take tests before we engage in conjugal rights matters (coitus), because HIV does not show symptoms as soon as one contracts it (R5, Q24).

I am not sure what others do, but in my case, I use protection when engaging in sex. My peers also say they use protection, but I cannot confirm it (R6, Q34).

The quotations above highlight the miners' awareness of correct use of precautionary measures against HIV, like regular HIV testing and use of condoms to protect themselves and their wives or partners from HIV.

However, some miners worry about whether their efforts to protect their wives or partners are reciprocated, resulting in their engagement in functionings that may encourage risky behaviours. The miners worry about whether their wives have extra-marital relationships during their absence from home, exposing both of them to HIV. Maloka (1997) notes a heightened "Bonyatsi" (extra-marital affairs) in Lesotho migrant miners' families. Not knowing the sexual activities of their wives or partners during their absence, makes the miners uncertain, driving them to engage in risky behaviours, like alcoholism and unprotected sex with multiple partners. Engaging in risky sexual behaviours make them feel "even" with their wives or partners, if they are "cheating" on them. The respondents used sentiments like, "*sending money home is sometimes not enough motivation for fidelity*" to express their frustration and doubts about the fidelity of their wives. One respondent stated:

> *Women, when left alone at home, enter into unexpected or bad deeds due to the absence of their men…. There is a saying or belief that miners always have affairs at work and that some men even get married; therefore, you will find that women here at home do the same thing based on this belief. Their beliefs encourage them to commit adultery, so life goes on like nothing happened* (R11, Q33,35).

The quotation above highlights a miner being worried and uncertain about their ability to protect themselves from HIV, if they live separately from their wives. Protecting themselves from HIV in isolation from their wives, is a source of constant worry for most miners. The responses show a vicious cycle of uncertainty, worry, doubt and functionings that support the miners' acquisition and transmission of HIV.

7.2.2 Educating one another

The miners use leisure and social time at the mines to exchange HIV information through talking to one another about HIV, fostering each other's capability for self-care. Despite previous responses that the miners isolate themselves to avoid "catching" HIV and do not discuss HIV with others (see Chapter 5), some miners socialise and exchange HIV information and knowledge during leisure and social times. The miners educate one another about HIV and getting advice from one another help the miners to prevent HIV. The miners use slogans, jokes or serious talk to communicate HIV information, helping each other to re-consider sexual behaviours that put them at risk of contracting HIV. The HIV information exchange usually happens during social times like bath time, meal time or any time they happen to be together.

Topics can range from circumcision to the actual behaviour during sex, such as how to properly mount a condom and adherence to ARVs. Some respondents stated:

> *Yes, they always want to circumcise, so it becomes a slogan. Most of the time, you find that when it's time to bathe, we gather together in one room, so that's when we see that others have not been circumcised. That is the issue [circumcision] they mostly advise each other to do to prevent increased exposure to HIV, like man to man* (R9, Q133).

> *Some of us talk about practicing safe sex and ensuring that those already on treatment take their medication religiously* (R2, Q87).

The quotations above highlight how social interactions play an important role in the miners' prevention and management of HIV. The miners' interaction with each other during leisure times helps them re-consider actions that might expose them to HIV infection and harm their health. Also, talking to one another elicits valuable advice that fosters adherence to HIV treatment. Leisure and communal times at the mines facilitate the miners' awareness and abilities to prevent and manage HIV.

However, the miners also use their leisure and social time to exchange incorrect and misleading information about HIV, compromising their abilities to prevent and manage HIV. There are instances when the miners exchange advice that promotes using traditional Sesotho medicines, like "Hloenya" to prevent or cure HIV. Other advice fosters total disregard for precautionary measures against HIV, like not using condoms during sex, not testing for HIV or enrolling in ART if HIV positive. Occasionally, some miners use deception to persuade other miners to engage in risky sexual behaviours or not adhere to HIV treatment. Some respondents stated:

> *Oh, we can choose not to drink the pills, but use traditional Sesotho medicines. They say that when you drink Hloenya [traditional Sesotho herb], the virus goes down* (R11, Q375).

> *As Basotho, we mix our traditional herbs. They would say a person should try Hloenya* (R12, Q68).

The quotations above highlight the miners' promotion of incorrect information and advice about managing HIV that can harm their health, like promoting the notion that traditional herbs can alleviate or cure HIV. However, most respondents attested to having acquired valuable HIV information from the informal HIV knowledge platforms. The information has helped them deal with issues related to preventing or managing HIV in the past. However, there are times when the miners exchange incorrect and misleading information about HIV during leisure and social times, compromising the miners' abilities to prevent and manage HIV.

HIV education efforts, whether formal or informal, compete with the mines' proximity to townships, shanty towns and taverns, reducing the miners' capabilities to apply the education to prevent and manage HIV. The miners can easily access taverns and sex workers, indulging in excessive alcohol consumption and unprotected sex with sex workers. The miners disregard their acquired HIV knowledge, due to the social environment at the mines that is convenient for them to engage in risky sexual behaviours. Also, the respondents indicated that often, during visits to taverns, the miners do not protect or advise each other, but encourage and mislead each other into engaging in risky sexual behaviours. The miners consume excessive alcohol, driving them into skipping or stopping HIV treatment. Some respondents stated:

> *There are locations (townships) and shantytowns all around us where the miners engage with prostitutes and alcohol…… there are many social traps one can fall into all around us (*R4, Q9, 38).

> *The biggest challenges for us come from the women that live in the locations close to the mine, because we end engaging in extra-marital affairs with them* (R6, Q32).

The quotations above highlight that the miners engage in alcohol and risky sexual behaviours in the townships and informal settlements, making it difficult for them to prevent and manage HIV. The tavern culture in the townships that supports alcoholism and inebriation, extra-marital affairs and encounters with sex-workers makes it difficult for the miners to make choices that protect them from acquiring HIV. When they are in the “neighbourhoods”, the miners lack the motivation to avoid risky sexual behaviours, exposing themselves to HIV.

Linking to the capabilities literature, there is a concerted effort from the miners to protect themselves from HIV, through several functionings ("doings" and "beings") that foster their exploitation of available opportunities and foster capabilities to be healthy. At the preventive level, the "doings" include educating one other about HIV and exchanging advice regarding self-care during leisure time and social times. Also, the miners exploit HIV resources, like regular HIV testing, condoms, PrEP and PEP to foster their (and their wives) capability to prevent HIV and to be healthy.

Important "beings" were also noted from the data that foster the miners' capabilities to engage with HIV services and to prevent and manage HIV; being knowledgeable about HIV, being open to discussions and advice about HIV and self-care. These “beings” enable the miners’ conversion factors (personal and social), fostering their engagement with HIV resources and care and expanding their meta-capability of health. However, capability-restricting “beings”

were also noted from data, like the miners being worried and uncertain about their wives' or partners' sexual activities when left alone at home, reducing the miners' capabilities to avoid risky behaviours like excessive alcohol consumption and unprotected sex with multiple partners and strangers.

7.3 Chasing optimal health after being diagnosed with HIV

7.3.1 Accessing ART

7.3.1.1 Accessing Test and Treat and linking to ART

In line with WHOs recommendations, most miners use "Test and Treat' services to prevent HIV and link to ART. Most miners test for HIV through "Test and Treat" services, learn their HIV status and almost all of those who are HIV positive, enroll in ART. This is despite the occasional advice from other miners to not consider mainstream medicine and instead use traditional herbs to alleviate or treat HIV. One respondent stated:

> *One tests and if they are found to be positive, they then get their treatment from their local clinic* (R7, Q32).

The quotation above highlights the procedure the miners follow to link to HIV care. The miners use "Test and Treat" services to access ART. Despite the challenges the miners encounter when trying to access initial antiretroviral treatment at the mines (see Chapter 5), like having to provide a cross-border referral letter, Lesotho miners use "Test and Treat" services and almost all those who are HIV positive, are enrolled in ART.

7.3.1.2 Accessing bulk supplies of ARVs

In line with WHOs recommendations, the miners who are stable on ART, obtain a bulk supply of ARVs (covering up to six months) from health facilities, reducing their number of visits to health facilities, fostering their capabilities to manage HIV. Based on their response to ART, patients have three policy-endorsed intervals for collecting ART: monthly collections for those starting ART and not yet stable on treatment, bi-monthly for those beginning to stabilise on ART and up to six months for those who are stable on ART. These intervals are in line with WHOs recommendations, regarding HIV treatment at health facilities (WHO, 2016). The respondents said that many miners who are on ART are on the multi-month option of accessing ART. They obtain a bulk supply of ARVs per visit, reducing the number of visits to health

facilities to collect ARVS and the trouble of asking others to collect ARVs for them. One respondent stated:

> *It is quite easy, because they get treatment that lasts a few months from their clinic back here [Lesotho] at home* (R5, Q50).

The quotation above highlights that the miners get bulk supplies of ARVs per visit to a health facility. Most miners who are stable on ART, get bulk supplies of ARVs, reducing the number of visits to health facilities and their ability to manage HIV.

However, obtaining a bulk supply of ARVs carries challenges related to privacy and optimal clinical care. It is often difficult for the miners to keep a bulk supply of ARVs a secret, compromising their privacy about their HIV status. The literature notes that keeping a bulk supply of ARVs can lead to erroneous disclosure about a seropositive HIV status (Axelson et al., 2015; Masebo, 2019). Additionally, obtaining an ARVs supply for six months means forfeiture of opportunities for regular clinical assessments and timeous detection of complications arising from taking ARVs (Masebo, 2019). However, obtaining a one-month supply of ARVs, carries a burden of multiple visits to health facilities for multiple refills, conflicting with the miners' work commitments and adherence to ART (Faturiyele et al., 2018). The miners obtain a bulk supply of ARVs from health facilities, reducing the number of visits to health facilities and fostering their capability to manage HIV.

7.3.1.3 Getting others to collect ARVs

In Lesotho, getting others to collect ARVs on behalf of the patient, fosters the miners' adherence to ART and the capability to be healthy. There are two options for collecting ART in Lesotho: patients must physically present themselves at health facilities or send others (a trusted family or community member) to collect the ARVs on behalf of the patient. However, Axelson et al. (2015) reported that the option for others to collect ARVs on behalf of patients, is not adequately communicated to patients at HIV care facilities in Lesotho. However, this option is fully endorsed through policy and guidelines in Lesotho. The miners often authorise their wives or trusted family members to collect the ARVs for them in Lesotho when they cannot come home (Lesotho). The respondents mentioned that the miners seem to seamlessly adhere to ARVs when they have the option for others to collect ARVs on their behalf. Also,

the option supports their work commitments at the mines, while at the same time it lessens conflicts between their mine work and their healthcare needs. Some respondents stated:

> *They also have the option of authorising a trusted individual to get their treatment from the clinic if they cannot make the journey themselves* (R5, Q52).

> *The pills, you may find that I am still at work, but my wife has the opportunity to go and collect them for me* (R11, Q291).

The quotations highlight the miners' option for accessing ARVs, like authorising others to collect ARVs for them, supporting their adherence to ART.

However, getting others to collect ARVs on behalf of patients has privacy and logistical challenges that interfere with the miners' privacy. Sending others to collect ARVs may force the miners to unintentionally disclose their HIV status. Axelson et al., (2015) report that unintentional disclosure is one of the challenges associated with authorising others to collect ARVs on behalf of patients at health facilities. Some respondents mentioned that often, due to work commitments, they are forced to ask others (wives, relatives or close friends) to collect ARVs for them. Some miners do not like to send others to collect ARVs for them. This is despite earlier responses that some miners like to have an option to send others to collect ARVs for them. Sending others to collect ARVs interferes with privacy, forcing the miners to reveal their HIV status to others.

Some miners reportedly engage in risky, costly and illegal practices to get others to bring ARVs for them in South Africa. The respondents mentioned that some miners transport ARVs through public transport (buses, taxis) or couriers to get to them at the mines. The miners pay the bus or taxi drivers or couriers to bring them their ARVs. Alternatively, the miners ask their co-workers who are visiting Lesotho to bring them their ARVs. All these options are expensive and illegal and have safety risks. The health systems in Lesotho and South Africa do not endorse the ARVs transport systems practiced by the miners. One respondent stated:

> *Some come home and ask for a couple of days. Some ask them to send them with a car (bus, taxi)… and then they just get them from the rank* (R12, Q263, 265).

The quotation above highlights the different ways the miners' access ARVs in Lesotho while away at the mines in South Africa, including through illegal means. These findings align with Masebo's (2019) study that migrants in South Africa often access ARVs from their home

countries through illegal means, like public transport or other migrants (see Chapter 3). The miners resort to risky, costly and illegal practices to get ARVs to them in South Africa.

In the mines, the option to get others to collect ARVs is not always feasible. Policy directs that the miners must present themselves at the mines' health facilities to collect their ARVs. The authorities at the mines only grant the option to authorise others to collect the ARVs on behalf of patients, in extenuating circumstances. However, the respondents pointed out that HIV associations at the mines can source ARVs and distribute them to individual miners (see Chapter 5). While others can collect ARVs for the miners in extenuating circumstances and HIV associations can collect ARVs for their members, the option for the miners to authorise other miners to collect ARVs on their behalf, appear constrained at the mines. Restrictive ARVs collection practices at the mines restrict the miners' freedom, choices and adherence to ARVs.

7.3.1.4 Accessing ART in Lesotho and not in South Africa

The respondents reported that most miners who are on ARVs, collect the pills in Lesotho, instead of at the mines. Only a few collect their ARVs at the mines' clinics and hospitals. Most miners believe that the ARVs provided in Lesotho are more effective with little to no side-effects when compared to those provided at the mines. Hence, most Lesotho miners who are on ART regularly travel to Lesotho to collect their ARVs. This is despite an existing opportunity for them to collect ART at the mines, using a cross-border referral letter. Some miners choose not to seek the cross-border referral letter in Lesotho to access their ARVs at the mines. One respondent stated:

> *Many think the treatment they get from Lesotho is adequate or that the pills they get here are stronger than those in the mines* (R4, Q64).

The quotation above highlights the miners' preference for ARVs provided in Lesotho. Most miners travel regularly to collect ARVs in Lesotho as a matter of preference. However, the miners' preference for ARVs in Lesotho might also be associated with physical and social barriers that promote HIV stigma.

7.3.2 Adhering to ARVs

Notifications and reminders build the miners' capabilities to adhere to ARVs. Some miners have registered for telephonic notifications and reminders about their check-ups, ARVs collection dates and ARVs availability at health facilities in Lesotho. The miners on ART get telephonic Short Message System (SMS) notifications or reminders about their check-ups, ARVs collection dates and ARVs availability from health facilities, building their agency and adherence to ARVS. Also, the miners get SMS reminders from healthcare facilities related to personal care. Additionally, most miners on ARVs use clock alarms as reminders to take their daily ARVS. Others incorporate taking ARVs to daily routines, like the start of a work day at the mines as a reminder to take the ARVs. Using daily routines as reminders to take daily ARVs, has been noted in the literature as effective for fostering adherence to ARVs (Axelson et al., 2015). However, incorporating ARVs intake with daily routines is not well established in Lesotho. But at the mines, the miners use their daily routines like a start of work day as reminders to take ARVs. Some respondents stated:

> *For me, wherever I am, I drink them [the ARVs]. They are my life. Whether I am in Lesotho or South Africa, it is my life taking the pills wherever I am. I don't forget them. I even set the reminders, such as alarms. I do everything* (R11, Q167).

> *Because for me I drink them at 7 o'clock. When that time arrives, I still have my bottle containing water even if I start to work at 6 o'clock. I am going to work after breakfast; therefore, at 7 o'clock, I just take my pill* (R11, Q153).

The quotations above highlight a miner's appreciation of reminders like alarm clocks and daily routines as effective means for ARVs adherence. The miners use reminders and notifications as means to take their HIV pills as prescribed and to adhere to ART.

7.3.2.1 Disclosure and adherence to HIV treatment

Disclosing their seropositive HIV status to others, helps the miners to achieve the capabilities to accept their HIV status, improving their adherence to HIV treatment and mental health. The respondents indicated that often, the miners disclose their seropositive HIV status individually to their colleagues. Others disclose collectively through HIV education campaigns at the mines and surrounding communities, communicating to others about what it is like to live with HIV. Some respondents believed that people who are already HIV positive and on treatment, are

great resources in HIV prevention and management, through shared experiences about their contact with HIV care services. Disclosing the seropositive HIV status to others, removes the "stress" of having to hide their HIV status, their ARVs, or disguising themselves when going for check-ups or collecting ARVs. The miners disclose their seropositive status to accomplish freedom, mental health and adherence to ART. Some respondents stated:

> *If there are four men in a house living with one who is sick [HIV positive], when they are watching Generations [the soapie], they should ask him whether he's taken his medication. That kind of thing* (R12, Q166).

> *Each month we go into the villages.....The villages close to the townships……. surrounding the mine. They put tents…We call people and tell them about ourselves* (R34, Q209-215).

The quotations above highlight the important role disclosure plays in engaging others to support adherence to ARVs and sharing experiences of being HIV positive. However, some miners do not disclose to their significant others and colleagues, disabling adherence support from others and compromising their mental health.

However, some seropositive miners feel ashamed and do not disclose to their wives, partners and colleagues and hide their ARVs or temporarily abandon them when they visit home or are around their colleagues. However, disclosing a seropositive HIV status to significant others and colleagues, has been reported to assist and support adherence to HIV treatment (Axelson et al., 2015).

7.3.2.2 HIV treatment facilitating groups

In line with WHOs recommendations, the miners join HIV treatment facilitating groups at the mines to achieve the capability to adhere to HIV treatment and be healthy. Treatment facilitating groups comprise HIV-positive miners, who have disclosed their seropositive HIV status to others. The HIV treatment facilitating groups help the miners with adherence to ARVs, through reminders to take their daily ARVs. Disclosing their HIV seropositive status facilitates the miners' ability to join the HIV treatment facilitating groups, improving their adherence to HIV treatment and positive health outcomes. The respondents indicated that HIV positive miners disclose their HIV positive status, in order for them to be able to join the existing HIV treatment facilitating groups at the mines, facilitating their access to healthcare and adherence to ARVs. The miners get regular support that helps them to accept their HIV-positive status

and honour the demands of HIV treatment. The miners join HIV facilitating groups and access the support they need to be consistent in adhering to HIV treatment. One respondent stated:

> *Some [those who are open about their status] have formed groups that ensure they take their treatment on time* (R4, Q86).

The quotation above highlights the important role HIV treatment facilitating groups at the mines play, in helping HIV-positive miners to adhere to treatment.

Linking to the capabilities literature, at the HIV management level, the miners engage in "doings" like using "Test and Treat" services and enrolling in ART if HIV positive. Other "doings" include adhering to ART through using reminders like alarm clocks, SMSs, and regular daily activities, disclosing their reactive serostatus to foster support from others, regarding adherence and as a means to joining HIV treatment facilitating groups. The "beings" include being open and living openly with HIV, fostering the miners' capabilities to access HIV resources and be healthy.

7.4 Dealing with the challenges of being on ART

7.4.1 Dealing with the side effects and social effects of antiretroviral therapy

Despite some miners' commitment to adhering to ARVs through reminders and treatment facilitating groups, there are challenges related to incapacitating side-effects of the ARVs, reducing the miners' functionings and capability to adhere to ARVs. Some respondents reported debilitating, incapacitating side-effects of ARVs, like excessive hunger, thirst and, in some cases, general malaise. The respondents shared that sometimes the miners who are on ARVs suffer extreme side-effects of ARVs, like liver damage. The side effects prevent the miners from functioning optimally, reducing their capability to engage in their mine work fully and realising their life goals. Often, the miners stop the ARVs, because of their side effects, often resulting in sickness, loss of functioning or even death. Also, there are demands posed by being on ARVs, like frequently drinking plenty of water to flush out the body and prevent liver damage, compromising optimal functioning at their mine work. Taking ARVs carries side effects that reduce the miners' functioning individually and during working hours.

7.4.2 Dealing with stigma

The respondents mentioned that most miners, who are on ART, suffer from stigma, preventing them from freely managing HIV. The respondents indicated that stigma and judgemental attitudes against HIV-positive miners are highly prevalent at the mines. To avoid stigma, some miners avoid seeking healthcare services, even mandatory health services like collecting their ARVs at the mines' clinics or hospitals for fear of being stigmatised by their colleagues. Instead, most miners engage in repetitive circular migrations to collect ARVs in Lesotho. However, repetitive circular travel to Lesotho is expensive. However, the miners have no choice but to engage in repetitive travel to avoid HIV stigma at the mines. Others rely on religion and churches to seek deliverance and healing from HIV, skipping or abandoning ARVs. Still, others go to private doctors or nearby hospitals at the mines to avoid stigma at the mines' health facilities. One respondent described the effects of stigma:

> *Their conscience is the biggest resource, I think. Some of those on treatment tend to be ashamed of their status and fail to get the treatment on time, because they fear what might be said about them* (R2, Q46).

> *They go to certain Churches…. They [the Churches] tell them to stop taking the pills, and they do……They follow those Churches* (R33, Q333-339)

The quotations above show how stigma at the mines compromise HIV-positive miners' ability to seek health services publicly without shame, forfeiting opportunities for convenient, accessible HIV care. Being able to appear in public without shame, is one of the basic capabilities a person should have, to achieve to experience a quality life (Sen, 2005). HIV stigma is prevalent in the mines and prevents HIV-positive miners from seeking HIV care.

Linking to the capabilities approach, when dealing with the side-effects of ARVs, the miners' "beings" include capability-constraining bodily functioning, like being excessively hungry, thirsty and general malaise as a result of the side-effects of ARVs. Consequently, the miners engage in functionings, like having to take plenty of water-drinking breaks to quench their thirst and flush out their bodily systems, reducing their capabilities to engage fully with their mine work. Regarding stigma, the capability-constricting "doings" include the miners' avoidance of seeking healthcare services, even mandatory health services like collecting their ARVs at the mines' clinics or hospitals, turning to religion and churches to seek deliverance and healing from HIV, while at the same time skipping or abandoning ARVs, due to their fear of stigma. Still, others engage in capability-expanding "doings", like consulting private doctors

to avoid stigma at the mines' health facilities. Other "doings" include repetitive circular migrations to collect ARVs in Lesotho to avoid stigma at the mines' health facilities.

7.5 Conclusion

At the preventive level, the miners engage in functionings ("doings"), including educating one another about HIV and exchanging advice regarding self-care during leisure time and social times to achieve the capability to prevent HIV. Also, the miners exploit HIV resources like regular HIV testing, condoms, PrEP and PEP to foster their (and their wives) capability to prevent HIV and to be healthy. The "beings" include being knowledgeable about HIV, being open to discussions and advice about HIV and self-care. These "beings" and "doings" enable the miners' conversion factors (personal and social), fostering their engagement with HIV resources and care and expanding their meta-capability of health. However, there are also the capability-restricting "beings", like the miners being worried and uncertain about their wives' or partners' sexual activities when left alone at home, reducing the miners' capabilities to avoid risky behaviours, like excessive alcohol consumption and unprotected sex with multiple partners and strangers.

At the HIV management and adherence level, the miners engage in "doings", like using "Test and Treat", enrolling in ART, using reminders, disclosing their positive serostatus and joining HIV treatment facilitating groups. The "beings" include being open about their HIV status, fostering the miners' capabilities to access HIV resources and be healthy.

The miners also engage in "beings" and "doings" related to the side-effects of ARVs and stigma. The "beings' include excessive hunger, thirst and general malaise that foster "doings", like frequent excessive drinking of water, often disrupting mine work. Regarding stigma, the "doings" include avoidance of seeking healthcare services, even mandatory health services, like collecting their ARVs at the mines' clinics or hospitals, turning to religion and churches to seek deliverance and healing from HIV, while at the same time skipping or abandoning ARVs, due to their fear of stigma. However, there are capability-expanding "doings", like consulting private doctors and engaging in repetitive circular migrations to collect ARVs in Lesotho to avoid stigma at the mines' health facilities.

The next chapter highlights the major findings, key recommendations and areas for future research.

Chapter 8

KEY FINDINGS, RECOMMENDATIONS AND FUTURE RESEARCH

8.1 Introduction

This study used the capabilities approach to investigate Lesotho migrant miners' capabilities in preventing and managing HIV. The study followed the qualitative approach within a constructionist-interpretivism paradigm and the sampling included only Lesotho migrant miners who work in the Free State Province in South Africa. This chapter highlights the key findings from this study and the recommendations, and concludes by outlining areas for future research.

8.2 Overview of chapters

Chapter 1 laid the foundation for the study by introducing the study, the study objectives and the research methods. Chapter 2 introduced the migration theory and tracked developments in the migration theory. Reference is made to the methods of analysis in migration studies and how the migration theory has developed over time, including historical developments. The chapter discussed Ravenstein's Laws of migration as the first theory of migration, migration theory adaptations across disciplines, methodological nationalism and migration studies, transnationalism and migration studies and other developments in te migration theory. This chapter concluded by presenting the capabilities approach and its relevance as a framework in the migration theory.

Chapter 3 is a literature review on migration and health. The theoretical ideas from Chapter 2 (the capabilities approach) were linked with the discussions in Chapter 3. The effects of increasing migration volumes on migrants' health and host health systems were discussed. Migration-related health inequalities, the effects of irregular and circular migration patterns on migrants' health and the regulatory context that influence migrants' health were discussed.

Chapter 4 localised the ideas and discussions in Chapter 2 and Chapter 3 by discussing the migration history between Lesotho and South Africa and the effects on migrants' health. The discussion included the influence of conflicts and wars and labour migration policies. Chapter

4 concluded by analysing migration and health in Lesotho and South Africa, focusing on the evolution of epidemics in South Africa's mines and the link between these epidemics to epidemics in Lesotho.

Chapters 5, 6 and 7 are empirical and are linked to the research objectives and the rest of the chapters. Chapter 5 analysed the role of structures (the mines and healthcare institutions in Lesotho and the mines) in expanding or constricting Lesotho miners' capabilities to prevent and manage HIV. Structures' contribution towards expanding or constricting the miners' capabilities to prevent and manage HIV, was discussed, using four themes: the miners' loss of control over daily living, circular migration and capability expansion and constriction, policy and legislature context and the quality of HIV services. Chapter 6 analysed the miners' conversion factors (personal, social and environmental) that assist them in converting existing HIV resources into usable resources in preventing and managing HIV. The chapter concluded that the miners have adequate personal and social conversion factors. However, these conversion factors operate amid many social constraints, making building capabilities to prevent and manage HIV, difficult. The miners' environmental conversion factors were inadequate, particularly those related to accessing ARVs in the mines, denying them some freedom and entitlement. Chapter 7, the final empirical chapter, analysed the miners' functionings ("doings" and "beings") that foster or constrict their capabilities to prevent and manage HIV. The chapter concluded that the miners engage in capability-expanding functions. However, for those who are HIV positive, their capability-expanding functionings also compete with capability-restricting functionings, like being stigmatised and enduring the side-effects of ARVs, negatively affecting their psychological, physical and social well-being.

8.3 Main findings

8.3.1 The overwhelming social constraints related to the miners' working and living conditions constrict their capabilities to prevent and manage HIV

In Chapter 4, migrant labour to South Africa was discussed as creating unfreedom and lack of choice for migrant miners, while at the same time it was reconciling the mines' need for sustained cheap labour (Vosloo, 2020). Additionally, the social environment at the mines is portrayed as accepting and fostering risky sexual behaviours when coupled with inadequate, overcrowded living conditions, perpetuating epidemics like HIV (Stuckler et al., 2013; Bygrave et al., 2010; Crush et al., 2005; Maloka, 1997). The results show many social

constraints at the mines, like the acceptance of commercial sex, self-imposed isolation, used as a coping strategy against the social environment that does not support health, and a robust tavern culture, constricting the miners' capabilities to prevent and manage HIV. There is much freedom for the miners to seek accommodation wherever they wish, while working in the mines, but the vicious cycle of inadequate living conditions is maintained and perpetuated through poor mine housing policies. This undermines the miners' freedom to live the life they "have reason to value" (Sen, 2005).

Consequently, many migrant miners engage in capability-restricting functionings, like commercial sex and self-isolation and eventually lose control over their daily lives when they continue to work and live separately from their families in the mines. Furthermore, the social environment at the mines that accepts commercial sex, constricts their personal and social conversion factors, reducing their capabilities to avoid risky sexual behaviours and control their sexual lives. Some miners also experience a reduced capability to affiliate with others, as a manifestation of losing control over their daily lives. While the mines provide housing for the miners, this is inadequate housing, often driving the miners to similar or worse living spaces than the mines' compound living arrangements.

8.3.2 The miners' circular migration patterns simultaneously expand and constrict their capabilities to prevent and manage HIV

In Chapter 2, Ravenstein's Laws of migration and the spatial interaction theories were discussed and demonstrated the role of distance as an influencer of migration decision-making and flows. The findings of this study support these theories by revealing that Lesotho migrant miners' repetitive circular migrations are motivated by the short distance from the Free State mines to their homes in Lesotho. In the same breath, the discourse in Chapter 3 showed that circular migration patterns, by nature, are unstable and irregular, promoting social problems and transmission of diseases and the sustenance of epidemics. Chapter 4 localised these views by exploring the history of epidemics in South Africa's mines and suggesting that cross-border migration between Lesotho to South Africa drives devastating epidemics like HIV/AIDS. The chapter also suggested that migrant labour to South Africa's mines contributes to the spread of epidemics, including HIV, at both ends of circular migration patterns (Stucker et al., 2013; Crush & Dodson, 2010; Clark et al., 2007; Koehn, 2006). The findings of this study support these views. However, this study also found that while the miners' repetitive circular

migrations expose them to HIV through the difficult social environments that they encounter during travel, they also build their capabilities to manage HIV by fostering their access to ARVs in Lesotho. This new finding contributes to the migration theory by motivating repetitive circular migration patterns to escape morbidity and premature death from HIV and achieve the meta-capability of health.

8.3.3 Incompatible policies simultaneously expand and constrict the miners' capabilities to prevent and manage HIV

Chapters 2 and 3 discussed that migration flows between countries are currently high, making their management difficult. Chapter 3 highlighted that host health systems often lack the will to incur migrants' health burdens. Chapter 4 showed that South Africa's mining sector initially lacked the will to respond to the HIV epidemic at the mines. The findings show that the systems to address the miners' health exist at the mines and in Lesotho. It was apparent across the three empirical chapters that HIV programmes contribute hugely towards expanding the miners' capabilities to prevent and manage HIV. Policies that foster access to healthcare from multiple health facilities, rapid access to ART through "Test and Treat", and specific healthcare access protocols, are hugely capability-expanding for the miners. However, social constraints like the mines' work policies often clash with HIV programmes, HIV prevention and management ideals and the miners' healthcare needs. For example, the mines' policies that prioritise work commitments over the miners' healthcare needs, do not foster the miners' capabilities to meet the demands of managing HIV (regular medical check-ups and regular collection of HIV treatment). Also, migration-related policy challenges, like the clash between HIV management protocols in South Africa and Lesotho, constrict the miners' access to HIV drugs in South Africa. Therefore, despite free ARVs for the miners in Lesotho and South Africa, access to ARVs is made difficult by the migration-imposed constraints, including policies on some freedom, work-based problems, the negative attitudes of health staff, administrative red tape and poor service delivery.

8.3.4 Without the necessary conversion factors, the availability of HIV resources is no guarantee that migrants will cultivate capabilities towards taking treatment, adherence to HIV treatment, or practising safe sex

Chapter 1 highlighted Lesotho migrant miners' reluctance to utilise HIV services (Faturiyele et al., 2018; Klein et al., 2015; Crush et al., 2005;). Chapter 2 pointed to the importance of conversion factors in building capabilities. Chapters 3 and 4 discussed factors that hinder migrants from accessing HIV services in host countries. These include discrimination, racism, linguistic and cultural barriers and healthcare workers' lack of competence in delivering healthcare services to migrants. The results show that existing HIV programmes provide the means for the miners to prevent and manage HIV. However, social constraints hinder the miners' conversion factors from using the means provided by HIV programmes. For example, the mines' efforts to pay for antiretroviral treatment and make it available to their employees without the necessary conversion factors do not build their capacity to prevent and manage HIV.

8.3.5 The differing qualities of healthcare in the mines and Lesotho deprive the miners of consistent satisfactory healthcare quality, constricting their capability to prevent and manage HIV

The literature in Chapters 1 and 4 pointed to the high quality of healthcare at the mines. The results of this study (Chapters 5 and 6) also highlighted the high quality of healthcare in the mines and the low quality of healthcare in Lesotho. However, the results show that while healthcare is high in the mines, it is difficult to access some basic services like ARVs for foreign national miners. Additionally, healthcare workers' negative attitudes towards migrants, alienate the miners from using the services, depriving them of a high-quality service. Consequently, the miners tend to gravitate towards the low-quality healthcare services in Lesotho (as revealed during the interviews), forfeiting high-quality healthcare services in the mines. Hence, the healthcare burden is shifted from high-quality healthcare (the mines) to low-quality healthcare and lack of resources (Lesotho). According to the data, the most dominant characteristics of low-quality service in Lesotho include; a general lack of resources, poorly organised healthcare services and lack of efficiency, as demonstrated by slow service, recurrent incidences of lost files, overcrowding, and constant staff rotations at health facilities.

8.3.6 Social constraints, driven by structural factors at the mines, undermine the miners' environmental conversion factors, constricting their capabilities to prevent and manage HIV

The role of conversion factors in building capabilities, was highlighted in Chapter 2. The existence of resources is of no use in the absence of the conversion factors (personal, social and environmental conversion factors). Conversion factors are, in their nature, catalytic, enabling the conversion of resources into usable entities. The results of this study have revealed that, while the miners seem to possess adequate personal and social conversion factors, they operate amid many social constraints, making building capabilities to prevent and manage HIV, difficult. Their environmental conversion factors are inadequate, constricting their capabilities to prevent and manage HIV. For instance, while there are dependable ARVs stock supplies at the mines, access to initial ART for Lesotho miners is difficult, requiring a cross-border referral letter. Additionally, capability-building efforts to collect ARVs in Lesotho are costly financially, legally and in terms of safety.

8.3.7 The study fills empirical and methodological gaps

This is the first study on Lesotho miners' capabilities to prevent and manage HIV. Chapter 1 discussed the capabilities approach and its potential to successfully deal with the social arrangements important to Lesotho migrant miners' health through the identification of their values, opportunities, freedoms and choices, associated with their well-being and quality of life (Kinghorn & Coast, 2018; Law & Widdowson, 2008). However, Chapter 1 also highlighted that biomedical and behavioural theories dominate most research on HIV prevention and management for Lesotho migrants, undermining the value of the development aspects of HIV management and prevention (Campbell & Williams, 1999). Hence, the capabilities approach to migrant miners' HIV prevention and management has not received much attention. Additionally, research on HIV prevention and management in Lesotho is mostly quantitative. No research has focused specifically on Lesotho migrant miners' capabilities and HIV. Past research in Southern Africa has focused on the impact of migration on migrants and host health systems, using migration theories (Mou, Griffiths & Dawes, 2014; Crush et al., 2005). Very little research focuses on migrants' construction of capabilities to cope with the effects of migration and the social arrangements surrounding them. Consequently, this subject is still not adequately understood. No studies have used the capabilities approach to investigate Lesotho

miners' prevention and management of HIV at South Africa's mines, yet they are among the worst-hit groups by HIV. This study contributes towards closing these gaps by using the qualitative research approach to investigate the capabilities of Lesotho migrant miners to prevent and manage HIV.

The results of this study have contributed to one book chapter (Management and Prevention of HIV Infection in Migrant Miners in Lesotho and South Africa: A Capabilities Approach) which has been accepted in an edited book (Health and Medical Geography in Africa: Methods, Applications and Development Linkages). At the time of submission, a paper was being conceived and prepared for publication.

Table 8.1 below summarises the main findings of this study and key reccomendations.

Table 8.1 Summary of main findings

Main Finding	**Key recommendation**
The overwhelming social constraints related to the miners' working and living conditions constrict their capabilities to prevent and manage HIV	The mines should periodically re-visit their policies to prioritise the miners' housing and accommodation to foster adequate family accommodation that prevents the disintegration of the miners' families caused by separation. The mines should engage in anti-demand approaches to commercial sex and alcoholism.
The miners' circular migration patterns simultaneously expand and constrict their capabilities to prevent and manage HIV	Circular migration patterns should be a resource that expands the miners' capabilities to prevent and manage HIV; The mines should foster a free and efficient transport system that mitigates travel delays and the miners' encounters with prostitutes. Company transport should be provided while at the same time the miners' choices are respected. Efficient immigration systems should be implemented at the South Africa-Lesotho border gates to prevent delays and social insults that provide opportunities for risky sexual behaviours.
Incompatible policies simultaneously expand and constrict the miners' capabilities to prevent and manage HIV	HIV prevention and management policies should be made compatible throughout SADC. ART policies and protocols in Lesotho and South Africa and the rest of SADC should be harmonized and compatible to expand the miners' capabilities to access ARVs and ART in the mines and anywhere in the SADC region, regardless of their migration status. s Mine work policies should be reviewed periodically to accommodate progress in HIV prevention and management and prioritisation of the miners' healthcare needs.
Without the necessary conversion factors, the availability of HIV resources is no guarantee that migrants will cultivate capabilities towards taking treatment, adherence to HIV treatment, or practising safe sex	The miners' conversion factors, particularly the environmental conversion factors should be fostered by the mines and the Lesotho government; Lesotho government should ensure dependable ARV stocks at HIV care facilitilities and should make referral letters easily accessible. The mines should make ARVs accessible for the miners regardless of their immigration status
The differing qualities of healthcare in the mines and in Lesotho deprive the miners of consistent satisfactory healthcare quality, constricting their capability to prevent and manage HIV.	There should be collaboration between the mines' health systems and Lesotho's health system to share best practices to expand the miners' capabilities to consistently access quality healthcare and be healthy. Lesotho's health system should re-create policies and guidelines that foster organised, efficient and high-quality healthcare services that avert overcrowding at health facilities to support capabilities to access healthcare.
Social constraints, driven by structural factors at the mines, undermine the miners' environmental conversion factors, constricting their capabilities to prevent and manage HIV	Social constraints related to the miners difficult access to HIV prevention, access to ART and ARVs should be reviewed and upgraded by the mines. Policies at the mines should facilitate the miners' easy access to ARVs in Lesotho through getting time off as needed fr check-ups and collection of ARVs.
The study fills empirical and methodological gaps	Further qualitative studies should be conducted on Lesotho migrant miners' capabilities in preventing and managing HIV and should include all Lesotho migrant miners from all provinces in South Africa

8.4 Key recommendations

This section highlights the key recommendations for policy reviews, both migratory and health policies, in Lesotho and South Africa.

- The mines should periodically re-visit their policies to prioritise the miners' housing and accommodation upgrades and create adequate family accommodation to prevent the disintegration of the miners' families caused by separation.
- The mines should engage in anti-demand approaches to commercial sex and alcoholism through widened health education.
- Circular migration patterns should be a resource that expands the miners' capabilities to prevent and manage HIV by fostering a free and efficient transport system that mitigates travel delays and encounters with prostitutes. The mines should provide company transport for the mines while at the same time respecting the miners' choice. Efficient immigration systems should be implemented at the South Africa-Lesotho border gates to prevent delays and social insults that often provide opportunities for risky sexual behaviours.
- HIV prevention and management policies should be made compatible throughout SADC. ART policies and protocols in Lesotho and South Africa and the rest of SADC countries should be harmonized and compatible, expanding the miners' capabilities to access ARVs and ART in the mines and anywhere in the SADC region, regardless of their migration status. Mine work policies should also be reviewed periodically to accommodate progress in HIV prevention and management and prioritisation of the miners' healthcare needs.
- Lesotho's health system should re-create policies and guidelines that foster organised, efficient and high-quality healthcare services that avert overcrowding at health facilities to support capabilities to access healthcare.
- There should be a collaboration between the mines' health systems and Lesotho's health system to share best practices to expand the miners' capabilities to access quality healthcare and be healthy consistently.
- Social constraints related to the miners' difficult access to HIV prevention, ART and ARVs should be reviewed and upgraded by the mines. Policies at the mines should facilitate the miners' easy access to ARVs in Lesotho.

- Further qualitative studies should be conducted on Lesotho migrant miners' capabilities in preventing and managing HIV and should include all Lesotho migrant miners from all provinces in South Africa

8.5 Areas of future research

This study focused on the miners' capabilities to prevent and manage HIV. However, the study did not cover the views of other key stakeholders, like healthcare workers, the mining authorities, the miners' families and the communities surrounding them. I motivate that future research should focus on healthcare workers, the mines' authorities, the miners' families and communities to find out what they view as their role in assisting the miners in cultivating capabilities to prevent and manage HIV. Future research should also be done on a large scale, covering all Lesotho miners in all the Provinces of South Africa to get a clearer picture of their overall capabilities to prevent and manage HIV. Most HIV research on migrants in Lesotho uses quantitative approaches and focuses mostly on the general migrant population. More research that uses qualitative approaches is needed to investigate Lesotho migrant miners' capabilities in the face of HIV. More research that focuses on the needs of the miners' perceived needs (education, materials and services) to build their capabilities against HIV, is needed. Also, more research on the opinions of other stakeholders, like healthcare workers and mine authorities, is needed. Also, more research uses qualitative approaches to get in-depth insights into the miners' cultivation of capabilities in some specialised areas in HIV prevention and management.

LIST OF REFERENCES

Adepoju, A. (1998). Linkages between internal and international migration: The African situation. *International Social Science Journal*, 50(157), 387-395.

Adepoju, A. (2002). Fostering free movement of persons in West Africa: Achievements, constraints, and prospects for intraregional migration. *International migration*, 40(2), 3-28.

Adger, W. N. (2006). Vulnerability. *Global Environmental Change*, 16(3), 268-281.

Afani, A. (2013). ECOWAS and Migration. *The Encyclopedia of Global Human Migration*. https://doi.org/10.1002/9781444351071.wbeghm191

African Centre for Migration & Society, University of the Witwatersrand, South Africa; Centre of African Studies, University of Edinburgh, UK.

Agadjanian, V., & Avogo, W. (2008). Forced migration and HIV/AIDS risks in Angola. *International Migration*, 46(3), 189-216.

Alakhunova, N., Diallo, O., Martin del Campo, I., & Tallarico, W. (2015). Defining marginalization: An assessment tool. *A product of the partnership between four development professionals at the Elliot School of Internaational Affairs &The Word Fair Trade Organization-Asia. The George Washington University*.

Alkire, S. (2003). *The Capability Approach as a development paradigm?* Material for the training session preceding the 3rd International Conference on the Capability Approach, Pavia, September 7, 2003.

Alkire, S. (2008). Using the capability approach: Prospective and evaluative analyses. In F. Comim, M. Qizilbash, & S. Alkire (Eds.), *The Capability Approach: Concepts, Measures and Applications* (pp. 26-50). Cambridge: Cambridge University Press. doi:10.1017/CBO9780511492587.002

Alkire, S., Roche, J. M., Ballon, P., Foster, J., Santos, M. E., & Seth, S. (2015). *Multidimensional poverty measurement and analysis*. Oxford University Press, USA.

Amelina, A. & Horvath, K. (2017). Sociology of migration. The Cambridge handbook of sociology: Core areas in sociology and the development of the discipline, 1, 455-464.

Amelina, A., & Horvath, K. (2017). Sociology of migration. In K. Odell (Ed.), *The Cambridge handbook of sociology: Core areas in sociology and the development of the discipline, 1*, (pp. 455-464). Cambridge: Cambridge University Press.

Amon, J. & Todrys, K. (2009). Access to antiretroviral treatment for migrant populations in the Global South. *Sur. Revista Internacional de Direitos Humanos, 6*, 162-187.

Amstutz, A., Lejone, I., Khesa, L., Muhairwe, J. N., Bienvenu L., Tlali, K., Kao, M. (2019). VIBRA trial–Effect of village-based refill of ART following home-based same-day ART initiation vs clinic-based ART refill on viral suppression among individuals living with HIV: protocol of a cluster-randomized clinical trial in rural Lesotho. *Trials*, 20(1), 1-14.

Apenteng, O. O. & Ismail, N. A. (2019). Modelling the impact of migration on HIV persistency in Ghana. *Statistics, Optimization & Information Computing,* 7(1), 55-65

Axelsson, J., Hallager, S., & Barfod, S. (2015). Antiretroviral therapy adherence strategies used by patients of a large HIV clinic in Lesotho. *Journal of Health, Population and Nutrition*, 33(1), 1-9.

Bank, L. J., Posel, D. & Wilson, F. (2020). Migrant labour after apartheid: the inside story.

Barboza, C. E. G., Winter, D. H., Seiscento, M., Santos U. & Terra Filho, M. (2008). Tuberculosis and silicosis: epidemiology, diagnosis and chemoprophylaxis. J*ornal Brasileiro de Pneumologia,* 34, 959-966.

Baros, W. & Manafi, G. (2009). Approaching migrant youth marginalization through the capabilities approach: methodological proposals. *Social Work & Society*, 7(1), 113-121.

Baxter, P. & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report,* 13(4), 544-559.

Belaid, L., Benoit, M., Kaur, N., Lili, A. & Ridde, V. (2020). Population health intervention implementation among migrants with precarious status in Montreal: Underlying theory and key challenges. *SAGE Open*, 10(2), 2158244020917957.

Bhugra, D. (2004). Migration and mental health. *Acta Psychiatrica Scandinavica*, 146(2), 243–258.

Bonner, P. (2009). Labour, Migrancy and Urbanization in South Africa and India, 1900—60. *Journal of Asian and African Studies*, 44(1), 69-95.

Borhade, A., Dey, S., Tripathi, A., Mavalankar, D. & Webster, P. (2016). Migration and health: a review of policies and initiatives in low and middle income countries. *The Lancet*, 388, S26.

Brabant, Z. & Raynault, M. (2012). Health situation of migrants with precarious status: Review of the literature and implications for the Canadian context—Part A. *Social Work in Public Health*, 27(4), 330-344.

Brabant, Z. & Raynault, M. F. (2012). Health situation of migrants with precarious status: Review of the literature and implications for the Canadian context—Part A. *Social Work in Public Health*, 27(4), 330-344.

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.

Breckenridge, K. D. (2015). Conspicuous disease: The surveillance of silicosis in South Africa, 1910–1970. *American Journal of Industrial Medicine*, 58(S1), 15-22.

Briggs, V. M. Jr. (1977). Immigration. Labor Law J., 28, 495-500.

Brink, H. (1993). Validity and reliability in qualitative research. *Curationis*, *16*(2), 35-38.

Britz, J. B. & McKee, M. (2016). Charging migrants for health care could compromise public health and increase costs for the NHS. *Journal of Public Health*, 38(2), 384-390.

Bygrave, H., Kranzer, K., Hilderbrand, K., Whittall, J., Jouquet, G., Goemaere, E. & Ford, N. (2010). Trends in loss to follow-up among migrant workers on antiretroviral therapy in a community cohort in Lesotho. *PloS one*, 5(10), e13198.

Campbell, C. & Williams, B. (1999). Beyond the biomedical and behavioural: towards an integrated approach to HIV prevention in the southern African mining industry. *Social Science and Medicine*, 48(11), 1625-1639.

Canadian, AIDS Society (2001). *Canadian HIV/AIDS Strategy.* Paper presented at the Toward Integrative Care: Report from a National Strategic Planning Meeting on Complementary Therapies and HIV/AIDS. Montreal.

Chen, J., Chen, S., & Landry, P. (2013). Migration, environmental hazards, and health outcomes in China. *Social Science and Medicine*, 80, 85-95.

Churchyard, G. J., Kleinschmidt, I., Corbett, E. L., Murray, J., Smit, J. & De Cock, K. M. (2000). Factors associated with an increased case-fatality rate in HIV-infected and non-infected

South African gold miners with pulmonary tuberculosis. *The International Journal of Tuberculosis and Lung Disease*, 4(8), 705-712.

Ciplet, D., Adams, K.M., Weikmans, R. & Roberts, J. T. (2018). The transformative capability of transparency in global environmental governance. *Global Environmental Politics*, 18(3), 130-150.

Clark, David A. (2005). The Capability Approach: Its Development, Critiques and Recent Advances.

Clark, S. J., Collinson, M. A., Kahn, K., Drullinger, K. & Tollman, S. M. (2007). Returning home to die: Circular labour migration and mortality in South Africa. *Scandinavian Journal of Public Health*, 35(69_suppl), 35-44.

Coast, J., Smith, R., & Lorgelly, P. (2008). Should the capability approach be applied in health economics? *Health economics*, 17(6), 667-670.

Cobbe, J. (1982). Emigration and development in Southern Africa, with special reference to Lesotho. *International Migration Review*, 16(4), 837-868.

Cole, G. (2018). Beyond labelling: Rethinking the role and value of the refugee 'label'through semiotics. *Journal of Refugee Studies*, *31*(1), 1-21

Collinson, M. A., Tollman, S. M. & Kahn, K. (2007). Migration, settlement change and health in post-apartheid South Africa: Triangulating health and demographic surveillance with national census data. *Scandinavian Journal of Public Health*, 35(69_suppl), 77-84.

Coovadia, H., Jewkes, R., Barron, P., Sanders, D. & McIntyre, D. (2009). The health and health system of South Africa: historical roots of current public health challenges. *The Lancet*, 374(9692), 817-834.

Coplan, D. B. (2003). Land from the ancestors: Popular religious pilgrimage along the South Africa-Lesotho Border. *Journal of Southern African Studies*, 29(4). https://doi.org/10.1080/0305707032000135923

Corbett, J. J. (2001). *Ernest George Ravenstein: The Laws of Migration, 1885.* Available from https://escholarship.org/uc/item/3018p230 [accessed 20 November 2022].

Crush, J. & Dodson, B. (2010). Migration, remittances and development in Lesotho: African Books Collective.

Crush, J., Williams, B., Gouws, E. & Lurie, M. (2005). Migration and HIV/AIDS in South Africa. Development Southern Africa, 22(3), 293-318.

Cuomo, G., Franconi, I., Riva, N., Bianchi, A., Digaetano, M., Santoro, A., Codeluppi, M., Bedini, A., Guaraldi, G. & Mussini, C. (2019). Migration and health: A retrospective study about the prevalence of HBV, HIV, HCV, tuberculosis and syphilis infections amongst newly arrived migrants screened at the Infectious Diseases Unit of Modena, Italy. *Journal of Public Health*, 12(2), 200-204.

Davies, A. A., Basten, A. & Frattini, C. (2011). Migration: a social determinant of the health of migrants. *Eurohealth*, 16(1), 10-12.

Davies, A., Basten, A. & Frattini, C., 2011. Migration: A Social Determinant of the Health of Migrants. Geneva: International Organization for Migration.

Deacon, B. J. (2013). The biomedical model of mental disorder: A critical analysis of its validity, utility, and effects on psychotherapy research. *Clinical psychology review, 33*(7), 846-861.

De Haas, H. (2014). *Migration theory: Quo vadis?* International Migration Institute, University of Oxford.

De Haas, H. & Rodríguez, F. (2010). Mobility and human development: introduction. *Journal of Human Development and Capabilities, 11*(2), 177-184

Deneulin, S. (2003). *Examining Sen' s capability approach to development as guiding theory for development policy* (Doctoral dissertation). Oxford University.

Di Carlo, A., Mantell, J.E., Remien, R.H., Zerbe, A., Morris, D. & Pitt, B. (2014). 'Men usually say that HIV testing is for women': gender dynamics and perceptions of HIV testing in Lesotho. *Culture, Health & Sexuality*, 16(8), 867-882. doi:10.1080/13691058.2014.913812

Dingle, H., & Drake, V. A. (2007). What is migration? BioScience, 57(2), 113-121.

Elliott, S. J. & Gillie, J. (1998). Moving experiences: a qualitative analysis of health and migration. *Health & Place*, 4(4), 327-339.

Entwistle, V. A, & Watt, I. S. (2013). Treating patients as persons: a capabilities approach to support delivery of person-centered care. *The American Journal of Bioethics*, 13(8), 29-39.

Evanoff, R. J. (2005). Reconciling realism and constructivism in environmental ethics. *Environmental Values, 14*(1), 61-81

Evans, J. (1987). Introduction: Migration and health. *The International Migration Review*, 21(3), v-xiv.

Faturiyele, I., Appolinare, T., Ngorima-Mabhena, N., Fatti, G., Tshabalala, I., Tukei, V. & Pisa, P. (2018). Outcomes of community-based differentiated models of multi-month dispensing of antiretroviral medication among stable HIV-infected patients in Lesotho: a cluster randomised non-inferiority trial protocol. *BMC Public Health*, 18(1), 1-9.

Fleischman, Y., Willen, S., Davidovitch, N. & Mor, Z. (2015). Migration as a social determinant of health for irregular migrants: Israel as case study. *Social Science and Medicine*, 147, 89–97.

Forman, S. H. (1976). Migration: A Problem of Conceptualization. *Rice Institute Pamphlet-Rice University Studies, 62*(3).

Fossey, E., Harvey, C., McDermott, F. & Davidson, L. (2002). Understanding and evaluating qualitative research. *Australian Journal of Psychiatry*, 36(6), 717-732.

Fourie, J. & Jayes, J. (2021). Health inequality and the 1918 influenza in South Africa. *World Development*, 141, 105407.

Francis, D. (2021). Migrant Labour after apartheid: The Inside Story: Edited by Leslie J. Bank, Dorrit Posel and Francis Wilson. Cape Town: Human Sciences Research Council Press, 2020. xii+ 404 pp. ISBN 978 0 7969 2579 4: Taylor & Francis.

Given, L. M. (2008). *The Sage encyclopedia of qualitative research methods*. London: Sage Publications.

Glover, M. J. (2015). *Development as unfreedom: the role of mine migrant labour institutions as agents of development in the Transkei, 1886-1980s* (Master thesis). University of Cape Town.

Government of Lesotho. (2006). *Lesotho's National HIV & AIDS Strategic Plan, 2006-2011*. National Aids Commission of Lesotho.

Greenwood, M. J. (2016). Perspectives on migration theory–Economics. In M.J. White (Ed.), *International handbook of migration and population distribution* (pp. 31-40). Dordrecht: Springer.

Grigg, D. B. (1977). EG Ravenstein and the "laws of migration". *Journal of Historical geography*, 3(1), 41-54.

Grove, N. J & Zwi, A. B. (2006). Our health and theirs: forced migration, othering, and public health. *Social science & medicine*, *62*(8), 1931-1942.

Gushulak, B. D., Weekers, J., & MacPherson, D. W. (2009). Migrants and emerging public health issues in a globalized world: threats, risks and challenges, an evidence-based framework. *Emerging Health Threats*, 2(1), 7091.

Hann, A. & Querques, J. (2015). The potential role for Occupational Therapy in the continuum of care for those living with HIV associated neurocognitive disorders. *Health Professional Student Journal*, 2(1). Available from https://web.archive.org/web/20180418232543id_/http://ojs.library.ubc.ca/index.php/hpsj/article/viewFile/187749/185844 [accessed 20 November 2022].

Hardicre, J. (2014). Valid informed consent in research: An introduction. *British Journal of Nursing*, *23*(11), 564-567.

Harington, J., McGlashan, N. & Chelkowska. (2004). A century of migrant labour in the gold mines of South Africa. *Journal of the Southern African Institute of Mining*, 104(2), 65-71.

Harris, J. R. & Todaro, M. P. (1970). Migration, unemployment and development: a two-sector analysis. *The American economic review*, 60(1), 126-142.

Hernández, M. G., Nguyen, J., Casanova, S., Suárez-Orozco, C., & Saetermoe, C. L. (2013). Doing no harm and getting it right: Guidelines for ethical research with immigrant communities. *New directions for child and adolescent development*, *2013*(141), 43-60.

Hicks, J. R. (1932). Marginal productivity and the principle of variation. *Economica*, (35), 79-88.

Jagodzinski, L. L., Manak, M. M., Hack, H. R., Liu, Y., Malia, J. A., Freeman, J., Phanuphak, N., de Sousa, M., Kroon, E, D. & Colby, D. J. (2019). Impact of early antiretroviral therapy on detection of cell-associated HIV-1 nucleic acid in blood by the Roche Cobas TaqMan test. *Journal of clinical microbiology*, *57*(5), e01922-01918.

Joffe, H. (2012). Thematic analysis. In D. Harper & A.R. Thompson (Eds.), *Qualitative research methods in mental health and psychotherapy* (pp. 210-223). London: John Wiley & Sons.

Kaiser, W. (2014). David Foster Wallace and the Ethical Challenge of Posthumanism. *Mosaic: a journal for the interdisciplinary study of literature*, 53-69.

Kelly, P. M. & Adger, W. N. (2000). Theory and practice in assessing vulnerability to climate change and facilitating adaptation. *Climatic change*, 47(4), 325-352.

Keygnaert, I., Vettenburg, N. & Temmerman, M. (2012). Hidden violence is silent rape: sexual and gender-based violence in refugees, asylum seekers and undocumented migrants in Belgium and the Netherlands. *Culture, health & sexuality*, 14(5), 505-520.

Khoo, S. (2013). Health justice and capabilities: A turning point for global health? Sage Publications Sage UK: London, England.

King, R., & Skeldon, R. (2010). 'Mind the gap!'Integrating approaches to internal and international migration. *Journal of Ethnic Migration Studies*, 36(10), 1619-1646.

Kinghorn, P. & Coast, J. (2018). Assessing the capability to experience a'good death': A qualitative study to directly elicit expert views on a new supportive care measure grounded in Sen's capability approach. *Plos one*, 13(2), e0193181.

Kinghorn, P., Robinson, A. & Smith, R. D. (2015). Developing a capability-based questionnaire for assessing well-being in patients with chronic pain. *Social indicators research*, 120(3), 897-916.

Kivisto, P. (2001). Theorizing transnational immigration: a critical review of current efforts. *Ethnic and racial studies*, 24(4), 549-577.

Klein, D. J., Eckhoff, P. A., & Bershteyn, A. (2015). Targeting HIV services to male migrant workers in southern Africa would not reverse generalized HIV epidemics in their home communities: a mathematical modeling analysis. *International health*, 7(2), 107-113.

Koehn, P. H. (2006). Globalization, migration health, and educational preparation for transnational medical encounters. *Globalization and Health, 2*(1), 1-16.

Ku, L, & Jewers, M. (2013). *Health care for immigrant families: Current policies and issues.* Washington, DC: Migration Policy Institute.

Kumpikaite, V., & Zickute, I. (2012). Synergy of migration theories: theoretical insights. *Inzinerine Ekonomika-Engineering economics*, 23(4), 387-394.

Kurekova, L. (2011). *Theories of Migration: Conceptual Review And Empirical Testing in the Context of the EU Eastwest Flows,* Paper prepared for Interdisciplinary Conference on Migration, Economic Change, Social Challenge, April 6-9, 2011, University College London.

Kwasnicka, D., Dombrowski, S. U., White, M. & Sniehotta, F. (2016). Theoretical explanations for maintenance of behaviour change: a systematic review of behaviour theories. *Health psychology review, 10*(3), 277-296.

Lassetter, J.H. & Callister, L. C. (2009). The impact of migration on the health of voluntary migrants in western societies: a review of the literature. *Journal of transcultural nursing, 20*(1), 93-104.

Lattof, S. R. (2018). Health insurance and care-seeking behaviours of female migrants in Accra, Ghana. *Health Policy and Planning*, 33(4), 505-515.

Laurence, P., & Blower, S. (2015). Mobility and circular migration in Lesotho: implications for transmission, treatment and control of a severe HIV epidemic. *Journal of Acquired Immune Deficiency Syndromes*, 68(5), 604.

Law, I. & Widdowson, H. (2008). Conceptualising health: insights from the capability approach. *Health Care Analysis,* 16(4), 303-314.

Lesotho Bureau of Statistics Report (2008)

Levitt, P. & Jaworsky, B. N. (2007). Transnational migration studies: Past developments and future trends. *Annual review of sociology, 33*, 129.

Lewis, L. (2012). The capabilities approach, adult community learning and mental health. *Community Development Journal, 47*(4), 522-537.

Lewis, W. A. (1954). *Economic development with unlimited supplies of labour.* Available from http://la.utexas.edu/users/hcleaver/368/368lewistable.pdf [accessed 20 November 2022].

Lurie, M. N. & Williams, B. G. (2014). Migration and health in Southern Africa: 100 years and still circulating. *Health Psychology and Behavioral Medicine: an Open Access Journal*, 2(1), 34-40.

Lurie, M. N., & Stuckler, D. J. (2010). The role of mining in the spread of TB in Africa: policy implications. *Expert review of anti-infective therapy*, 8(11), 1205-1207.

Lurie, M. N., Williams, B. G., Zuma, K., Mkaya-Mwamburi, D., Garnett, G. P., Sweat, M. D., Karim, S. S. (2003). Who infects whom? HIV-1 concordance and discordance among migrant and non-migrant couples in South Africa. Aids, 17(15), 2245-2252.

Lüthi, B. (2018). Migration and migration history. *History*, 14(1), 5-11.

Mabogunje, A. (1970). Systems approach to a theory of rural-urban migration. *Geographical analysis*, 2(1), 1-18.

Mabsout, R. (2011). Capability and health functioning in Ethiopian households. *Social Indicators Research*, 101(3), 359-389.

Malmusi, D. (2010). Health inequalities across migrant populations. *Social Science and Medicine*, 103-108.

Maloka, T. (1997). Mines and labour migrants in southern Africa. *Journal of Historical Sociology*, 10(2), 213–224.

Maphosa, F, & Morojele, R.N. (2013). Changing the culture of migration? Attitudes towards education among former Basotho labour migrants to South African mines. *Africa Development, 38*(1&2), 151-170.

Marais, L. & Venter, A. (2006). Hating the compound, but… Mineworker housing needs in post-apartheid South Africa. *Africa Insight*, 36(1), 53–62.

Marais, L. (2001). Towards a policy framework for post-apartheid housing investment in former homeland areas: evidence from the Free State. South African *Geographical Journal*, 83(3), 183-189.

Marmot, M. (2016). Society and health of migrants. *European journal of epidemiology*, 31(7), 639-641.

Martinez, O., Wu, E., Sandfort, T., Dodge, B., Carballo-Dieguez, A., Pinto, R., Rhodes, S., Moya, E. & Chavez-Baray, S., 2015. Evaluating the impact of immigration policies on health status among undocumented immigrants: A systematic review. Journal of Immigrant and Minority Health, 17, pp. 947–970.

Martiniello, M. (2013). Comparisons in migration studies. *Comparative Migration Studies*, 1(1), 7-22.

Masebo, W. (2019). Accessing ART in Malawi while living in South Africa–a thematic analysis of qualitative data from undocumented Malawian migrants. *Global Public Health*, 14(5), 621-635.

Massey, D. S. (2003). *Patterns and processes of international migration in the 21st century.* Paper presented at the Conference on African Migration in Comparative Perspective, Johannesburg, South Africa.

Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., & Taylor, J. E. (1993). Theories of international migration: A review and appraisal. *Population and development review*, 19(3), 431-466.

McCartney, G., Popham, F., McMaster, R. & Cumbers, A. (2019). Defining health and health inequalities. *Public health*, 172, 22-30.

McCulloch, J. (2012). *South Africa's gold mines & the politics of silicosis* (Vol. 36): Boydell & Brewer Ltd.

McDonald, D. A., Zinyama, L., Gay, J., de Vlerter, F. & Marres, R. (2000). Guess who's coming to dinner: Migration from Lesotho, Mozambique and Zimbabwe to South Africa. *International Migration Review*, 34(3), 813-841.

Modi, R. (2003). Migration to Democratic South Africa. *Economic and Political Weekly*, 38(18), 1759–1762.

Mofuoa, K. (2016). Prospering in the southern Africa's VUCA world of the nineteenth century: A case of resilience of Basotho of Lesotho. *Journal of Enterprising Communities: People and Places in the Global Economy*.

Mokoena, S. K. & Balkaran, S. (2018). An exploration of constraints for free movement of people in Africa-a case of Lesotho and South Africa. *African Journal of Public Affairs*, 10(2), 109-126.

Morse, J. M., Barrett, M., Mayan, M., Olson, K. & Spiers, J. (2002). Verification strategies for establishing reliability and validity in qualitative research. *International Journal of Qualitative Methods.* 1 (2) Spring, 2002.

Morse, J.M. (Ed). (1989). *Qualitative Nursing Research. A contemporary dialogue*.

Newbury Park, Sage Publications Company.

Mou, J., Griffiths, S. M., Fong, H. F. & Dawes, M. G. (2015). Defining migration and its health impact in China. *Public Health,* 129 (10), 1326-1334.

Müllerschön, J., Koschollek, C., Santos-Hövener, C., Kuehne, A., Müller-Nordhorn, J. & Bremer, V. (2019). Impact of health insurance status among migrants from sub-Saharan Africa on access to health care and HIV testing in Germany: a participatory cross-sectional survey. *BMC International Health and Human Rights*, 19(1), 1-13.

Murray, C. (1981). *Families divided: The impact of migrant labour in Lesotho* (Vol. 29): Cambridge University Press.

Nussbaum, M. (2011). The central capabilities. *Creating capabilities: The human development approach*, 17-45. Available from https://hiw.kuleuven.be/nl/studeren/opleidingen/lessen/cursus materiaal/presentaties-2022-23/Handout-Nussbaum.pdf [accessed 20 November 2022].

Nussbaum, M. (2016). Not for profit. In *Not for Profit*. Princeton University Press.

Pager, D. & Shepherd, H. (2008). The sociology of discrimination: Racial discrimination in employment, housing, credit, and consumer markets. *Annual review of sociology*, 34, 181.

Palk, L. & Blower, S. (2015). Mobility and circular migration in Lesotho: Implications for transmission, treatment and control of a severe HIV epidemic. *Journal of Acquired Immune Deficiency Syndrome,* 68(5), pp. 604–608.

Pannetier, J., Lert, F., Roustide, M. J., & du Loû, A. D. (2017). Mental health of sub-saharan african migrants: The gendered role of migration paths and transnational ties. *SSM-population health*, 3, 549-557.

Parkhurst, J. 2012. HIV prevention, structural change and social values: The need for an explicit normative approach. *Journal of the International AIDS Society,* 15 (Suppl 1). https://onlinelibrary.wiley.com/doi/full/10.7448/IAS.15.3.17367

Pelders, J. & Nelson, G. (2019). Living conditions of mine workers from eight mines in South Africa. *Development Southern Africa*, 36(3), 265-282.

Piché, V. & Dutreuilh, C. J. P. (2013). Contemporary migration theories as reflected in their founding texts. *Journal of Medical Ethics*, 68(1), 141-164.

Piore, M. J. (1979). *Birds of passage: Migrant labor and industrial societies*. CUP Archive.

Pithara, C. (2020). Re-thinking health literacy: using a capabilities approach perspective towards realising social justice goals. *Global health promotion*, 27(3), 150-158.

Pithara, C., Zembylas, M. & Theodorou, M. (2012). Access and effective use of healthcare services by temporary migrants in Cyprus. *International Journal of Migration, Health and Social Care*, 8(2), 72-85.

Ponthieu, A, & Incerti, A. (2016). Continuity of care for migrant populations in southern Africa. *Refugee Survey Quarterly*, 35(2), 98-115.

Portes, J. (2019). The economics of migration. *Contexts*, 18(2), 12-17.

Portes, A., Haller, W. J. & Guarnizo, L. E. (2002). Transnational entrepreneurs: An alternative form of immigrant economic adaptation. *American sociological review*, 278-298.

Potocky-Tripodi, M. (2002). *Best social work practice with immigrants and refugees.* New York.

Preibisch, K., Dodd, W. & Su, Y. (2016). Pursuing the capabilities approach within the migration–development nexus. *Journal of Ethnic Migration Studies,* 42(13), 2111-2127.

Pulla, V. & Carter, E. (2018). Employing interpretivism in social work research. *International Journal of Social Work and Human Services Practice*, 6(1), 9-14.

Quesada, J. H., Laurie K, & Bourgois, P. (2011). Structural vulnerability and health: Latino migrant laborers in the United States. *Medical anthropology*, 30(4), 339-362.

Rechel, B., Mladovsky, P., Ingleby, D., Mackenbach, J. P., & McKee, M. (2013). Migration and health in an increasingly diverse Europe. *The Lancet,* 381(9873), 1235-1245.

Robeyns, I. (2006). The capability approach in practice. *Journal of Political Philosophy*, 14(3), 351-376.

Robeyns, I. (2017). *Wellbeing, freedom and social justice: The capability approach re-examined.* Open Book Publishers.

Ruger, J. P. (2005). Democracy and health. *Qjm*, 98(4), 299-304.

Ruger, J. P. (2006). Toward a theory of a right to health: capability and incompletely theorized agreements. *Yale journal of law & the humanities*, 18(2), 3.

Ruger, J. P. (2010). Health capability: conceptualization and operationalization. *American journal of public health, 100*(1), 41-49.

Ruger, J. P., & Mitra, S. (2015). [Health, Disability and the Capabilities Approach; an introduction].

Sager, A. (2012). Implications of migration theory for distributive justice. *Global Justice: Theory, Practice, Rhetoric, 5*, 56-70.

Sager, A. (2016). Methodological nationalism, migration and political theory. *Journal of Political Studies*, 64(1), 42-59.

Saigaran, N. G., Karupiah, P., & Gopal, P. S. (2015). *The Capability Approach: Comparing Amartya Sen and Martha Nussbaum.* Proceedings of Universiti Sains Malaysia, International Conference of Social Science.

Samir, D. (2017). *The Evolution of the Human Migration Determinants 1.* Paper presented at the international conference.

Sawyer, R. K. (2001). Emergence in sociology: Contemporary philosophy of mind and some implications for sociological theory. *American journal of sociology, 107*(3), 551-585.

Sechaba Consultants. (2002). The Border Within: The Future of the Lesotho/South African International Boundary. *Cape Town: Southern African Migration Project, 218*.

Sen, A. (1987). The standard of living. In: G. Hawthorne (Ed.), *The Standard of Living.* Cambridge: Cambridge University Press.

Sen, A. (1990). Development as capability expansion. *The Community Development reader*, 41-58.

Sen, A. (1992). *Inequality Re-examined.* Oxford: Clarendon Press.

Sen, A. (1993). *Gender inequality and theories of justice. In: M. Nussbaum & J. Clover, eds. Women, Culture and Development: A Study of Human Capabilities.* Oxford: Clarendon Press.

Sen, A. (2005). Human rights and capabilities. *Journal of Human Development*, 6(2), 151-166.

Seung, K. J., Omatayo, D. B., Keshavjee, S., Furin, J. J., Farmer, P. E. & Satti, H. (2009). Early outcomes of MDR-TB treatment in a high HIV-prevalence setting in Southern Africa. *PloS one*, 4(9), e7186.

Shanks, G. D., Brundage, J. & Frean, J. (2010). Why did many more diamond miners than gold miners die in South Africa during the 1918 influenza pandemic? *International health*, 2(1), 47-51.

Simelane, X, & Modisha, G. (2008). *From formal to informal migrant labour system: the impact of the changing nature of the migrant labour system on mining communities in Lesotho and Mozambique.* HSRC Repository South Africa.

Simmel, G. (1908). Das Geheimnis und die geheime Gesellschaft. *Soziologie. Untersuchungen über die Formen der Vergesellschaftung*, 256-304.

Stillman, S., McKenzie, D., & Gibson, J. (2009). Migration and mental health: Evidence from a natural experiment. *Journal of health economics*, 28(3), 677-687.

Stouffer, S. A. (1940). Intervening opportunities: a theory relating mobility and distance. *American sociological review*, 5(6), 845-867.

Streubert, H. J. (1991). Phenomenologic research as a theoretic initiative in community health nursing. *Public Health Nursing*, 8(2), 119-123.

Stuckler, D., Steele, S., Lurie, M., & Basu, S. (2013). Introduction:'Dying for gold': The effects of mineral miningon HIV, tuberculosis, silicosis, and occupational diseases in southern Africa. *International Journal of Health Services*, 43*(*4), 639-649.

Sturmberg, J. P., O'Halloran, D. M. & Martin, C. M. (2013). Healthcare reform: the need for a complex adaptive systems approach *Handbook of systems and complexity in health* (pp. 827-853): Springer.

Suphanchaimat, R., Kantamaturapoj, K., Putthasri, W. & Prakongsai, P. (2015). Challenges in the provision of healthcare services for migrants: a systematic review through providers' lens. *BMC Health Services Research*, 15(1), 390.

Tengland, P. (2020). Health and capabilities: a conceptual clarification. *Medicine, Health Care and Philosophy*, 23(1), 25-33.

Tetnowski, J. (2015). Qualitative case study research design. *Perspectives on Fluency Fluency Disorders*, 25(1), 39-45.

Todrys, K, W, & Amon, J, J. (2009). Within but without: human rights and access to HIV prevention and treatment for internal migrants. *Globalization and health*, 5(1), 1-10.

Tongco, M. D. C. (2007). Purposive sampling as a tool for informant selection. *Ethnobotany Research Applications*, 5, 147-158.

Ucak, A. (2015). Adam Smith: The inspirer of modern growth theories. *Procedia-Social and Behavioral Sciences*, 195, 663-672.

United Nations, 2017. *International Migration Report*. http://www.un.org/en/development/desa/population/migration/publications/migrationreport/docs/MigrationReport2017_Highlights.pdf\

UNDP (United Nations Development Programme), 1996. *Human Development Report 1996*. New York: Oxford University Press. https://hdr.undp.org/system/files/documents//hdr1996encompletenostatspdf.pdf

Van der Merwe, A. E., Morris, D., Steyn, M. & Maat, G.J.R. (2010). The history and health of a nineteenth-century migrant mine-worker population from Kimberley, South Africa. *The South African Archaeological Bulletin*, 185-195.

Veary, J., Modisenyane, M., Makkan, C., Charalambous, S., Smith, R., & Hannefeld, J. (2016). Understanding Healthcare and Population Mobility in Southern Africa. South African Medical Journal, 106(1), 14.

Venkatapuram, S. (2013). *Health Justice: An Argument from the Capabilities Approach*. Oxford: Wiley.

Viljoen, J. & Wentzel, M. (2007). The impact of cross-border movement on South African towns on the Lesotho border. *Acta Academica*, 39(2), 118-138.

Vosloo, C. (2020). Extreme apartheid: the South African system of migrant labour and its hostels. *Image & Text* (34), 1-33.

Vynnycky, E., Sumner, T., Fielding, K. L., Lewis, J. J., Cox, A. P., Hayes, R. J., Corbett, E.L.,Churchyard, G.J., Grand, A.D. & White, R. G. (2015). Tuberculosis control in South

African gold mines: mathematical modeling of a trial of community-wide isoniazid preventive therapy. *American journal of epidemiology*, *181*(8), 619-632.

Wanigaratne, S., Rashid, M., Gagnon, A., Cole, D. C., Shakya, Y., Moineddin, R., Blake, J., Yidin, M.H., Campbell D., Ray, Joel G. & Urquia, M.L. (2019). Refugee mothers, migration pathways and HIV: a population-based cohort study. *Aids Care.* DOI 10.1080/09540121.2019.1612009

Weaver, N. L., Wray, R. J., Zellin, S., Gautam, K. & Jupka, K. (2012). Advancing organizational health literacy in health care organizations serving high-needs populations: a case study. *Journal of health communication*, *17*(sup3), 55-66.

Wentzel, M. & Tlabela, K. (2006). Historical background to South African migration. *Migration in South and Southern Africa: Dynamics and Determinants*, 71, 96.

Wentzel, M. E. (2003). *Historical and contemporary dimensions of migration between South Africa and its neighbouring countries.* Available from https://repository.hsrc.ac.za/bitstream/handle/20.500.11910/8928/1994.pdf?sequence=1 [accessed 20 November 2022].

Wickramage, K., Premaratne, R. G., Peiris, S. L. & Mosca, D. (2013). High attack rate for malaria through irregular migration routes to a country on verge of elimination. *Malaria journal*, *12*(1), 1-5.

Wickramage, K., Simpson, P. J. & Abbasi, K. (2019). Improving the health of migrants. *BMJ*, *366*.

Wickramage, K., Veary, J., Zwi, A., Robinson, C. & Knipper, M. (2018). Migration and health: A global public health research priority. *BMC Public Health*, 18(1), pp. 1–9.

Wilcock, A., Pun, M., Khanona, J. & Aung, M. (2004). Consumer attitudes, knowledge and behaviour: a review of food safety issues. *Trends in food science & technology*, *15*(2), 56-66.

Wimmer, A. & Glick Schiller, N. (2002). Methodological nationalism and beyond: nation–state building, migration and the social sciences. *Global networks*, 2(4), 301-334.

World Health Organisation (WHO). (1948).

World Health Organisation (WHO). (2018). Health of Refugees and Migrants; Africa Region Report. Geneva: WHO.

World Health Organisation (WHO). (2021). *Consolidated Guidelines on HIV Prevention, Testing, Treatment, Service Delivery and Monitoring.* Geneva: WHO.

Xiaoming, L., Stanton, B., Fang, X. & Lin, D. (2006). Social stigma and mental health among rural-to-urban migrants in China: A conceptual framework and future research needs. *World health population, 8*(3), 14.

Zayas, L. (2019). Developmental and Mental Health Impact of Migration and Detention on Refugee Children. *Journal of the American Academy of Child & Adolescent Psychiatry*, 58(10), S365. https://doi.org/10.1016/j.jaac.2019.07.893

APPENDICES

Appendix A- Research Infomation Sheet and Participant Consent Form

RESEARCH STUDY INFORMATION LEAFLET AND CONSENT FORM

DATE

June, 2021

TITLE OF THE RESEARCH PROJECT

The Capabilities of Male Migrant Miners in Preventing and managing HIV: A Lesotho Case Study

PRINCIPLE INVESTIGATOR / RESEARCHER(S) NAME(S) AND CONTACT NUMBER(S):

Esther Nako *2019004304* *+266 56180133*

FACULTY AND DEPARTMENT:

Name of Faculty: Economic and Management Sciences

Name of Department: Centre for Development Support

STUDY LEADER(S) NAME AND CONTACT NUMBER:

Name of Study Leader (UFS staff member) Professor Lochner Marais (Supervisor) Professor Michelle Engelbrecht (Co-Supervisor

Contact number Professor Lochner Marais: 051 4012978 Professor Michelle Engelbrecht: 0514013256

WHAT IS THE AIM / PURPOSE OF THE STUDY?

This study seeks to understand how Lesotho migrant miners working in the Free State build skills to develop their ability to prevent and manage HIV. The study is seeking to understand what is important to Lesotho migrant in preventing and managing HIV and what they do and are capable of doing and achieving in HIV prevention and management.

WHO IS DOING THE RESEARCH?

My name is Esther Nako and I am a PhD student at the Centre for Development Support (CDS), University of the Free State, South Africa and I will be doing the interviews to get the opinions of male Lesotho migrant miners on how they build skills that enable them to prevent and manage HIV.

HAS THE STUDY RECEIVED ETHICAL APPROVAL?

This study has received approval from the General / Human Research Ethics Committee of UFS. A copy of the approval letter can be obtained from the researcher.

Approval number: *Insert approval number*

WHY ARE YOU INVITED TO TAKE PART IN THIS RESEARCH PROJECT?

You have been chosen to participate in this study because; you are a Lesotho migrant miner who currently works in a Free State mines and you responded to a pamphlet advertising this study. You were also chosen because you are 18 years or older and you have expressed your interest or will to participate in this study. Fifty Lesotho migrant miners working in the Free State mines will be interviewed for this study.

WHAT IS THE NATURE OF PARTICIPATION IN THIS STUDY?

This study involves your answering semi-structured interview questions. Your answers will be audio-taped in order for your opinions to be stored and be analysed after the interview. However, the audio tapes will be kept in a safe place and will not be shared with unauthorized persons and will be destroyed upon completion of the research. The questions include your opinion on how Lesotho migrant miners

build skills to prevent and manage HIV. Such things as the resources you think they need to prevent and mange HIV, the current activities they might be currently engaged in to prevent and manage HIV, your opinion on the opportunities and choices that are offered by current HIV prevention and management programmes either in Lesotho or in the mines and your overall opinion about the effectiveness of such programmes. This interview will take approximately one hour and thirty minutes and will adhere to the precautions against COVID-19 (sanitizing, wearing masks and social distancing).

CAN THE PARTICIPANT WITHDRAW FROM THE STUDY?

Yes, you are free to withdraw at any time without giving a reason. Being in this study is voluntary and you are under no obligation to continue participation if you do not want to. You can choose to stop being in the study at any time and this will not affect you in any way including how you get health services in the mines or in Lesotho.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

There are no direct benefits for participating in this study. However, it might raise your awareness about building capabilities to prevent and manage HIV. Your contribution to the results of the study could contribute to informing policy and framing of migrant-targeted HIV interventions and policies in Lesotho and South Africa and in other similar situations. Gaps found as a result of the study may reinforce a re-examination of action plans and policy. Your contribution could also contribute to human development as Lesotho migrant miners identify their valued capabilities, accessing and converting opportunities as valuable resources in their prevention and management of HIV.

WHAT IS THE ANTICIPATED INCONVENIENCE OF TAKING PART IN THIS STUDY?

Time: taking time to participate in the interviews might affect your other schedules. However the interview will be made as convenient to you as possible and will take approximately 1 hour and thirty minutes at the mutually agreed place between you and the researcher. Distress: in cases where you experience emotional distress during the interview, a Counsellor will be made available to you for a once off consultation to help you to regain your emotional health. If necessary, you will be given further information that will connect you to other health resources (Queen Elizabeth 2 Hospital, Maseru, Maputsoe Filter Clinic and Maputsoe SDA Clinic) that offer counselling services should this be needed after the interview. All the precautions against COVID-19 (sanitizing, wearing masks and social distancing) will be adhered to

WILL WHAT I SAY BE KEPT CONFIDENTIAL?

Whatever information you give will be held in strict confidence. Your name will not be recorded anywhere in the study and no one will be able to connect you to the answers you give. Your answers will be given a numerical code or a pseudonym and you will be referred to in this way in the data, any publications, or other research reporting methods such as conference proceedings. Your answers may be reviewed by people responsible for making sure that this research is done properly, such as my Supervisor and Co-Supervisor and members of the General / Human Research Ethics Committee. Other people who may see your answers are the transcriber and the external coder and they will be made to sign a confidentiality clause. Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records. A report of the study may be submitted for publication, but you will not be identifiable in such a report.

HOW WILL THE INFORMATION BE STORED AND ULTIMATELY DESTROYED?

The audio tapes of your answers will be stored by the researcher in a locked cupboard for future research or academic purposes; electronic information will be stored on a password protected computer. However, future use of the stored data will be subject to further Research Ethics Review and approval if applicable. After five years to the completion of the study, the audio tapes of your answers will be destroyed and the electronic information in the computer will be deleted.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICPATING IN THIS STUDY?

You will receive two hundred Rands (R200, 00) cash, once off, to compensate you for the time you took to participate in the study. Furthermore, you and the researcher can arrange a convenient place and time for the interview so that you do not incur additional costs in order to participate in the study

HOW WILL THE PARTICIPANT BE INFORMED OF THE FINDINGS / RESULTS OF THE STUDY?

If you would like to be informed of the final research findings, please contact Ms Esther Nako on +266 56180133 or email; nakoe173@gmail.com. The findings are accessible for a period of 1 year after the completion of the study. Should you require any further information or want to contact the researcher about any aspect of this study, please contact Ms Esther Nako at +2665680133 (telephone) or email:

nakoe173@gmail.com. Should you have concerns about the way in which the research has been conducted, you may contact Professor Lochner Marais at MaraisJGL@ufs.ac.za telephone: 051 4012978 or Professor Michelle Engelbrecht at Engelmc@ufs.ac.za telephone: 051 4013256. You can also contact the administrator of the Faculty of Economic and Management Sciences Research Ethics Committee, Mrs. Igna Duplooy on Duplooyi@ufs.ac.za or 0514019064

Thank you for taking time to read this information sheet and for participating in this study.

CONSENT TO PARTICIPATE IN THIS STUDY

I, the undersigned,

_____ (*participant's full names to be included*), (the "**Participant**") confirm that I voluntarily agree to participate in the research study referred to as the

_____

_____- (the **"Study**") in relation to

_____

_____

_____

_____

and which Study is being conducted by

_____

_____(*insert the name of the researcher*), (the "**Researcher**").

I, the undersigned Participant, further confirm that–

1. the Researcher has explained the nature, procedure, potential benefits and anticipated inconvenience of my participation in the Study;
2. I have read (or had explained to me) and understood the Study as explained in the attached information sheet;
3. I have had sufficient opportunity to ask questions and am prepared to participate in the Study;
4. I understand that my participation in the Study is entirely voluntary and that I am free to withdraw at any time without penalty (if applicable);
5. I voluntarily provide the UFS and the Researcher with my personal information and consent to the UFS and the Researcher collecting, disclosing and processing my personal information in order to conduct the Study and any related activities in relation thereto;
6. I hereby acknowledge and confirm that I understand the purpose for which the UFS and the Researcher may collect, store, use, delete, destroy, outsource, transfer or

otherwise process, as the context and circumstances may require and as contemplated in terms of POPIA, my personal information as set out herein;

7. I am aware that the findings of the Study will be anonymously processed into a research report, journal publications and/or conference proceedings and that my personal information will be aggregated and deidentified at such stage;
8. I also give the UFS permission to share, without notification, the collected data with other researchers at the UFS or other Higher Education Institutions. This permission is dependent on the same principles of ethical research practices, anonymity/confidentiality, safekeeping of information, and other issues listed above applying.

I, the Participant, agree to the recording of the interview by an audio recorder

Full Name of Participant:

_____

Signature of Participant: _____ Date:

_____

Full Name(s) of

Researcher_____