Exploring Health and Wellbeing in a Low-to-Middle Income Country: A Case Study of Kenya

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis including any required final revisions, as accepted by my examiners.

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Abstract

The recent past has witnessed an increased interest in the concept of wellbeing both in academia and public policy. Governments and international organizations have developed a policy agenda with the broad goal of improving individual and collective wellbeing; positioning it as the desired outcome of, and the benchmark with which to evaluate social and economic progress, and the effectiveness of governments and their policies. The majority of such efforts have been conducted in Euro-American nations with limited efforts in developing countries. In the low-to-middle income countries where such efforts exist, they are based on experiences and indicators from the high-income western countries. As such, limited initiatives that aim to understand how wellbeing is conceptualized in time and place exist in low-to-middle income countries (LMICs) as societal progress in these resource-constrained areas are persistently assessed by econometric measures such as Gross Domestic Product (GDP).

To address this gap, the present thesis explored indicators for constructing a healthy population index, an important domain of societal wellbeing in the context of LMICs. As part of the global index of wellbeing project, this thesis set out to understand how Kenyans socially construct their health and wellbeing across place, socio-demographic characteristics, and over their life-course. Using an explorative study design, the thesis employs the social constructionists' perspectives and the eco-social theory to answer three specific research questions. First, the thesis responds to the question, what are the perceptions, meanings and determinants of societal health and wellbeing that matter most to Kenyans and are there differences and similarities by gender and region? Second, how do the youth (15-24 years), the middle-aged (25-49) and the seniors (≥50 years) in Kenya socially construct their health

and wellbeing? Third and lastly, what are the indicators of a healthy population domain of wellbeing that matter in the context of Kenya and are there potential secondary data sets that could be used to evaluate progress in health over the past years and into the future?

In answering these questions, this thesis adopted qualitative research methodologies – including in-depth interviews (IDIs) and focus group discussions (FGDs). The IDIs with representatives of youth groups (male and female), women, and men groups, representatives of Community-Based Organizations (CBO), and with policy makers (i.e., Member of County Assembly) were conducted to explore their work and lived experiences of health and wellbeing in their respective communities. Focus group discussions (FGDs) with lay participants were conducted to understand their perceptions, meanings, determinants and the social construction of societal health and wellbeing and to determine similarities and differences by gender and across place. The thesis also highlights the indicators of the healthy population domain that matter to Kenyans as revealed in the collected data and suggest potential data sources for evaluating progress. Using the constructs of embodiment and pathways of embodiment of the eco-social theory, the thesis provides a framework with which to map population health indicators for wellbeing assessment in the context of LMICs. The social constructionists' viewpoint on the other hand, is employed in this thesis to explore the social production of knowledge about societal health and wellbeing.

The findings reveal that concepts of healthy community and a good life (a proxy of wellbeing) are used interchangeably and are defined using similar concepts. Additionally, having a healthy community and a good life is shown to be dependent on the ability of the community to meet the basic needs for all its members. Specifically, six themes emerge as critical descriptors of a healthy community and a good life in Kenya: a) community health

status and quality of healthcare; b) economic and living standard factors; c) social relationships; d) the state of the environment; e) political and governance issues; and f) cultural and societal values, beliefs, norms and practices which influence perceptions and meanings of population health and wellbeing. These contextual factors and the individual and immediate factors interact to create social hierarchies based on gender, age, social class, and regional power imbalances which limit accessibility to resources to certain groups of people. For example, the findings show that gender-based violence (GBV) is a key social determinant of health which disproportionally affects women because of the preexisting cultural structures that act to disempower them. Moreover, the findings reveal that the politics and governance structures – including real engagement in political decision-making, tribalism, corruption and electoral violence are important factors that propagate health inequalities in communities, thus influencing perceptions and meanings of health and wellbeing.

Furthermore, the results of this thesis reveal that across their life-course, Kenyans adopt unique social constructs to explain their lived experiences of health and wellbeing. The youth (15-24 years) for example, consider themselves as – "bleeding bodies", "untrustworthy bodies", "culturally disadvantaged bodies" and "bodies at risk". The middle-aged (25-49 years), on the other hand, construct health and wellbeing around issues of domestic violence, whereas the seniors (≥50 years) narrate how they embody distress associated with care for their children and grandchildren in contexts characterized by economic poverty and socio-cultural erosion. According to the participants' narratives, the indicators for the healthy population domain range from health outcome indicators such as the prevalence and incidence rates for infectious diseases (e.g. HIV and the opportunistic

diseases), non-communicable diseases (e.g. cancer, hypertension, diabetes and unintentional injuries), mortality rates as well as accessibility, effectiveness and acceptability of healthcare services, lifestyle and behavior, and indicators of public health programs.

Theoretically, this study provides the wellbeing literature with a rudimentary framework premised on the social constructionists' perspectives and the eco-social theory for understanding the healthy population indicators that matter in LMICs. In so doing, it highlights socially, geographically and culturally relevant indicators thus allowing for evidence-based policy and policy evaluation across time and space. For example, this research reveals that even though constructs around community health status and quality of healthcare services remain frequent descriptors of the health and wellbeing of populations, social and cultural inclusion, issues such as GBV, socio-cultural erosion and care responsibilities are some aspects of the community that need to be included in evaluation of progress in health and quality of life. This information is important in formulation of relevant health policies and interventions.

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girls, Aimee and Abigael for your patience when you never understood why I had to leave Kenya for Canada, leaving you behind. I thank you so much for the loving talks and chats that we had when opportunities for them sufficed. For sure, they were the fuel that kept me going even when there seemed to be no light at the end of the tunnel. You have demonstrated that you are strong women. Keep on the spirit and I know even better things awaits you now and into the future!

Dedication

To all women who come face-to-face with gender-based violence (GBV), my loving mother Mary Adhiambo and to the little women in my life, Aimee Raballah and Abigael Raballah who endured a mother's absence as I pursued my dream for doctoral training!

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Abbreviations and acronyms

AIDS	Acquired Immunodeficiency Syndrome
APHRC	Africa Population Health Research Centre
ARV	Antiretrovirals
ASAL	Arid and Semi-Arid Land
BLI	Better Life Index
CBO	Community-Based Organization
CIAR	Canadian Institute for Advanced Research
CIW	Canadian Index of Wellbeing
CHWs	Community Health Workers
CWB	Community Wellbeing
DALY	Disability Adjusted Life Years
FAO	Food and Agricultural Organization
FGDs	Focus Group Discussions
FP	Family Planning
FY	Female Youth
GATS	Global Adult Tobacco Surveys
GBD	Global Burden of Disease
GBV	Gender-Based Violence
GDP	Gross Domestic Product
GIS	Geographic Information System
GPI	Genuine Progress Index
HALE	Health Adjusted Life Expectancy

HBP	High Blood Pressure
HDI	Human Development Index
HIV	Human Immunodeficiency Virus
IDIs	In-depth Interviews
IDP	Internally Displaced Persons
IHME	Institute of Health Monitoring and Evaluation
IMR	Infant Mortality Rate
IPV	Intimate Partner Violence
ISEW	Index of Sustainable Economic Welfare
KDHS	Kenya Demographic and Health Survey
KEMSA	Kenya Medical Supplies Authority
KHIS	Kenya Health Information Systems
KIs	Key Informants
KNBS	Kenyan National Bureau of Statistics
LMICs	Low-to-Middle Income Countries
MCA	Member of County Assembly
MCH	Maternal and Child Health
MF	Middle-aged Female
MM	Middle-aged Male
MMR	Maternal Mortality Rate
MoH	Ministry of Health
MY	Male Youth
NCDs	Non-Communicable Diseases

NGO	Non-Governmental Organization
NHIF	National Health Insurance Fund
OECD	Organization for Economic Cooperation and Development
PYLL	Potential Years of Life Lost
QALY	Quality Adjusted Life Years
SEP	Socio-Economic Position
SES	Socio-Economic Status
SF	Senior Female
SM	Senior Male
SSA	Sub-Saharan Africa
STIs	Sexually Transmitted Infections
UHC	Universal Health Coverage
UN	United Nations
US	United States
WAVE	Wellbeing of Adolescents in Vulnerable Environments
WHO	World Health Organization

CHAPTER ONE: INTRODUCTION

1.1 Research context

Countries are interested in measuring the social and economic progress they make over a given period (Allin & Hand, 2014). As such, a number of methods are adopted by various countries to determine how well their citizens are doing. One such method is economic-based measures such as gross domestic product (GDP), which is adopted as a proxy indicator of societal progress (Stiglitz, Sen, & Fitoussi, 2009). However, there is increased awareness of the limitations of this method; for instance, GDP fails to adequately incorporate aspects of societal progress that matter most to citizens (Stiglitz et al., 2009). Moreover, it does not to capture social and non-monetary aspects of human life – including time spent on domestic chores, strength of social interactions and societal values, beliefs, and norms. Additionally, economic growth does not necessarily imply a better and a flourishing life (Bleys, 2012; Boarini & d'Ercole, 2013a; Durand, 2015). These limitations have spurred interest in human-centered measures such as wellbeing both in political and academic spheres (Collomb, Alavalapati, & Fik, 2012).

In an attempt to address the above-mentioned shortcomings of the economic-based models in measuring progress, governments have enacted policies that focus on improving people's life beyond economic status (Allin & Hand, 2017). For example, the UK government in 2010, committed itself to enhance its understanding on what makes Britons happy and urged for a refocus from GDP to general wellbeing (Allin & Hand, 2014). The UK government further acknowledged that, a contemporary political challenge that all governments must be concerned about is defining and making achievement of wellbeing a central focus in government policies and developmental programs (MacKian, 2009).

Similarly, academics – including psychologists (Diener, Lucas, Schiimmack, & Helliwell, 2009; Kahneman, Diener, & Schwarz, 2003), behavioral economists (Easterlin, 1974, 1995; Layard, 2006, 2010), social and health geographers (Atkinson, Fuller, & Painter, 2012; Atkinson & Haran, 2005; Smith., 1973), developmental (Nussbaum, 2011; Sen, 1993) and public health researchers (Carlisle, Henderson, & Hanlon, 2009) engage critically with the conceptualization, definition and measurement of wellbeing in time and place. These inquiries are informed by Aristotle's hedonic and eudaimonic traditions (Deci & Ryan, 2006; MacKian, 2009). Whereas the hedonic tradition emphasizes the constructs of happiness, the balance between positive and negative affect, and satisfaction with life, the eudaimonic tradition underscores the notion of human flourishing, and is said to depend on the hedonic status and to represent the ultimate human good (Dodge, Daly, & Sanders, 2012). The hedonic and eudaimonic traditions have shaped many conceptualizations of wellbeing starting from the human needs approach, maximization of happiness to the greatest majority, and the opportunities and freedoms that make for a good life approaches (Atkinson et al., 2012).

The human needs perspective looks at the actual fulfilment of human needs and provision of the social goods as the foundations for wellbeing. With regard to the primary social good, the approach refers to all the things that every rational person is assumed to want including socio-economic and political advantages as well as the basic rights (Kahneman et al., 2003). The utilitarianism approach on the other hand, assumes that satisfactory life is achieved when the utility gained from resources is maximized to the greatest majority (Deneulin, 2008). However, enjoyment of utility in any society has been found to be dependent on the social status of a person. Critics of the human needs and

utilitarianism approaches have therefore suggested the capabilities approach to address the limitations. The capabilities approach defines wellbeing as people's capabilities and functions – what they can and/or are able to do based on the opportunities and freedoms accorded to them (Sen, 1993). In suggesting this model, Sen argues for the need to evaluate the prevailing social structures that limit or promote an individual's ability to live a life they desire. Although the capabilities approach is generally regarded as a considerable enrichment for social and policy analysis, the list of capabilities and functions important in defining wellbeing in this approach remains contentious (Anand, Hunter, & Smith, 2005; Deneulin, 2008). Martha Nussbaum has contributed immensely to the capability framework by suggesting ten capabilities that each society should guarantee to people to promote human agency (Nussbaum, 2011). She emphasizes the need to have control over one's environment, both politically and materially, having good health, bodily integrity, ability to build imaginations that are informed by education, practical reasoning, having emotional attachment and social affiliations as well as ensuing sustainability of the environmental benefits into the future (Nussbaum, 2011; Nussbaum & Sen, 1993).

The conception of well-being based on the capabilities approach has guided the development of well-being measures. For example, the Human Development Index (HDI) (Jahan & EJespersen, 2016), is anchored on Sen's capabilities approach. Importantly, other measures such as the Community Wellbeing (CWB) index (Kim & Lee, 2014), the Better Life Index (BLI) (Boarini & d'Ercole, 2013a; Durand, 2015), the UK *How's life indices*, and the Canadian Index of Wellbeing (CIW) (CIW, 2016) employ both the theoretical approaches and consultative processes (Allin & Hand, 2014). With the application of theoretical and pragmatic approaches, wellbeing research has departed from the aspects of

wellbeing such as psychological and economic issues alone, but has also included place-based factors such as gender and cultural identity, environmental and ecological benefits, good governance, globalization and competitiveness (Barrington-Leigh & Escande, 2018). The goal of all these efforts is to critically engage in well-being research that targets issues of social injustice and sustainability of quality life into the future through policy formulation and amendments (Allin & Hand, 2014). The majority of such studies have been conducted in Euro-American nations with limited efforts in developing countries (Kangmennaang & Elliott, 2018). In the developing nations where such efforts exist, they are based on experiences and indicators from the high income western countries (Allin & Hand, 2014). Limited initiatives that aim to understand how wellbeing is conceptualized in time and place exists in low-to-middle income countries (LMICs) as societal progress is frequently assessed based on economic growth (Elliott, Dixon, Bisung, & Kangmennaang, 2017). This thesis addresses this gap using the CIW framework to develop a panel of indicators that best suit the condition of Kenya and other LMICs with similar characteristics.

1.2 The Canadian Index of Wellbeing

The CIW is a robust framework that was developed in consultation with various stakeholders within Canada (i.e. community organizations, lay Canadians, policymakers, government agencies, academics, and researchers) to track Canadians' overall wellbeing. The CIW uses secondary data to provide a framework for monitoring stability and change in the wellbeing of Canadians over time and across space (Smale & Hilbrecht, 2015). The framework recognizes that human and population interactions are complex, hence, the need to assess the relationships across different domains to better understand wellbeing. The CIW model comprises eight (8) interconnected and essential domains with sixty-four (64)

indicators selected based on evidence of their direct connection with wellbeing and validated through stakeholder consultations with Canadians. The eight domains include community vitality; education; democratic engagement; living standards; time use; leisure and culture; natural environment; and healthy population (Michalos, 2011; Muhajarine, Labonte, & Winquist, 2012).

Although this thesis focuses on the healthy population domain, a brief overview of each domain is highlighted, since there are interconnections with other domains. First, the domain of community vitality considers existing social networks, social support, relationships and safety within neighborhoods, and whether people are volunteering in community activities. The role of social cohesion and social capital in explaining health and wellbeing variations has been documented elsewhere (Berkman, Kawachi, & Glymour, 2014; Kawachi & Berkman, 2000), and the CIW framework acknowledges these as key determinants of Canadians' wellbeing. Second is the education domain, which is conceptualized as a personal resource and a predictor of health, living standards and democratic participation. Therefore, education is a critical aspect of wellbeing as it depicts an individual's ability to adapt and function in society (Michalos, 2011). Third, democratic engagement focuses on Canadians' ability to take part in the democratic process and political activities, freedom to express political views, and trust in the government (CIW, 2016). This domain recognizes that a healthy democracy is more than participation in elections but rather a continuous process during, after and between elections. Fourth, the living standards domain emphasizes access to basic needs such as housing, income, employment and food security. This domain measures the level of income and wealth distribution by monitoring poverty rates, fluctuations in income and quality of employment.

These aspects of human life are critical in influencing people's perceptions of their life and are key objective measures of societal and individual wellbeing as it has been exhibited in other wellbeing indices such as BLI and HDI (Bleys, 2012; Boarini & d'Ercole, 2013a; CIW, 2016). The fifth and sixth domains respectively, are time use, and leisure and culture, which are also important domains in the CIW. How people use their time whether engaging in leisure activities, engaging with art and culture, time spent in a traffic jam or in unproductive activities determine how we interact with time to create opportunities for relaxation, socializing and opportunity to learn new things. These directly or indirectly impact on their wellbeing (CIW, 2016). All these domains operate in the natural and social environments within which people live. The seventh is the natural environment domain, which explores the natural assets available to Canadians, the flows of these resources over time and space, and the interactions between human and natural resources.

Lastly, the eighth is the healthy population domain, which focuses on various aspects of Canadians' health to track improvement or deterioration over time and across space (Muhajarine et al., 2012). The healthy population domain measures health outcomes (i.e. physical health conditions, life expectancy and mortalities, personal wellbeing, functional health and mental health) and the potential proximal determinants of health (lifestyle and behavior, public health and healthcare services) in populations. It consists of 10 core and 6 secondary health indicators within 8 sub-domains (Muhajarine et al., 2012). The core (self-rated health, health-adjusted life expectancy (HALE), diabetes, depression, life expectancy at birth, smoking, influenza immunization among age 65+, patient satisfaction with health services, infant mortality rate, and population with a regular family doctor) and secondary (obesity, low birth weight, asthma, self-rated mental health, mortality due to unintentional

injury and physical activity) indicators which were identified through a consultative process for each of the sub-domains are used as health indicators (CIW, 2016; Michalos, 2011). Since the healthy population domain is part of the larger CIW framework, the essential socio-economic determinants of population health such as education and social capital are not included as part of the sub-domains. However, the broader framework is based on systems thinking and is cognizant of the interdependence and interactions among the domains and sub-domains (Muhajarine et al., 2012).

This thesis is anchored on the healthy population domain as an initial step towards the development of an index of wellbeing for LMICs. The health outcomes, the proximal and broader determinants that relate to social and health equity, as well as biophysical and environmental factors that operate in these regions are discussed, using Kenya as a case study. This research is informed by the social constructionist perspective and Krieger's eco-social theory (Krieger, 1994), which is the subject of discussion in the next chapter.

1.3 Wellbeing research in low-to-middle income countries

Wellbeing research in LMICs focuses on drivers, associated health outcomes, and the issues of measurement (Collomb et al., 2012). Conventional measures based on indices of health and economic development – including infant mortality rate, health-adjusted life years (HALE), quality adjusted life years (QALY) and GDP (Giannetti, 2015) – remain areas of policy and research focus in this region. Their limitations notwithstanding, these metrics are influential both in national and local policies on health and wellbeing as they determine priority areas for resource allocation, policy formulation and critical reflection (Fullman, Flaxman, Leach-Kemon, Rajaratnam, & Lozano, 2014).

Currently, the global South is witnessing an escalating economic growth and unique health trends, with persistent high burden of communicable diseases and rising prevalence of non-communicable diseases (Atiim & Elliott, 2016; WHO, 2015). It is estimated that non-communicable diseases (NCDs) kill up to 38 million people annually, representing nearly 68% of global mortality. About 80% of these deaths occur in LMICs, especially in sub-Saharan Africa (SSA), where NCDs are quickly replacing infectious diseases and malnutrition as the leading causes of disability and premature deaths (WHO, 2015). This epidemiological transition coupled with other interrelated health challenges such as population growth, urbanization, globalization, population aging, poverty, health and social inequalities, environmental degradation, and climate change create new threats to existing social norms and health care systems in LMICs (WHO, 2015). Addressing these interconnected challenges requires an integrated approach that allows for opportunities to address the social, economic, and environmental factors essential to health and wellbeing (WHO, 2015). As such, assessment of progress in such complex situations should not rely on single measures such as GDP or mere health statistics, but rather, more inclusive measures that target all relevant aspects of health and wellbeing (Stiglitz et al., 2009).

Although the focus remains on the conventional economic and health-based statistics as proxies for wellbeing, some researchers and national statistics offices in LMICs have embraced the complex and multidimensional nature of wellbeing (Allin & Hand, 2014). For example, in 2008, the Kenyan government came up with a development blueprint, The Vision 2030, in which it emphasized the need for sustainable development, that not only focuses on economic growth but also on building strong social relationships, real political engagement of the people and appreciation of cultural diversity (Otieno & Ndung'u, 2010).

Such initiatives by governments and researchers highlight similarities and differences in the various domains and sub-domains of wellbeing by age, gender, ethnicity and socio-economic class (Collomb et al., 2012). Moreover, the recent past has witnessed an increasing number of studies with qualitative methodologies that allow for identification of relevant and context-specific indicators for wellbeing (Møller, Roberts, & Zani, 2018). However, the majority of these studies occur in middle-income countries, particularly those of Asian and Latin American origin (Barrington-Leigh & Escande, 2018) and with a focus on specific population segments but limited efforts are occurring in the sub-Saharan Africa region (Collomb et al., 2012). To note is that the few countries that have embraced these efforts in SSA still lack simple and context-specific indices that could offer an overview of population wellbeing as most of the efforts target just segments of the population or aspects of wellbeing (Barrington-Leigh & Escande, 2018; Collomb et al., 2012; Stiglitz et al., 2009). This thesis addressed this knowledge gap using Kenya as a case study.

1.4 Wellbeing research in Kenya

Kenya is not any exception in its approach to progress evaluation since the government's goals and policies from independence have been in pursuit of economic growth (Thaxton, 2007). National progress and quality of life of Kenyans is assessed based on economic growth measures as GDP. While Kenya can boast about its economic progress since the early 1960s (KNBSs, 2018), the wellbeing of Kenyans based on what matters to the people is largely unexplored (Misaro, Wanyama, Jonyo, Birech, & Kiboro, 2014; Otieno & Ndung'u, 2010). The few studies that have attempted to measure progress have focused on specific groups characterized by ethnicity (Lesorogol, 2008), age, and gender (Lee, 2013), or on aspects of wellbeing such as healthcare service provision (Okungu, Chuma,

Mulupi, & McIntyre, 2018), economic growth (KNBSs, 2018), culture (Muigua, 2015) and political engagement (Roberts, 2012). More importantly, no studies that are informed by theory and that employ a consultative process have been conducted to identify the indicators of wellbeing that matter most to Kenyans. This thesis was informed by the social constructionist perspective and the eco-social theory. The thesis addresses this gap by exploring socially, culturally and geographically relevant indicators for health and wellbeing. To this end, this thesis focuses on the healthy population domain of wellbeing. Nonetheless, the other domains of wellbeing are also highlighted because of their close interaction with the healthy population domain. These are the initial steps towards the development of the Kenya Index of Wellbeing. This is important for the development of evidence-based policies relevant in the context of Kenya and other LMICs with similar characteristics. In exploring health and wellbeing in LMICs, this research extends the discussion on the global index of wellbeing by identifying demographically relevant and place-specific indictors.

This thesis is built on the foundations of the CIW framework and is informed by the health geography literature on place-shaping, health and wellbeing. As such, the thesis acknowledges the centrality of place in perceptions, meanings and the social constructs adopted in defining societal health and quality of life. Using qualitative methods, it contributes to the development of a simple and meaningful index of wellbeing for the Kenyan population. This research identifies both similarities and differences by age, gender and social class in perceptions and meanings, and the determinants of health and wellbeing of Kenyans by exploring the indicators of the healthy population domain of wellbeing, based on what matters to Kenyans. To achieve this goal, this thesis addresses three objectives.

1. To explore perceptions, meanings and determinants of health and wellbeing of Kenyans.

   Research questions: How do Kenyans perceive and define the health of their communities? Which determinants matter most to Kenyans in defining societal health? Are there similarities and differences by gender and region on the perceptions, meanings and determinants that matter to Kenyans in assessment of societal health and wellbeing?

2. To explore the social construction of health and wellbeing by Kenyans across the life-course.

   Research questions: How do the youth, the middle-aged and the seniors in Kenya socially construct health and wellbeing? What are the key aspects of health that are adopted by these different age groups to construct health and wellbeing?

3. To identify potential indicators and existing data sources for a population health domain of wellbeing useful for Kenya

   Research questions: What are potential indicators essential for the healthy population domain of wellbeing in the context of the Kenyan population? Are there existing data sources that could potentially be used to monitor population health situation in Kenya?

1.5 Organization of the thesis

To this end, this thesis is organized into five chapters. Chapter one introduces the research topic by discussing the research context, wellbeing research in LMICs and specifically, wellbeing research in Kenya, the research gap, and the research objectives

addressed. In chapter two, literature on health and wellbeing research within and outside the field of health geography is reviewed with the objective of situating the study within existing literature. The theoretical foundations informing the epistemologies and research methodologies adopted in the thesis are also discussed. This includes the social constructionist perspectives and eco-social theory which critically informs the research process in this thesis. Chapter three describes the research methodologies used. The chapter begins with a description of the research context followed by a description of the qualitative methods adopted to explore health and wellbeing of Kenyans. The data collection procedures, analysis, and interpretation are also discussed. Chapter four contains the analytical and descriptive findings of the thesis which are presented per the objectives. The chapter presents finding on perceptions, meanings and determinants of health and wellbeing per the identified themes and the associated sub-theme. Each theme and the sub-themes are stratified by the data source, region and gender. The findings on social construction of health and wellbeing across different age categories and the potential indicators for the healthy population domain that matter to Kenyans in assessment of wellbeing are also presented. This includes the social constructs adopted by the youth, the middle-aged and the seniors. The final chapter is devoted to the discussion of study findings, conclusions and recommendations drawn from the findings.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

There has been an increased interest in the concept of wellbeing both in academia and public policy in the past three decades. Governments and international organizations have developed a policy agenda with the broad goal of improving individual and collective wellbeing, positioning it as the desired outcome of, and the benchmark with which to evaluate social and economic progress, and the effectiveness of governments and their policies (Allin & Hand, 2014). As such, scholars across diverse fields – social and behavioral sciences including sociologists, public health researchers, anthropologists, economists and of course health geographers have endeavored to conceptualize and measure what constitutes a flourishing life and happiness (Atkinson et al., 2012). To this end, wellbeing has been identified as a multifaceted concept that is context-specific, and that varies over time and space, and from person to person. However, a majority of studies on wellbeing have been in the global North (Boarini & d'Ercole, 2013b; Tomaney, 2015), with limited initiatives to locally conceptualize wellbeing in the global South. In an attempt to address the gap, this thesis explores health and wellbeing in LMICs, a case study of Kenya with the objective of identifying population health indicators that matter to Kenyans. Beginning with perceptions and meanings of health and wellbeing, the thesis explores the determinants of health and wellbeing, and the lived experiences across the life-course, with the aim of identifying health indicators that matter to this population.

This chapter reviews relevant literature on health and wellbeing. The chapter begins with a discussion of wellbeing research and the philosophical underpinnings that have steered such studies. It then situates wellbeing research in the health geographies literature

under the theme, geographies of health and wellbeing. The theoretical framework that guides this research is also discussed. In the subsequent section, a conceptual model for the determinants informed by empirical literature on health and wellbeing indicators is presented and the concepts are operationally defined. The chapter concludes with a summary of the key ideas in literature that inform this research.

2.2 Wellbeing research in context

A flourishing life is central to what it means to be human and over the years, the goal of humanity has been to maximize wellbeing (MacKian, 2009). Such aspirations inspired creative endeavors – such as advancements in healthcare and technology, and infrastructural developments – which contributed to the commoditization of human desires and the need for logical thinking to better understand what constitutes wellbeing (Atkinson, 2013). For this reason, economic growth was previously equated to a prosperous life and seen as a tool for human happiness. This myopic view ignored the multi-dimensional characteristic of the concept of wellbeing and limited its use to discrete components of prosperity and happiness. The view of wellbeing as relational and place-based was thus muzzled (Atkinson, 2013; Atkinson et al., 2012; MacKian, 2009).

Nonetheless, as scholars advanced the conceptualization of wellbeing, the importance of individualized psychological state of happiness and flourishing beyond the rise in personal income (Easterlin, 1974, 1995; Layard, 2005, 2006) as well as the role of ecological factors contributing to wellbeing emerged (Berkman et al., 2014; Kearns & Moon, 2002; Krieger, 1994, 2011). It became ostensible that opportunities available to individuals and to populations determine health and wellbeing (Kawachi & Berkman, 2000;

Kawachi, Kennedy, & Glass, 1999; Subramanian, Lochner, & Kawachi, 2003). Thus, in its practical sense, wellbeing has been conceptualized as the positive freedom to live a flourishing life depending on the capabilities available to an individual or to a population (Nussbaum, 2011; Sen, 1993). This conceptualization led to increased interest in understanding what it means to have a flourishing life especially in the global North where a number of wellbeing initiatives have been realized (Boarini & d'Ercole, 2013b; Tomaney, 2015). For example, the Organization for Economic Cooperation and Development (OECD) developed a framework, the Better Life Initiative (BLI) for wellbeing assessment for its member states (Boarini & d'Ercole, 2013a; Durand, 2015). Other specific countries also came up with their own measures situated within their national statistics offices. These include the Measures of Australia's Progress (MAP) in Australia, the New Zealand Social Progress Report (NZSPR) and the UK Index of Wellbeing (UKIW) in New Zealand and UK, respectively (Elliott et al., 2017). Other alternative measures – such as the CIW and the Australian National Development Index (ANDI) have also developed and continue to emerge through collaborations between universities and non-governmental organizations (Elliott et al., 2017).

Initiatives behind these current moves towards the different measures of wellbeing have largely been driven by the acknowledgment of the limitations of the economic-based measures of societal progress which mainly adopted GDP as a proxy for wellbeing. Critics of GDP highlights three key limitations. First, they argue that GDP does not gauge people's wellbeing and income status (Bleys, 2012; Fitoussi & Stiglitz, 2013; Stiglitz et al., 2009) and as such, fails to measure the actual progress of wellbeing. For example, empirical evidence reveals that countries may report a growth in their economy, yet the effect of such

national economic growth may not be felt by the citizenry (Stiglitz et al., 2009). A case in point is the 2016 CIW report which demonstrated that despite a robust economic growth as evident in rising GDP from 1994 – 2014 by 38%, the increase in the overall wellbeing of Canadians was below 10% across all the eight domains of wellbeing (CIW, 2016).

Second, the GDP as a measure of progress, is unable to capture the rising levels of social and economic inequality that have characterized the globe for the past five decades (Fitoussi & Stiglitz, 2013). In addition, there has been rising levels of health and social disparities worldwide, an issue which has been termed the social gradient in health (Marmot, 2005; Marmot, Friel, Bell, Houweling, & Taylor, 2008; Wilkinson & Pickett, 2010). For instance, the Commission on Social Determinants of Health (CSDH) reported that life expectancy at birth varied significantly between countries and regions with developed countries recording values nearly twice those in developing countries (Marmot & Bell, 2009). Japan, for example, had a life expectancy of 82.4 years in 2008, while Zambia had 41.2 years in the same year. In Glasgow, Scotland, a 28 years difference in life expectancy between the richest and the poorest neighborhoods was reported in the same year (Marmot & Bell, 2009). However, GDP with its mechanical trait has no ability to identify such variations in society, which often gives a false impression that all in society are doing well when in reality, only a marginal proportion may be thriving while the majority suffer (Fitoussi & Stiglitz, 2013). Related to the latter point is the issue of power relations and social freedom between the rich and the poor. Though a fundamental component of wellbeing, loss of democratic rights and freedoms due to social inequalities can never be captured in average measures of progress such as GDP (Fitoussi & Stiglitz, 2013; Stiglitz et al., 2009).

Third, national GDP includes some of the goods and economic expenditures that are negatively associated with societal wellbeing (Boarini & d'Ercole, 2013a; Durand, 2015; Fitoussi & Stiglitz, 2013; Stiglitz et al., 2009). For instance, it includes government expenditures on construction of jails, which is an indication of high insecurity. Similarly, it may include expenditures on environmentally unsustainable activities e.g. deforestation and nuclear energy investments, which may pose detrimental environmental effects. Likewise, GDP also fails to account for other goods that are important to human life such as their time use, leisure, joy, pleasure as well as cultural identity (Fitoussi & Stiglitz, 2013; Stiglitz et al., 2009). Moreover, it is weak in determining the sustainability of the current contested social and economic progress seen in most countries, and in guaranteeing our offspring comparatively similar or better status of wellbeing (Bleys, 2012; Fitoussi & Stiglitz, 2013).

These limitations have been confronted in different ways by philosophers, economists, behavioral and developmental scientists and environmentalists. For example, the capabilities approach theorists (Nussbaum, 2011; Nussbaum & Sen, 1993; Sen, 1985, 1993) suggest that there is more to wellbeing beyond economic growth and that gauging success on economic output alone fails to reflect individual and population capabilities and freedom. The field of environmental sustainability and green economics have also played a vital role in promoting ecological sustainability thinking in assessment of human flourishing through measures of progress – such as the Index of Sustainable Economic Welfare (ISEW), Genuine Progress Indicators (GPIs) and the adjusted net savings (ANSs). The environmentalists and green economists argue that, today's economic growth, built on capitalist economies, may undermine the ecological footprints, social flourishing and ecological sustainability of such economic growth (Kubiszewski et al., 2013; Lawn, 2003;

Smith & Reid, 2017), which is important for sustaining a flourishing life. Similarly, behavioral economists have also strengthened the critics of GDP by indicating that the positive correlation between income and happiness is not infinite but only occurs up to a certain threshold above which happiness may decline or remain stagnant, also known as the Easterlin Paradox (Easterlin, 1974, 1995). The objective of all these efforts have been to operationalize wellbeing.

In such an active research environment, it is evident that Aristotle's notions of hedonic and the eudaimonic traditions, have historically informed the different conceptualizations of wellbeing (Dodge et al., 2012). The former, emphasizes constructs such as happiness, positive affect, and low negative affect i.e. the pleasure experienced and the displeasure avoided (Dodge et al., 2012; Schwanen & Wang, 2014). The latter highlights positive psychological functioning and human development as they relate to life satisfaction (Schwanen & Wang, 2014; Waterman, 1993). While the eudaimonic tradition reflects Aristotle's notion of *'Eudaimonia',* a Greek word for 'human flourishing' which depends on the hedonic status of wellbeing and represents the ultimate human good (Schwanen & Wang, 2014), the hedonic tradition by Aristuppus of Cyrene endeavors to maximize that which is deemed pleasurable or that with pleasurable consequences (Smith & Reid, 2017). As such, the Greek ideas behind the hedonic and eudaimonic perspective predicted the utilitarian viewpoints in the contemporary scholarship which mainly focus on maximization of pleasure for the greatest majority (Smith & Reid, 2017).

The hedonic standpoints have been adopted more often in the happiness studies within psychology and behavioral economics – which have focused more on the aspects of subjective wellbeing (O'Neill, 2016; Smith & Reid, 2017). Subjective wellbeing refers to

the optimal psychological experience and functioning which is assessed with reference to high levels of positive affect and low level of negative affect which results in increased satisfaction with one's life (Deci & Ryan, 2006; Diener., 1984). Therefore, subjective wellbeing is related more to individual happiness. However, opponents of hedonic approaches to wellbeing argue that determinants of happiness in individuals are unique and cannot allow for comparisons given the diversity of human nature (Ryan & Deci, 2001, 2013). Additionally, Smith and Reid (2017) contend that focusing on individual happiness without considering the complex nature of human life may be misleading as this may promote the vices of individualism, materialism and ecological destructiveness. The eudaimonic perspective bridges these gaps by aiming towards understanding the processes which enhance and allow for meaning, purpose and fulfillment in life. That is to say, eudainomic approaches look for the definitions of both happiness and having a meaningful life (Smith & Reid, 2017).

For this reason, the majority of wellbeing scholars today adopt philosophies founded on the eudaimonic perspectives (Smith & Reid, 2017), that aim to identify indicators for wellbeing. These are based on both objective and subjective measures of wellbeing. The objective aspects of wellbeing though reported subjectively are those indicators that are external to the individual (e.g. education status, health, environmental conditions, democratic engagement, living standards, social network, and community vitality) but have an impact on their wellbeing or are indicative of their state of wellbeing (Allin & Hand, 2014). The eudaimonic research has also not been without critiques for its tendency to base wellbeing measures on specific predefined indicators (Smith & Reid, 2017).

This critical engagement with wellbeing reveals that wellbeing is all that is good for a person that make up for a good life. This includes essentials of wellbeing such as health, prosperity, happiness, education, democratic engagement (Deaton, 2013) and other place-specific factors. Therefore, studies on health and wellbeing aim to understand individuals and groups experiences in relation to place (Brown, McLafferty, & Moon, 2010). For instance, Fleuret and Prugneau (2015) in their study on spatial dimensions of the wellbeing of students, evaluated objective and subjective wellbeing – highlighting the role of individual perceptions in life satisfaction and achievement of meaning and purpose in life. In so doing, health geographers have demonstrated that individual subjectivity, health and wellbeing are interconnected to the structural discourses in place and are bound to vary depending on personal traits and prevailing circumstances (Atkinson, 2013; Little, 2015).

2.3 Geographies of health and wellbeing

2.3.1 Place-shaping health and wellbeing

The centrality of place in health and wellbeing is acknowledged not only in geographical literature but also in other social sciences including public health (Atkinson et al., 2012; Berkman et al., 2014). To this end, health geographers are uniquely positioned to explore the role of place in the distribution of health outcomes as they critically engage with place beyond physical location (Kearns & Moon, 2002). Drawing from positivists, political economy and humanist traditions, geographers explore place as being experiential. They define place as a location imbued with meaning (Gatrell & Elliott, 2015), and that which has direct and indirect effects on health and satisfaction with life. For example, Eyles and Allison (2008) argue that social relationship in place shapes the health status of individuals

and populations and the sense of place is an important link in the pathways that translates population health determinants to health outcomes. Geographic studies on place have also focused on the relationship between space, subjectivity and health as they relate to or contribute to wellbeing (Smith & Reid, 2017). For instance, Little (2015) in a study examining the motivations behind the provision and consumption of holiday fitness, found a strong link between diet, relaxation and exercise and satisfaction with the fitness holidays which was mainly assessed based on weight loss and body size reduction. The study related life satisfaction with experience of place and the bodily image.

Besides, geographers focus on the theme of 'landscapes' within place to examine the cultural meanings in place and the structural forces that influence health and healthcare access (Conradson, 2012). In so doing, they aim to understand how the diverse and converging layers of history, the social systems and the built environment in place interact to bring about health and a flourishing life. Scholarships on landscapes also exist, for example, studies of neighborhoods (Cummins, Curtis, Diez-Roux, & Macintyre, 2007), spatial inequalities in health (Bernard et al., 2007; Subramanyam, Kawachi, Berkman, & Subramanian, 2010), studies of healing and health promotive places (Gesler, 1992; Milligan, 2007; Smyth, 2005), and studies on social construction of health and disease (Conrad & Barker, 2010; Timmermans & Haas, 2008). These scholarships have inherently conceptualized place as being beneficial or detrimental to health and wellbeing (Milligan, 2007). For example, Pitt (2014) in his study on therapeutic experiences of community gardens show that community gardens may be therapeutic and beneficial to individual and societal wellbeing. However, such benefits are dependent on the autonomy granted to individuals to own and utilize such facilities (Pitt, 2014).

Place has also been evaluated with a spatial modelling lens with an objective of identifying and addressing the emerging social inequalities through quantitative approaches – such as geographic information systems (GIS) and spatial analysis techniques. For example, Bengtsson et al. (2011), used geographical location data from a mobile phone company in Haiti to track population movement after the 2010 Haiti earthquake. The authors argued that the movement patterns depicted by the geographical information would suggest potential disease outbreaks, hence could inform epidemiologic surveillance, preparedness and necessary responses (Bengtsson et al., 2011). These aspects of place as being relational, spatial and place-effect are important in understanding perceptions, meanings and the social construction of health and wellbeing in place.

2.3.2 Application of social theories

In a world characterized by heightened inequality, the application of social theories in understanding the distribution of health, disease and wellbeing has gained momentum (Kearns & Moon, 2002). Geographers engage with diverse social theories (Litva & Eyles, 1995) from different fields – including anthropology and sociology (Eyles & Allison, 2008) to explore conceptual frameworks for social and health inequalities. Such inequalities are influenced by structural factors such as gender, racial, social class differences and power relations in societies (Krieger, Chen, Coull, & Selby, 2005; Kubai & Ahlberg, 2013). For example, the findings of a study on the implication of GBV on health and wellbeing of women in Rwanda post-genocide, Kubai and Ahlber (2013), revealed that cultural traditions and beliefs propagate violence against women despite de-ethnicization and gender equality policies. Demonstrating the role of structural systems, the study also found that being

disadvantaged economically, culturally and racially/ethnically, has significant effects on health and wellbeing (Kubai & Ahlberg, 2013).

2.3.3 Critical engagement with health and wellbeing

A critical orientation in analysis of health and wellbeing with an aim of resolving such inequalities is also an area of interest to most social science researchers (Brown et al., 2010). Kearns and Moon (2002) argue that, research that relates to equity and distribution of resources remains incomplete if it does not have any health policy implications. Health geography has therefore been characterized by critical geography perspectives – such as Marxist/political economy and critical feminist approaches. They are concerned with social injustices witnessed in forms of power relations and oppressive systems that promote inequalities and social gradients in health (Dorling, 2011). The objective of critical theorists is to spearhead the social justice agenda through transformative politics and social activism (Brown et al., 2010). The focus here is on public policy with the objective of improving overall health and wellbeing by maintaining appropriate socio-cultural, political, built and natural components of communities (Kearns & Collins, 2010).

2.4 Theoretical models of health and wellbeing research

2.4.1 From individual to population-based approaches to health

The later part of the 20th century witnessed a shift from the individual-based approaches to health to a collective perspective on health beyond healthcare service provision (Davidson, 2015). The population approach emphasized the individual and communal freedom and opportunities, and how the social, political, economic and the

biophysical environments impact on those capabilities over time and across space (Krieger, 2011). At the global level, the World Health Organization (WHO) Alma Ata declaration of 1978 on "Health for All" recommended a series of interventions outside healthcare sectors – education, food production, housing status, water supply as some of the key issues in ensuring health for all in the global South (Navarro, 1984; WHO, 1978). The 1974 Canadian Lalonde Report also highlighted the multiple underlying causes of disease by integrating health promotion and disease prevention within the healthcare sector (Lalonde, 1974). The report alluded that, the determinants of health include lifestyle and behavior, environment, individual biology and genetics as well as access of healthcare services. Health promotion became an integral part of the healthcare system. However, the health promotion model remained deficient in its approach since it ignored the role of structural factors and the life-course perspective (Evans & Stoddart, 1990). Hence, to address health problems, Rose (2001) posited that "we need to focus on the population-level factors in order to shift the population distribution of the health issues at hand".

2.4.2 Population health approach and wellbeing

Accredited for the initial framework for population health is the Canadian Institute for Advanced Research (CIAR). The CIAR population health framework received a wide audience in health research for clearly articulating and linking health to four key determinants – the social environment, physical environment, biology and genetic endowment and individual responses (Evans, Barer, & Marmor, 1994; Evans & Stoddart, 1990). The model also associated the determinants with the achievement of wellbeing and prosperity as the ultimate goal of human life. Studies on health and wellbeing indicators

have adopted this framework to understand the distal and proximal factors that matter to people in the assessment of health and wellbeing (Etches, Frank, Di Ruggiero, & Manuel, 2006). Such studies demonstrate that the social environment becomes embodied and is reflected in the health outcomes within populations. For example, Krieger (2001) in studying increased hypertension in African-Americans adopted the construct of embodiment to explain how marginalization and racial discrimination of African-Americans perpetuate poor health outcomes including increased rates of hypertension due to incessant exposure to poor working and living conditions. In this study, Krieger endeavored to explore how discrimination as a social injustice become embodied inequality and hence manifested in health disparities among the different races (Krieger, 2001).

Nonetheless, the population health perspective has not been without detractors (Coburn et al., 2003; Poland, Coburn, Robertson, & Eakin, 1998). The critics have pointed to the atheoretical nature of the framework (Coburn et al., 2003) and its inability to explore global political regimes and social structures (Etches et al., 2006). Additionally, it is argued that the model ignores human agency and remain unaware of the fact that exposure to the determinants are cumulative over time and across space (Poland et al., 1998). In an attempt to counteract these limitations, efforts towards a modified CIAR population health framework have emerged (Etches et al., 2006; Evans & Stoddart, 2003). Such frameworks have incorporated the life-course perspective and spatial-ecological analysis of health and wellbeing.

2.4.3 Life-course perspectives to health and wellbeing

The life-course approach is concerned with how people's health status as adults is shaped by their early-life living conditions across generations and during gestation, childhood, adolescence, young adulthood and later adult life (Krieger et al., 2005; Oakes & Kaufman, 2006). This approach explicitly acknowledges time of exposure and exposures with lasting effects in terms of the disease or health outcomes later in life. The approach is explained by two models; first, the Barker's programming hypothesis which indicates that exposures in-utero increase the risk of disease in adulthood. For example, low-birth-weight reflecting poor intrauterine nutrition may program one's metabolism for a life of thrift, hence increasing the chances of obesity in later life and the risk of cardiovascular disease in adulthood (Eriksson et al., 1999). Second, is the model of cumulative effect over the life-course which indicates that the effects depend on patterning, duration and the number of exposures. For instance, a study of women twin pairs in the US demonstrated that the change in socio-economic position (SEP) later in life influenced the cardiovascular disease trends even in twins that were raised together under the same SEP until age 14 years. A working-class twin fared worse than a professional twin (Krieger et al., 2005). Such effects could also be additive since children from lower socio-economic backgrounds will tend to have low birth weight, inadequate childhood nutrition, hence limited brain development, lowering their educational attainment and increasing chances of being in the working class group (Davey Smith, 2003). These effects may also be intergenerational. For example, a study of the offspring of holocaust survivors revealed that presence and severity of current post-traumatic stress disorder were higher amongst holocaust survivors than in the control group (Yehuda et al., 1995).

2.4.4 Socio-ecological approaches to health and wellbeing

The other important approach to health and wellbeing research is the socio-ecological perspective. This perspective considers the spatiotemporal scales – including the individual, community, regional, national and global levels within which, the health determinants occur and their implications for causal inferences for the health outcomes (Krieger, 2011). Studies employing this viewpoint demonstrate that the causes of disease and other health conditions at different levels do not act independently, but rather interact in complex ways to bring about health and disease (Krieger, 2001). The systemic factors in the environment within which people live influence life chances by determining the lifestyle choices (Davidson, 2015).

In a world characterized by marginalization and social disadvantage, vulnerable groups are bound to experience negative health outcomes (Davidson, 2015; Krieger, 2011). The socio-ecological framework demonstrates the role of power relations, politics, economics and human rights in determining individual and societal health and wellbeing (Krieger, 2014). The concern here is capitalist priorities for wealth accumulation, material assets and prestige often accumulated by a share of the population at the expense of the majority hence the social production of health and disease (Krieger, 2011). Moreover, the framework underscores the role of stressful experiences either from discrimination or segregation based on one's position in the social hierarchy which stimulates neuroendocrine responses that produce disease. These exposures interact with individual biology and such interactions are embodied, hence reflected in people's bodies (Krieger, 2001). As social beings in certain places and spaces and with agency, people play a key role in the

interactions with their context. For example, the findings of a recent study on utilization of cervical cancer screening services in Kenya revealed that determinants of uptake of cervical cancer screening services operate at different societal levels – the individual, interpersonal and societal (Kangmennaang, Onyango, Luginaah, & Elliott, 2018). These authors found that individual traits such as having some knowledge about cervical cancer and being in a more equal gender relationship (i.e. marriage) and from a particular ethnic group are protective factors against cervical cancer, since women in such contexts are likely to utilize screening services (Kangmennaang et al., 2018).

2.5 Theoretical and conceptual foundations of the thesis

2.5.1 Social constructionist perspectives

The social constructionist approach is a humanistic perspective to research that engages with how people socially construct reality to enable them to explain, interpret and understand their health and behavior (Berger & Luckmann, 1966). The approach neither sees people as the recipient of knowledge nor a collection of diseased bodies, but rather as bodies that continuously interact with their context and take part in the construction of knowledge on health and wellbeing (Gatrell & Elliott, 2015). Health and wellbeing research demonstrates that a person's perspective about the meaning of health, disease, and wellbeing is determined by their daily interactions either through experiences, observations and/or conversations within their contexts (Biswas-Diener, Vitterso, & Diener, 2005; Carroll, Adkins, Foth, Parker, & Jamali, 2009).

Previous investigations adopted ethnographic methodologies to understand how poor farmers socially construct their experiences of suffering and healing within the cultural and

socio-political context of violence (Priya, 2015). In this study, the researcher conducted participant observation and in-depth interviews in which an array of questions and probes covering topics on the daily life, experiences of suffering and sources of strength were covered to elicit the lived experiences of suffering and the coping strategies by the poor farmers (Priya, 2015). The study reveals how traumatized self may experience intense distress due to disruptions, like in the case of the farmers of Nandigram, India who faced violence from the state government as it sought to evacuate them from their farms (Priya, 2015). In another study, Allan et al. (2010), using exploratory in-depth interviews, explored perceptions and experiences of health amongst socio-economically disadvantaged rural residents and their expectations of healthcare services. The study reveals that in a context of low socio-economic status (SES) where the majority are less knowledgeable about their health needs and hence rely more on the local healthcare providers for suitable interventions and advice, such groups tend to normalize poor health, particularly chronic conditions and those they consider being part and parcel of life (Allan et al., 2010). The findings demonstrate the role of personal autonomy and effects of structural inequality in influencing people's construction of their own health and wellbeing.

The social constructionist approaches with its characteristic of qualitative methods allow for the voices of the participants to be heard and for us to really understand perceptions and meaning of health and wellbeing according to the participants. However, the approach falls short in its ability to clearly map out the factors that influence the constructions that people have around their health and wellbeing. Although the causal pathways of disease and health are not fully understood, it is clear that social theories provide a means through which we can understand patterns of health and disease. In this

thesis, I use the social constructionist perspective to explore people's lived experiences, perception and meanings of health and wellbeing. To enable mapping of the indicators and the determinants within the narratives, Krieger's eco-social theory of health and disease distribution is espoused. Founded on the critical social theory and poststructuralist perspectives, the eco-social theory allows for a critical analysis of who and what drives the overall patterns of health and disease across space, place and time (Krieger, 2011). The eco-social theory examines how the social and the physical environments interact with individual biology and how such interactions are embodied and hence reflected on bodies (Krieger, 2001).

2.5.2 The eco-social theory

This theory was proposed and developed by Nancy Krieger and emerges from social epidemiology. The theory conceptualizes disease etiology, experiences of disease, and highlights treatment and preventive strategies (Krieger, 2001). It speaks to the interplay between physical bodies and the environment within which people live work or play in order to bring about patterns of disease and health (Krieger, 2011). To understand these interactions, the eco-social theory explicitly incorporates the constructs of embodiment, pathways of embodiment, accountability, and agency, and cumulative interplay of exposures over the life cycle and at individual and population levels (Figure 2.1).

First, *Embodiment* is a fundamental concept of eco-social theory, which states that we literally embody biologically our lived experiences in societal and ecological context, from conception to death, thereby creating population patterns of health and disease (Krieger, 2001, 2011). The construct of embodiment suggests that determinants of current

changing societal patterns of disease distribution are external to people's bodies, but they are posited under the skin throughout the life-course, hence are genetically expressed in the form of health outcomes seen in populations (Krieger, 2005, 2011). A study of the distribution of diabetes among off-reserves Aboriginals in Canada used the construct of embodiment to explain how structured discrimination and loss of cultural identity are embodied and are reflected in health outcomes such as diabetes (Crocker, 2013). The study reveals that lifestyle choices are dependent on wider societal factors. For example, environmental dispossession among the Aboriginals of Canada contributed to changes in lifestyle and behavior and these are reflected in the health outcomes experienced by this unique population (Crocker, 2013; Richmond, 2009; Richmond & Ross, 2009).

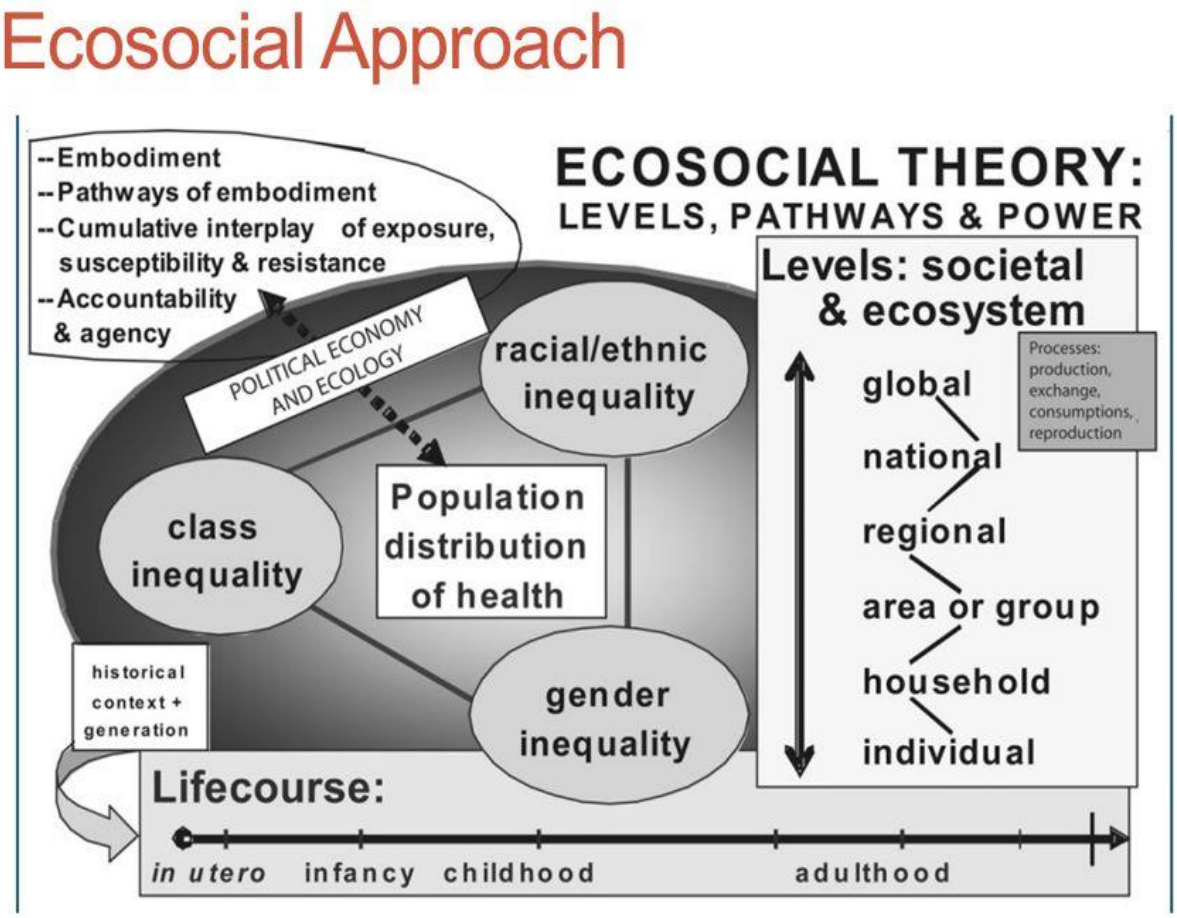
The second construct of *pathways of embodiment* provides the basis for understanding the existence of multiple interconnected pathways within and across societies, places, and over time (Krieger, 2011). Such spatiotemporal contingent patterns can be expected to be shaped by the prevailing societal structures such as patriarchy, capitalism, other societal arrangements of power and social systems that determine the extent to which different societal groups have access to functional and basic amenities such as water, housing, health, employment, leisure time, social networks and education (Krieger, 2011; Levins & Lopez, 1999). These pathways could also be the constraints at the individual level including a person's biology which is shaped by their genetic makeup, the ecological context and individual's life-course (Richmond & Ross, 2009). These factors determine the population's exposure, resistance, and susceptibility to health issues, which is the epicenter of the third construct of eco-social theory that is the construct of *cumulative exposure, susceptibility, and resistance*. As explained by Krieger (2001), this construct is expressed

within the population at multiple levels including the individual, regional, national and the global as well as within other sub-domains of interactions such as the home, workplace and the school (Krieger, 2011).

Numerous studies have adopted these constructs in explaining health disparities in populations (Kearns, Moewaka-Barnes, & McCreanor, 2009; Levins & Lopez, 1999; Richmond, 2009). For example, Kearns and colleagues (2009) in their authorship on the links between place, race, and public health, advanced the pathways through which racism impacts on the health of the Maoris and the Pakeha of New Zealand. Using the constructs of eco-social theory, Kearns et al. (2009) suggested that the pathway of embodiment of racism is through the systematic alienation of indigenous lands and the subsequent degradation of ecosystems which then undermines the cultural foundations of the community (Kearns et al., 2009). As this occurs over time and across space, the effects are embodied and hence reflected in the bodies of the indigenous populations.

Lastly, the construct of *accountability and agency* brings attention to the issue of power relations and human agency. Human agency refers to the individual and institutional capacity to act to enhance adaptation, whilst accountability refers to responsibility for action or lack of action individually or collectively (Krieger, 2011). The construct demonstrates how individuals or populations may influence the prevailing structures to enable adaptability and resilience (Krieger, 1994, 2011). Various types of health-related research, including studies on disparities in water supply and sanitation, which are characterized by regional and human agency variation (Bartram, 2015) embrace the constructs of accountability and agency to understand the coping strategies adopted in such contexts.

In this thesis, the constructs of embodiment and pathways of embodiment are extensively explored to understand the determinants, and to identify the healthy population indicators that matter to Kenyans. In so doing, the thesis brings to light unique processes through which health and wellbeing emerges within the society, hence allowing for uncovering of health disparities. The participant's voices are privileged through a social constructionist perspective to allow for the identification of the valued indicators for assessment of health and wellbeing in LMICs.



Source: (Krieger, 2011)

Figure 2. 1 Eco-social model for embodying inequalities and its core constructs

2.5.3 Framework for exploring perceptions, meanings and determinants of health and wellbeing

Studies demonstrate that perceptions and meanings that people attach to their health and wellbeing are often based on perceived determinants and on individual assessment of how they are faring on in life (Davidson, 2015; Eyles & Allison, 2008). People perceive health and wellbeing as either good or bad depending on their ability to perform daily activities such as ability to take critical decisions, having a sense of vitality and sound mental state (Glozah, 2015), all of which are dependent on the prevailing circumstances and conditions in place. Determinants are those factors that affect health of individuals and communities – including but not limited to state of the environment, genetics, income status, social relationships, gender differences and access of healthcare services (WHO, 2015). The determinants of health can be classified in two main categories – systemic and proximal determinants.

The systemic factors are the structural determinants or process factors which operate outside an individual but significantly impact health and wellbeing either directly or indirectly. Examples include social, cultural, economic, political and physical environmental factors (Davidson, 2015). Conversely, proximal determinants are the immediate factors such as healthcare services access, public health programs, and lifestyle and behavior issues and the immediate biological hazards which directly impact an individual's or population's health. The process and immediate factors interact within and amongst themselves and the resultant effects are reflected on people's bodies expressed inform of morbidities, mortalities and other health conditions (Etches et al., 2006).

For example, Karlsson et al. (2013) in exploring perceived meaning of health, wellbeing and quality of life of the Roma people in Sweden found that elements – such as being employed, having some level of education, social support networks, freedom and security and engagement in community service were crucial in informing perceptions. The study found out that despite marginalization, people tend to perceive their health and life situation as good if they are employed, have access to education and have a strong social support from family and friends. Similarly, Dolan et al. (2008) in their systematic review of what makes us happy found that poor health, separation, lack of social contact, and unemployment negatively associate with subjective wellbeing. The review demonstrated that income, personal traits and individual biology, activities we engage in, quality of our relationships, attitudes and beliefs towards self/others and life and the wider economic, social and political factors are some of the major factors that determine people's happiness and self-rated health (Dolan et al., 2008). However, these factors vary by place, gender and age.

For instance, the Wellbeing of Adolescents in Vulnerable Environment (WAVE) global study reveals a gender difference in the perceptions and meanings attached to health and wellbeing (Mmari, Blum et al., 2014). Among the females, sexual and reproductive health including sanitary pads access and sanitation facilities access were the primary issues of concerns, whereas for the males, it is drug use, alcohol consumption and violence that are of higher concern. The study also revealed that the state of the physical environment characterized by over-crowding, hygiene and waste as well as the social environment, which depicted regional differences were key factors that influenced how youth perceived their health (Mmari, Blum et al., 2014; Mmari, Lantos, Brahmbhatt et al., 2014). The youth in the

informal settlements characterized by over-crowding and shanties conceptualized their health and wellbeing around such issues (Mmari, Lantos, Blum et al., 2014). However, the study revealed that despite the importance that policymakers attach to the physical health status, the youth did not view their physical health as a top priority issue in health perception.

In another study, Ushie and Udo (2016) showed that lack of formal education among Nigerian youth not only impacted on the national economic growth but also limited the chance of the youth being productive members of society later in life. Therefore, evidence show that economic factors not only have direct effects on quality of life but also indirect effects as they limit accessibility of healthcare services and other basic needs and amenities. A recent study in Kenya reveals that access of healthcare services remain a challenge to many despite the government's initiative to promote universal health care (UHC) through the national health insurance fund (NHIF) (Okungu et al., 2018). The limitation here is the ability of most Kenyans to sustain the premium payments for the health coverage.

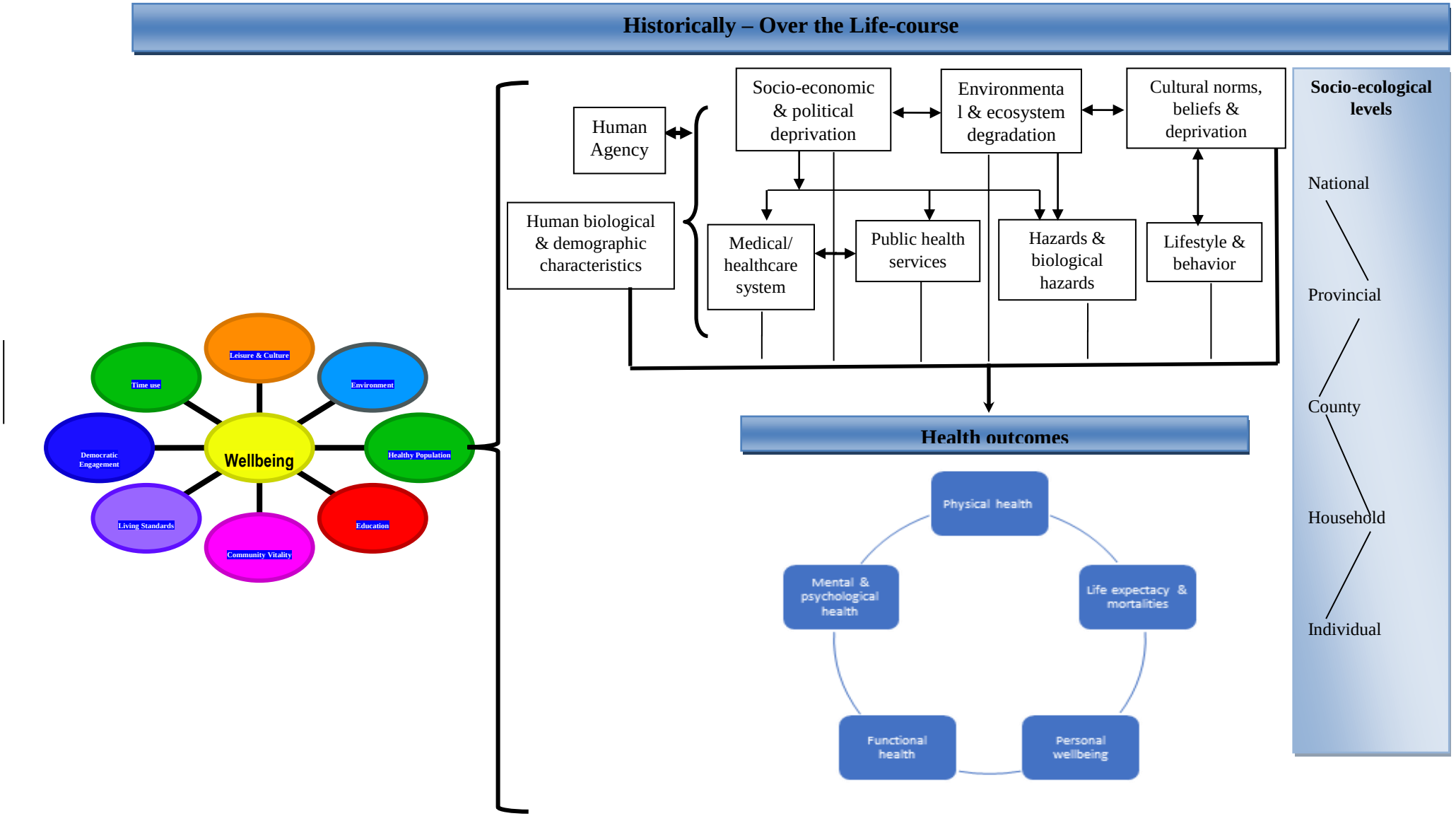
Other studies have also explored the role of social cohesion and social capital in health and wellbeing (Berkman et al., 2014; Kawachi & Berkman, 2000). Factors such as trust, social support and effective social welfare systems directly and indirectly relate to individual and population health and wellbeing and they inform perceptions and meanings that people attach to health and wellbeing (Novak & Kawachi, 2015; Novak, Suzuki, & Kawachi, 2015). The results of a study exploring meanings of health and wellbeing of adolescents in Ghana showed that social support characterized by encouragement and advice, and religiosity or spirituality and stress typified by teasing, strictness, quarrels and arguments significantly influence perceptions of health and wellbeing (Glozah, 2015). The

study further showed that effective communication, support from friends and relatives as well as mutual understanding are critical determinants of health for adolescents transitioning to adulthood and they considerably contribute to holistic construction of health and wellbeing (Glozah, 2015).

Social inequalities with reference to gender, racial, social class differences and power relations in societies are implicated in poor health outcomes (Krieger et al., 2005; Kubai & Ahlberg, 2013). For example, Kubai and Ahlber (2013), in their study on the effects of GBV on health and wellbeing of women in Rwanda, post-genocide, reveals that cultural traditions and beliefs propagate violence against women despite de-ethnicization and gender equality policies. Demonstrating the role of structural systems, the study also found that being disadvantaged economically, culturally and racially/ethnically, has significant effects on health and wellbeing (Kubai & Ahlberg, 2013). In another study that aimed to explain how marginalization and racial class difference perpetuate poor health outcomes, Krieger (2001) found that there were increased rates of hypertension, diabetes, and obesity which she associated with persistent exposure to poor working and living conditions.

Numerous factors exist, and a conceptual model founded on the CIW framework and the eco-social theory is suggested (Figure 2.2). The framework demonstrates the complexity of the interconnections between the structural and proximal determinants all of which interrelate with each other across place and over time to bring about the different health outcomes. This framework acknowledges the importance of human agency as people strive to adapt to the pathways of exposures, either by conforming to them or by modifying them through activitism as individuals or as populations. Ramires-Ortiz and Zolnikov (2017) in

their study of quality of life and the effects of water scarcity on HIV-affected households in Kenya reveal that such households rely on their social network and change in their daily activities as coping strategies to ensure that their households access water. That is, the households come together in groups and water collection becomes a social event that all participate in early in the morning (Ramirez-Ortiz & Zolnikov, 2017).



Source: Modified from the Canadian Institute for Advanced Research (CIAR) population health framework (Etches et al., 2006) and the Canadian Index of Wellbeing framework (CIW, 2016).

Figure 2. 2 Conceptual Framework for health determinants and outcomes of population health and wellbeing

2.6 Definition of the concepts

For the purpose of this thesis, social factors are defined in relation to opportunities for volunteerism, participation in church activities, local association, social network and support which are viewed as important aspects of social cohesion and social capital (Berkman et al., 2014; Bisung, Elliott, Schuster-Wallace, Karanja, & Bernard, 2015). The social issues including social trauma which refers to deeply disturbing and distressing experiences such as loss of loved ones (e.g. seniors losing their adult children and remaining behind to take care of the orphaned grandchildren; being orphaned at a young age; experiences with GBV) (Berkman et al., 2014) is also important in describing health and quality of life.

Economic factors on the other hand are defined in relation to the capabilities and functioning accorded to populations in relation to employment opportunities, education access, quality housing, ability to own property, have income, safe neighborhoods and equal distribution of these freedoms and opportunities (Boarini & d'Ercole, 2013a). Also, of relevance to maximizing people's abilities and functioning is politics and governance. Polarized political systems limit people's access to basic amenities (Heinrich, 2014; Krieger, 2012; Stevens, 2004) hence reduced opportunities for active political engagement and participation in decision making. Similarly, cultural factors such as patriarchy, discriminative cultural norms, values and practices also negatively influence women's autonomy and limit their involvement in decision making and ownership of property (Eckersley, 2015). However, studies have also associated some aspects of culture such as cultural identity and traditional foods to better health outcomes and improved quality of life (Dolan et al., 2008; Eckersley, 2015). The other systemic factor is the state of the physical

environment, which I define with reference to the accessibility of healthy foods and food security, state of the built environment, the presence of greener spaces, safe water, and clean air all which impact societal health and wellbeing (Allin & Hand, 2014).

Lifestyle and behavior is used to refer to an individual's choices in relation to their dietary practices, physical activeness, obesity and use or abuse of substances including cigarette smoking (Allan et al., 2010). This research acknowledges that individual behaviors do not happen in isolation from the prevailing structures but rather, the decisions and choices made are dependent on the opportunities accorded to people. Healthcare factors are included in this thesis to evaluate acceptability, accessibility and effectiveness of such systems in delivery of services whether the services satisfy the needs of the people (Allan et al., 2010). Closely linked to healthcare factors are the public health programs. Accessibility of health education, sanitation and hygiene services, safe drinking water and immunization coverage are important public health programs in the context of this research where preventable diseases remain a key health challenge.

This thesis adopts the CIW definition of health outcomes as it relates to the physical, functional, and psychological health, personal wellbeing, and life expectancy and mortality (CIW, 2016; Muhajarine et al., 2012). Physical health – how communities are doing in terms of prevalence and incidence of the chronic and non-communicable diseases and the infectious diseases are important descriptor used in most epidemiological studies. The ability of people to carry on with the activities of daily living, often based on the human functioning abilities – such as hearing, mobility, vision, dexterity, feelings, cognition and pain as reflected in the health utility index (HUI) are also important descriptors of health of a community. Mental health is also a crucial aspect of the health status of a population

which is dependent on the psychological health status of individuals. The psychological health status determine personal and societal perceptions of the quality of life, as it relates to social relationships (family and friends), sense of belonging, perceived health status, happiness and anxiety levels). And lastly, longevity – the number of years a person can expect to live based on the morbidity and mortality statistics has also been identified as an important descriptor of societal health and wellbeing which is also included in the conceptual framework of this thesis. Health is there viewed as an aspect of wellbeing as the concept of wellbeing is defined as all the things that are good for a person that makes up for a good life, including material, physical, psychological, education, democratic engagement, culture, and leisure (Deaton, 2013).

2.7 Summary of the chapter

This chapter reviewed relevant literature that relates to health and wellbeing. The review explores past and current discourses in wellbeing research – including philosophical underpinnings from Aristotle's notions of hedonic and eudaimonic wellbeing (Smith & Reid, 2017). Further, this section discusses the limitations of the use of GDP as a proxy for wellbeing and demonstrates that wellbeing is a place-dependent concept that goes beyond single measures such as GDP.

Furthermore, this chapter explores health geography literature to understand recent themes that have emerged in the field. These include the emergence of place as a framework for understanding health; the use of social theory; and the critical engagement with health and wellbeing (Kearns & Moon, 2002; Litva & Eyles, 1995). Arguments in health geography scholarships reveal the importance of social determinants of health as is reflected in the conceptual framework that informs this research. The suggested conceptual

framework in this thesis is founded on the CIW framework and the eco-social theory and integrates the effects of the different determinants that relate to the proximal and distal factors. In addition, the framework considers change in time and the socio-ecological levels within which the different factors operate to bring about the observed or experienced health outcomes.

The review of the studies that explore health and wellbeing in place suggest that place characteristics impact on people's perceptions, meanings and the social construction of health and wellbeing. Of interest is the fact that a majority of the reviewed studies are in high income countries. Those that are in LMICs are often based on models founded in the experiences in Western countries and they focus on specific groups classified by age, gender or ethnicity or may focus on specific aspects of health such as healthcare service provision. The current thesis addresses this gap by suggesting a comprehensive framework for the development of the healthy population index, a domain of wellbeing.

The next chapter outlines the research methodologies employed in this research. The chapter consists of a description of the study context and design, sampling and recruitment procedure, data collection, analysis and interpretation processes used to address the research objectives.

CHAPTER 3: RESEARCH METHODS

3.1 Introduction

The overall goal of this thesis is to explore health and wellbeing with a specific objective of identifying relevant indicators for population health, an important domain of societal wellbeing. To address this objective, specific research methodologies were adopted. This chapter gives a detailed description of the research process and the philosophies that informed their choices. The chapter is divided into four sections. First, is the research context. The purpose here is to geographically and socially situate the research within the selected study site. The second section outlines the study design and the rationale behind its selection. The third section discusses the data collection processes and procedures as well as the data management and analysis. In the final section, a reflection on rigour in qualitative research methodology and the ethical considerations is given.

3.2 The study site and context

The study was conducted in Kenya, a LMIC located in Eastern sub-Saharan Africa (SSA) (Figure 3.1). The country experiences extreme climatic and ecological conditions, ranging from very humid and agriculturally productive areas to less agriculturally productive arid and semi-arid (ASAL) regions (Orodho, 2006). About 80% of the country is ASAL while 20% is considered arable, sustaining nearly 80% of the population (FAO, 2014).

The average annual rainfall is 630mm with a variation across regions from less than 200mm in northern and parts of eastern Kenya to over 1800mm on the slopes of Mt. Kenya. The rainfall distribution pattern is bimodal with long rains from March to June and the short rains from October to November for most parts of the country (FAO, 2005). However, in the

recent years as the world experiences changes in the climatic conditions, this pattern has become more unpredictable (FAO, 2014).

Kenya has a population of about 48 million people, and is estimated to increase by one million people annually (Muthembwa, 2016). Data suggest that over 40% of Kenyans live below the poverty line of under $1.25 a day of which the majority are experiencing social and health inequalities - access to basic amenities such as water, sanitation facilities, food and decent housing. About 4 in 10 urban dwellers (43%) use an improved sanitary facility shared by two or more households, whereas in the rural areas only about 12% has access to similar services (Kenya National Bureau of Statistics & ICF Macro, 2015).

The country is administratively divided into 47 Counties, with 290 sub-Counties within the 8 provincial boundaries (Kenya National Bureau of Statistics & ICF Macro, 2010). The research was undertaken in four Counties within four Provinces namely Kisumu County (Nyanza Province), Nairobi County (Nairobi Province), Nyandarua County (Central Province) and Makueni County (Eastern Province). These areas were selected based on the socio-demographic characteristics of the population (2009, Kenya household census) and the different ecological zones exhibited. The age-sex structure of the Nyanza, Central and Eastern Provinces depicts the national pattern with slightly more females than males, whereas the urban, which includes the formal and informal settlements is represented by Nairobi Province (APHRC, 2014), and shows a reverse pattern, possibly reflecting the influence of rural-urban migration (KNBSs, 2010).

Nationally, Kenya has made improvements in its socio-economic development indicators though there are significant disparities across regions with reference to education, housing status, water and sanitation, and household asset ownership (KNBSs, 2012). For

instance, Nyanza Province represents a relatively poor region with a low housing quality index (7.9%), low access to improved water and sanitations services (38%), and electricity and household asset ownership below the national level. On the other hand, Central Province is a relatively wealthy region with a higher housing quality index (38%) only second to Nairobi. The region also has access to piped water and improved sanitation services, access to electricity, and a higher household asset ownership above the national level (KNBSs, 2012). The Eastern Province divided into the upper and lower section exhibits both a humid and an ASAL climatic condition with a major section of the lower Eastern experiencing low socio-economic conditions as it relates to food and water security and housing conditions. These are associated with the prevailing climatic conditions where 4 in every 10 households report lack of food or money to buy food or clean drinking water. The region was selected to represent the arid and semi-arid regions of the country (Orodho, 2006) (KNBSs, 2012).

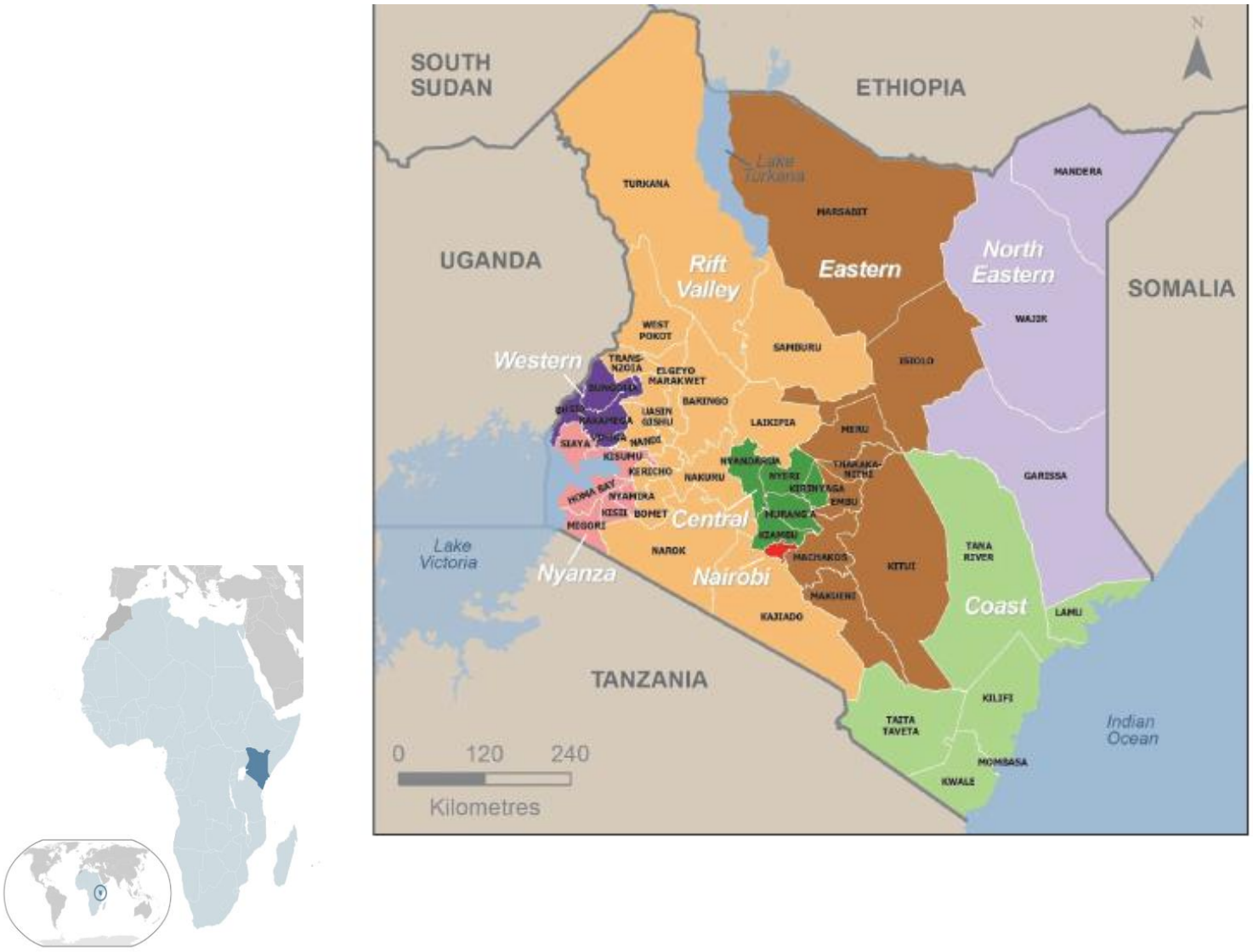


Figure 3. 1 The map of Kenya showing provincial and county boundaries

3.3 Research design

This thesis adopted an explorative research design. This design is preferred for its detailed perspective in description of phenomena as the methodological approaches allow for silenced voices to be heard and the unknowable's to be known (Creswell & Clark, 2011). In the current study, the aim was to explore perceptions, meanings and determinants of health and wellbeing, and understand the social construction of health and wellbeing by Kenyans. Qualitative methods were appropriate as they allowed for an engagement with participants' real-life experiences of health and wellbeing to be captured. The qualitative methods including focus groups (FGs) and In-Depth Interviews (IDIs) were used to explore meanings and experiences of health and wellbeing, thereby allowing for generation of unanticipated meanings, perceptions and identification of context-specific indicators (Creswell & Clark, 2011). In health research, qualitative methods also allow for the 'silenced voices' to be heard and foster better comprehension of the discourses that propagate health inequalities.

To ensure representation of the different population segments, women and men of different age brackets were purposefully sampled from each of the four regions (Nyanza, Central, Eastern and Nairobi Provinces) to participate in the focus group discussions (FGDs). This included the youth (15-24 years as defined by the WHO and UN), the middle aged (25-49 years), and the senior adults (aged ≥50 years, an age definition by WHO for populations affected by HIV/AIDs). To further ensure that the views of different social classes were represented in the study, participants were selected from high and low socio-economic regions and from the formal and informal settlements of Kenya. In-depth interviews with key informants (KIs) (i.e. a representative) from at least one grassroots

nongovernmental organization (NGOs) or community-based organizations (CBO) working on population health issues in the Counties, representatives of women groups, senior adult groups, men groups and youth groups and with the policy makers (MCAs) in the respective Counties were conducted to identify health and wellbeing indicators that matter to the population based on the experiences of the key informants and FGD participants.

Informed by the social constructionists' and critical analysis theories, that hold that reality is socially constructed and that research is intertwined with politics and a political change agenda that aims to confront social injustices (Creswell, 2014), this thesis draws on interpretive philosophies. These philosophies place emphasis on the subjective accounts of participants' lived experiences (Corbin, Strauss, & Strauss, 2014), researcher's interpretation of participants' narratives and critical analysis of such narratives (Charmaz, 2006). The aim in this case is to advance an agenda for change to improve lives (Creswell, 2014). These research orientations ensure that meaningful results are generated through interviewer and interviewee interactions (Guba & Lincoln, 2004). In so doing, the researcher remains reflexive of their positionality throughout the research process. This is to ensure that meanings in human interactions and the perceived truths that are socially constructed are fully captured (Creswell, 2014; Guba & Lincoln, 2004).

Therefore, since health and wellbeing are culture and context-dependent concepts, (Christopher, 1999), there are hidden structures (e.g. cultural norms, values and beliefs and socio-political exclusions) within the community that influence perceptions and meanings of health and wellbeing which can only be uncovered through research methodologies that allow for meanings to be generated through the eyes of those who experience it (Hesse-Biber & Leavy, 2004). In the context of this research, meanings and perceptions of health

and wellbeing of Kenyans are explored according to their day-to-day experiences to identify those aspects of healthy population that are most valued by the lay populace and to identify social injustices as perceived by the lay people.

3.4 Sampling of participants

Qualitative data collection involved both lay people and key informants (KIs) living within the four selected study regions (Nyanza, Central, lower Eastern and Nairobi Provinces) for at least the last consecutive five years. In selecting the specific study site within the Provinces, multi-stage and simple random sampling (Kombo & Tromp, 2006; Oso & Onen, 2005) at County and sub-County levels were adopted. The four regions, Nyanza, Central, lower Eastern and Nairobi have six, five, three and one Counties respectively.

From each Province except for Nairobi, a County was selected using simple random method where the names of the Counties in each Province were written in pieces of papers and folded in a similar manner and thoroughly mixed in a container. Within each selected County, similar procedures were used to select specific sub-Counties that were adopted as the study sites. (See table 3.1 for multi-stage sampling and sample sizes for the research.) The random selection of the various Counties and sub-Counties was informed by the need to give an equal chance to all the Counties and the sub-Counties within the Provinces.

In Nairobi County, Kibera and Langata sub-Counties were purposively selected to represent the informal and formal settlements within the county. Purposive sampling was also espoused in the selection of the study participants within the respective sub-Counties. This was based on the duration of stay in the area by the participants and the leadership roles assumed by the key informants. The approach was informed by the need to obtain rich

information and real-life experiences of health and wellbeing within the diverse regions of the Country.

Table 3. 1 Multi-stage sampling and sample sizes for qualitative data collection

Province (# of Counties)	Counties (# of sub-Counties)	Sub-Counties selected for qualitative data collection	# of FGDs	# of KIs
Nyanza (6)	Kisumu (7)	Seme	6	8
Central (5)	Nyandarua (5)	Ndaragua	6	6
Lower Eastern (3)	Makueni (6)	Kathonzeni – kitise	6	6
Nairobi (1)	Nairobi (17)	Kibera	6	6
		Langata	4	5
Total			**28**	**31**

3.5 Recruitment strategies

Local administrative authorities (i.e. the chiefs and assistant chiefs) in the communities were key entry points to reaching community members. During community meetings (Barraza), which are usually organized by these local authorities, and attended by the researcher, community members were informed about the study and interested persons were invited to participate in this research. Interested participants were asked to leave behind their contact details and to inform others who might be interested. Once groups were formed, a detailed information session was held to further discuss the study objectives, consents and strategies in safeguarding data and information gathered for this study.

Two provinces - Central and Nairobi Provinces did not have frequent community meetings. In such instances, area chiefs were contacted, first to seek permission to conduct research in their community; second, to seek recommendations for community gatekeepers to assist in organizing information sessions about the research. The gatekeepers assisted with identification of potential participants. The identified potential participants were then

individually contacted through invitation letters (Appendix A3) to information sessions. The information letters were accompanied with the information sheets (Appendix A4) with a detailed description of the research, the research objective, expectations and benefits of participating. A day before the scheduled information sessions, the researcher made phone calls to the potential participants to remind them of the meeting and to invite others who might be interested in the study. Information sessions were organized by age and gender to allow for homogeneity within and heterogeneity between the groups. Similar categorizations of FGD participants have been used in other studies. For example, Holbrook and Jackson (1996) in their study on social use of shopping centres in North London recruited participants from naturally existing groups based on age and ethnicity. In their research on social experiences of HIV-induced stigma and discrimination in Ghana, Mumin and colleagues (2018), also stratified their FGD participants by gender and age to allow for the flow of the discussion and to minimize gendered effects.

In the gated communities in Langata sub-county, Nairobi, a different recruitment strategy was adopted. Like in other study sites, permission from the local administrative authorities was sought. The area chief suggested three community health workers (CHWs) to assist with study participant recruitment. However, in the first FGD in this region, the researcher realized that the CHWs had recruited individuals from the neighboring informal settlements who were not any different from those already interviewed in the informal settlement of Kibera in Nairobi. This was because most of the CHWs were neither living in the gated communities nor working with individuals within the gated areas. As such, the planned FGDs were cancelled and the researcher went door to door explaining the study to potential participants. Those who agreed to participate invited their friends and neighbors to

take part in the study. The barriers in this case included weaker social ties and individualistic lifestyle in the formal settlements which limits interactions with potential gate-keepers such as the CHWs, an issue that has also been highlighted elsewhere (Archibald & Munce, 2015; Patel, Doku, & Tennakoon, 2003).

Throughout the recruitment and data collection process, voluntary participation was emphasized. The participants were informed that participation was voluntary and that they could decline to answer any interview question or could decide to withdraw from the study at any time without any negative consequences. In-depth interviews with KIs and FGDs were adopted in this study as data collection tools

3.6 Data collection, management and analysis

3.6.1 Focus group discussions (FGDs)

Focus group discussions are valuable research tools for exploring relationships and processes in place and to generate meaning and representation of the social world (Crabtree & Miller, 1999; Hay, 2016). Studies that focus on less sensitive and less personalized issues at group and/or population level have adopted FGDs as appropriate data collection methods (Crabtree & Miller, 1999). For example, Carroll et al. (2009) used focus groups to gain insight into how living context (e.g. poor neighborhood) works to sustain shared behavioral patterns such as physical inactivity and how meanings of behaviors are socially constructed in such contexts over time. Additionally, focus groups involve a dynamic process where responses by individuals may trigger a chain of comments that aim to explore and clarify individual and shared perspectives, thus allowing for far more information to be generated (Crabtree & Miller, 1999; Tong, Sainsbury, & Craig, 2007).

In addition, FGDs have been adopted in health and wellbeing related research to explore lived experiences of health-related issues. Mkandawire-Valhmu and Steven (2010) used FGDs with women living with HIV in Malawi to explore issues of power and GBV with an intention of creating a forum for open discussion and moral support amongst women living with HIV. Additionally, FGDs have been adopted in studies that aim to understand how locals view and interpret concepts about quality of life and wellbeing (Møller et al., 2018). Through the FGDs, Møller and colleagues in their research with the isoXhosa speaking people of South Africa established that translations of the concepts of wellbeing and quality of life in the local dialect conveyed different shades of meaning which may have implications in measurements and limit comparison with other regions. In another research, Jervaeus and colleagues (2016) used FGDs to explore views of childhood cancer survivors on the role and need for healthcare professionals to provide them with care, support and sex education.

This thesis employed focus groups to draw out shared understanding of community indicators of health and wellbeing. Focus group guides were informed by questions outlined by John Eyles (2001) in his study of community-based health and wellbeing mapping tools for the determinants of health as well as the healthy population domain of the Canadian Index of Wellbeing (Muhajarine et al., 2012). The FGD schedule was pre-tested with female youth in Nyanza Province to clarify any ambiguity in the questions and to ensure that the questions were neither offensive nor difficult to understand (Hay, 2016). The pre-test allowed for restructuring of the questions before actual data collection.

The inclusion criteria for FGD participants was mainly based on the duration of stay in the study site. Participants must have lived in the area for not less than 5 years and they

had to be either male or female of the age categories 15-24 years, 25-49 years or 50 years and above. The presumption was that individuals who met these criteria would be have a depth of experiences of health and wellbeing within their communities, hence allowing for an in-depth exploration of the healthy population indicators that mattered across the different life-courses, regions and genders. A total of 28 FGDs (n=273) were conducted across the selected study sites to collect data on lay perceptions, meanings, determinants and the social construction of societal health and wellbeing. In this regard, participants were asked questions about what makes for a healthy community and what matters most in having a healthy community and a good life (See Appendices B1-B4 for data collection tools).

The FGDs were made up of between eight and twelve participants, except in the Langata sub-county in Nairobi where FGDs consisted of between five and twelve people due to the recruitment challenges earlier mentioned. Similar to previous studies in such contexts (Tong et al., 2007), the sample was considered appropriate to generate the necessary information on population health and wellbeing (Archibald & Munce, 2015; Patel et al., 2003). By limiting the number of participants to not less than five and not more than twelve, proper group management and rich information generation was assured (Shurmer-Smith, 2002). (See Table 3.1 for FGD Participant characteristics).

The FGD sessions were conducted in enclosed rooms to ensure a conducive atmosphere for the discussion and to minimize external interruptions. The majority of the FGDs were conducted within a local church (n=13), in a local hotel/cafeteria (n=10) and within a health facility (n=5) in the community. The choice of the location was based on where the majority of the participants were comfortable to congregate for the interview and that was closest to the participants. Since the study was area-specific, the FGD participants

might have included people who know one another, a situation that may be limited by issues of peer pressure and under or selective disclosure of information about one's experiences of health and wellbeing. However, to minimize this limitation, participants were recruited from the neighboring villages and the participants were asked to use examples of other people within the community. The participants were also asked to treat the discussions as confidential and since this could not be guaranteed, the researcher reminded the participants to disclose only things that they would feel comfortable being repeated or mentioned outside the group (Hay, 2016).

Given the diverse socio-economic backgrounds of participants, the FGDs were conducted in the language that all participants were comfortable with to help them to eloquently articulate their lived experiences. In Nyanza region, all the FGDs were conducted in the local dialect (i.e. Luo), whereas in Nairobi (Kibera and Langata), both English and Swahili, the two national languages in Kenya were used. In Eastern and Central Provinces, Swahili was used in all the focus groups discussions except for seniors, 50 years and above who preferred the local dialects, Kamba and Kikuyu respectively. In such contexts, a translator, fluent in English, Swahili and the local dialect and one with experience in social research were hired and trained about the research and research ethics to ensure quality data collection and compliance with ethical considerations in social research. Since both Kamba and Kikuyu are bantu languages, they are close to Swahili, a language that the researcher is fluent in. As such, accurate translation was ensured to minimize loss of information through multiple language translations. Focus group discussions lasted approximately 90-120 minutes considering for the most part, translation was required.

To ensure quality data collection and to allow the researcher to gain some confidence and familiarity with the conduct of FGDs, an experienced moderator was hired for the first six FGDs where the researcher remained purely a note-taker during the first three and a note-taker and a co-moderator in subsequent three sessions. The remaining FGDs (n=22) were then facilitated by the researcher and with help of a note-taker who also acted as a translator. All FGDs were audio-recorded (using *Olympus Digital Voice Recorder WS-802*) to ensure that information was accurately captured. The FGDs were triangulated (Carter, Bryany-Lukosious, DiCenso, Blythe, & Neville, 2014) with in-depth interviews with KIs where formal and informal conversations were employed.

3.6.2 In-depth interviews (IDIs) with Key Informants (KIs)

In-depth interviews (IDIs) are a special kind of interview where individuals who possess key knowledge and status share their knowledge and skills with the researcher as they have access to perspectives or observations inaccessible to the researcher (Goetz & LeCompte, 1984). For example, Clancy and associates (2015) in their study of older persons' narrations of falls and experiences of falling carried out in-depth interviews with the seniors perceived to be frail. While results from IDIs may not be generalized to the entire population, IDIs tend to provide a depth of information on individual and community experiences (Hay, 2016).

In this thesis, IDIs were used to generate individual and community experiences, perceptions and meanings of health and wellbeing. A total of thirty-one (n=31) IDIs, were conducted in Nyanza (n=8), Central (n=6), Eastern (n=6), and Nairobi (n=11) [Kibera (n=6) and Langata (n=5)] Provinces to augment the insights obtained from the FGDs. The sample

size was determined by saturation (Corbin et al., 2014), that is data were collected until there were no new meanings and perceptions of interest that were emerging. The participants were selected purposefully with the help of the community gate-keepers. Once the potential participants were identified, they were issued with an information sheet detailing the study objectives and procedures and an invitation letter to participate in an IDI. The researcher then followed up with a phone call to negotiate permission to participate in the study and to be audio-recorded. A total of 39 potential participants were contacted to negotiate participation, out of which thirty-one (n=31) completed the actual interviews (See table 3.3 for Participant Characteristics). Eight individuals (n=8) did not participate due to constrains relating to time and availability.

The IDI respondents included lay populace who were leaders in civil society groups such as youth groups, women and men groups and had lived in the community for not less than five years prior to the study. The Non-Governmental Organization and/or Community-Based Organization (NGO/CBO) representatives included official from the organizations actively involved in population health related community work and had worked in the community for at least the past three years, whereas the policy-makers were the current Member of County Assembly's (MCAs) for the selected counties. The presumption was that these participants had adequate experience and were in a better position to share from their experiences of the population health indicators for assessment of wellbeing within the respective communities. (See Appendix B5 for the data collection tool).

To ensure informed consent, an information session was conducted with each respondent before the actual interview and all the questions that the participants had were adequately addressed. Respondents were assured of confidentiality and reminded that

participation was voluntary, and they could decline to respond to questions or even withdraw from the study at any point without any consequences. Interviews were conducted at places where respondents felt comfortable ranging from their homes (n=22), place of work/offices (n=7) and at restaurants (n=2).

Since most of the KIs were people with some level of education and were in leadership positions, most interviews were conducted in English (n=25) and the remaining in Swahili (n=2) and Luo (n=4). This enabled participants to eloquently share the day-to-day experiences of health and wellbeing in their community and as representatives of key segments of the population. Like the FGD guide, the IDI schedules were based on John Eyles' health and wellbeing mapping tools for the determinants of health (Elliott, Eyles, & DeLuca, 2001; Eyles et al., 2001). The semi-structured interview guide was pre-tested with a CBO representative and a middle-aged male respondent in Nyanza Province. The interview schedule was then amended appropriately for use in actual data collection which lasted approximately 45-90 minutes per interview.

Based on the research objectives, participants were asked questions relating to perceptions and meanings of health and wellbeing and the perceived descriptors and determinants of community health and wellbeing. The discussions generated ideas pertaining to how the participants socially constructed realities of lived experiences as they relate to their health and wellbeing. Additionally, probes were employed to further gains insights of the different elements and key indicators (e.g. biophysical environment, socio-economic, political, cultural and the proximal determinants such as lifestyle and healthcare and public health facilities access) of health and wellbeing that mattered to people in the community. The discussions also elicited information on health outcomes that were

considered critical within every community and their perceived determinants. The collected data were adequately managed according to the ethical standards for research involving humans.

Table 3. 2 Sample characteristics - Focus Group Discussion Participants

Characteristics	Sampling and data collection strategy – FGD Participants				
	Region/Province	**Nyanza**	**Eastern**	**Central**	**Langata♦**	**Kibera◊**
Age (range)	15-24	20 (17-24)[1]	17 (16-19)[1]	17 (18-24)[1]	11 (17-24)[1]	21 (18-24)[1]
	25-49	21 (26-49)[1]	18 (25-49)[1]	22 (25-45)[1]	14 (25-45)[1]	24 (25-48)[1]
	50+	22 (50-101)[1]	24 (52-83)[1]	19 (51-83)[1]	5 (52-66)[1]	18 (50-68)[1]
	Total	63	59	58	30	63
Gender	Male	31	28	29	14	34
	Female	32	31	29	16	29
	Total	63	59	58	30	63
Education level*	Primary level and below	48 (18) ♣	46 (18) ♣	31 (15) ♣	9 (1) ♣	34 (12) ♣
	Secondary level and above	15 (3) ☼	13 (1) ☼	27 (8) ☼	21 (8) ☼	29 (4) ☼
Household size	Range	1-15	2-13	1-10	1-8	1-12
Estimated Monthly income (in KShs.)	Range	0-30,000	0-25,000	0-32,500	0-90,000	0-27,500

*Highest level of education achieved

[1]Age range for actual study participants

(--) ♣ Number of participants without any level of education (no education)

(--) ☼ Number of participants with tertiary education level (college and university level of education)

♦ Formal settlement in Nairobi Province (Langata gated communities)

◊ Informal settlement in Nairobi Province (Kibera)

KShs. Kenya shillings

Household size was defined according to the KDHS which says that a person or group of persons, related or unrelated who usually live together, who acknowledge one adult member as the head of the household, and who have a common cooking arrangement.

Table 3. 3 Sample characteristics - In-Depth Interview Participants

Characteristics	Sampling and data collection strategy – IDI Participants				
	Region/Province	**Nyanza**	**Eastern**	**Central**	**Langata♦**	**Kibera◊**
Representative	Lay representatives	6	4	4	4	4
	CBO/NGO	1	1	1	0	1
	Policy maker (MCA)	1	1	1	1	1
Gender	Male	2	4	4	4	4
	Female	6	2	2	1	2
Duration of stay in study site in years	≤5	x	x	x	x	x
	6-10	x	1	x	x	x
	>10	8	5	6	5	6
Household size	<2	x	x	x	x	x
	2-5	3	4	6	4	2
	6-10	5	2	x	1	4
	>10	x	x	x	x	x
Estimated Monthly income (in KShs)	≤500	3	x	x	x	x
	500-1,000	2	x	1	x	1
	1,001-5,000	1	1	x	1	x
	5,001-10,000	x	x	2	x	2
	>10,000	2	5	3	4	3

♦ Formal settlement in Nairobi Province (Langata gated communities)
◊ Informal settlement in Nairobi Province (Kibera)
x Represents no case
CBO/NGO Refers to Community Based Organization/Non-Governmental Organization
MCA Refers to Member of County Assembly
IDI Refers to In-Depth Interview

3.6.3 Recording and transcription

Both FGDs and IDIs were digitally audio-recorded with the participants' informed consent, allowing for subsequent verbatim transcription of the participants' own words as well as opportunities for a re-examination of what was said or discussed (Creswell, 2014; Hay, 2016). Notes were also taken throughout the interviews with the help of a note-taker to capture the key issues that were highlighted and discussed as well as the non-verbal communications during the interviews. To ensure accurate recording of the field notes, the short-hand notes taken in each interview were all typed on the same day of the interview giving summaries of what was discussed. Memos were also generated from the notes and from other observations made during the field season.

The audio recorded interviews were transcribed verbatim after the interviews. The transcription was mainly done by the researcher with assistance from three independent transcribers. The three independent transcription assistants were mainly responsible for transcribing the IDIs, which were subsequently proof read by the researcher for accuracy of content. By taking part in the transcription of the data, the researcher was immersed in the data, hence allowing for preliminary analysis of the data (Hay, 2016). Through such analysis, potential thematic areas were identified which were later included as part of the thematic schemes for data analysis.

3.6.4 Development of thematic schemes and data analysis

The objective of FGD and IDI data analysis is to assess perceptions, meanings and experiences of health and wellbeing as well as to generate determinants and indicators that matter to Kenyans. Being a reflexive part of the research process, the qualitative data

analysis significantly overlaps with and is informed by the data collection process (Berg, 2004). As such, audit trails, the memos kept throughout the research process and the notes taken were reviewed and included in the data analysis phase. To ensure familiarity with the data and adequate analysis, the researcher participated in transcribing data, read transcripts multiple times and also listened to the audio recordings.

In the analysis, occurring and recurring themes were identified and included in the thematic schemes for the IDIs and FGDs. The theoretical and conceptual frameworks that informed the research work in this thesis also informed the thematic schemes (See Appendix C1-C2 for the theme code set for FGDs and IDIs). For example, the themes were broadly categorized into the structural factors – social, cultural, political, economic and environmental; proximal factors – lifestyle and behavior, healthcare and public health services and individual biological and demographic characteristics which are dependent on the prevailing systems; and the health outcome issues – physical, psycho-social, functional, life expectancy and mortality and personal wellbeing. The sub-themes related to each of the main themes were developed based on existing health and wellbeing literature as well as from emerging themes unique to the context of study. New themes were also added as they emerged throughout the coding and data analysis process. The data were therefore analyzed both inductively (by the eco-social theory and conceptual frameworks adopted for the study) and deductively allowing for new themes to emerge (Creswell, 2014; Strauss & Corbin, 1990). The developed thematic schemes were validated through peer-checking to ensure themes made sense and to enhance reliability of the findings. The data were coded independently by the researcher and an independent coder (a peer) to validate the themes by identifying areas of agreement and disagreements and to allow for consensus on the

contentious codes. The process allowed for multiple interpretations and understandings and for broader connections within the data to be generated (Hay, 2016). The field notes, memos, transcripts and coding schemes were then assembled in QSR *NVivo 11.2* (QSR International Pty Ltd) in preparation for coding and actual data analysis.

The thematic scheme codes were transferred into NVIVO and applied to the rest of the transcripts. The data were then analyzed to seek meaning and through content analysis to allow for new themes and theories to emerge. The analysis was also guided by the study objectives and the findings. The study findings are presented based on the three specific research objectives. Direct quotes from the participants relating to the various themes and subthemes are used to illustrate some of the key findings. To allow for all voices to be heard, the quotations are discussed in relation to, and contrasted with, the experiences and opinions of other participants (Baxter & Eyles, 1997). Summary tables are also used as visual representation of the study findings.

3.7 Reflexivity and rigour in the qualitative methods

The conduct of qualitative research requires the researcher to remain reflexive throughout the research process and to ensure rigour. Varying perspectives on the concepts of rigour and reflexivity exist in the literature. Hay (2016), for example, considers reflexivity as a way of writing self into the text of the research – by the researcher understanding their positionality. As defined by England (1994), by being reflexive, the researcher becomes aware of their connection to the research and the possible effects that they bring with them into the research either in terms of social power or exploitative relationship between them and their participants. The process may involve the

acknowledgement of the researcher's embodied emotions, prior knowledge of the research and the area – affecting what we perceive as the truth within the data and silencing other perspectives which may not resonate with us as the researcher (Valentine, 2003; Hay, 2016).

As such, since this research was conducted in my country of origin and the region in which I grew up, it is possible that preconceived knowledge may potentially affect the study process. To minimize such effects, the researcher relied on evidence from existing literature and open-ended questions were asked that allowed for the voices of respondents to be heard. A reflexivity journal and an audit trail were kept throughout the research process and revisited during the data analysis and interpretation, actions that have been undertaken by other qualitative researchers to ensure rigour (Baxter & Eyles, 1997; Miles & Huberman, 1994).

Hay (2016) defines rigour as the process of ensuring trustworthiness of the research findings by the interpretive community. The purpose here is to ensure that the inquirer can persuade her/his audiences that findings are worth paying attention to. As suggested by Lincoln and Guba (1985), trustworthiness of qualitative research depends on important factors – validity and credibility, issues that deserve attention throughout the research process. Though used mainly in evaluating quantitative data, Lincoln and Guba suggested potential importation of similar ideas for use in qualitative research to achieve rigour. In place of validity is credibility, reliability is dependability, generalizability is transferability, and replicability is confirmability, ideas that have been affirmed by other researchers (Baxter and Eyles, 1997; Vanketesh, 2013; Healy and Perry, 2000).

In the context of this thesis, a thick description of the research process – from design to final analysis, interpretation and presentation of data and careful attention to the audit trail

of the process to ensure dependability of the conclusions; and triangulation of methods (FGDs and IDIs) and theories (social constructionists and eco-social theory) was used to ensure dependability and confirmability of the findings. Requirements for transferability in this study meant the ability to gain insights from the research findings and to determine the applicability in perceptions, meanings and determinants of health and wellbeing and how these concepts are socially constructed in similar contexts – in this case, LMICs (Elliott et al., 2017). Also of importance to this thesis was paying attention to the data collection schedules, the questions asked, the accuracy of the transcription and theme identification to elicit confidence in ultimate analysis and interpretation of data (Creswell, 2014; Miles & Huberman, 1994) with the goal of eliminating or minimizing the biases of the researcher but rather communicating the thoughts and feelings of the participants (Lincoln and Guba, 1985). A thick description of the participants' lived experiences and narratives of perceptions and meanings of healthy community and wellbeing was therefore given.

3.8 Ethical considerations

Since this study involved human participants, all procedures undertaken were in accordance with the ethical standards of the research ethics of the institutions involved in the research, and the international research ethics declarations (1964 Helsinki Declaration and its amendments) and the Kenya National Council for Science and Technology research ethics requirements. In line with the international declarations and the national requirements for ethics, ethical clearance by the University of Waterloo Ethics Review Board (ORE no.: 21946) and the Masinde Muliro University of Science and Technology Ethics board (MMU/COR: 403009 [56]) were obtained before the commencement of the research. The

aim and purpose of all components of the study were discussed and agreed upon with local authority leaders, and legal consent obtained from such authorities. All participants were adequately briefed about the nature of the research, its purpose, and implications and an informed written and verbal consent was obtained before participating in the study. The respondents were assured of strict adherence to confidentiality and anonymity of the information provided. To protect the identity of the respondents, participants were identified by use of numbers as reflected in the direct quotes to illustrate participants perspectives. Identifying features of the participants were therefore not collected. Voluntary participation was emphasized throughout the research process and the participants assured of no consequences withdrawing from the study at any point or declining to respond to a question that they felt uncomfortable to answer. I present the research findings in the subsequent chapter.

3.9 Summary of the chapter

This chapter describes the research methods – including the research context and design, sampling and recruitment procedure, data collection, analysis and interpretation process. The purpose of describing the study site and context is to geographically and socially situate the research within the selected study site and to highlight place-characteristics that are relevant for the research. The explorative research design in this thesis is preferred for its detailed perspective in description of phenomena as the methodological approaches associated with this design allow for silenced voices to be heard and the unknowable to be known.

This chapter describes the data collection schedules that were adopted to understand perceptions, meanings and determinants of health and wellbeing as well as how these concepts are socially constructed by Kenyans. The determinants included both the systematic and the immediate factors as well as the individual traits as they related to the embodied health outcomes in place and across time and space.

Furthermore, the chapter describes the analytical methods adopted for this research to summarize the findings. This involved verbatim transcription of audio tapes, thematic scheme development and the coding of the data in NVIVO to identify regional, socio-demographic trends and interconnections between and amongst the identified themes. The chapter also describes the deductive and inductive data analysis process which was employed in this thesis to allow for themes of interest to be included as well as for new ones to also emerge. The identified themes and sub-themes were summarized by frequency of mention and the number of participants mentioning the themes to identity the themes that matter most. The chapter concludes with a reflection on how the researcher ensured rigour in the thesis methodology and the ethical considerations observed. The findings are presented in the subsequent chapter.

CHAPTER 4: FINDINGS

4.1 Introduction

The overarching goal of this thesis is to identify indicators for constructing a healthy population index, an important domain of societal wellbeing. As part of the global index of wellbeing project, this thesis set out to understand how people in low-to-middle income countries socially construct their health and wellbeing across place and over their life-course. In doing so, the thesis highlights perceived meanings, determinants and the social construction of health, related health outcomes and perceived quality of life.

The chapter is primarily divided into three (3) parts, each focusing on a research objective. Section one presents the findings on perceptions, meanings, and determinants of health and wellbeing of Kenyans. The analysis reveals six broad themes; a) community health status and healthcare services; b) economic and living standards; c) relationships and social interactions; d) political stance and governance; e) climate change and state of the environment; and f) cultural norms and beliefs. Within each of the broad themes, specific indicators of health and wellbeing are identified. The indicators that matter most to the participants are selected based on the frequency of mention and the proportion of FGDs and IDIs mentioning the indicator. The frequency of mention refers to the number of times an indicator is mentioned within the different interviews, while the proportion of mention denotes the number of FGDs and IDIs mentioning the indicator. To allow for comparison, the findings are analyzed by data source (i.e. IDI and FGDs), gender and region of residence.

In section two, a discussion of how Kenyans across the population structure – e.g. youth, the middle-aged and the seniors (both male and female), socially construct their

health and wellbeing in place and over time is presented. The findings show that whilst the youth socially construct their health and wellbeing around issues of culture, menstruation, trust, and other socio-economic risk factors, the middle-aged and the seniors are concerned about their lived experiences with GBV, care responsibilities and family lineage instability.

In the final section of this chapter, relevant indicators grounded in local knowledge and needs, as a first step towards understanding and constructing a healthy population index of wellbeing in Kenya is highlighted. The results reveal that prevalence and incidences of infectious and non-infectious diseases, mortality rates, use of alcohol and drug abuse, availability of medication in health facilities and ability to accurately screen for diseases are important indicators of the population health domain. The chapter concludes with a summary of the key findings and key messages emerging from this research.

4.2 Objective 1: Exploring perceptions, meanings and determinants of health and wellbeing

First, this study sought to elucidate the perceptions, meanings and determinants of health and wellbeing in the Kenyan context. With this regard, participants were asked questions about what makes for a healthy community and what matters most in having a healthy community and a good life. The responses were summarized deductively and inductively to capture predetermined and emerging themes. The findings presented here reveal that Kenyans describe healthy community and wellbeing in terms of the prevailing socio-economic, historical and political as well as environmental conditions that directly and/or indirectly affect their lives and associated health outcomes. Furthermore, the analysis identified six broad themes important in contextualizing and understanding how the key

informants and lay Kenyans perceive societal health and wellbeing. The themes include – a) community health status and healthcare services; b) economic and living standards; c) relationships and social interactions; d) state of the physical environment and climate change; e) political stance and governance; and f) cultural norms and beliefs. Table 4.1 gives a summary of the frequency of mention of these themes and the proportion of FGDs and IDIs mentioning the indicator.

Table 4. 1 Frequency of mention of themes by data sources

Thematic Areas/ Data Source	Community health status & healthcare services	Economics & living standard	Social relationships	State of physical environment	Politics & governance	Cultural factors
KIs (n=31)						
# of mentions (%)	**582 (42)**	**226(16)**	243(18)	113(8)	144(11)	62(5)
# of KIs mentioning (%)	**31(100)**	**31(100)**	30(97)	28(90)	26(84)	20(65)
FGDs (n=28)						
# of mentions (%)	**754(42)**	**316(18)**	**292(16)**	92(5)	202(11)	141(8)
# of FGDs mentioning (%)	**28(100)**	**28(100)**	**28(100)**	26(90)	26(90)	27(93)

Note: KI(s) – Key Informant(s); FGDs – Focus Group Discussions; **In bold:** Refers to the themes mentioned by all participants.

Table 4.1 reveals that among the KIs, constructs around community health status and quality of healthcare services (42%), economic and living standards (16%), and social relationships (18%) frequently inform perceptions and meanings of healthy community and a good life. Similarly, community health status and quality of healthcare services (42%), economic and living standards (18%) and social relationships (16%) were mentioned in all the FGDs as important descriptors of healthy community and wellbeing. Though an important indicator as per the frequency of mention in IDIs (11%) and FGDs (11%), politics and governance indicators were considered an important descriptor of health and wellbeing by only a section of the participants. Surprisingly, state and change in environmental conditions and cultural beliefs and practices were less frequently employed in defining health and wellbeing status of communities despite the uncertainties in climate conditions and evidence of negative effects of some cultural practices. This could be associated with kind of questions adopted in this research which might have limited the participants to think in line of health status and healthcare service provision. With further probing, the respondents acknowledged the importance of politics and governance systems, the physical environment, and culture in the quality of life.

However, in asking for a distinction between healthy community and a good life (a proxy of wellbeing), the results of this thesis reveal that Kenyans use these two concepts interchangeably and define them using similar themes. Nonetheless, similarities and differences in the broad themes and the specific indicators across the different key informants and the lay FGD participants by age, gender, and region exist. These results are presented thematically taking into account the different data sources, participant characteristics and regional variations.

4.2.1 Community health status and quality of healthcare services

Overall, all participants frequently used indicators of community health status and quality of healthcare to conceptualize societal health and wellbeing. The theme of community health status and healthcare services brings together the population health outcomes and important health influencers including quality of healthcare service, public health programs and lifestyle and behavior factors. These sub-themes are summarized according to frequency of mention in the different data sources in Table 4.2 below.

Table 4. 2 Participant characteristics and frequency of mention of sub-themes of community health status and quality of healthcare services

	Thematic area – community health status and quality of healthcare services			
Sub-Themes	**Health outcomes**	**Healthcare services**	**Lifestyle & behavior**	**Public health programs**
Key Informants (n=31)				
Lay representatives (n=22)				
# of mentions (%)	**159(17)**	**90(9)**	92(10)	90(9)
# of KIs mentioning (%)	**22(100)**	**22(100)**	21(95)	20(91)
CBO/NGO representatives (n=4)				
# of mentions (%)	**35(19)**	**16(9)**	**10(6)**	**6(3)**
# of KIs mentioning (%)	**4(100)**	**4(100)**	**4(100)**	**4(100)**
Policy makers (MCAs) (n=5)				
# of mentions (%)	**31(18)**	**18(10)**	**17(10)**	7(4)
# of KIs mentioning (%)	**5(100)**	**5(100)**	**5(100)**	3(60)
Focus Group Discussions (n=28)				
Gender				
Female (n=14)				
# of mentions	**141(17)**	87(10)	**68(8)**	**49(6)**
# of FGDs mentioning (%)	**14(100)**	13(93)	**14(100)**	**14(100)**
Male (n=14)				
# of mentions	**203(22)**	53(6)	**91(10)**	61(6)
# of FGDs mentioning (%)	**14(100)**	13(93)	**14(100)**	12(86)
Region				
Nyanza (low SES) (n=6)				
# of mentions	**82(21)**	**20(5)**	**22(6)**	**19(5)**
# of FGDs mentioning (%)	**6(100)**	**6(100)**	**6(100)**	**6(100)**
Central (high SES) (n=6)				
# of mentions	**90(22)**	**33(8)**	**35(9)**	**25(6)**
# of FGDs mentioning (%)	**6(100)**	**6(100)**	**6(100)**	**6(100)**
Eastern (ASAL) (n=6)				
# of mentions	**47(17)**	**17(6)**	**22(8)**	20(7)
# of FGDs mentioning (%)	**6(100)**	**6(100)**	**6(100)**	5(83)
Kibera (informal settlement) (n=6)				
# of mentions	**24(11)**	17(8)	**17(8)**	21(10)
# of FGDs mentioning (%)	**6(100)**	4(67)	**6(100)**	5(83)
Langata (formal settlement) (n=4)				
# of mentions	**101(21)**	**53(11)**	**63(13)**	**25(5)**
# of FGDs mentioning (%)	**4(100)**	**4(100)**	**4(100)**	**4(100)**

Note: KIs – Key Informants; MCA – Member of County Assembly; FGDs – Focus Group Discussions; SES – Socioeconomic Status; ASAL – Semi-arid; values in bold – mentioned by all participants

Table 4.2 shows that health outcome indicators were commonly used by both the key informants and the lay participants in the FGDs to indicate the aspects of health and wellbeing that matter most. Among the focus group participants, healthcare factors relating to accessibility, effectiveness and acceptability resonated more with the females (10%) than with the males (6%). In the context of this research, women often bear the burden of ensuring that their families access healthcare services. As such, the majority of the lay women (93%) mentioned issues of affordability, distance to healthcare facilities, drug availability and patient-provider relationship (i.e. the interaction between the healthcare provider and the patients) as critical descriptors. They defined a healthy community as one in which healthcare services are accessible and acceptable.

> *..affordable insurance, care proper medical services is a healthy society (FGD-MM-P2-Langata)*

> *…. when you go there, you find that …there's a queue. So, by the time you will be attended to by the doctor, you find that the doctor is having fatigue, s/he is so much tired, because s/he's been doing this thing since morning. So, this one means the doctor to have a bad mood. You'll find that maybe even the way he's talking to you, is not encouraging … (FGD-MF-P4-Nyanza)*

From the above excerpts, factors such as waiting time in queues, demotivated healthcare providers, affordability of care and expensive health insurance limit utilization of healthcare services, hence poor health outcomes in most communities.

In addition, the ability of the available healthcare systems to effectively diagnose and treat health conditions was also mentioned as a major descriptor of health and wellbeing. The participants considered a healthy community as one in which the health facilities are equipped with the diagnostic laboratories and screening services. Most health facilities in the rural areas lack basic amenities such as pharmacies, electricity, and skilled personnel (medical laboratory technologies and pharmacists) hence, are incapacitated to offer

screening services. To allow for targeted treatment, participants consider such services important in ensuring a healthy community and a good life.

> *…access to hospitals, medications at the hospital, facilities, doctors, nurses at the hospital, that's a healthy community. And also, a healthy community is one whereby when you visit the hospital they are able to detect the disease, diagnose you as soon as possible … (FGD-MF-P3-Langata)*

Table 4.2 shows indicators of healthcare services were adopted by all participants in all the regions with the exception of only the informal settlement (67%). Lifestyle and behavior factors resonated more with the male (10%) participants than the females (8%) and among participants in the formal settlement in Nairobi (13%). This could be associated with access to information on the role of lifestyle and behavior which is more accessible with better SES. Females talked more about lifestyle issues relating to cigarette smoking, and drug abuse, whilst the male counterpart adopted physical activeness to define a healthy community.

> *…we don't have time, … like myself when I wake up in the morning I do not have time to exercise I rash go to 'beat' the traffic jam, that is number one. I go sit in the office the whole day and in the evening, it is again traffic jam, to come back home. …we don't have time for that, you see, always busy! Busy! Busy! and can't be a healthy community (FGD-MM-P2-Langata)*

> *…cigarette smoking is practiced in our community, and it affects us as a community, as women, as girls, as children… the entire household is affected (FGD-MF-P4-Nyanza)*

The results further show that preventive and health promotive programs were less frequently used in conceptualization of health and wellbeing by the key informants (8%) and the lay participants in FGDs (6%) in this research. However, most respondents from the informal settlements (83%) conceptualized a good life and a healthy community around issues of sanitation, hygiene, waste management and safety of domestic water. They defined a healthy community as one with organized systems for collection and disposal of waste and

enclosed sewer lines. Poor disposal of waste was associated with disease transmission and poor air quality due to decomposing waste in residential areas.

> *…the other thing that makes for a healthy community is to have sewer lines that can be used for passage of liquid waste, this is one of the most important points in this community. The other is to have a common place where we can collect and dispose of the garbage… (FGD-SM-P2-Kibera)*

Moreover, accessibility to general health information and education emerged as a critical indicator of public health programs in this research. In Kenya, health education fora are often incorporated within the healthcare system and provided, especially to the patients and the caregivers when seeking care. As such, the population segment who visit health facilities less frequently, such as the men, conceptualized a healthy community as one within which health information is made available in diverse ways.

> *…there is no information that we get as men here... health education is given in health facilities where we rarely attend… Unless you have TV to watch any program on health. I haven't seen any source of information for men and this limits our health... (FGD-MM-P9-Central)*

Immunization emerged as one of the health issues that caught the attention of both the males and the females. Both genders acknowledged the benefits that immunization has in communities, particularly its role in reducing rates of paralysis due to poliomyelitis.

> *… on the issue of immunization, we are doing quite well … our children are being vaccinated and today we do not have cases of polio in this community. (FGD-MY-P5-Nyanza).*

In contrast, middle-aged females in the formal settlements of Nairobi, felt that children were being over immunized, especially in private hospitals as shown in the below excerpt.

> *P3: You know, now the immunizations are so many. When I was growing up, we only had like only 2 or 3 but right now they are about nine*
> *P4: They are more than nine*
> *P3: Now the problem comes…. Why do they think that the children need all that injections?*

P1: And in public they only do it for like 3 or 4. Like 9 months, 3 months, 1 and 2 years… but if you go to private hospital, they will get all these immunizations … I do not know what like right now my daughter is being immunized for flu, malaria, meningitis ….

4.2.2 Economic and living standards factors

In further defining a healthy community and a good life, the respondents adopted economic and living standards factors. The indicators mentioned were ability to access quality education, housing and ownership of property, employment opportunities and working conditions, availability of income, income level and cost of living and equal distribution of such abilities and functioning (Table 4.3).

Table 4. 3 Participant characteristics and frequency of mention of sub-themes of economic and living standards

	Thematic area – economic and living standards					
Sub-Themes	**Education**	**Employment**	**Housing**	**Income/inflation**	**Poverty**	**Regional/class difference**
Key Informants (n=31)						
Lay representatives (n=22)						
# of mentions (%)	14(1)	28(3)	15(2)	38(4)	15(2)	17(2)
# of KIs mentioning (%)	13(59)	18(82)	14(64)	21(95)	7(32)	8(36)
CBO/NGO representatives (n=4)						
# of mentions (%)	4(2)	3(2)	4(2)	**9(5)**	**5(3)**	0
# of KIs mentioning (%)	(3(75)	2(50)	3(75)	**4(100)**	**4(100)**	0
Policy makers (MCAs) (n=5)						
# of mentions (%)	7(4)	7(4)	4(2)	10(6)	5(3)	6(3)
# of KIs mentioning (%)	4(80)	4(80)	4(80)	4(80)	3(60)	2(40)
Focus Group Discussion (n=28)						
Gender						
Female (n=14)						
# of mentions	10(1)	19(2)	9(1)	34(4)	26(3)	39(5)
# of FGDs mentioning (%)	6(43)	8(57)	6(43)	12(86)	9(64)	8(57)
Male (n=14)						
# of mentions	11(1)	44(5)	8(1)	39(4)	33(4)	36(4)
# of FGDs mentioning (%)	6(43)	12(86)	7(50)	12(86)	10(71)	10(71)
Region						
Nyanza (low SES) (n=6)						
# of mentions	7(2)	14(4)	3(1)	18(5)	**22(6)**	9(2)
# of FGDs mentioning (%)	3(50)	4(67)	3(50)	5(83)	**6(100)**	5(83)
Central (high SES) (n=6)						
# of mentions	6(1)	12(3)	7(2)	14(3)	5(1)	8(2)
# of FGDs mentioning (%)	3(50)	5(83)	4(67)	5(83)	2(33)	4(67)
Eastern (ASAL) (n=6)						
# of mentions	7(2)	11(4)	5(1)	**21(7)**	15(5)	6(2)
# of FGDs mentioning (%)	5(83)	4(67)	4967)	**6(100)**	4(67)	3(50)
Kibera (informal settlement) (n=6)						
# of mentions	1(.4)	10(5)	1(.4)	8(4)	4(2)	2(1)
# of FGDs mentioning (%)	1(17)	3(50)	1(17)	5(83)	3(50)	2(33)
Langata (formal settlement) (n=4)						
# of mentions	0	**16(3)**	1(.2)	12(2)	**13(3)**	**50(10)**
# of FGDs mentioning (%)	0	**4(100)**	1(25)	3(75)	**4(100)**	**4(100)**

Note: KIs – Key Informants; MCA – Member of County Assembly; FGDs – Focus Group Discussions; SES – Socioeconomic Status; ASAL – Semi-arid; values in bold – mentioned by all participants

Table 4.3 reveals that material and living condition factors are frequently used by both the lay Kenyans and the KIs in conceptualizing societal health and wellbeing. The participants used indicators of income and inflation, poverty and unemployment rate to describe societal health and wellbeing. The participants considered a healthy community as one with employment opportunities and diverse sources of income.

> *… a healthy community, I think is a community that… have means of survival, and easy ones, not these hard ones like what we see in this community. In this community there is a lot of hardship in terms of having access to, especially with reference to economic activities, so we find that most people cannot work, and other people do not have any kind of earnings. But in terms of a healthy community, it should be a community where people can have access to employment, can have access to sources of income… (IDI-MF- Eastern).*

Additionally, the FGD participants frequently adopted indicators of employment and unemployment, income status and cost of living, wealth poverty, regional and social class differences to describe a healthy community and a good life. Unemployment was mentioned more often by the males (86%) than the females (57%). A plausible explanation for this observation is that in societies where men are expected to be the sole providers for their households, and in contexts characterized by high unemployment rate, the men tend to conceptualize quality of their life around such issues.

> *I will talk of employment. …Those who have the ability to work, they are out, they do not have jobs. So, unemployment, a big issue here and community is unhealthy (FGD-MY-P4-Central)*

With reference to regional variations, the results reveal that the arid to semi-arid and socio-economically disadvantaged regions frequently defined health and wellbeing in relation to income and inflation and wealth poverty. In the formal settlement, participants described healthy community and wellbeing in relation to social class differences and inequalities.

The findings also show that a mismatch between education and employment affects people's conception of a healthy community and a good life. The participants narrated how the majority of people in the community are either college or university graduates but there are limited opportunities for them to utilize their skills. As such, the majority expressed frustration as their aspirations do not match their achievements. To cope with the associated distress, some resort to social behaviors such as alcoholism and substance abuse.

> *…there is nowhere to get any income … you are learned and … educated so much but … not able to get employment. … the world of today you … learned so much but you do not land a job and you just ruin your life. You get into drinks (alcoholism) and you just ruin your life and life changes completely (FGD – SM – P2-Langata)*

A healthy community was also conceptualized as one where all children have access to quality education without any discrimination. Although less frequently mentioned in the FGDs and the IDIs, the narratives indicate that some form of basic education exists in communities, but the quality of the education is an issue of concern. Most public schools were viewed as being over congested with minimal teacher-pupil interaction and with limited education facilities, including skilled teachers and physical infrastructure in the schools. Additionally, the issue of affordability of quality education was also underlined where those of relatively higher SES have access to better education in private schools, while the majority remain in the public schools with limited access to basic infrastructures such as library, sciences laboratory and classroom furniture.

> *…. To have a healthy life, our children should go to school and this should be accessible to all without looking at whose child is to go to school and who it is to miss. The money that is also being paid should be affordable to everyone. It should not be that only those that are well off are the ones that can afford to take their children to school…" (FGD-SM-P2-Nyanza)*

4.2.3 Social relationships and interactions

The idea that social experiences such as social integration, social cohesion, community engagement, and stable family relationships have significant effects on subjective wellbeing and health is well researched (Berkman et al., 2014). Other social factors and behaviors such as transactional sex and GBV, that might be propelled by structural systems are also linked to perceived health and wellbeing (Kubai & Ahlberg, 2013). The findings of this research demonstrate that such social relationships and interactions are important in informing perceptions and meanings that people attach to the health and wellbeing of their communities.

Overall, both the key informants and the lay participants conceptualized societal health and quality of life around social factors. Table 4.4 reveals that social cohesion and network and GBV are key social descriptors of societal health and wellbeing. The participants used GBV to refer to physical, and psychological violence between men and women – such as intimate partner or domestic violence – including rape and sexual abuse of children by family members. The psychosocial and physical health implications of such experiences were key concerns to the respondents. They were associated with disabilities, stress, family instability and trauma not only to the adults but also to the children. Additionally, the participants drew attention to the indirect effects of GBV – such as perpetual poverty due to poor beginnings for children in the affected households in terms of education and nourishment which consequently limit their future opportunities and freedoms.

> *…I want to add one thing that can make people not to have a healthy life in this community… fights or violence in the house. You can find that the woman goes to work, the man goes to work, and they have money but violence in the home can cause a lot of harm to the family. You will find that with violence, …the children go to bed without food, the*

children are scared and …this affects their health and the health of the community and they cannot have a good life (FGD-MF-P7-Kibera)

Even though the results in table 4.4 reveal that more women (93%) than the men (71%) consider GBV an important descriptor of healthy community, males also acknowledged that the male segment of the population is currently experiencing abuse. But because of fear of being ridiculed given the prevailing societal expectations, most men suffer in silence.

… for sure, men in this community, some of us are beaten by the women. But we can never say because we'll be laughed at. People will really ridicule us. So, because of that, most of us die silence… (FGD-MM-P3-Eastrn).

Table 4. 4 Participant characteristics and frequency of mention of sub-themes of social relationships and interactions

	Thematic area – economic and living standards						
Sub-Themes	**Family ties & stability**	**GBV/GE**	**Land ownership**	**Sexual immorality**	**Social cohesion & network**	**Social welfare**	**Community service**
Key Informants (n=31)							
Lay representatives (n=22)							
# of mentions (%)	18(2)	21(2)	2(.2)	21(2)	69(7)	0	31(3)
# of KIs mentioning (%)	11(50)	16(73)	2(9)	12(22)	20(91)	0	15(68)
CBO/NGO representatives (n=4)							
# of mentions (%)	2(1)	6(3)	4(2)	3(2)	**17(9)**	1(.6)	3(2)
# of KIs mentioning (%)	2(50)	3(75)	1(25	2(50)	**4(100)**	1(25)	2(50)
Policy makers (MCAs) (n=5)							
# of mentions (%)	0	3(2)	1(.6)	2(1)	4(2)	0	2(1)
# of KIs mentioning (%)	0	3(60)	1(20)	1(20)	3(60)	0	2(40)
Focus Group Discussion (n=28)							
Gender							
Female (n=14)							
# of mentions	8(1)	30(4)	11(1)	33(4)	**56(7)**	9(1)	13(2)
# of FGDs mentioning (%)	6(43)	13(93)	2(14)	9(64)	**14(100)**	4(29)	5(35)
Male (n=14)							
# of mentions	6(.6)	29(3)	3(.3)	11(1)	29(3)	7(.7)	7(.7)
# of FGDs mentioning (%)	4(29)	10(71)	1(7)	5(35)	10(71)	5(35)	4(29)
Region							
Nyanza (low SES) (n=6)							
# of mentions	2(.5)	10(3)	0	11(3)	18(5)	4(1)	1(.2)
# of FGDs mentioning (%)	2(33)	5(83)	0	2(33)	5(83)	2(33)	1(17)
Central (high SES) (n=6)							
# of mentions	3(.7)	10(2)	14(3)	11(3)	19(5)	6(1)	7(2)
# of FGDs mentioning (%)	2(33)	4(67)	3(50)	4(67)	5(83)	3(50)	4(67)
Eastern (ASAL) (n=6)							
# of mentions	4(1)	**11(4)**	0	3(1)	19(7)	5(1)	3(1)
# of FGDs mentioning (%)	2(33)	**6(100)**	0	1(17)	5(87)	3(50)	1(17)
Kibera (informal settlement) (n=6)							
# of mentions	2(1)	11(5)	0	11(5)	14(6)	1(.4)	3(1)
# of FGDs mentioning (%)	2(33)	5(83)	0	5(83)	5(83)	1(17)	1(17)
Langata (formal settlement) (n=4)							
# of mentions	3(.6)	17(4)	0	8(2)	**15(3)**	0	6(1)
# of FGDs mentioning (%)	2(50)	3(75)	0	3(75)	**4(100)**	0	2(50)

Note: KIs – Key Informants; MCA – Member of County Assembly; FGDs – Focus Group Discussions; GBV/GE – Gender Based Violence and Gender Equality; ASAL – Semi-arid; values in bold – mentioned by all participants

Moreover, the findings demonstrate that the participants considered a healthy community as one in which people live in solidarity as it relates to the willingness of members of a society to co-operate with each other for the purposes of survival and contribution to a wide variety of outcomes such as health and economic prosperity. Included under social cohesion were feelings and experiences of social capital and social inclusion, social network and the ability to move into a higher social class. In communities where people felt included in decision making, community work and supported both socially and financially, participants perceived such communities as healthy and to have a good life. For instance, most participants in Central and Eastern regions perceived their communities had strong social support systems which gives some insights of the positive perception of their health and wellbeing as reflected in this narrative of a middle-aged female representative in the Eastern region.

> *…we have a strong social cohesion, we are together is everything. Even if we are called … to do some work … even the dispensary that is here in the market, we constructed it as a community. …so, socially, in fact, we are able to do a lot of things communally and we love the calls for Harambee (working together) ... we join hands and work on a member of the community's farm, then we move on to the next person and so on until everyone has been assisted. …this way, we uplift our living standards and [have a healthy community] … (IDI-middle-aged female representative-Eastern)*

In contrast, social cohesion emerged as an aspiration desired by communities in Nairobi and Nyanza Provinces, with many respondents concerned about the loss of social connection. Social trust among individuals was perceived to have diminished as people become more individualistic, hence, have less concern about their neighbors.

In terms of gender, more females (64%) than males (35%) considered sexual immorality a key social behavior that negatively impacts health and wellbeing. In societies characterized by high poverty and unemployment rates, women adopt transactional sexual relationships as a coping strategy. This social behavior was implicated in the spread of HIV

and other STIs, unwanted pregnancies, psychosocial effects (such as loss of self-esteem) as is stipulated by the participants in this research.

> *... The girls that are orphaned tend to go to the pubs or bars to serve as prostitutes to find for themselves and their siblings. Because of this, they are at risk of and some also acquire HIV, STIs like syphilis. These issues affect even women in this community...(FGD-MF-P7-Nyanza)*

Interestingly, discussions on volunteer work and opportunities generated mixed reactions. Seniors considered such opportunities as a chance to give back to their community, and often help to generate a sense of belonging and feeling of being part of the society. Moreover, the seniors considered volunteer work as a way of glorying and giving back to God whom they credit for having kept them alive.

> *... when we do this kind of work (voluntary work), even in old age, we are glorifying God who created us and has kept us alive up to this age. It's like they are giving back to God (FGD-SF-P4-Central)*

On the other hand, the middle-aged and the youth felt volunteering was not the best use of their time, especially, if there were no instrumental gains. In contexts characterized by high unemployment rates, casual work, and in households in which, provisions and welfare mostly depend on daily earnings, volunteer work tended not be particularly an appealing undertaking. For instance, participants stated that:

> *"life has become so hard, the economy is so tight and if in their household people went to bed last night in an empty stomach, how could they wake up the following day to volunteer?"*

In such situations, though people may desire to be communally engaged, competing needs within resource-constrained areas limit people from taking up such responsibilities. However, activities jointly done for a common course – hygiene and sanitation services, church activities and security in the residential areas – appear to be important as they played the role of bringing people together. The driving force in this case were the individual's

feeling of being insecure and the need for cooperation to maintain security and hygiene within residential areas.

4.2.4 State of the environment and changes in climatic condition

In addition to the above themes, participants further described a healthy community in the context of the state of environment and prevailing climatic conditions. In general, the findings reveal that aspects of the surrounding environment – personal safety, security, cleanliness, climate change, food and water insecurity, status of the infrastructure and the emergence of *ghetto* communities around the gated settlements – inform people's perceptions of health and wellbeing. In the formal settlement for instance, the people were more concerned about the mushrooming informal settlements that have engulfed their societies creating a sense of insecurity and filthy neighborhoods. Insecurity in these contexts could either be an actual or perceived increase in crime rates that may be driven by the difference in the social class between those in the formal and informal settlements.

> *… most of the time if you are getting water from the city council, you are never sure of how they handle where the water is coming from so maybe it's dirty. Like they talked of drainage and if you go out there [referring to ghettos], you will see that the sewage is everywhere, so I do not think that this community is completely healthy. (FGD-MF-P3-Formal settlement)*

Additionally, water and food scarcity were mentioned as important to health and wellbeing in all the regions but more frequently in the rural communities than in urban areas as earlier stated. Even though less frequently used as a descriptor of healthy community and wellbeing, water scarcity and quality and changes in the climatic conditions were a concern to the female participants. This could be because women are bestowed with the responsibility of ensuring that their families are water secure. At the time of data collection, Kenya was experiencing a massive drought that struck the horn of Africa and the Eastern side of the continent. Water and food are basic commodities and their inaccessibility,

quality, affordability, safety and time spent looking for these commodities were found to have an influence on people's perceptions of a healthy and a flourishing life.

> *"...if we have good weather, ..., whereby we have got rain that provides for a sufficient of food and that would make us healthy and have a good life..." (FGD-MM-P5-Nyanza).*

> *"...for a healthy community, at least, we should be able to afford food. Food should not be so expensive for us. ... Water sometimes, like now it's, because of drought, water is scarce... (IDI-MF-Langata)*

The results presented in table 4.5 delineate regional differences and similarities with reference to the rural-urban, formal-informal and rich-poor divide. Rural areas including Nyanza, Central, and Eastern Provinces frequently adopted indicators of change in physical environment to describe societal health and wellbeing than the urban areas of Kibera and Langata in Nairobi. This observation corroborates the fact that most rural communities are dependent on subsistence farming and changes in rainfall patterns and frequency of drought severely impact on livelihoods in such areas as compared to the urban areas which are more dependent on service-oriented economies.

Table 4. 5 Participant characteristics and frequency of mention of sub-themes of state of physical environment and changes in climate

	Thematic area – state of physical environment and changes in climate			
Sub-Themes	**Changes in climate**	**Environmental degradation**	**Infrastructure**	**Water scarcity & quality**
Key Informants (n=31)				
Lay representatives (n=22)				
# of mentions (%)	22(2)	17(2)	6(.6)	18(2)
# of KIs mentioning (%)	12(55)	10(45)	5(23)	16(73)
CBO/NGO representatives (n=4)				
# of mentions (%)	10(6)	13(7)	1(.6)	4(2)
# of KIs mentioning (%)	3(75)	3(75)	1(25)	3(75)
Policy makers (MCAs) (n=5)				
# of mentions (%)	3(2)	3(2)	1(.6)	2(1)
# of KIs mentioning (%)	2(40)	2(40)	1(20)	2(40)
Focus Group Discussions (n=28)				
Gender				
Female (n=14)				
# of mentions	26(3)	3(.4)	1(.1)	11(1)
# of FGDs mentioning (%)	9(64)	3(21)	1(17)	8(57)
Male (n=14)				
# of mentions	13(1)	7(.7)	12(1)	13(1)
# of FGDs mentioning (%)	8(57)	5(35)	59(35)	7(50)
Region				
Nyanza (low SES) (n=6)				
# of mentions	16(4)	4(1)	1(.2)	6(2)
# of FGDs mentioning (%)	5(83)	3(50)	1(17)	4(67)
Central (high SES) (n=6)				
# of mentions	14(3)	2(.4)	1(.2)	8(2)
# of FGDs mentioning (%)	5(83)	2(33)	1(17)	4(67)
Eastern (ASAL) (n=6)				
# of mentions	**7(2)**	3(1)	0	8(3)
# of FGDs mentioning (%)	**6(100)**	3(50)	0	5(83)
Kibera (informal settlement) (n=6)				
# of mentions	0	0	1(.4)	0
# of FGDs mentioning (%)	0	0	1(17)	0
Langata (formal settlement) (n=4)				
# of mentions	2(.4)	1(.2)	10(2)	2(.4)
# of FGDs mentioning (%)	1(25)	1(25)	3(750	2(50)

Note: KIs – Key Informants; MCA – Member of County Assembly; FGDs – Focus Group Discussions; SES – Socioeconomic Status; ASAL – Semi-arid; values in bold – mentioned by all participants

4.2.5 Politics and governance

Although less frequently mentioned, politics and governance is another important theme that emerged as a descriptor of societal health and wellbeing in this thesis. As previously described by scholars, politics in Kenya has been characterized by ethnolinguistic identity, involving the creation of and voting for political parties along tribal-lines rather than political ideologies and policies (Roberts, 2012). Such biases are founded on the belief that political parties offer ethnic groups the only hope to rise to power and enable their communities to share state resources with their members (Mutua, 2008). To this end, participants considered the trajectory of political structures since independence to be critical to achieving a flourishing life. For instance, participants passionately criticized ethnicity and ethnic politics which favored a section of the population, especially with reference to resource distribution. The participants further observed the perceived effects of ethnicity on governance and its implications to health and wellbeing. They associated developmental deficiencies – poor road networks, inaccessibility of healthcare services, unemployment, poor access to water and food scarcity – to political marginalization.

> *"… for us to be healthy, first, we must elect leaders that know about the issues that affect the people of Kenyans. The leaders must have the people at heart and be without tribalism. If we can find a leader that loves Kenya, not just his tribe, then our lives will be good. If we have leaders that are dictators, our life can never be healthy, can never be healthy. All that we are saying, the main point is the government. The main challenge that we have is the leaders that we elect. Anyway, the leaders that have elected themselves by rigging themselves into power. So, with this, the needs of the people are not met. If we can get leaders that we elect, that have the people at heart and the people are also happy with such leaders, this will make our health better. We will have all that we need, we shall have with good governance. (FGD-SM-P9-Nyanza*).

Poignant in the above narrative is electoral violence and tribalism in governance which exacerbate political animosity among ethnic communities.

In addition, electoral irregularities, corruption in government, lack of meaningful engagement in political decision making, and uncertainties in political campaigns were widely mentioned as determinants of health and wellbeing. Electoral violence including voter bribery and manipulation that limits collective and individual agency, hence compromising democratic rights of the participants were highlighted as perceived determinants of a healthy community. The implication is therefore lack of integrity and political ideologies or manifestos to resolve social and political challenges facing the community.

> *… the politicians! they take advantage over us because we are poor, and we have nothing. Because they take us from here to Isiolo [name of place] to sell our votes there for about 3000/- ($35). So, our votes do not have the power to vote out a bad leader because you have already sold your vote in Isiolo. …(FGD-MY-P12-Kibera)*

> *… there is no participation, there's no engagement, of … people within the community in terms of politics. And if you look at their engagement, they're only engaged at voting stage. But after voting nothing else is happening ... (FGD-SM-P2-Eastern)*

Furthermore, the findings revealed regional differences with reference to political and governance indicators. Table 4.6 reveals that the majority of the participants from areas commonly prone to political violence – such as the informal settlement (83%), and in Nyanza region (83%), observed political uncertainties, political violence – riots, deaths and injuries that may occur during the political period – as some of the key threats to their health and wellbeing (Table 4.6). This potentially resulted in reduced participation in politics, including voting.

> *… I used to engage in politics sometimes, but I want to testify that I left it. …there's a time we went for … campaign for one of the candidates and chaos erupted. On that day, I just escaped death narrowly. From that time, I said … never, never again to engage in this matter of politics… (FGD-FY-P4-Nyanza)*

Table 4. 6 Participant characteristics and frequency of mention of sub-themes of politics and governance

	Thematic area – politics and governance						
Sub-Themes	**Voter bribery**	**Corrupt government**	**Polarity in tribal lines**	**Lack of political will**	**Political engagement**	**Unintended consequences**	**Unreliable politicians**
Key Informants (n=31)							
Lay representatives (n=22)							
# of mentions (%)	7(.7)	11(1)	4(.4)	9(1)	29(3)	19(2)	21(1)
# of KIs mentioning (%)	4(18)	4(18)	2(9)	6(27)	13(59)	10(45)	8(36)
CBO/NGO representatives (n=4)							
# of mentions (%)	0	2(1)	0	0	5(3)	1(.6)	3(2)
# of KIs mentioning (%)	0	1(25)	0	0	3(75)	1(25)	1(25)
Policy makers (MCAs) (n=5)							
# of mentions (%)	4(2)	4(2)	3(2)	3(2)	4(2)	5(3)	2(1)
# of KIs mentioning (%)	2(40)	3(60)	3(60)	2(40)	4(80)	3(60)	1(20)
Focus Group Discussion (n=28)							
Gender							
Female (n=14)							
# of mentions	9(1)	17(2)	2(.2)	3(.4)	13(2)	16(2)	9(1)
# of FGDs mentioning (%)	8(57)	5(36)	1(7)	3(21)	9(64)	8(57)	7(50)
Male (n=14)							
# of mentions	18(2)	34(4)	18(2)	10(1)	16(2)	12(1)	18(2)
# of FGDs mentioning (%)	9(64)	11(78)	9(64)	4(29)	7(50)	6(43)	9(64)
Region							
Nyanza (low SES) (n=6)							
# of mentions	6(2)	8(2)	6(2)	7(2)	5(2)	14(4)	6(2)
# of FGDs mentioning (%)	4(67)	4(67)	2(33)	2(33)	4(67)	5(83)	4(67)
Central (high SES) (n=6)							
# of mentions	7(2)	12(3)	4(1)	2(.4)	5(1)	3(1)	7(2)
# of FGDs mentioning (%)	3(50)	3(50)	2(33)	2(33)	3(50)	2(33)	4(67)
Eastern (ASAL) (n=6)							
# of mentions	6(2)	1(.3)	0	0	10(4)	1(.3)	7(2)
# of FGDs mentioning (%)	5(83)	1(17)	0	0	4(67)	1(17)	5(83)
Kibera (informal settlement) (n=6)							
# of mentions	8(4)	8(4)	6(3)	6(3)	6(3)	8(4)	0
# of FGDs mentioning (%)	4(67)	5(83)	4(67)	4(67)	4(67)	5(83)	0
Langata (formal settlement) (n=4)							
# of mentions	0	22(5)	4(.8)	4(.8)	3(.6)	2(.4)	7(1)
# of FGDs mentioning (%)	0	3(75)	2(50)	2(50)	1(75)	1(25)	3(75)

Note: KIs – Key Informants; MCA – Member of County Assembly; FGDs – Focus Group Discussions; SES – Socioeconomic Status; ASAL – Semi-arid; values in bold – mentioned by all participants

4.2.6 Cultural norms, practices, and beliefs

Lastly, in this objective, cultural norms, practices and beliefs were identified as an important determinant of health and wellbeing. Important to note is that this theme did not rank as high as the first three. Nonetheless, it contributes to the perceptions, meanings and determinants of health and wellbeing in this thesis. The results show that the respondents define healthy community and a good life by beliefs and religious practices related to the deity, death, and mentorship by the seniors and traditional practices such as wife inheritance, polygamous marriages, dressing code and respect for older adults. These sub-themes are summarized in table 4.7 which depicts regional differences with discussions around cultural factors. In Nyanza region, cultural practices including wife inheritance (100%), traditions and beliefs in farming and about the dead (100%), polygamous marriage (67%) and lack of mentorship by grandparents (50%), were emphasized as some of the existing cultural practices that negatively influence community health and wellbeing. The respondents associated these with the poor health outcomes (e.g. high prevalence rate of HIV and high poverty rate) experienced in the region. Moreover, the participants observed that, even though cultural practices such as wife inheritance were set up to regulate social behavior and provide safety nets to the most vulnerable, (e.g. the orphaned children and windows), they are responsible for the creation of social structures that have persistently disadvantaged the very vulnerable groups – women, children and those in the lower social class that they were designed to protect.

> *…the culture of wife inheritance, we used to have it and that culture we're still having it today. But I want to say that that culture is affecting us as women because you find that it is the one that is encouraging this spread of the HIV, AIDS. You find that maybe a wife has been inherited and somebody don't know his HIV status. This one puts our lives as women at risk (FGD-SF-P6-Nyanza).*

Table 4. 7 Participant characteristics and frequency of mention of sub-themes of cultural factors

Sub-Themes	Thematic area – cultural factors						
	Dowry price	Dressing code & respect	Mentorship by grandparents	Polygamous marriages	Religion & spirituality	Traditions in farming	Wife inheritance
Key Informants (n=31)							
Lay representatives (n=22)							
# of mentions (%)	4(.4)	3(.3)	6(.6)	1(.1)	8(.8)	2(.2)	5(.5)
# of KIs mentioning (%)	4(18)	2(9)	3(14)	1(5)	4(18)	2(9)	3(14)
CBO/NGO representatives (n=4)							
# of mentions (%)	0	0	0	0	1(.6)	0	2(1)
# of KIs mentioning (%)	0	0	0	0	1(25)	0	1(25)
Policy makers (MCAs) (n=5)							
# of mentions (%)	3(2)	0	1(.6)	2(1)	3(2)	0	0
# of KIs mentioning (%)	3(60)	0	1(20)	1(20)	1(20)	0	0
Focus Group Discussion (n=28)							
Gender							
Female (n=14)							
# of mentions	9(1)	13(2)	2(.2)	4(.5)	8(1)	4(.5)	11(1)
# of FGDs mentioning (%)	4(29)	5(35)	2(14)	3(21)	6(43)	3(21)	6(43)
Male (n=14)							
# of mentions	3(.3)	12(1)	3(.3)	2(.2)	10(1)	4(.4)	5(.5)
# of FGDs mentioning (%)	2(14)	5(35)	3(21)	2(14)	5(35)	3(21)	4(29)
Region							
Nyanza (low SES) (n=6)							
# of mentions	0	5(1)	3(.8)	5(1)	2(.5)	**8(2)**	**12(3)**
# of FGDs mentioning (%)	0	3(50)	3(50)	4(67)	2(33)	**6(100)**	**6(100)**
Central (high SES) (n=6)							
# of mentions	6(1)	8(2)	1(.2)	0	6(1)	0	0
# of FGDs mentioning (%)	1(17)	2(33)	1(17)	0	3(50)	0	0
Eastern (ASAL) (n=6)							
# of mentions	5(2)	0	0	0	2(.7)	0	1(.3)
# of FGDs mentioning (%)	4(67)	0	0	0	1(17)	0	1(17)
Kibera (informal settlement) (n=6)							
# of mentions	1(.4)	2(1)	1(.4)	1(.4)	5(2)	0	2(1)
# of FGDs mentioning (%)	1(17)	1(17)	1(17)	1(17)	4(67)	0	2(33)
Langata (formal settlement) (n=4)							
# of mentions	0	**10(2)**	0	0	3(.6)	0	1(.2)
# of FGDs mentioning (%)	0	**4(100)**	0	0	1(25)	0	1(25)

Note: KIs – Key Informants; MCA – Member of County Assembly; FGDs – Focus Group Discussions; SES – Socioeconomic Status; ASAL – Semi-arid; values in bold – mentioned by all participants

In summary, the findings of this thesis reveal that healthy community and a good life is defined with reference to community health status and healthcare services; economic and living standard factors; social relationships and interconnections; political and governance factors; state of the environment and climate change; and cultural norms, beliefs and practices. These factors largely differed by age, gender and region.

4.3 Objective 2: Exploration of social construction of health and wellbeing of Kenyans across the life-course

The findings above demonstrated regional and gender differences and similarities in defining healthy community and wellbeing. To further extend this research, the thesis explored how Kenyans of different ages and genders socially construct societal health and wellbeing across their life-course. To this end, the interviews focused on the issues that the different age groups and gender face and which impact on their social construction of health and wellbeing in the communities. In this section, the results are presented according to the different age groups – youth (15-24 years), middle-aged (25-49 years) and the seniors (≥50 years). The findings reveal that the youth (15-24 years) construct their health and wellbeing based on the social and cultural experiences. In the first section, I present my observations that the youth construct their bodies as: "bleeding bodies", "untrustworthy bodies", "culturally disadvantaged bodies", and "bodies at risk". I use these concepts to demonstrate that lived experiences of youth in Kenya relate to their perceptions of health and wellbeing.

In the second section, I illustrate how the middle-aged, socially construct their health in relation to GBV, particularly domestic violence. The middle-aged construct intimate partner violence around issues of victims and perpetrators and either genders seem to feel that they are the victims. Through the participants' narratives, I address the question, "victims or

perpetrators: male or females or both?" Also, I discuss the politics of gender equality, the opportunities and challenges that exist in relation to this socio-economic vice.

In the third section, I navigate the embodied misery of seniors (≥50 years) in the care of their children and grandchildren, through narratives of distress. The intention here is to demonstrate how meanings and experiences of health and wellbeing are shaped by societal, cultural and social systems and how such constructions can contribute to our knowledge of the health and wellbeing indicators.

4.3.1 "Bleeding bodies", "untrustworthy bodies"? Health and wellbeing of youth in Kenya

I derive the concept of *"Bleeding bodies", "untrustworthy bodies"? Health and wellbeing of youth* from the narratives told by the youth. Four major themes of how the youth socially construct their health emerge from the FGDs and the IDIs. These include: a) "bleeding bodies", b) "untrustworthy bodies", c) "culturally disadvantaged bodies" and d) "bodies at risk".

4.3.1.1 "Bleeding bodies"

I use ***"Bleeding bodies"*** to refer to lived experiences of the female youth, as they undergo biological changes in a resource-constrained environment. More specifically, I refer to the traumatized menstruation periods which occur in the absence of sanitary towels and basic hygiene services. The female youth construct their health and wellbeing around issues of menstruation and consider themselves as 'bleeding bodies' at risk of soiling their clothes and falling victims of early pregnancies because of lack of family planning services. Most participants identified fear of isolation during menstruation and the resulting physical and mental health effects, as some of the barriers to enjoyment of life.

...wanting to enjoy life responsibly and the fear of the monthly period. So, provision of sanitary towels is something that I see being a challenge to the girls in this community especially when they start to get such changes we start to have certain fears. (IDI7-FY-Nyanza)

Economically challenged female youth experience moments of embarrassment and loneliness. More specifically, the female youth felt more challenged in accessing sanitary pads and facilities, clean water for bathing, underpants and soap. They adopted coping strategies such as use of old clothes which they washed and reused. However, these impacted negatively on their physical and mental health status. The physical health effects are due to the increased risk of acquiring diseases of the reproductive system due to water scarcity and lack of detergents to sanitize the clothes and the associated psychosocial health effects.

... I find when you sit with your fellow girls, if you stand up they start laughing. If you look back you find that the blood is out now because of using clothes, oooh this embarrassed me, ... washing the clothes is very difficult, so this made me tear my clothes all, even the best ones which I can wear, ... washing clothes maybe there is no soap which you can use to wash them, so you just throw ...toilet was not even available... If that time reaches, I just feel uncomfortable, I sit lonely. ... (IDI6-FY-Nyanza)

Other mythical and harmful coping strategies to the challenge of sanitary towels are adopted in circumstances of hardship. For instance, some participants resorted to the use of contraceptives, which they believed stop the natural process of menstruation. Transactional sex was also reported by the participants, where it was primarily used in exchange for sanitary pads, underpants and financial support. Jane (not her real name) a 17-year-old total orphaned female who had dropped out of school due to early pregnancy narrated her experience with menstruation and early marriage.

...for me, it has brought me a serious challenge. ... when I asked my grandmother for this stuff, she was always saying that she had no money to buy such kind of things.... So, I had to look for money to get some sanitary towels for myself and this has

brought me one major challenge. …I was forced to get a boyfriend. … He used to buy me pads and that's how I ended up conceiving [deep breath by the participant]and marriage the only option (IDI7-FY-Nyanza)

These observations were mainly common in regions of low SES where basic needs – shelter, food and clothing – are lacking. In these settings, sanitary pads were considered a luxury and caregivers were more concerned with providing the basic needs. According to most participants, these strategies, in spite of their negative health and social implications, were inevitable. Social networks were identified to be a vital source of support to young women during menstruation. However, such systems were noted to be unsustainable and were disintegrating quickly as people became more concerned about their immediate families.

So, when this used to happen, I could borrow from my friend but if you ask once, you cannot be added more (IDI7-Female-Nyanza)

4.3.1.2 "Untrustworthy bodies"

The concept of trust, though common in everyday communication and in academic literature, has divergent connotations attached to it. In this thesis, I draw from Nannestad (2008) understanding of untrustworthy bodies which indicates that trust is embedded in the rational beliefs and the norm of appropriateness. Based on the logic of being appropriate, I posit that trust is either individualized or generalized to the community and may be based on existing knowledge about a person or a group of people. In this research, I share the experience of the youth expressed by feelings of untrustworthiness in their own communities. For example, the female youth felt their parents lacked trust in their ability to take care of themselves. For this reason, they felt lack of freedom to interact freely with

other girls and boys in the community thus limiting their personal autonomy and personal development. This potentially impacted negatively on their health and wellbeing.

> *... you will find that we are denied freedom of interaction... you are a girl, so your life is that of being held in the house. You are taken to school and brought back home, and you are enclosed indoors... So, you will find that because of the lack of freedom to know and interact with other people, you will not be able to know how to handle such issues… You know also there are things that the parents can never talk to you about. Like they will never tell you that when you meet a boy, this is what to expect and this is how you are supposed to go about it. So that freedom of getting advice from your parent is not there and there is no freedom of interaction… (FGD-FY-P5-Langata)*

From the above excerpt, it is evident that the youth expressed concerns about the role of parents in mentoring their children. It was further observed that not letting the youth discover their own identity limited their interpersonal skills and self-sufficiency. For the females, over vigilance was informed by the perceived risk of early pregnancies, peer influence and treacherous social environment.

Socio-economic inequalities and unemployment were identified by the youth as factors that increasingly created avenues for untrustworthiness. These inequalities impacted negatively on individuals' self-image. For instance, the male youth felt that the community in general did not trust their ability to be productive members of the society as their initiatives were often viewed with suspicion. They reported that income generated from activities such as chicken rearing, crop farming or even art work, were often suspected and imagined to be from criminal activities, thus creating barriers to market opportunities.

> *…lack of trust within the community. You will find that if you rear chicken and you want to sell it in the market, people will ask you, where have you gotten this chicken? It's like people believe that us as youth, we steal from other places. So, getting a market for our produce …a challenge in this community. This affects our health and wellbeing. (FGD-MY- P7- Central)*

4.3.1.3 "Culturally disadvantaged bodies"

In addition, the thesis observed that the youth socially construct their bodies as culturally disadvantaged bodies. Even though not all youth felt that culture influenced perceptions and meanings attached to health and wellbeing, a number of the cultural practices that disadvantage the youth were highlighted. When the youth were further categorized in terms of gender, the males felt that societal expectations in terms of being economically responsible are a source of stress, whereas the females considered some of the beliefs to limit their freedom of dressing and access of basic needs such as education and land ownership. As such, cultural practices impact negatively on perceived health and wellbeing.

> *…respect whereby girls are expected to dress-up neatly without showing their bodies. …there are many cultures like a Muslim girl, culture expects us to put on long dressings and if you are in a miniskirt, the society feels like you are disrespectful. I am also expected to cover my hair and if I do not do that then it is considered a taboo. …there are some that are not allowed to go to school. So, like the Maasai, who marry off their girls by the age of 12 yrs. So as a girl, you are born, and your parents receive dowry and by the age of 12 years, …(FGD-FY-P4-Kibera)*

Another key finding is that in today's neoliberal society characterized by consumerism, the girls and the boys socially construct their health and wellbeing in relation to the psychosocial and social health impacts associated with cultural disadvantages. First, is with reference to societal expectations and relative comparisons which exert psychosocial stress on the youth.

> *…for the young adults and the teenagers, they're … people who want to look like others. So, they will want to be like celebrities, so those tend to behave, dress like them. … So, I can say the lifestyle here, is more of experimenting because people are not taught about self-awareness and this exerts social pressure on youth … (CBO representative -Kibera).*

Second, as the youth experiment and lose self-identity, accompanying such conducts are certain risky behaviors – such as smoking, alcohol and substance abuse which in most cases are elevated as evidence of being "cool". This could be one of the rationales behind the increased drug abuse and alcoholism among the young people in Kenya today. Narrowing down to specific genders, participants observed that culturally, girls are not allowed to own land, a condition they said contributed to lack of material capital in female-headed households.

> *… like now in my community, if I give birth to a child out of wedlock and the man damps me and, in my home, I am not given land, this brings what I would call multiple problems. Because the man has disowned me and back in my village or in my family, I am also told to find another place to take the burden that I have. In the process of finding an alternative place to take this one that I already have, I end up with another child and that process becomes a pattern. … But like … if you are given land you will be able to start off your life again and settle down and even do some farming to take care of your children. … it is a real challenge to us as girls. (FGD-FY-P2- Langata)*

Practice of early marriage was also identified by female participants. Though meant to win bridal gifts for the family, participants observed that this practice promoted gender inequality in many avenues of growth including access to education. This practice was however observed to be more rampant in the arid and semi-arid regions and areas with high poverty rates.

> *…You know, like for instance, when we are living in these dry areas, the girls can end up dropping out of the school and get married early to [win a bridal price], and, due to the lack of food, clothing because the parents they cannot afford …. (IDI-FY representative-Eastern)*

Girls in poor areas were observed to be disadvantaged despite the numerous interventions introduced to build their capabilities. This may well be attributed to incongruent policies that are culturally unspecific.

With regard to the male youth, societal expectations were observed as quite high. The participants said that male youth were raised with the knowledge that they must provide and should be able to cater for themselves and at a certain age, they are expected to return home with some basic needs to demonstrate manliness. These societal expectations coupled with unemployment, they said, exerted pressure on male youth. Emotionally, the men are culturally not expected to cry as "real men don't cry".

Besides, some participants felt that given the current gender equality efforts that give much emphasis and support to the girl child, boys are neglected, and most are unable to meet the societal demands. Attention to boy child emerged in interviews and was emphasized by both male youth and middle-aged males as programmatic priority areas that community-based organizations and non-governmental organizations should focus on.

> *As much as we are trying to empower girls, and leaving boys behind, the boys will at all times fight against girl child empowerment. But if you give them, we call it equity – if that happens, empowering both girls and boys, ... also creates a safe environment for women. So ... men come in, not knowing that they're going to be overthrown, but still knowing that we are the head and we need the women to grow. (IDI-CBO representative-Kibera)*

4.3.1.4 "Bodies at risk"

Moreover, the youth socially constructed healthy community and wellbeing around risks and they perceived themselves as bodies at risk of disease, psychosocial health issues including stress and suicide, risky sexual behaviors, misuse by politicians, and substance abuse. Additionally, the youth felt that they were at risk of HIV and sexually transmitted diseases (STIs) because of engagement in unprotected sex.

> *... many of the youth are having unprotected sex and this puts people at risk STIs and HIV. (FGD-MY-P5-Kibera)*

Participants further observed that young people infected with HIV face some form of stigma and felt the risk of death, a situation that traumatized and caused fear amongst the affected. Other than the risk of infectious diseases, the youth acknowledged experiences of psychological distress due to socioeconomic factors such as unemployment, unmet family planning needs, parental neglect in a busy neoliberal world which are associated with lower levels of social, economic and emotional wellbeing. As parents get busy and spend less time at home with their children, whose lives are now dependent on the domestic house workers, the youth are unable to share their lives with them, instead they resort to alternative sources of happiness, but still suffer both emotionally and physically.

> *… the parent doesn't have time for the … youth for that matter. And then most of them they die from inside, they just keep quiet, they think it will heal over time. …I had a friend who had syphilis… he was sick, so we had to take him to St. Mary's hospital, just because he was afraid to share with the parents because he could be beaten up. ….so, the parent had to come and be informed that their son was diagnosed with syphilis … (IDI-MY-Langata)*

Eminent in the narrative is the role of social network upon which the youth find some form of comfort. However, there are rising cases of suicide and low life expectancy associated with the emotional, physical sufferings and the economic challenges.

> *… Life is really becoming short …because nowadays we hear of suicides. People are committing suicides every now and then. Find that a young man has committed suicide because of a lady he wanted to marry, just a young girl maybe a class 6 girl, and because he has lost her, he commits suicide. Even young women. Some of them, they commit suicide because of the issues that emanate from the house or just because of relationships with a man. …seeing lots of suicide cases. So, you see that people are losing their lives at a young age… (FGD-FY-P4-Nyanza)*

Taken together, the results in this section indicate that poverty and lack of basic needs are major determinants of wellbeing. They facilitate feelings of powerlessness and inability to take charge over one's life, especially for young people in the transitioning phase of their life. The findings further demonstrate that strong social support is an instrumental

pillar for the youth in crisis. Therefore, understanding the socio-cultural frameworks that sustain these networks and support should be emphasized.

4.3.2 Domestic violence, health and wellbeing of the middle-aged in Kenya

This research further sought to examine how the middle-aged socially construct their health and wellbeing. The findings demonstrate that in conceptualizing health and wellbeing, the middle-aged men and the women adopted varying but interesting notions about intimate partner (IPV) or domestic violence. In this section, I present three premises with regard to social construction of IPV and its effects on health and wellbeing among the middle aged. First, there are tensions about the perpetrators and the victims between males and/or females. I argue that men today feel that they are victimized as perpetrators and yet they are the victims. Second, on the contrary, women feel vulnerable due to the gender power imbalance – an issue I discuss under the sub-theme, "are we (women) afraid of being alone?" the role of culture. Third, I present the politics of gender equality, the opportunities and challenges for gender equality efforts towards attaining quality life.

4.3.2.1 Perpetrators and victims: males or females or both?

The results presented in this thesis show that middle-aged male and female participants adopted IPV as a construct that is critical to their psychosocial, economic and physical health status and wellbeing. More so, in female only FGDs, participants acknowledged experiencing different types of violence; physical, social, verbal, emotional or psychological which negatively impacted on their health and wellbeing.

P1: A lot of people are being beaten here

P3: I am your neighbor, but I will not come to really know what is going on, but I will start to call my neighbors to tell them that she is being beaten just to judge as if your life is perfect. Mmm
P2: Here a lot of women are being hit but I do not know why but I think people are just stressed up, people are trying to make ends meet. You will find that you have just used oil and its finished or has but someone just hits you seriously as if you have done the worst mistake in your life…
(FGP-MF-Langata)

In this conversation, middle-aged women in the formal settlement in Nairobi described their lived experiences with IPV in a patriarchal society where women often bear the blame for being abused. The neighbors are reported as not offering moral or physical support, instead they gossip and stigmatize their fellow women. In highlighting the causes of the violence, the participants identify economic hardship as a contributing factor to stress and tension in families.

In rural areas and the urban slums, IPV was more associated with alcoholism, substance abuse and poverty. In families where accessibility of basic needs such as food and education remain a challenge, men tend to resort to alcoholism as a way of managing stress associated with inability to provide for their families. This leaves the women to bear the burden of maintaining households and in the process are frequently confronted with violence. In extreme cases, participants reported the problem of addiction and escalated poverty, as meagre family resources are traded in exchange of alcohol and other abused substances.

Even though women talked openly about IPV, the male participants were quite hesitant to openly discuss issues around IPV, as much as they were in abusive relationships. The male participants identified forms of interpersonal violence (e.g. physical attack when they are drunk and helpless, scalding with hot water, gang attacks, chopping off male

genitalia) that the females are using against them. This is associated to the gender power imbalances that exist in societies as was echoed by the men.

> *… There are also women/wives that also bit their husbands while under the influence of alcohol. (FGD-MY-P5-Kibera)*

> *… for sure, men in this community, some of us are beaten by the women. But we can never say because we'll be laughed at. People will really ridicule us. So, because of that, most of us die in silence... (FGD-MM-P3-Eastern)*

Additionally, the men indicated that the current gender equality efforts mainly target the girl child and women, hence the boy child is neglected. They noted that everyone is talking about sanitary towels, hygiene facilities and panties for the girls and no one really thinks of the underpants for the boys.

> *P7: There's a lot on empowerment of the girl child.*
> *P4: The court is protecting them, from the court to the government themselves. All the men in politics are the ones passing these laws.*
> *1: In essence are you saying that the men are being beaten at home?*
> *P4: Yes, yes, there're people being beaten, and they are just quiet. Abuse goes both ways…*

In underscoring similar sentiments, another participant considered men to have been demonized for a longtime in discourses of GBV.

> *…Men have been demonized for a long time. People are always quick to say that women are being hit, or about the women who hit the men? Men do not talk about it. There are no male activists that are saying that hey, we are being hit out here… there is none, nobody is coming out. But there is Federation of Women Lawyers (FIDA), women are always out there. (FGD-MM-P4-Langata)*

These observations recognized the role of networks and civil organizations that fight for women's rights, the gender equality efforts that target the females, including the legal and legislative frameworks and the role of both genders in perpetrating violence. They also observed the paucity of such programs for violence against men, suggesting that even though men are experiencing violence, there are no institutions protecting their rights.

However, this thesis recognizes that women and children are still disproportionately affected as the majority of the men still reap the benefits of their masculinity and the societal

advantages embedded within the prevailing cultural systems. Equally, evidenced in the narratives is the fact that women deal with physical, emotional and psychological torment which causes mental health issues such as depression or even insanity.

> *… you see you as a mother, you can't just let that happen, the child must eat, the child has to go to school. But now you have this man who is becoming a child and supposedly your husband. But we women here in Kenya or here in this place we have a problem with our men. I do not know whether they were not raised right ... There is that mentality that our parents raised the men to know that the women will take care of them. Or they raised us as girls to know that we as girls we have to take care of the men. So, the men need to take care of us and then us we take care of the community. But when you are not taking care of me, I'll be depressed, mentally I will even go insane, I can't be healthy, I can't have a good life. (FGD-MF-P3-Langata)*

Furthermore, women participants felt that with empowerment, they would be able to provide for their families. Therefore, the men become threatened and exert their authority on women through violence in retaliation.

In demonstrating the intergenerational effects of IPV, the participants highlighted how the vice affects the health of the community and more specifically, that of the children who are denied their full potentials and capabilities in life. Additionally, children that frequently witnessed violence between their parents were observed to develop fear and trauma resulting into parent-child conflict especially in teenage.

> *…if the kid of 5 years and 7 years sees me buttering the wife/mother, there is something they will develop in their mind. They will have fear and hatred. You see! … when the child gets to the age of 16 years, still they have those memories in them. That can be a source of father-daughter or father-son conflict in teenage (FGD-MM-P1-Nyanza)*

Distinguished in all the narratives is the role of cultural norms and beliefs as males and females navigate their socially assigned roles and responsibilities. Participants acknowledged that either gender may be a perpetrator and/or a victim and in either case, the role of culture needs to be understood as it relates to the vice.

4.3.2.2 "Are we (women) afraid of being alone?" The role of culture in IPV

In this thesis another interesting observation that was made was the role of culture in IPV. The participants emphasized the position of men in the society as the head of the household, as one assigned by "God" and the need for women to be submissive. In addition, the participants highlighted that men have left their Godly responsibility of seeking guidance from the supernatural being (God) as the head of the household. This makes it difficult for the women to be submissive and just follow them.

> *…to me what I can say is that many people do not see it as a spiritual thing. You see in the bible God says that the man should be the priest of his house, the man should love his wife and the wife should be submissive. So, you will find that the man … does not look to God for guidance. …their guidance is from someone else may be your friend. You see when that happens it will be difficult for your wife to be submissive to you when you have lost direction. (FGD-MM-P3-Langata)*

Eminent in this account is the role of religious teachings and the spiritual beliefs within which societies have been historically organized around. In this narrative, the men are expected to head their households, while the women are anticipated to submit to their leadership. Today however, both men and women have been situated as people of equal rights. Nonetheless, religious foundations seem to be deeply rooted as people are raised up in societies with such structures which influence the position and perspectives that people hold. For example, while the females are bestowed with the responsibility of household chores and child-rearing, males are expected to provide for their families. However, participants observed that as communities becomes more enlightened and women are becoming career people and professionals, males are getting intimidated, especially in situations where they remain unemployed.

> *…, you get that the man doesn't work, and the woman is the breadwinner in the family. So, the man feels intimidated because … So, the man feels inferior and it ends up in him being depressed and you find that there's a lot of suicide occurrences in this area. It doesn't go for*

more than a month without getting anybody from either the river or from the forest that have committed suicide. That is the major cause – family conflict. (IDI-MF-Ndaragua)

The narrative above shows that societal expectations play an integral part in having a satisfied life.

Moreover, the participants felt that while men are bestowed the responsibility of providing for their families, the women are expected to hold their families together and be submissive to their spouse. As was expressed by a female participant in the narrative below, if women are unable to accomplish these responsibilities, often, the society blamed them. This results into stigma that is experienced by the women. Therefore, the women are frightened by the prevailing societal structures that stigmatize them and are not able to walk out of an abusive relationship.

… The moment you know you are getting violent, somebody has slapped you once and you keep on protecting him, you see, already this guy has reduced your self-esteem… the women in Kenya have been empowered by the constitution, … but the women themselves they cannot come out clearly and say that I am affected as a woman. They would be afraid thinking that how will my neighbors view me. I would rather persevere in this relationship so that my people at home should not see me suffering… Because I know at the end of it all it's your own happiness. … if I say that I am single, somebody will say that you see she is single do not walk with her, she is a prostitute. ... You see she doesn't have a husband. So, most women will say that let me stay in the house even if I am being hit. (FGD-MF-P4-Langata)

From the above narrative, it appears that women have to make tough decisions of either walking out of an abusive relationship and live with the stigma associated with it or persevere in such relationships. Either way they choose, this negatively impacts on their health and wellbeing. This underpins the role of socio-cultural beliefs on the quality of life.

In discussing GBV, the participants also compared societal perception on a male and a female in their community today. While a young male who seems to be doing well economically and socially will be tagged as a hard worker, a female of the same age and same socio-economic status will be referred to as a prostitute, what the participants referred to as a social misfit or *"wrong numbered" woman.* As such, most admit that fear is

cultivated in women and the majority want to be associated with a man to satisfy societal demands at the expense of their personal happiness.

> *…Look at a lady who is 28 years and she has succeeded, and you are driving and doing your stuff what would they say, they would say you are a prostitute. But look at a man who is of the same age 28 years who is driving and doing his stuff they would say that he is working hard. … You know that you are not a prostitute and you have your own land, you have your car but the people in this society will say that she is wrong number, she is a prostitute… (FGD-MF-P1-Langata)*

4.3.2.3 The politics of gender equality, the opportunities and challenges in LMICs

In spite of the progress that Kenya has made in political empowerment of women through its constitution by the adoption of the affirmative action and the enactment of the various Acts of Parliament (Muigua, 2015), real gender equality in other aspects of daily living including the socio-cultural perspectives (i.e. people's behaviors and mental processes as shaped by the prevailing social and cultural systems) remains far from reality. The findings of this thesis reveal three distinct points for the politics of gender equality. First, is at the policy-making stage; second, is the societal level dominated by the men; and third is the politics at the personal level.

In societies that are male dominated and characterized by populist politicians who view the society as a fundamental moral struggle between groups of people, decisions on policies that are passed or unpassed are significantly dependent on the gender implications of such policies. The male politicians often do not support policies that they view as beneficial to the women especially if they are thought to disadvantage the males in society. A female policy-maker narrated experiences in fighting for gender equality policies:

> *…when you start that issue of GBV even in the assembly, the men will shut you down and tell you the way the men are suffering outside here, and you are coming here to talk about women. They believe that women can talk …but for men, they are not talking… (IDI-Policy-maker-Nyanza)*

At the community level, most men feel threatened as women gain some level of autonomy and decisive capacity. Even though the men stated that they are in support of gender equality efforts, there seemed to be some resistance to the policies and the interventions that target gender equality. At individual level, the women felt that they were frequently confronted with dilemmas on whether to take legal action against an abusive spouse. Some of the concerns women have include whether or not to sue their spouses yet they were also the bread winners. Women observed that in situations where a woman goes ahead to report a case of IPV, in certain communities, such actions would be used against the women and in extreme situations, forced to separate and the man encouraged to marry another wife. Informed by the notion of social transformation, most of gender equality policies are void of the social expectations and the repercussions for reporting their spouses to the police and hence are incongruent with the local social realities in most societies.

> *…among the Luos [a tribe in Kenya], if a woman is defiled by the husband, if she reports the husband and the husband is taken to court or jail, then that can be an opportunity for the community to make the man and the woman to part ways because the community believes that the man is the head of the family and is always right … (FGD-MF-P7-Kibera)*

Participants also observed that provision of justice and fair treatment is another challenge in most societies where victims are not assured of or granted the most needed justice. However, the participants pointed out that there are greater opportunities presented by media and educational campaigns. These could be exploited to influence people's perceptions and beliefs about gender violence. The growth of technology was also identified as a resource that could be tapped. The participants observed that as the less developed countries gain access to technology and social media becomes accessible to many, there is need for integrated programs that work towards resolving some of the pertinent issues

through education programs that target cultural norms and beliefs. Such programs should also include psychosocial services that aim to limit associated effects of GBV.

> *… in media, they talk of men do this, women do this, and people call in and they complain and complain you know! Never once have they brought in a psychiatrist or those guys who can help you like a counsellor. I feel like you are always giving us the problem, but you never try to create a discussion around the solution. So that should be something that should be taken into consideration if you have a show like that one … (FGD-MM-P4-Langata)*

In summary, the results show that IPV remains a socio-cultural issue in Kenya around which men and women socially construct their health and wellbeing. Although females are culturally disadvantaged and tend to bear a huge burden of domestic violence, there is an emerging trend in which men are also experiencing retaliatory attacks. These experiences not only affect the adults but also the children who embody these experiences and may pass them onto generations to come. This is an area that requires further investigation using appropriate study methodologies. The findings also demonstrate that politics of gender equality not only occur at the level of policy making but also at societal and individual levels all of which are influenced by the cultural systems. Technological advancement in most communities may provide opportunities for resolving some of these challenges.

4.3.3 Narratives of embodied suffering and resilience among seniors in Kenya

In this section, I present findings on emotional distress that seniors encounter as they go about their daily activities of living, especially those related to sustaining their families and caring for their grandchildren. I argue that the seniors bear a double burden of care responsibility for their own children who are young adults but remain unemployed; and/or care for their grandchildren after the death of their adult children due to the HIV epidemic or after they migrate into the city centers in search of employment. The findings indicate that

grandparents are distressed by the economic tensions and constraints that come with care responsibilities in contexts of hard economic situations characterized by high unemployment rates.

Additionally, grandparents are concerned about the future of their lineage and the stability of their families, due to landlessness and what they consider as the socio-cultural erosions in most communities. The seniors endure emotional, physical, social and psychological torment which they express as being embodied and reflected in the forms of health outcomes – headache, hypertension, insomnia, schizophrenia and burning sensations in their head. Three themes emerge from the narratives – the ethics and economies of basic needs in contexts of hardship, socio-cultural erosion and sustenance of family lineage, and epitomes of distress; which are the topics of discussion in the subsequent section.

4.3.3.1 The ethics and economies of basic needs in contexts of economic hardship

In discussing a healthy community and a good life, seniors construct their health and wellbeing as one filled with stress and unhappy moments. They highlight moral and economic predicaments of providing for the basic needs for their families, their children, grandchildren and themselves. The pressure to invest in the basic needs for their children and grandchildren such as education with the hope that they would in turn provide social and financial support to the family was identified as agonizing for older adults especially in contexts characterized by high unemployment rate.

> *… in this community we do not have employment opportunities for our children and us as seniors, we are affected by this because if our children had employment, then we would not have the challenges that we have in this community. The children have gone to school but there are no employment opportunities (FGD-SF-P6-Eastern)*

The respondents not only expressed the burden of educating their children but also

caring for them despite being at an age where it is expected that children should be independent and even give back to their parents and the society. Moreover, the findings reveal that lack of income for the seniors impact on their ability to provide for the basic needs (e.g. education) for their dependents.

> *… Our main challenge in this community is income. I have 2 or 3 children in school. We are not able to support the requirements in school, may be one of the children tells you that he has no pencil, the other has no books and the other may be the school uniform. I do not have any source of income …When they get to school, they are sent away to come for these things and because they know the situation at home, they just resort to some bad habits like the use of the drugs... (FGD-SM-P11-Eastern)*

Additionally, the participants expressed that with lower educational attainment, their children and grandchildren move into the urban areas where they remain in the working class. Unable to care for their children in the cities, grandparents become the caregivers, often without substantial social and financial support. As a result, seniors feel that they are consistently raising children, and this is frustrating, especially when they are unable to provide for their basic needs.

> *… the children leave the community for the urban areas where they will never get any good employment, they only do casual work which will not allow them to even send any financial support to us as the parents. In the process of all these, the children conceive and give birth. When this happens, they send back the grandchildren to us. Because they are not having any good employment, they leave us with their children without any support. It is like we are raising children till our death. It is so frustrating when we cannot provide for our grandchildren. (FGD-SF-P1-Central)*

In the era of HIV pandemic, the seniors are bestowed with the responsibility of raising their children as well as their grandchildren. The older adults expressed being traumatized by the ordeal of losing adult children, and the burden of meeting the basic physical, financial and emotional needs of grandchildren, all of which cause enormous stress. As a result, many seniors felt that their lives are full of problems as is evident in the narrative below by senior female caring for a mentally challenged and orphaned child:

> *… I am taking care of orphans. One of them is mentally handicapped and she also gave birth to a child. She cannot take care of herself and I now must take care of her child as well. I must take care of these children and I do not even see when they will grow up to be independent. If you leave them they will just die... Here if you are to go for casual work you are always bothered and the money you get is not enough to take care of all these needs. Now even with the drought, everything has become expensive, there are a lot of problems… (FGD-SF-P3-Central).*

In the narrative, the senior female demonstrates the feeling of uncertainty in the future life of their grandchildren. As they care for the orphaned grandchildren, the grandparents also observed that they continue to battle with chronic ailments. In certain cases, either the grandchild[ren] and/or the grandparents are HIV-infected, and adherence to drugs become a major concern that generated stress and frustration to the seniors. Furthermore, the seniors mentioned that given the casual nature of their work, taking at least one day off in a month to collect the anti-retroviral drugs at the health facility is equivalent to *'a day without food'*. As such, stress is portrayed as being ever present.

> *…I can say that up to ¾ of the people here in Kibera are sick and are on drugs. So, some are having stress because they think so much… For somebody on drugs (ARVs), they need to have a balanced diet, the rule of 3 - vitamins, carbohydrates and proteins that we need to eat. We have a lot of stress because we do not have employment and we just do casual work like washing clothes for people and when you come back home, the money is so little, and you cannot even afford the basic needs. So, we are stressed... (FGD-SF-P8-Kibera)*

Another issue that emerged relates to land ownership. The participants identified land ownership as a resource for economic production and a determinant of home ownership. Land ownership issues in Kenya have a long history that dates back to independence when Kenyans, particularly the Kikuyus, were forced out of their ancestral land creating exclusive white highlands for the white settlers (Ogot & Ochieng', 1995). After independence, the political system in the country was characterized by ethnicity in governance – where the community in power unethically acquired land at the expense of the other tribes. Also, the middle-class who could afford to buy parcels of land acquired such properties leaving the less advantaged as squatters. This has contributed to the contentious

land ownership issues and the history of political conflicts in Kenya (Roberts, 2012). Kenyans have been rendered squatters, an issue that was emphasized by seniors who associated the distress that they experience to lack of land since some are internally displaced persons (IDP). The experience of uncertainty and frustration associated with land issues was adversely mentioned by the senior in central Province, a region inhabited by the Kikuyu community.

> *… There are no lands in this community... Some of us are displaced people from other places and we have lived here for years, our parents are not here. We are surviving in this community… (FGD-SF-P8-Central)*

Related to the land issues, is the system of forest management by the government where displaced persons or squatters are temporarily assigned deforested areas of the gazetted forest land with an aim of afforesting these areas through agroforestry. The seniors observed a rise in social and economic uncertainties and instability, as they are forced to move to other segments of the deforested land, hence a source of stress for seniors:

> *… the farms that we plough are not our farms. We are given ½ acre parcel of land within the forest where there are no trees. When it is raining, you are expected to plant trees and crops. When the trees grow, we have to vacate and move to an area that is deforested. We leave the lands and the forest for the government. For all these years that I have been here for 30 years, I have raised my children with this and it's very unstable. Now most of the lands are forested and we have not been shown any alternative land to move to. We now have stress, we have children who are to be in school… (FGD-SF-P7-Central)*

4.3.3.2 Socio-cultural erosion and sustenance of family lineage

The grandparents not only associate the feeling of distress to the economic tensions of daily living but also to the socio-cultural erosions that seem to threaten the sustainability of family life. The instability is confounded by the changes in lifestyle and behavior issues such as the over use of alcohol and other hard drugs – including chewing of khat *(*scientific name*: Catha edulis)* that they associate with infertility and reduced sex libido and the

cultural erosion where the current generation are losing their ancestral roots, beliefs and norms. The seniors are therefore worried of what will become of their families when they die. With the value attached to family continuity in the African context, the older adults get apprehensive when they see their children engage in some of these activities.

> *… I see that the next generation is being ruined. With the rate at which these drugs (khat/muguka [Cath edulis]) are being used, the community will not be able to have children in the next few years. Because these drugs have been associated with infertility and ability of the males to be sexually active. So, the generations to come are being cleared... (FGD-SM-P9-Eastern)*

Further, in regions where people are squatters and are not living on ancestral land, seniors not only worry about land as a commodity for economic production but also as a form of family identity. They consider their families as unsettled since they lack land on which to build a home. In situations where this is impossible, family stability and continuity are a source of stress to the seniors as expressed by this female participant:

> *...I have been in this community for over 30 years and I have no land and no house, but I live in a rental house. When I got a house that I can call mine, is that of juakali (temporary). It is not my parental home, but it belongs to the government. … the government can come any time to take it up… they (our children) also do not have land and they have no income... (FGD-SF-P7-Central)*

Moreover, in relation to the land issues, the seniors observed that the current generation is non-adherent to instructions by their deceased parents not to sell ancestral land which they consider a form of cultural identity. As such, they feel like their families are not immune to such instabilities and this causes stress and anxiety.

Additionally, the participants indicated that in the past, the welfare of widows and orphaned children were regarded as a responsibility of the community. However, as communal welfare systems degenerate, these vulnerable groups of people are no longer taken care of by the society. Consequently, their rights are violated by the extended family

members who ought to provide protection. This is a source of distress, particularly for the women who are deprived of the inheritance from their deceased spouse.

> *... we see the problem here, like maybe as senior women, we are not allowed to use our properties by our extended family members particularly if you are widowed. Even the very close family members, grab our belongings and this limits our ability to even educate our children. And you will find that these are properties that you have worked hard for and we are denied the legal ownership, and this bothers us as senior women in this community. (FGD-SF-P6-Nyanza)*

The seniors also go through experiences of neglect and rejection by their children, especially when the adult children move to the urban centers. Some become successful and forget about their roots. This is inconsistent with the past when children could take care of their old parents.

> *... we are neglected by our children as the seniors in this community. We have educated them, taken care of them but when they get to the cities they forget about us and they never come home. ...When you visit them in town, they say that we have a bad odour ... We are so stressed up, depressed with this kind of experiences... (FGD-SF-P9-Eastern)*

According to this research, another issue that tormented the seniors is lack of respect by the current generation. This was highlighted as an issue that stressed seniors who perceived that their role as mentors was no longer appreciated. They felt left out in the opportunity to nurture the current generation and feel there is a loss in cultural identity.

> *... I talk as a senior woman here, ...during our time, we used to have special rooms that were meant for children, especially for the young girls. We were allowed to stay with our grandmothers who could teach us how to live. ...they would take us through life, and they taught us issues of respect, ...but that has really changed. ...if there was a discipline issue, everybody could instill discipline in the life of a child. But today, if you just instill discipline, in one's child, the parents are the people who will be the first to be hard on you. So, this is what is spoiling our community and pose a danger to its sustenance... (FGD-SF-P12-Nyanza)*

This could be associated with the fact that the seniors have developed some form of cultural identity which they appreciate, and value as compared to the younger generations. Additionally, the seniors were concerned about the unavailability of traditional or local foods that were considered healthy. Availability of these foods was a significant challenge

considering changes in climate conditions and in community eating habits, an important risk factor associated with poor health and wellbeing, especially the changing trend of NCDs.

> *… in the past, our parents used to eat a variety of foods. They used to have potatoes, like the Irish potatoes. They also had cassava and many varieties of foods made their bodies strong and very energetic. But now we do not have access to these particular kinds of foods because of change in climate and eating habits, [and this makes the community unhealthy]" (FGD-SM-P7-Eastern).*

4.3.3.3 Epitomes of distress

As the seniors' care for their progeny in a context characterized by economic hardships and socio-cultural changes, they endure the physical and psychological torment associated with such exposures. The exposures are embodied and reflected on their skin, what I conceptualized as epitomes of distress. In conversations on health and wellbeing, seniors mentioned different epitomes of distress as reflected on their bodily aches. For instance, the seniors talked of experiencing anxiety, stress, and heart aches.

> *…we suffer so much looking for income especially for educating our children and yet we have no source of income. So, we are caught in stress because we long to take our children to school, you do not see the money, you suffer, your body is affected, your heart is disturbed, your heart aches and as such you are so stressed up. (FDG-SF-P7-Central)*

Apart from the above-mentioned epitomes, the seniors also expressed distress in the form of burning sensation in their heads to emphasize the effects that thinking too much and having to bear the burden of raising their children and grandchildren. For example, a male senior caring for his grandchildren explains the association between the burden of care in poverty, alcoholism and the fact that such experiences are embodied on their body:

> *… Like me in my home, I have my son who is a drunkard and … he comes at night very drunk and he does not know what the children are eating, and even if the school is said to be free, we still must pay for some items like sports etc., and when I try to take care of this children, it's quite a burden. …at times I feel my head is burning as if there is fire burning. When I go to the government, they also say that the government has a lot of dependents and issues to tackle. So, I ask, if the government is not able to help, then what next? We feel like all our energy is gone and we can only look up God… (FGD-SM-P4- Central)*

In this narrative, the respondents demonstrate a sense of hopelessness that seniors experience as they carry the burden of caring for their progeny. Others also expressed embodied distress in the headaches they experience all the time, lack of sleep (insomnia) especially at night, worrying and thinking too much about the economies of basic needs and uncertainties of the future and family instability:

> *... At night, you can't sleep, we have headache in the night, the morning, lunch time and evening, we have nowhere to turn to. ...(FGD-SF-P7-Central)*

Other embodied distress expressed by participants were personality disorders such as schizophrenia and other health outcomes including hypertension. The seniors observed that they are exposed to several stressors that negatively impact their health and wellbeing.

> *...mental health issues such as schizophrenia is affecting us as seniors in this community. Because of the stress ... we end up with this kind of conditions. (FGD-SF-P10-Central)*

> *... I was diagnosed with hypertension in 2005. At this time, I didn't have money to pay for my son in school. I had a lot of stress at that time... (FDG-SF-P3-Central)*

The general body aches and failure of the body was also associated with distress. Psychosocial health issues associated with the different sources of distress are perceived to weaken the immune systems, contributing to general body weakness, hence increasing the risk of body failure.

> *... we have a lot of health challenge due to the stress, we get body aches from all over the body. You cannot even explain the disease, it's all over the body, it's like the body just fail [and you die] (FGD-SF-P3-Eastern)*

To this end, the lived experiences of grandparents are embodied and reflected in the epitomes of distress. The economic tensions and the experiences of unstable family life due to socio-cultural erosions remain key issues and potential sources of trauma to the seniors. However, the narratives of suffering tend to be normalized and become expressed in bodies,

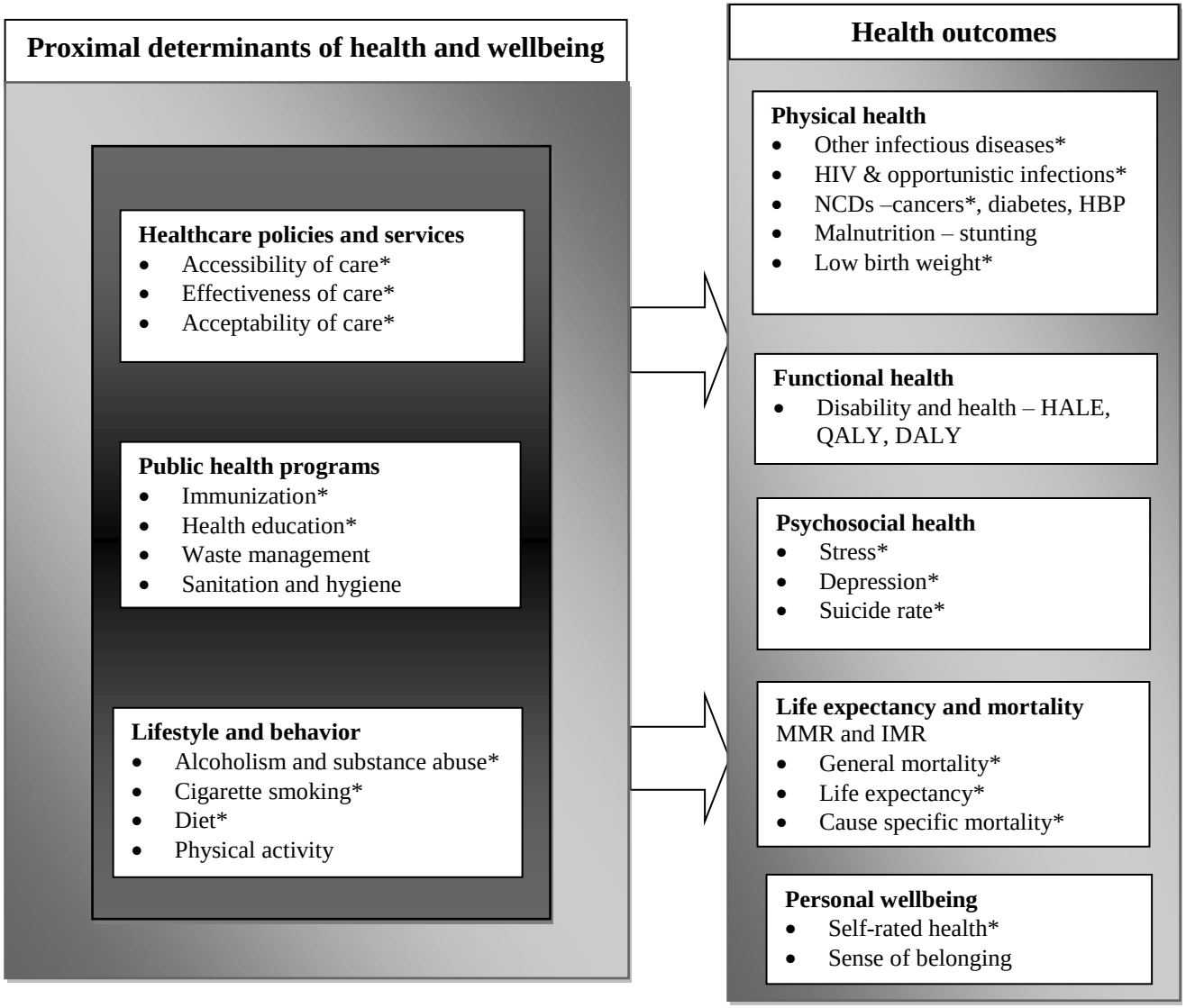
thereby influencing the perceptions and meanings that seniors develop of their societal health and wellbeing.

In summary, this section of the thesis reveals that the youth socially construct their health and wellbeing around four major themes, that is, “bleeding bodies”, “untrustworthy bodies”, “culturally disadvantaged bodies” and “bodies at risk”. Secondly, the middle-aged construct their health around issues of GBV-IPV, the role of culture in propelling violence and the opportunities, challenges and politics of gender equality efforts. Lastly, the seniors socially construct their health around three themes, that is, economies of basic needs in contexts of economic hardship, family sustainability in contexts characterized by socio-cultural erosions and the epitomes of distress. These issues are important aspects of healthy community and a good life and require consideration in assessment and formulation of health and wellbeing policies.

4.4 Objective 3: Potential indicators for the healthy population domain of wellbeing useful for Kenya and possible sources of data

In this section, the research sought to identify the potential indicators and to suggest data sources for the healthy population domain of wellbeing. According to the CIW framework, the healthy population is one of the domains of wellbeing which brings together societal health outcome and the proximal determinants such as healthcare services, public health programs and lifestyle and behavior (CIW, 2016; Muhajarine et al., 2012). Founded on the CIW framework, this thesis adopts CIW definition of the healthy population domain. Figure 4.1 summarizes the main elements and the indicators of the healthy population

domain according to what matters to Kenyans and based on participants' narratives, and frequency of mention and is informed by the conceptual framework, figure 2.1 of the thesis.



Note: With * indicate core indicators that matter most to Kenyans based on participant narratives and frequency of mention

Figure 4. 1 Indicators of the healthy population domain of wellbeing based on what matters to Kenyans

4.4.1 Criteria for selection of the indicators

The identified indicators were selected based on what matters most to the participants, the frequency of mention and the proportion of FGDs and IDIs mentioning the indicator. In this context, the frequency of mention refers to the number of times an indicator was mentioned within the different interviews, while the proportion of mention denotes the number of FGDs and IDIs mentioning the indicator. This criterion permitted the identification of the indicators that make sense not just to the policy makers and decision-makers but also to the ordinary Kenyans.

Additionally, the selection of the indicators was grounded on the relevance and comparability of the indicators. The indicators and measures that were meaningful and had policy implications leading to action or even change of action were selected. To allow for comparison, the analysis and identification of the indicators was done with the consideration of the common and unique indicators to specific socio-demographic groups and geographical areas.

4.4.2 Indicators of healthy population domain

The indicators were identified based on the criteria described above. The findings show that health outcomes – including the physical, functional and mental health and mortality rates and self-rated health indicators matter most to Kenyans in assessment of the healthy population domain. With reference to physical health, the indicators for both communicable and non-communicable diseases were revealed as important. Even though Kenya is experiencing a demographic transition, that is, the NCDs are quickly replacing the communicable diseases, the infectious diseases remain health outcomes of interest to both

the policy makers and the lay people. HIV related health issues such as incidence rates, associated stigma and antiretrovirals (ARVs) access endure as important indicators for the physical health status of Kenyans. Waterborne and epidemic diseases such as typhoid and cholera are also diseases of concern to the citizenry, especially in water scarce communities. The occurrence and number of people living with NCDs – particularly cancers, hypertension and diabetes are also of critical importance to a majority of Kenyans.

In this thesis the functional health status is examined in terms of road traffic injuries and infectious diseases that causes disabilities, in this case poliomyelitis. Kenyans are concerned about disabilities and mortalities associated with motorcycle and road carnages. In addition, the participants associated the reduction of poliomyelitis related disabilities to improved immunization coverage for the under-fives and the multiple vaccination campaigns against polio that has been witnessed in the recent years. This has been made possible through government and donor funded programs (Bill and Melinda Gates and Rotary International).

In terms of life expectancy and mortality sub-domain, the key indicators identified in this research are, maternal mortality, HIV related deaths, life expectancy at birth and general mortality. Though, less frequently mentioned by the participants, infant mortality remains a key health indicator for assessing societal progress and the infrequent mention could be an indication that significant progress has been made in this indicator, either through the immunization programs and/or by making healthcare services accessible to children under-five years. Nonetheless, acceptability, accessibility and effectiveness of healthcare services persist as key issues of concern to Kenyans. For example, the respondents were concerned about provider-patient relationship, cost of healthcare services and health insurance, drug

availability and doctor-patient ratio, availability of diagnostic laboratories in health facilities which were identified as key healthcare indicators.

In the lifestyle and behavior sub-domain, participants overwhelmingly mentioned the effects of alcoholism and substance abuse, eating habits and physical inactiveness as indicators of healthy population domain. These lifestyle and behavior choices are key health indicators as many have resorted to overconsumption of alcohol and drug abuse as strategies for stress management. Slackness in quality assurance and regulation of the production and use of alcoholic drinks in the country allow for supply of cheap and poor-quality liquor within the communities. Additionally, traditional or local foods were perceived as healthy and many participants called for their societies to return to such kinds of food. The use and preference for processed foods today was associated with the changing disease patterns and the occurrence of NCDs in the country.

However, the results reflect the views of those who participated in the interviews. The research methodologies adopted were based on the qualitative approaches and statistical representation was not the objective of this thesis. Therefore, the findings are not necessarily representative of the entire population of Kenya. Nonetheless, the findings reveal a wide range of views from the different population segments and regions in the country. Potential data sources for the identified indicators based on existing literature, accessibility and geographical coverage of the data are suggested in the subsequent section.

4.4.3 Potential data sources

In this section, I present the potential data sources for the indicators of the healthy population domain that were identified in the course of this research. Selection of these data sources is informed by the literature on previous studies that have adopted similar

methodologies in evaluating societal health and wellbeing. For instance, the CIW which is used existing secondary data sources such as the Canadian Community Health Survey and the National Health Survey to retrospectively estimated how Canadians have progressed in the different wellbeing domains (Muhajarine et al., 2012). Additionally, other criteria including the availability, accessibility, nature of the data (i.e. periodically collected data) and consultation with the KNBS officials were used to identify appropriate data sources. The data sources include – the Kenya Demographic Health Survey (KDHS), the Global Burden of Disease (GBD) by the Institute of Health Monitoring and Evaluation (IHME) database, the KNBSs data sets (e.g. the Global Adult Tobacco Survey, the economic survey), national hospital records, national police database, and Kenya Medical Supplies Agency (KEMSA) database on drug supply and cancer registry data.

Designed to monitor population and health situation in Kenya, the KDHS is a periodic data set collected every five years since 1989 (Kenya National Bureau of Statistics & ICF Macro, 2010). The survey provides reliable estimates of fertility levels, fertility preferences, sexual activities, nuptiality statistics, family planning (FP) methods and the unmet FP needs, nutrition, breastfeeding practices, mortality statistics, maternal and child health statistics, HIV and other sexually transmitted infections (STIs), domestic violence and NCDs and related risk factors (Kenya National Bureau of Statistics & ICF Macro, 2015). Moreover, the data are collected from a nationally representative sample by region (i.e. rural-urban and provincial/county level) and population characteristics (i.e. gender, age, and social class) (Kenya National Bureau of Statistics & ICF Macro, 2015). Though it seems the most appropriate for evaluating progress in the healthy population domain of wellbeing, the KDHS may be limited by missing variables. Since its inception nearly 20 years ago, the

Demographic Health Survey has evolved over the years to include other aspects of population health: domestic violence, NCDs, and HIV which were not captured in the earlier versions of the questionnaires. In terms of administrative boundaries, it's only the 2014 KDHS that included data at the county level whereas the earlier ones were based on the national and provincial boundaries.

The Global Burden of Disease (GBD) database by the Institute of Health Monitoring and Evaluation (IHME) is an appropriate data source for evaluating functional health and life expectancy of Kenyans. Though everyone deserves to live a long life full of health, many diseases, risk factors and injuries limit the ability of people to achieve this goal (Murray & Lopez, 2017). The GBD provides a tool for quantifying such health losses from a number of diseases, and the associated risk factors with the goal of eliminating disparities on how people experience health (Murray & Lopez, 2017). With its flexible design and retrospective data from 1990, the GBD database allows for frequent updates and monitoring changes in population health across time, place and person.

The other data source is the KNBS data sets, e.g. the Global Adult Tobacco Surveys (GATS) and vital statistics. Although designed by the WHO to track the epidemic of tobacco use, Kenya has incorporated GATS questions in its national statistics office surveys. GATS describe tobacco products and represent statistics on tobacco use, exposure to second hand smoking, progress made in controlling tobacco menace and existing opportunities for improvement (Jena, Kishore, & Sarkar, 2013). Though based on globally comparable questions, this data set only focuses on tobacco use and is not periodically collected. Therefore, it may be limited if the intent is to retrospectively monitor progress in population

health. The vital statistics of mortality on the other hand are often incomplete and some deaths that occur especially in the villages or death of children go unrecorded

Hospital records such as mortality and morbidity statistics, national police database on road carnages and substance abuse, and the KEMSA database on drug supply and cancer registry data are some of the other potential data sources. These data sources would be appropriate given the identified indicators that matter to Kenyans. However, most of these databases are incomplete since the responsible parties are mostly busy service providers, working in deplorable conditions, with limited motivation. Furthermore, the hospital morbidity records and cancer registries which omits cases that do not get to the healthcare facility. A summary of the identified data sources for the sub-domain of healthy population domain is presented in table 4.8 below.

Table 4. 8 Potential data sources for the indicators of healthy population domain of wellbeing in Kenya

Subdomains	Indicators	Data source	Limitations/challenges
Physical health	• HIV incidences and prevalence • Other infectious diseases such as zoonotic, vectorborne and waterborne diseases, RTIs • Low Birth Weight • Prevalence of stunting and malnutrition rate • NCDs – prevalence and incidences (cancers, diabetes, HBP, unintentional injuries)	• KDHS • Hospital records • Cancer registry database	• Incomplete data sources especially the hospital morbidity records and cancer registries which do not include unrecorded cases
Functional health	Kenyans are concerned about disability due to paralysis (polio), motorcycle and road injuries • Health Adjusted Life Expectancy (HALE) • Quality Adjusted Life Years (QALYs) • Disability Adjusted Life Years (DALYs)	• Global burden of disease/Institute of Health Metrics and Evaluation database • Hospital records • Police record on unintentional injuries	• Incomplete hospital and police records
Mental health	• Depression and stress • Suicide and other mental health illness	• Hospital records	• Data on psychosocial health issues not collected in Kenya. The majority of the data available on mental health are on psychiatric conditions and services
Personal wellbeing	• Self-rated health, happiness and life satisfaction • Sense of belonging	• World database of Happiness	• Global database based on questions that may vary in interpretation by context.
Lifestyle and behavior	• Alcoholism • Cigarette smoking • Substance/drug abuse – miraa/khat *(Catha edulis)* and use of marijuana • Diet – change in eating habits • Physical activity	• KDHS • Global adult tobacco survey (GATs) • Police records of substance abuse	• KDHS are regularly conducted but limited questions on use of tobacco, alcohol consumption • GATs not regularly conducted and is specific to adult tobacco use • Incompleteness of police records on substance abuse may limit use
Healthcare services	• Patient-doctor relationship (acceptability) • Cost of healthcare services, cost of health insurance, drug availability, doctor-patient ratio, distance to referral facilities, waiting time for specialized care, ARV access and doctor-patient ratio (accessibility) • Unequipped ambulatories, ARV and care for people living with HIV, reinfections and readmissions* (effectiveness)	• Hospital morbidity database (in-patient and out-patient) • KEMSA database on drug supply • KDHS	• Incomplete databases since most health facilities rely on the busy healthcare providers to also keep the health records. Most health facilities are paper based • KEMSA database may be inaccurate on the drugs supplied and the actual drugs that get to the people
Public health	• Health information access	• KDHS	• Municipal data sources are specific to

programs	• Immunization – number of under-fives with complete immunization • Sanitation and hygiene services • Waste management	• Municipal database on waste management	a given city or municipality and may not be nationally representative
Life expectancy and mortality	• Infant mortality rate* and maternal mortality rate • Life expectancy at birth and at 65 years • HIV related deaths • Potential Years of Life Lost (PYLL) • Cause specific mortality	• KDHS • Hospital records • Global burden of disease/ Institute of Health Metrics and Evaluation database • Vital records	• Hospital records are often incomplete • Vital statistics of mortality are often incomplete and some deaths that occur especially in the villages or death of children go unrecorded

Note: All the indicators were identified from primary data except for those marked with asterisk [*] which were added from literature.

HIV- Human Immunodeficiency Virus; HBP – High Blood Pressure; RTIs – Respiratory Tract Infections; ARV – Antiretroviral drugs; NCDs – Non-Communicable Diseases; HALE – Health Adjusted Life Years; DALY – Disability Adjusted Life Years; QALY – Quality Adjusted Life Years; KDHS – Kenya Demographic Health Surveys; PYLL – Potential Years of Life Lost; KEMSA – Kenya Medical Supply Agency; and GAT – Global Adult Tobacco Survey

4.5 Summary of the chapter

This chapter presents the research findings according to the thesis objectives. First, it presents the findings on perceptions, meanings and determinants of health and wellbeing. The findings suggest that having a healthy community and a good life is dependent on the ability of the community to meet the basic needs for all. Specifically, contextual factors including the social (e.g. social cohesion, GBV, social welfare); economic (macro-economic policies, housing and labor market policies and education); political (e.g. governance, policies, electoral systems); cultural and societal values, beliefs, norms and practices; and the state of the environment factors (changes in climate condition, water and food scarcity and the built environment) were identified as important influencers of perceived health and wellbeing of populations. These systemic factors operate together to create social hierarchies based on gender, age, social class, and regional power imbalances which limit accessibility to resources to certain groups of people. For example, the findings show that GBV is a key social determinant of health which disproportionally affects women because of the preexisting cultural structures that act to disempower them. Moreover, the findings reveal that the politics and governance structures – including real engagement in political decision-making, tribalism, corruption and electoral violence are important factors that propagate health inequalities in communities.

The second section presents the findings on how Kenyans socially construct their health across their life-course. The youth (15-24 years) for example adopt four main themes – "bleeding bodies", "untrustworthy bodies", "culturally disadvantaged bodies" and "bodies at risk" to illustrate their lived experiences of health and wellbeing. While the middle-aged (25-49 years) construct health and wellbeing around issues of domestic violence, the seniors

(≥50 years) narrate how they embody distress associated with care for their children and grandchildren in contexts characterized by economic poverty and socio-cultural erosion.

Third, the chapter suggests indicators for the healthy population domain according to what matters to Kenyans. Potential data sources are also proposed, and their limitations highlighted. The findings show that most Kenyans are concerned about the health outcome indicators such as the prevalence and incidence rates for infectious diseases (e.g. HIV and opportunistic diseases), non-communicable diseases (e.g. cancer, hypertension, diabetes and unintentional injuries), mortality rates as well as accessibility, effectiveness and acceptability of healthcare services, lifestyle and behavior and indicators of public health programs. For all the selected indicators, the primary data for the development of the healthy population index will be the KNBS data set including the Kenya Demographic Health Survey (KDHS), GATs, Kenya Vital Statistics database, the hospital morbidity and mortality records, the Kenya Health Information System (KHIS) and the GBD dataset. However, these data sources are not without limitations and a discussion of each data source with their potential weaknesses is included.

CHAPTER 5: DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This thesis aimed to identify indicators for constructing a healthy population index in the context of LMIC, using Kenya as a case study. To achieve this, the thesis explored the perceptions, meanings, determinants and how Kenyans socially construct healthy community and wellbeing across place, gender and over the life-course. In this section of the thesis, I first discuss the results on perceptions, meanings and determinants of healthy community and wellbeing indicating the variations by place and socio-demographic characteristics. Second, the discussion of the social construction of health and wellbeing across the life-course is presented. Third, an argument for the potential indicators for the healthy population index, an important domain of wellbeing based on the perceptions and the social construction of healthy community by Kenyans is given and likely data sources suggested. In the fourth section of the chapter, conclusions, recommendations, limitation and potential areas for further research are suggested based on the research findings. An overall summary of the findings concludes the chapter.

5.2 Perceptions, meanings and determinants of healthy community and wellbeing

The findings suggest that people's perceptions of a healthy community and a good life are dependent on the compositional and contextual characteristics of place and experienced health outcomes. The majority of Kenyans define healthy community and wellbeing amongst other factors, (1) community health status and healthcare factors (health outcomes, quality of healthcare services, lifestyle and behavior choices and public health programs); (2) the social relationship (e.g. availability of social cohesion, varying degrees of

social and family ties, experiences of gender based violence, and community services); (3) economic and living standard (e.g. employment, income and inflation, housing and social amenities and social class difference); (4) the physical characteristics of the environment including the natural and the built environment; (5) political and governance systems; and (6) cultural beliefs, norms and practices

Indeed, a key finding of this thesis is that constructions around community health status and quality of healthcare service are critical descriptors of health and wellbeing of Kenyans. Specific health outcomes – maternal and child health, nutrition, HIV and the associated opportunistic diseases and other infectious diseases remain key concerns for Kenyans in all regions and are key in informing perceptions and meanings of societal wellbeing. Although some improvements have been witnessed in the country as it relates to some of these indicators, maternal mortality in Kenya remains one of the highest globally at 362 deaths per 100,000 live births (Kenya National Bureau of Statistics & ICF Macro, 2015). Child under-nutrition has not improved in the past decade and stunting currently stands at 35% and HIV continues to devastate most parts of the country with about 30% of eligible HIV patients not having access to antiretroviral drugs (Kenya National Bureau of Statistics & ICF Macro, 2015). These issues remain important in defining health and wellbeing of Kenyans as new conditions also emerge – including rising prevalence of cancer, hypertension, heart diseases, diabetes and unintentional injuries such as motorcycle and road traffic accidents as narrated in the findings of this thesis. It is estimated that unintentional injuries currently account for about 65% of the hospital bed occupancy (Ministry of Health, 2013). Associated with the NCDs is the high cost of care needed to treat such cases and the high poverty levels and lack of Universal Health Cover (UHC) for such

conditions (Piot et al., 2016). As such, the findings of this research demonstrate the psychological and physical torment associated with being diagnosed with an NCD in the country as the participants consider this as a 'death sentence' and said that it is even better to test positive for HIV but not for any of the cancers.

Another key finding of this thesis is that accessibility of healthcare services including drug availability within the hospitals was viewed as a source of stress to Kenyans. A regional difference was also depicted in the findings. Whereas the informal and regions of low SES were more concerned about the cost of healthcare services and doctor-patient ratio in the health facilities, the formal settlements and regions of higher SES frequently mentioned the cost of health insurance and privatization of healthcare as key influencers of perceived healthy community and wellbeing. This underscores the fact that most Kenyans do not have health insurance, and even amongst people of higher SES, the cost of private and public health insurance remains a major challenge. Even though the government of Kenya has made efforts towards promoting the use of national health insurance fund (NHIF) as a mode for reducing such inequalities, a recent study in Kenya revealed that the prepayment mechanism which emphasizes premium payment is a challenge for many Kenyans in the informal sector employment (Okungu et al., 2018). Okungu and colleagues further affirms that numerous social, political and economic difficulties confront enforcement of the current premium-based health scheme most of which are outside the domain of healthcare systems. Therefore, for Kenya to achieve UHC, there is need for a more comprehensive, context-specific and acceptable prepayment mechanism which are affordable to all and caters for the needs of populations. A model for other Counties to emulate may be the Kivutha Kibwana Health card in Makueni county, Kenya which is

designed to take care of the health needs of residents of the county at a subsidized rate including free care for the seniors, 65 years and above.

In relation to place characteristics, the findings support results of previous studies that highlighted the role of socio-economic characteristics of place – such as availability of social capital and cohesion, income, employment opportunities, housing and food security in influencing perceptions and meanings that people attach to their health and wellbeing (Clark, Frijters, & Shields, 2008; Deaton, 2008; Sarracino, 2012). Social determinants such as, GBV and social cohesion are key factors that inform people's perceptions and meanings attached to healthy community and population wellbeing across the country. Domestic violence for instance was associated with psychological and physical harm. Additionally, GBV is linked to intergenerational trauma and poverty hence, limiting people's capabilities and opportunities later in life (Herman, 2015).

Previous research has shown that social cohesion and strong social and family ties play a beneficial role to psychological wellbeing (Berkman et al., 2014). This is confirmed by the findings in this thesis that demonstrate regional differences in social cohesion. It was noted that the regions of higher socio-economic status (i.e. Central Province) and the arid to semi-arid (Eastern Province) perceived their communities as healthy and to have a better life due to the relatively stronger social cohesion while a reverse perception was reported in Nyanza Province and in the formal settlement. Better health outcomes witnessed in Central region of Kenya could be suggestive of the positive effects of strong social cohesion, the strong social network and support, while in Eastern Province, this is potentially a coping strategy for individuals in this region of hardship characterized by frequent drought, food and water scarcity. Previously studies in Kenya and elsewhere have shown that collective

action enables adaptation to harsh contextual and climate conditions (Bisung & Elliott, 2014). Such actions could result into and generate robust social capital (Bisung et al., 2015; Ruiu, Seddaiu, & Roggero, 2017). In the formal settlements and Nyanza region (low SES), the weak social ties and social cohesion were acknowledged as a key issue that negatively impacts perceived health and wellbeing of the communities. The findings demonstrate that as the society becomes more unequal and people continue to evaluate their health and wellbeing relative to others, unhealthy competition emerges. This has a negative effect on social cohesion – including experiences of social exclusion and loss of social support, hence, the feeling of lack of social capital. These kind of experiences limit people's ability to build trust and as argued by Putnam (2000), the building of trust is critical in having a strong social capital and social cohesion.

Voluntary services in the form of church activities and service to humanity were also adopted in defining healthy community and wellbeing. While the seniors in this research gained pleasure in community service and service to the deity, the middle aged and the youth were mainly driven by the instrumental gains that could be achieved through such activities. Free voluntary services through church activities were considered more important in the rural areas than the urban areas and in the region of higher SES than in areas of low SES. This could be associated with the fact that in the urban centers and low economic settings, the majority depend on their daily earnings to make a living and the driving factor to voluntary service in such circumstances is the instrumental gain. The findings are consistent with other studies which observe that people living in resource-constrained societies find satisfaction and happiness from religious environment and with people participating in political or professional organizations (Sarracino, 2013). Therefore, people

perform the activities not for the pleasure of the activity itself but because of the instrumental gain or something else that the person considers important (Sarracino, 2013). For example, financial gain, work experience or networking opportunities and service to God which the society considers a moral thing to do.

As part of the African culture, religion and spirituality are considered significant factors in describing health and wellbeing of communities (Ikeora, 2016). In the current research, cultural factors such as religiosity, spirituality and traditional eating habits were associated with better health outcomes and healthy communities. Similar to findings of other studies, religion and spirituality provide systems of meaning, network and opportunities to cope with stress and adversity (Glozah, 2015). Participants in this research acknowledged the role of the supernatural being in providing for a peaceful mind in times of adversity and the social support attained by membership in religious groups. In this accord, spirituality and religion remains key indicators of health and wellbeing in this context. The culture in Africa and in Kenya, particularly, could be the underlying factor in participants' religious and spiritual beliefs. As it has been recorded elsewhere, religion is a fundamental and perhaps one of the most important aspects of the life of Africans (Awuolalu, 1976; Ikeora, 2016), which is a departure from the current western culture (Root, 2018).

Culture also contributes to an individual's or nation's sense of identity by providing for a basis of social integration and offering guidelines to action during periods of uncertainty. Eyles and Allison (2008) argue that when places are stripped of their unique attributes, commonalities between places start to exist hence compromising place identity. Cultural beliefs, norms, values and practices such as dressing code, respect for the seniors and dietary habits were highlighted in this research as key factors of cultural identity that

need not be lost in communities. However, some cultural norms were perceived to delimit health and wellbeing of communities. For instance, cultural beliefs and practices such as wife inheritance, myths about farming, death, and polygamous marriage arrangements were associated with poor health outcomes. In regions where such practices are the norm, such communities were perceived as unhealthy.

The participants further felt that life experiences in place and what place offers, such as economic opportunities and better living standards were important descriptors of a healthy community and a good life. Experiences of unemployment and poor working conditions are major sources of stress to Kenyans and this has a negative impact on perceived health and wellbeing of communities. These findings are comparable to those of prior studies which, revealed that self-rated health, happiness and satisfaction with life strongly depend on the labour market indicators such as unemployment rate and working conditions (Dolan et al., 2008; Pedersen, Gronbaek, & Curtis, 2012). Although all participants were concerned about unemployment, more men than the women alluded to unemployment as a key descriptor of societal health and wellbeing. This suggests that in societies characterized by high unemployment rate and where men are bestowed with the responsibility of being the sole family providers, they are more concerned about unemployment and conditions of employment. This, at least in part, create a negative perception of societal health and wellbeing. This could also be associated with the current gender equality efforts that target empowerment of the females with limited focus on the boy child and the men. As demonstrated in the findings of this research, the male gender is feeling threatened as women are given preference when it comes to employment and

education. This is against the background of societal expectation of the men being the primary providers of their families.

In tandem with the psychosocial effects of unemployment, is the issue of mismatch between education qualification and occupational achievement. Previous studies observe that being unemployed in spite of high education achievement and instability in employment, particularly with reference to casual employment influence perception of health and wellbeing (Pedersen et al., 2012; Smith & Frank, 2005). The effects of unemployment and attainment of aspirations on health and wellbeing is important, especially to individuals who have invested the most time and resources in education (Smith & Frank, 2005). The older adults in this thesis narrated their encounters with the lack of occupational attainment for their children and grandchildren after investing all their resources and time in them with the hope for social and financial support in old-age. The role of quality and affordable education in contributing to healthy community by increasing employability and acquisition of skills are important indicators of a healthy community and having a good life. For example, Ushie and Udo (2016) in evaluating wellbeing of Nigerian youth highlighted the role of education and employment in determining the wellbeing of young people. The study acknowledged that lack of formal education among youth is worse to economic growth as it limits the chance of being productive members of society later in life. In another recently released World Bank Group report (2018) report on *"Learning to realize education promises"*, indicates that most countries with better quality education are those in the global North which also record higher wellbeing indices.

Political systems in the form of tribal governance, electoral violence, and corrupt governments were highlighted as some of the issues that demote the health and wellbeing of

communities. Historically, Kenya's politics has been built around ethnicity with the hope that political parties founded on ethnic groupings provide the only avenue for communities to rise to power and share the state resources with their members. Consistent to previous studies, ethnic/racial discrimination provide systems through which groups are marginalized and hence limiting access to basic amenities – such as road networks, healthcare services access, employment opportunity, water and food access (Krieger, 2014). In the context of Kenya, rising to power as a community is nearly synonymous with social security and access to better services. This could explain the low SES that characterizes regions of opposition in Kenya.

Of critical importance to a healthy community and a good life are the effects of electoral violence and the executive's perceived autocratic leadership. Voter bribery compromises human agency and the efforts of activist groups towards empowering the electorate towards informed choice of leadership. In such circumstances, real engagement in political decision making by the citizenry is equally not guaranteed and their democratic rights are violated, which are important aspects in laying a foundation for a discourse about improved quality of life and health (Allin & Hand, 2014). Additionally, the unintended consequences of politics such as political unrest and riots also affect people's active participation in politics.

Changes in climatic conditions and infrastructure development were also adopted in conceptualizing healthy community and a good life. The research found that unpredictability of seasons of the year, and frequent occurrence of drought which are associated with food and water scarcity impacted on people's perceptions and meanings of a healthy community and good life. This finding is similar to what has been found in earlier studies which

indicated that climate change significantly alters the probability of extreme weather events – such as drought, heat waves, extremely cold winters and increased precipitation and such events negatively impact on people's perception of health and wellbeing. (Watts et al., 2015). Poor and marginalized communities such as those in the rural areas, women, girls and children are more vulnerable to the health effects of climate change (WHO, 2016). This is because of the preexisting social inequalities as evident in the marginalized arid to semi-area areas where girls are sent for early marriages in order for their families to benefit from the dowry proceeds. Additionally, sexual abuse may occur to the women and the children as they walk long distances or in the weird hours of the day or night to draw water as was highlighted by the participants. The rural communities that are dependent on subsistence farming are bound to experience the gross effects of climate changes which tampers with their social and economic stabilities, which in turn affect their health status.

In relation to the built environment, the thesis found that amenities – such as waste management and sanitary facilities, road networks, water supply, polluted environment and crime prone neighborhoods were some of the key issues that influence on their perception of healthy community and wellbeing. These findings align with former studies that focused on disadvantaged populations living in deprived urban settings which reveal that these areas are characterized by relatively poor health and reduced life expectancies (Hartley, 2004; Kyte & Wells, 2010). Additionally, the aesthetics of the environment including bad odor emanating from decomposing garbage within the urban areas, inaccessibility to affordable healthy foods was implicated in the negative perception of the urban health and wellbeing. In such cases, the rural areas though deficient of basic amenities – such as piped water, good road network are perceived as areas with better living conditions as they are less congested, less

polluted, and have access to healthy foods. This findings corroborates those of earlier studies which indicate that on average, most rural communities enjoy better levels of health and wellbeing (Riva & Curtis, 2012). Moreover, Kyte and Wells (2010) in studying differences in rural-urban health in England, found that rural dwellers have higher life expectancy, and stronger social interactions compared to their counterparts in the urban areas, an observation similar in part to the findings of the current study.

In summary, Kenyans are not only concerned about the immediate health outcomes and determinants but also the wider structural factors which are beyond the jurisdiction of the healthcare sector. There are diverse pathways of exposure that Kenyan experience over their life-course and which are embodied and reflected as health outcomes and quality of life of populations. The lived experiences with such exposures and the associated health outcomes inform perceptions and meanings that Kenyans associated with their health and wellbeing. In this thesis, both the proximal and distal factors were elicited when participants were asked what makes for a healthy community and having a good life and how the enlisted constituents related to health and wellbeing. The findings in this research reveal differentials on how people define and socially construct health and wellbeing of their communities over the life-course and this is the agenda of discussion in the next section.

5.3 Social construction of healthy community and wellbeing across the life-course

This research further explored how Kenyans socially construct societal health and wellbeing across the different stages of life. While there seemed to be a general concern on state of health of the society, the findings also demonstrated that there were specific aspects

adopted in the social construction of health and wellbeing by the youth, the middle-aged and the seniors, some of which differ by gender.

The youth for example constructed their health and wellbeing around four key issues -menstrual hygiene, trust, culture and perceived risks. While the overall state of health and quality of life as it relates to culture, trustworthiness and risks to the emotional and physical health were top priority to both the females and male youth, there were specific concerns along gender lines. The females constructed their health around menstrual hygiene and personal autonomy, whereas the males were more concerned about the lack of trust and risk of peer influence in substance abuse. The findings showed that girls transitioning into womanhood within resource-constrained areas characterized by inaccessibility of basic hygiene services including access of sanitary towels experience feelings of embarrassment, loneliness, fear and trauma associated with menstruation as they perceive themselves as bleeding bodies at risk of soiling themselves and of early pregnancies. As such, unsafe survival strategies such as the use of clothes are adopted, which also pose new health challenges in areas of water scarcity and lack of basic needs such as bathing detergents and unavailability of toilets or pit latrines as demonstrated in previous research (McMahon et al., 2011; Sommer & Mmari, 2015). Young females also engage in transactional sex, all of which pose both physical and psychosocial health effects -including loss of self-esteem and risk of acquiring sexually transmitted infections (STIs) and unwanted pregnancies. Sommer (2013) in a study in Tanzania illustrates how the prevailing structural aspects of the school environment – including both social and physical environmental impacts on school attendance and academic success of girls during monthly menstruation. Further, the research

revealed that girls socially constructed their immediate and long-term health and wellbeing around menstrual hygiene issues.

Related to the issue of being at risk of early pregnancy, was the finding that showed that the female youth were concerned about the lack of personal autonomy due to strict parents who did not trust their ability to safely interact with others and remain responsible without engaging in risky sexual behaviors. This particular finding is a function of perceived risk of early pregnancies which is a common occurrence in contexts characterized by social and economic inequalities and deceitful social environments (Viner et al., 2012). In such cases, parents tend to be over protective and monitor the female youth, an experience that the participants associated with reduced personal autonomy and self-sufficiency. Previous studies show both the advantages and the disadvantages of parental strictness on the adolescents. For example, parental control may compel a youth to stay indoors in the night to prevent engagement in high risk behaviors – such as night discos, hence, be able to have adequate sleep and better health outcomes (DeVore & Ginsburg, 2005; Glozah, 2015). Sher-Censor and colleagues (2011) on the other hand revealed that over vigilance on the youth may also contribute to psychosocial health problems, especially increased depressive symptoms as was evident among Mexican-American adolescents. These results are congruent with the thesis findings which demonstrates that the female youth, especially those from the middle social class households which suggests that some sense of independence would be important in promoting and sustaining a high quality of life.

The other striking discovery of this thesis was the lack of community trust on the male youth who were more associated with criminal activities and engagement in violent acts. Such experiences limit economic opportunities and the social and emotional wellbeing

of the male youth. These experiences are attributed to the prevailing social, economic and political inequalities, especially in societies with high rates of unemployment (Ricardo, Barker, Pulerwitz, & Rocha, 2006; Sommer, Likindikoki, & Kaaya, 2013). In the African culture, men are socialized as family heads and sole providers and for evidence of manhood, the male youth are expected to demonstrate such abilities within the society as they grow into maturity. However, when opportunities for income generation are unavailable, evidence show that the majority resort to criminal activities which create an environment of lack of trust for the male youth (Mmari, Lantos, Blum et al., 2014; Sommer et al., 2013).

The other finding that relates to culture is with reference to the effects of civilization and modernization on health and wellbeing of the young generation. In today's capitalist society characterized by the cultures of materialism, self-interest and consumerism – where prosperity, happiness and good life is equated with what you own or consume, the youth find themselves at disadvantaged points. The media amplifies relative deprivation through images of perceived good life, which in most cases are beyond their reach (Eckersley, 2015). The psychosocial effects – such as anxiety and some level of stress due to such expectations affects the health and wellbeing of individuals and populations. As such, the youth are pulled into criminal acts to meet such societal demands. Also, as the modern culture of consumerism penetrates the African society with well-established norms, beliefs and traditions that promote inequality, especially gender and other social inequalities, both cultures interact to negatively influence perceptions and meanings of health and wellbeing.

Consistent with the thinking of the youth, the seniors in this research associated penetration of the western culture into the African society with reduced respect by the current generation, and loss of cultural and self-identity which they consider having negative

effects on the sustainability of family lineage and societal continuity. Lifestyle and behavior – including over consumption of alcohol and other substances of abuse which are today considered 'cool acts' were linked to infertility and reduced sexual performance which limits family continuity. Still related with self-identity is the preservation of ancestral land. As the seniors identify with places that they have known over the years, they develop some sense of rootedness and having some emotional connection with place and are not willing to mingle up with people of different ethnicity, especially in a country with marked borders based on ethnic lines. They consider this a way of losing their identity in place and a sign of disrespect by today's generation who are more open to diversity and are willing to welcome people of different ethnic backgrounds. This study affirms what Relph (1997) refer to as *"poisoned sense of place"* which involves an excess of local or national zeal. In a country with a history of ethnic segregation, this form of sense of place has become a platform for ethnic nationalism that could be implicated in recently witnessed political violence.

Another key finding was that grandparents are distressed by the economic tensions and constraints as they are bestowed with care responsibilities in contexts of hard economic situations characterized by unemployment and HIV epidemic. The seniors care for their own children who remain dependents as young adults due to unemployment. Likewise, they provide for their grandchildren either after the death of their adult children or after the adult children migrate into urban centers in search of employment opportunities. In either case, the seniors are faced with the moral (i.e. that which is considered right to do) and economic predicament of providing for the basic needs of their families. Therefore, the seniors are consistently in *"deep thought"* nearly their entire life as they persistently care for their progeny. This is despite of the fact that culturally, it is expected that their adult children

would provide social, emotional and financial support in old age (Yaris, 2014). In the narratives, it is evident that seniors are chronically exposed to stress due to the care responsibilities, they embody such experiences which are in turn reflected on their bodies inform of persistent headache, hypertension, insomnia, schizophrenia and burning sensations in the head. This corroborates findings by Yaris (2014) which revealed that Nicaraguan grandmothers caring for children of emigrant mothers *"think too much"* because of the uncertainties surrounding immigration, family unity and the provision of basic needs for their families. The chronic distress is embodied by the grandmothers and reflected on their bodies in form of somatic symptoms such as lack of sleep and "brain hurting".

In addition, this thesis elucidated the role of cultural norms and practices in propagating gender imbalances, which then create violent societies characterized by frequent GBV (Jewkes, Flood, & Lang, 2014; Kubai & Ahlberg, 2013; Muigua, 2015; Undie, 2013). As the society changes socially and economically, and with the gender equality efforts which seek to empower women and build their decisive capacity, there seem to be a sense of disempowerment of the male segment of the population (Sommer et al., 2013). This explains the rising rate of domestic violence in Kenya as men seek to assert their leadership responsibility. Additionally, high unemployment rates and inflation which limits the ability to meet the basic needs and availability of relatively affordable liquor were linked to the current rates of violence.

In contexts of domestic violence, the women are expected to remain submissive and hold their families together despite experiences of violence. As such, women have been socialized into tolerating such occurrences as the norm and as a sign of a strong woman – often remaining silent and in doing so, keeping the secrets of their households (Garcia-

Moreno et al., 2015). The women are also confronted with social stigma of being separated or divorced as this is often linked to promiscuity – and to what the participants referred to as social misfit or a '*wrong numbered woman*'. In such instances, the effects of being socially isolated are so enormous and the women opt to stay in unhealthy relationships at the expense of their personal wellbeing.

Salient in this argument is the framing of men as perpetrators of violence given their cultural advantage. However, recent literature on GBV demonstrates that men and boys could also be victims from mutual aggression or perpetration by females (Davies & True, 2015; Garcia-Moreno et al., 2015; Jewkes et al., 2014; Renner & Whitney, 2012; Widom, Czaja, & Dutton, 2014). Likewise, the findings in this thesis affirmed that men are not just perpetrators, but they are also victims of violence as it has been witnessed in Kenya in the recent past with retaliatory attacks by women on men – that is by the chopping off their partner's genitalia, scalding with hot water, gang attacks or simply hitting men when they are drunk and helpless. However, because of the societal expectations of masculinity and shame associated with admitting violence from spouse, IPV against the men is under reported in most parts of the world and the males suffer in silence (Sommer et al., 2013; Undie, 2013). In Kenya, for example the recent KDHS (Kenya National Bureau of Statistics & ICF Macro, 2015) reported that both men and women experience some form of violence but women (57%) are more likely to report IPV than the men (11%). Additional research may suffice to ethnographically unearth the systemic and immediate factors contributing to the emerging trends of violence which impacts not only on the current middle-age but the entire population and the generations to come.

5.4 Useful indicators for the healthy population domain and possible data sources

This in-depth exploration of health and wellbeing of Kenyans revealed a complex reality that has been observed by others (Dolan et al., 2008; Etches et al., 2006; Eyles et al., 2001; Hancock, Labonte, & Edwards, 1999) that perceptions, meanings and the social constructs that people adopt relates to the determinants and the associated health outcomes that matter to people. The determinants operate at the micro and the macro environment levels to bring about the distribution of health and wellbeing. At the macro-level, the socio-economic, political, cultural and physical environmental factors interact to create social hierarchies by class, gender, ethnicity and power relations, thus limiting accessibility of resources to some groups of people. The social hierarchies – that is social position, gender, racial/ethnic difference and power relations are also in constant interaction to create patterns of health and wellbeing. The findings here exposed the need for understanding such context-dependent forces if we are to adequately assess health and wellbeing of communities. In his book "Pathologies of power" Paul Farmer (2003) argues that without understanding power and socio-cultural connections, how can we understand why people's right to health are abused and where and when such events of violations are likely to occur. Similar claims have also been made more recently within the social health determinants discussions where context and the structural mechanisms contribute to the development of social positions, hence health inequalities have become an area of focus (Marmot, 2005; Marmot & Bell, 2009; Stiglitz, 2012). However, for the purpose of this thesis, to fully put the result of objective 1 and 2 in context, I will discuss the identified indicators for the healthy population domain according to what matters to Kenyans and suggest potential secondary data sources.

The results show that while different elements of the healthy population domain matter to different people, at different stages of life and in different regions, there are some commonly agreed upon indicators for the different sub-domains. Health outcomes, particularly prevalence and occurrence of infectious diseases (e.g. HIV, malaria, waterborne and water related diseases and respiratory tract infections), NCDs (e.g. cancers, diabetes, hypertension and unintentional injuries), maternal and child health issues and malnutrition are important indicators of physical health status. These findings are inconsistent with those of the CIW (CIW, 2016) which showed that Canadians are more worried about the NCDs such as diabetes, obesity and asthma but not the communicable diseases. This is understandable, since the two countries express differing prevalence of CDs and NCDs. Whereas NCDs are a major problem in Canada, Kenya is experiencing a double burden of disease characterized by high prevalence of CDs and rising trends in NCDs.

In relation to functional health and life expectancy, Kenyans are more concerned about quality of life and the health adjustments due to disabilities and mortalities caused by motorcycle injuries and road carnages. Additionally, infant and maternal mortality and deaths associated with HIV and the opportunistic diseases are also of relevance in this context. This research further identified the immediate health factors which have direct or indirect impacts on the health of Kenyans. Though dependent on the policies of the government, accessibility, effectiveness and acceptability of the healthcare and public health programs were found to be of importance in health assessment. This is consistent with previous health and wellbeing studies (Allan et al., 2010; CIW, 2016). Among the determinants, medicine availability in healthcare facilities and health education were highlighted as important indicators. The identified indicators align with the Health Indicator

Framework (HIF) – one of the standard health frameworks adopted globally by most ministries of health in determining indicators that they use for the different health measurements (Ministry of Health, 2013). This allows for comparison and merging of the existing health categories of public policies in order for us to estimate how Kenyans are doing based on the healthy population domain.

To develop the healthy population index, the KNBSs data sets such as the KDHSs, GATs and IHME data on global disease burden are potential sources of relatively useful data sets collected periodically. The KHISs including the hospital morbidity and mortality records, and national vital statistics on morbidity and mortality; police records can be used too, though most of this data sources are incomplete and inconsistent in the different regions in the country. The use of existing data sources is cost effective and time sensitive as they allow for assessment of trends. Similar data sources have been used in comparable endeavors (CIW, 2016; Muhajarine et al., 2012) and will allow for comparison within and between regions and countries.

5.5 Conclusions

5.5.1 Objective 1: Perceptions, meanings and determinants of health and wellbeing

People's perceptions and meanings of healthy community and a good life are dependent on the compositional and contextual characteristics of a place and the experienced health outcomes. Kenyans use concepts and ideas that relate to the socio-cultural and the physical characteristics of place, what a place offers with reference to social and economic amenities to enhance life choices, and the life experiences with health and disease. Most Kenyans define healthy community and good life by the experienced and

observed health outcomes, accessibility of quality healthcare, availability of drugs within the health facilities, provider-patient relationship and quality of emergency and referral services. The majority of Kenyans remain without health insurance because of the high of cost premiums and the informal nature of their jobs which complicates the implementation of the current health financing scheme and being diagnosed with a non-communicable disease is like a *"death sentence"* since most of the NCDs remain incurable as they are often diagnosed in the later stages of the disease. With reference to the public health programs, health information remain inaccessible to the male segment of the population since health facilities are the main custodians of this information which is mainly given to patients and the care providers who are mostly women at the point of seeking care. Immunization coverage is also an important descriptor of health status.

In relation to social factors, social cohesion and GBV are descriptors of health and they influence perceptions and meanings of societal health and wellbeing. In resource-constrained areas, social behaviors such as transactional sex are adopted as some coping mechanism and such experiences and observations in communities inform perceptions and meaning of health and wellbeing. Economic and living standard factors such as income and inflation, unemployment and employment conditions, regional and social class difference are important factors in perceived health and wellbeing. Religion and spirituality are important factors in describing health and wellbeing as it provides systems of meaning, network and opportunity to cope with stress and adversity. Although culture contributes to a sense of identity by providing frameworks for social integration, some cultures are health demoting and in societies where practices such as wife inheritance, polygamy and traditional beliefs around the dead and farming are practiced, they negatively influence perception and

meanings of health and wellbeing. For instance, traditions around farming in a polygamous setting were associated with poverty, late planting, and minimal crop yields which are implicated in malnutrition.

In relation to political systems, tribal politics, electoral violence and corrupt government are some of the systemic factors that Kenyans perceive to delimit societal health and wellbeing. While all Kenyans perceive the government as being corrupt, the ethnic communities that have historically remained in opposition perceive themselves as unhealthy and they associate lack of amenities and unemployment to tribal politics. Landlessness also remains a key political and historical issue that Kenyans adopt in defining a healthy or unhealthy community. Political uncertainties and issues of electoral violence compromises the agency of Kenyans to independently elect their leaders. As such, their democratic rights are violated and real engagement in political decision-making unachievable.

Changes in environment characterized by increased frequency of drought, and unpredictable weather conditions negatively impact on the poor and marginalized communities such as those in the rural areas who rely on subsistence farming for their livelihood and on women, girls and children because of the preexisting social inequalities. Additionally, the built environment in relation to sanitation and hygiene, environmental aesthetics – such as presence of decomposing garbage within residential areas in most urban communities and inaccessibility of healthy foods influence people's perception of healthy community and a good life. Overall, Kenyans tend to adopt constructs around community health status and quality of healthcare services to define societal health and wellbeing. The broad structural factors beyond the jurisdiction of the healthcare sector are also important descriptors. These descriptors vary by time, place and person.

5.5.2 Objective 2: The social construction of health and wellbeing across the life-course

In addressing the second objective, textual analysis of the narratives reveals that there are specific social constructs about societal health and wellbeing that are adopted by Kenyans at different life stages. The youth for example socially constructs a healthy community around four key issues: menstrual hygiene, trust, culture and perceived risks, some of which are gender sensitive. For girls transitioning into womanhood within resource-constrained areas, menstruation is associated with feelings of embarrassment, loneliness, fear and trauma as the girls perceive themselves as 'bleeding bodies', at risk of soiling themselves and of early pregnancies. Additionally, the female youth lack personal autonomy because of the over vigilance by the parents as they are viewed as delicate bodies, at risk of early pregnancies. The male youth on the other hand are concerned about issues of trust as they feel that the society associate them with criminal and violent acts, issues which limit their economic potentials and harmfully impacting their social and psychological wellbeing.

With reference to the middle-aged, the findings show that GBV is a key construct for both the males and the females. Although men are always framed as perpetrators of violence, the findings show that they may also be victims of mutual aggression by the females as recently witnessed where women retaliate through gang attacks, chopping of male genitalia and use of hot water. However, the findings demonstrate that the female gender is still disproportionately affected by GBV because of the deeply rooted gender imbalances in patriarchal societies. The women experience social stigma associated with such violence and when separated or divorced in situations of unsafe relationships, they are

viewed as social misfits. As such, most women opt to stay in unhealthy relationships to avoid social isolations.

In exploring how the seniors socially construct a healthy community and a good life, the results showed that grandparents experience emotional and physical distress as they bear the care responsibilities for their progeny in contexts characterized by unemployment, HIV epidemic and socio-cultural erosion. The seniors not only care for the orphaned children but also for their adult children and their children who are unemployed. In situations of landlessness and where the adult children get into alcoholism and substance abuse, the grandparents are also concerned about the sustainability of their family lineage. These distressful experiences are therefore embodied by the seniors and these are reflected as epitomes of distress – in the form of persistent headaches, insomnia, hot sensations in the head, schizophrenic disorders, hypertension and finally bodily failures which result into premature death.

5.5.3 Objective 3: Useful indicators for the healthy population domain of wellbeing and potential data sources

This objective was addressed by identifying the indicators of healthy population domain of wellbeing that matter to Kenyans. Other than the systemic factors, Kenyans are also concerned about the health outcome indicators such as the prevalence and incidence rates for infectious diseases and non-communicable diseases and mortality rates. Despite the massive interventions towards the infectious diseases such as malaria, typhoid, RTIs and HIV and associated opportunistic infections, these diseases remain key health indicators for the healthy population domain. Non-communicable diseases such as cancer, diabetes,

hypertension and unintentional injuries and accompanying mortalities are also of importance as populations experience epidemiological transition. Psychosocial health issues such as depression, stress and suicide and homicide cases are emerging health issues which Kenyans appreciate should be included in population health assessment.

Proximal determinants to the health outcomes including quality of healthcare services, lifestyle and behavior and indicators of public health programs are important indicators. Drug availability with health facilities, cost and distance to the facilities and cost of health insurance are important descriptors of healthy community and a good life. While alcoholism and cigarette smoking are major lifestyle and behavior factors, health information and immunization are key public health indicators that matter to most Kenyans. The males are more concerned about access to health information since most of this is provided with the healthcare systems to the care-givers who more often tend to be women.

The identified indicators could be populated from existing data sources to allow for the development of the healthy population index. The KNBSs data set – including the KDHS, GATs and the national vital statistics database, KHIS, the hospital morbidity and mortality records are potential data sources. However, the challenges with secondary data could be in relation to missing variables, incomplete data and regional difference in conceptualization of terms. However, similar approaches have been adopted elsewhere in similar kind of studies (CIW, 2016; Muhajarine et al., 2012). Therefore, the suggested data sources will allow for estimation and comparison within and between regions of how Kenyans are doing with reference to the healthy population domain.

5.6 Research contributions

This explorative research consists of a single-point observation and interview with participants to understand the aspects of health and wellbeing that matter to them. With its detailed perspective in description of phenomena, this design allows for the voices of lay participants to be reflected within the population health and wellbeing indices. As an initial step towards the development of the Kenya Index of Wellbeing, this research makes theoretical, substantive, and methodological contributions to the health and wellbeing literature, especially in the context of LMICs.

An important theoretical contribution of this research is in the application of a conceptual model that guides this investigation of the healthy population indicator that matters in wellbeing assessment in LMICs. The conceptual utility of the model is that it allows for the organization of perceived meanings and determinants of health and wellbeing into the proximal and distal constructs that integrate in place and over time to bring about the lived experiences of health and wellbeing. The effectiveness of this framework is in ensuring that potential pathways of exposure are comprehensively explored as is borne out in the detailed description of the emerging themes in objective 1 and in the social constructs adopted by the different age categories in objective 2 of this thesis.

The conceptual framework also acknowledges the importance of human agency as people strive to adapt to the pathways of exposures, either by conforming to them or by modifying them through activitism as individuals or as populations. For example, this thesis identifies structural factors such as political systems that are of critical importance to a healthy community and a good life. Electoral violence and the executive's perceived autocratic leadership, voter bribery which compromises human agency and the efforts of

activist groups towards empowering the electorate in the direction of informed choice of leadership are revealed as important factors that negatively affect perceptions of health and wellbeing. In such circumstances, real engagement in political decision making by the citizenry is not guaranteed. Thus, people's democratic rights are violated.

However, there are challenges to be addressed in the operation of this framework. While health is viewed as a domain of wellbeing, the framework includes other domains of wellbeing; for example, socio-economic and political deprivation, environmental and ecosystem degradation and cultural norms, beliefs and practices. As such, the model conflates the concepts of health and wellbeing which are not synonyms. This challenge however is because of the close relationship between the concepts as acknowledged in prior studies (Møller et al., 2018). Since the analysis of structural factors in this research was done with a focus on the healthy population domain of wellbeing, there is need for an in-depth analysis of the other wellbeing domains to allow for the development of a comprehensive wellbeing index for Kenya.

This research also makes numerous substantive contributions and has policy implications. At the global level, this thesis contributes to the development of a global index of wellbeing by identifying the population health indicators for wellbeing assessment that matter in the context of LMICs. This thesis reiterates the fact that infectious diseases such as typhoid, malaria, and cholera remain health outcomes of interest to both the policy makers and the lay people. HIV related health issues – such as incidence rates, associated stigma and antiretrovirals (ARVs) access endure as important indicators for the physical health status, particularly in countries experiencing high prevalence rate of the disease. With the changing disease trend being witnessed currently in LMICs, where NCDs are also on the

rise, conditions such as cancers, hypertension, diabetes and unintentional injuries emerge as important indicators in the development of an index of wellbeing in these contexts. Other factors that are peculiar to these regions are lifestyle and behavior factors – including alcoholism and eating habits as well as the quality of healthcare services as it relates to medication availability in health facilities, cost of health insurance and the effectiveness of the healthcare services to diagnose and treat health conditions. This is important for the development of evidence-based policies relevant in the context of Kenya and other LMICs with similar characteristics.

At the local level, this research work identifies the healthy population indicators and determinants that matter to the people by gender, age, region and the different socio-economic classes highlighting pertinent areas for policy interventions. In so doing, the thesis integrates socially, geographically and culturally relevant indicators of wellbeing, hence contributing towards evidence-based policy formulation and policy evaluation across time and space. For example, this research identifies a gap in health education access to the male segment of the population. Health education fora are often incorporated within the healthcare system and provided, especially to the patients and the caregivers (often women) when seeking care. This information is useful to public health specialists, particularly in designing health promotion and education outreaches. Additionally, this research identifies the emerging trend of IPV where males are experiencing retaliatory attacks by women on men and vice versa. Culture and economic hardship are the main factors associated with such violence. However, as Kenya makes technological advancements and nearly all Kenyans now have some form of access to social media and other media channels, there is

need for studies to evaluate the best approaches and programs that could be incorporated through these channels to create forum for discussions on this sensitive topic.

In addition to the substantive contributions, this research presents methodological contributions. By adopting the social interactionist viewpoint in its methodological approach, this research acknowledged that knowledge about health and wellbeing emerge from social interactions. People interact amongst themselves and with their environment and are active participants in the production of knowledge and health. As such, the 'researched' are key players in the production of useful information, in this case, the indicators for the healthy population domain that matter in LMICs.

Another methodological contribution is in the development of an interview schedule informed by the conceptual framework and John Eyles' (Eyles et al., 2001) community-based health and wellbeing mapping tools for the determinants of health. The interview guide collects information on a range of variables and indicators for each of the constructs in the conceptual framework. An essential part of the schedule collects information about what makes for, and what matters in having a healthy community and a good life. This information is necessary in identifying aspects of a healthy community and a good life that matter most to lay people. Thus, the information can be used to determine discrepancies between the lay perceptions and areas of policy focus.

5.7 Research Limitations

Despite the substantive and methodological contributions, this research was subject to certain limitations. First, this was a cross-sectional qualitative research based on self-reported data which may be susceptible to the effect of social desirability. This is because

the respondents may have tended to overstate or understate the health issues depending on their expectations. To minimize such effects, the participants were always probed further to allow for a thick description of their experiences, perceptions and meanings of healthy community and wellbeing. Being a one-point evaluation, this research was able to collect data on exposure and outcomes at a single point in time, but with such a methodology, it is unable to determine true cause-effect relationships. Additionally, statistical inferencing of the study finding may not be possible given that the findings of this research are based on qualitative methodologies. As such, the study findings should be interpreted with caution.

Data for this research were collected from four main regions of Kenya – Nyanza, Nairobi, Central and Eastern, which are characterized by cultural and environmental diversity. The premise of this research was that all the participants understand and relate to the objectives of the research which was to explore health and wellbeing of Kenyans. However, given the convolution in distinguishing the concept of health and wellbeing, the participants used the concepts interchangeably and their perceptions, meanings and determinants were similar for both concepts. This could be because the participants were asked about a healthy community and having a good life as proxies for health and wellbeing respectively. Also, fluidity of the definition of health and wellbeing was observed across the different social contexts and participants were permitted to share their experiences of health and a good life in place. This thesis therefore considered the diversity in the perceptions, meanings and determinants by place and socio-demographic characteristics.

Although wellbeing is a multifaceted concept with various domains as reflected in the conceptual framework (Figure 2.1) that informed this research, this thesis concentrated on the healthy population domain with an objective of identifying the indicators that matter

in the different research contexts. However, given the close relationship between health and wellbeing, and the interconnected relationship amongst the different wellbeing domains, the participants also highlighted the other domains that influence societal health and wellbeing. Therefore, the findings here also provide information on the other domains of wellbeing that are important to Kenyans.

5.8 Recommendations for future research

Although this research enhances understanding of the health and wellbeing determinants and the indicators for the healthy population domain, a number of questions remain to be addressed with reference to methodology and some substantive issues. As pertains to the methodology, analysis of health and wellbeing must consider the role of place-making and the historical injustices that deprive some groups of people of the opportunities to live a meaningful life but also go deeper to analyze the intergenerational transfers of such injustices into the future, an aspect which was beyond this thesis. There is need for longitudinal analysis of such issues in Kenya to clarify some of the potential impacts, especially, the issues of GBV and historical land and political injustices. Moreover, a longitudinal study may also be necessary in determining how the indicators of the population health and wellbeing vary across the life-course. Secondly, there is need for the use of quantitative methods to analyze and estimate how Kenyans are doing in relation to the identified indicators. This could be done based on the existing secondary data which has the advantage of being cost effective and time saving, and this is the next steps in this research.

A number of substantive issues also arise from this research that deserve further investigation. First, is the need for detailed ethnographic analysis of the emerging trend of

IPV where males are experiencing retaliatory attacks. As observed in this thesis is that culture and economic hardship has a role to play in GBV. Additionally, as Kenya makes technological advancements and nearly all Kenyans now have some form of access to social media or local radio or TV stations, there is need for studies to evaluate the best approaches and programs that could adopted through such medias to provide education and counselling on IPV and other GBV.

The aspect of the study findings that require further evaluation is with reference to the declining availability of local foods and whether this could be a rationale for the changing trend of disease. Eating habits is one of the main risk factors to NCDs but no studies have been conducted in Kenya to determine a causal relationship between the changes in eating habits and rise in non-communicable diseases.

5.9 Summary of the chapter

This chapter discusses the research findings according to the three study objectives. First are the findings on perceptions, meanings and determinants of healthy community and a good life are discussed in relation to existing literature. Place characteristics including the composition and contextual traits inform people's perceptions and meanings of health and wellbeing. Second, the findings on social construction of health and wellbeing across the life-course are elaborated upon in relation to previous studies. In contexts of poverty and lack of basic needs, feelings of powerlessness and inability to take charge over one's life occur, especially for youth in the transitioning phase of their life and the seniors who bear the care responsibility of the families. In the final section, the chapter discusses the useful indicators for the population domain and the potential data sources. The healthy population domain brings together the health outcome indicators and indicators of the immediate

determinants of health – including quality of healthcare services, the public health programs and lifestyle and behavior factors. All these are discussed and the strengths and limitations of potential data sources such as KDHS and the GBD data sets, that could be used to estimate the healthy population index.

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Appendix A1: Local ethics clearance letter - Ref No. MMU/COR:40300(56)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY

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P. O. Box 190
Kakamega
50100
Kenya

Institutional Ethics Review Committee (IERC)

MMU/COR: 403009(56) 19th December, 2016

Onyango Elizabeth Opiyo
Reg No. 20644666
University of Waterloo, Ontario
CANADA

Dear Onyango,

RE: ETHICAL APPROVAL TO CONDUCT RESEARCH

The IERC received your proposal titled ***"Exploration and Appraisal of Health and Wellbeing of Kenyans"***, for review. Having reviewed your work, the committee has given ethical clearance for you to conduct research as proposed.

On behalf of IERC and the University Senate, my congratulations. We wish you success in your research endeavour.

Yours faithfully,

for Dr. Nguka Gordon
Chairman, Institutional Ethics Review Committee

Copy to:

- The Secretary, National Bio-Ethics Committee
- Vice Chancellor
- DVC (PR&I)
- DVC (A & F)
- DVC (A&SA)

Appendix A2: Outline of the information session in community meetings (barraza) and with local authority leaders (Wellbeing of Kenyans Research Project)

Study Title: *Exploration and appraisal of health and wellbeing of Kenyans*

Introduction

My name is *Elizabeth Opiyo Onyango*, a PhD Student of health geography, in the Faculty of Geography and Environmental Management at the University of Waterloo, Ontario, Canada. This study is supervised by **Prof. Susan J. Elliott (University of Waterloo, Department of Geography and Environment Management, *(519) 888-4567 Ext. (31107).*** This study on health and wellbeing of Kenyans is for my (Elizabeth Opiyo's) PhD training in health geography under the academic supervision by Prof. Susan Elliott. The title of my research is ***"Exploration and appraisal of health and wellbeing of Kenyans".***

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE no.: 21946), Masinde Muliro University of Science and Technology ethics review board (MMU/COR: 403009 [56]) and a research permit from the Kenya National Commission for Science, Technology and Innovation (NACOSTI)[1]. The County Government and its ministries, department and authorities including the Ministry of Health, Devolution and Planning, and their sub-county offices have been notified about this study and they have given permission for the study to be conducted. I have also visited the offices of the local authority leaders (chiefs and the assistant chiefs) who have organized for this particular meeting today. In this meeting, I would also like to seek your permission to conduct my study in your community. But before agreeing or failing to agree, I would like to now take the opportunity to explain to you what my study entails.

Information about the study

The world is changing rapidly and there is need for accurate measurement of quality of life. The effects of climate change are accelerating. At the same time, **societies are increasingly under pressure** from economic, political and social development including rising social and health inequality. In Kenya, for example, lots of changes are occurring from the environment to social and political systems. We are seeing the Kenyan government implementing new policies on health, education, women's rights, and the environment among others. At national level, the Kenyan government Vision 2030, which is built on the social, political and economic pillars, and aims to improve the quality of life and wellbeing status of Kenyans has taken the center-stage of the development agenda in the country. The vision emphasizes economic growth as the means to improving quality of life of Kenyans. Kenya also adopted a new constitution in 2010, which introduced a federal government system in the country. This brought with it a devolved government with 47 Counties, each of which is responsible for the health and wellbeing of its residents (Kenya National Bureau of Statistics & ICF Macro, 2015).

However, Kenya lacks a well-conceived and comprehensive strategy for assessing wellbeing despite the objective of vision 2030, which is to improve the quality of life of Kenyans (Ndung'u, Thugge, & Otieno, 2007). In addition, the SDG component of the overall health and wellbeing may also present a monitoring challenge for Kenya. My study seeks to fill in this gap. The proposed research will explore perceptions and meanings of health and wellbeing, with an aim of identifying indicators that

[1] The ethics clearance in Kenya and the study permit will be sort once the University of Waterloo gives the ethical clearance. This is a requirement by the Kenyan government for studies being conducted in Kenya.

matter to Kenyans. The identified indicators will then be populated using existing secondary data to estimate how such populations are faring in terms of their health and wellbeing. To address these objectives, I will adopt a mixed method approach where qualitative and quantitative research methods will be integrated. The quantitative approach shall use secondary data from the Kenya National bureau of Statistics (KNBSs) and other potential sources. Qualitative data shall be gathered through focus group discussions, key informant interviews, and policy document reviews.

The focus groups will be conducted with women, youth, older adults and men who have lived in the selected Counties and sub-Counties for at least 5 years. The sessions shall be organized by gender, age and the different population segments and will have approximately 8-12 people to discuss the issues under study. If you would like to take part in these sessions, I will ask you to register and leave behind your contact information for further information. Be notified that your participation is voluntary, and you can take your time to think through this information. Once you make up your mind, you can alert your local authority leader or the researcher on +254 720959153 of your desire to participate at any time.

If you have any questions or clarifications, it will be my pleasure to respond ….

Appendix A3: Invitation letter for information session (Wellbeing of Kenyans Research Project)

To potential participant: ……..

Project Title: Study Title: E*xploration and appraisal of health and wellbeing of Kenyans*

You are hereby invited to an information session for the above-mentioned project, which shall take place on (insert date) at (insert the venue) as from (insert the time). In this meeting the details of the proposed research that shall be conducted in your community shall be discussed. Wellbeing of Kenyans research project is a study that aims to assess population health status with an objective of identifying the population health indicators that matter to Kenyans. You have been identified as a potential participant in this study and are therefore invited to attend the forth coming meeting. In this meeting, more details on the study shall be discussed. This letter is also accompanied by the information sheet summarizing the study objectives and methodologies. Your attendance is highly appreciated.

Yours sincerely,

Elizabeth Opiyo Onyango
PhD student,
University of Waterloo, Ontario, Canada

Appendix A4: Information sheet and recruitment letter for focus group participants

(Wellbeing of Kenyans Research Project)

Date: ……...
Project Title: *Exploration and appraisal of health and wellbeing of Kenyans*

Organizers: Prof. Susan J. Elliott
University of Waterloo,
Department of Geography and Environment Management
(519) 888-4567 Ext. (31107)

Elizabeth Opiyo Onyango (PhD Student)
University of Waterloo,
Department of Geography and Environmental Management
(519) 888-4567 Ext. 37037

This session focuses on exploring the meaning of health and population health indicators that matter to you and will be facilitated by Elizabeth Opiyo, a PhD student at University of Waterloo, Canada. My supervisor is Prof. Susan J. Elliott. This study is for the PhD training for Elizabeth Opiyo Onyango.

Participation in this session is voluntary and involves a 60-90 minutes discussion of issues relating to population wellbeing. The objective is to explore and appraise health and wellbeing indicators that matter to you. There are no known or anticipated risks to your participation in this session. You may decline answering any questions you feel you do not wish to answer and may decline contributing to the session in other ways if you so wish. All information you provide will be considered confidential and your name will not be identified with the input you give to this session. Furthermore, you will not be identified by name in the report that the facilitator produces from this session. In order to ensure strong data collection, only those individuals who agree to be audio recorded will be invited to participate in the study. Every focus group will have a homogenous group of approximately 8-12 participants who shall be categorized by gender and age. The information collected from this session will be kept for a period of seven years at the ***University of Waterloo, in Prof. Susan J. Elliott's office in a locked cabinet***.

Given the group format of this session we will ask you to keep in confidence information that identifies or could potentially identify a participant and/or his/her comments and also respect the privacy and confidentiality of other individuals during the discussion. If you have any questions about participation in this session, please feel free to discuss these with the facilitator, or by contacting Elizabeth Opiyo, at +254 720 959153 or by email at eopiyoon@uwaterloo.ca. You can let me know if you are interested in receiving a copy of the executive summary of the session outcomes.

I would like to assure you that this study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE no.: 21946). However,

the final decision about participation is yours. Should you have comments or concerns resulting from your participation in this study, please contact the Chief Ethics Officer, Office of Research Ethics, at 1-519-888-4567 ext. 36005 or ore-ceo@uwaterloo.ca. Please note that collect calls will be accepted and translators employed as necessary. For all other questions contact [Elizabeth Opiyo on +254 720 959153].

Thank you for your assistance with this project. We will provide feedback to the community once the research is completed.
Yours sincerely,
Student: ……...

Appendix A5: Agreement to participate for focus group participants (Wellbeing of Kenyans Research Project)

By signing this consent form, you are not waiving your legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities.

I have read the information presented in the information letter about the session being facilitated by Elizabeth Opiyo. I have had the opportunity to ask the facilitator any questions related to this session and received satisfactory answers to my questions, and any additional details I wanted. I am aware that I may withdraw from the session without penalty at any time by advising the facilitator of this decision.

This project has been reviewed by, and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE no.: 21946). However, the final decision about participation is mine. I understand that if I have any comments or concerns resulting from my participation in this study, I may contact the Chief Ethics Officer, Office of Research Ethics, at 1-519-888-4567 ext. 36005 or ore-ceo@uwaterloo.ca. Please note that collect calls will be accepted and translators employed as necessary. For all other questions contact [Elizabeth Opiyo on +254 720 959153].

With full knowledge of all foregoing, I agree, of my own free will, to participate in this session and to keep in confidence information that could identify specific participants and/or the information they provided.

_____

Print Name

_____

Signature

_____

Date

_____

Witness

Appendix A6: Information sheet and recruitment letter for key informants (Wellbeing of Kenyans Research Project)

Date: ……...

Study Title: *Exploration and appraisal of health and wellbeing of Kenyans*

Organizers: Prof. Susan J. Elliott
University of Waterloo,
Department of Geography and Environment Management
(519) 888-4567 Ext. (31107)

Elizabeth Opiyo Onyango (PhD Student)
University of Waterloo,
Department of Geography and Environmental Management
(519) 888-4567 Ext. 37037

Dear Sir/Madam (insert participant's name): ……

This letter is an invitation to consider participating in a study I am (Elizabeth Opiyo Onyango) conducting as part of my PhD degree training health geography in the Department of Geography and Environmental Management at the University of Waterloo under the supervision of Professor Susan J. Elliott. I would like to provide you with more information about this project and what your involvement would entail if you decide to take part.

Study information:
The concept of wellbeing has become increasingly positioned as the desirable outcome for human life. Health status of individuals and populations is an important domain of population wellbeing. However, over the years, assessment of health progress has failed to consider population health indicators that matter to individuals as they have been based on statistical estimates such as morbidity and mortality rates which do not reflect perceived individual and population health. As a result, there seems to be a marked difference between the actual measures of health and wellbeing and population perception. Therefore, there is a need for studies that aim to address these gaps particularly in LMICs. The proposed study on wellbeing aims to generate socially, culturally and geographically relevant population health indicators of wellbeing in Kenya.

This study will focus on population health and wellbeing indicators that matter to Kenyans with an objective of evaluating perceived meanings and experiences of health and wellbeing. Since your organization is directly involved with the population health issues in this community, it is important to understand your experiences and the key issues and indicators of health and wellbeing. I believe your office is also in a better position to highlight the indicators of population health that matter to the different population segments such as men, women, youth, senior adults and children.

Participation in this study is voluntary. It will involve an interview of approximately 40-60 minutes in length to take place in a mutually agreed upon location. You may decline to answer any of the interview questions if you so wish. Further, you may decide to withdraw from this study at any time without any negative consequences by advising the researcher. In order to ensure strong data collection, only those individuals who agree to be audio recorded will be invited to participate in the study. All information you provide is considered completely confidential. While I will not identify

you by name or position in final reports or publications, given the small number of individuals who occupy positions like yours, it may be possible for a motivated individual to attempt to discern your identity. Data collected during this study will be retained for seven years in a locked office cabinet in my supervisor's lab. Only researchers associated with this project will have access. There are no known or anticipated risks to you as a participant in this study.

If you have any questions regarding this study or would like additional information to assist you in reaching a decision about participation, please contact me at +254 720 959153 or by email at eopiyoon@uwaterloo.ca. You can also contact my supervisor, Professor Susan J. Elliott at +1 519-888-4567 ext31107 or email susan.elliott@uwaterloo.ca.

I would like to assure you that this study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE no.: 21946). However, the final decision about participation is yours. If you have any comments or concerns for the ethics committee resulting from your participation in this study, please contact the Chief Ethics Officer, Office of Research Ethics, at 1-519-888-4567 ext. 36005 or ore-ceo@uwaterloo.ca. Please note that collect calls will be accepted and translators employed as necessary. For all other questions contact [Elizabeth Opiyo on +254 720 959153].

I hope that the results of my study will be of benefit to the disadvantaged populations of Kenya by giving them the opportunity to have their voices heard on issues relating to population health and wellbeing.

I very much look forward to speaking with you and thank you in advance for your assistance in this project.

Yours sincerely,

Student Investigator:

Appendix A7: Consent form for key informants (Wellbeing of Kenyans Research Project)

Study Title: *Exploration and appraisal of health and wellbeing of Kenyans*

By signing this consent form, I understand that I am not waiving my legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities.

I have read the information presented in the information letter about a study being conducted by Elizabeth Opiyo, PhD Student, Department of Geography and Environmental Management, University of Waterloo. I have had the opportunity to ask any questions related to this study, to receive satisfactory answers to my questions, and any additional details I wanted.

I have been informed orally and in writing about the aims and the procedures of the study, the advantages and disadvantages as well as potential risks. I am aware that I have the option of allowing my interview to be audio recorded to ensure an accurate recording of my responses. I am also aware that excerpts from the interview may be included in the thesis and/or publications to come from this research, with the understanding that the quotations will be anonymous. I was informed that I may withdraw my consent at any time without penalty by advising the researcher.

This project has been reviewed by and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE no.: 21946). I understand that if I have any comments or concerns resulting from my participation in this study, I may contact the Chief Ethics Officer, Office of Research Ethics, at 1-519-888-4567 ext. 36005 or ore-ceo@uwaterloo.ca. Please note that collect calls will be accepted and translators employed as necessary. For all other questions contact [Elizabeth Opiyo Onyango on +254 720 959153].

With my signature I certify that I will fulfil the requirements for the study participation and I understand that my participation is voluntary, and I can withdraw at any point without any negative consequences. I will inform the investigators about population health and wellbeing and the indicators that I find valuable in determining my health and the population that I serve.

With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

☐YES ☐NO

I agree to have my interview audio recorded.
☐YES ☐NO

I agree to the use of anonymous quotations in any thesis or publication that comes of this research.
☐YES ☐NO

Participant Name: _____ (Please print/write)
Participant Signature: _____
Witness Name: _____ (Please print/write)
Witness Signature: _____
Date: _____

Appendix A8: Invitation letter for study participants to feedback meeting and ground truthing

To the research participant: ……...

Project Title: Study Title: *Exploration and appraisal of health and wellbeing of Kenyans*

Following your community's participation in the wellbeing of Kenyans research project, you are hereby invited to a community feedback meeting on (insert date). The meeting shall take place at (insert meeting venue) as from (insert time). In the meeting, the summary of the study findings shall be presented and discussed. Please, avail yourself for an interesting discussion on our health and wellbeing.

Yours sincerely,

Elizabeth Opiyo Onyango
PhD student researcher,
Wellbeing of Kenyans research project

Appendix A9: Informed consent form for focus group participants in feedback/ground truthing meeting (Wellbeing of Kenyans Research Project)

By signing this consent form, you are not waiving your legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities.

I have read the information presented in the information letter about the session being facilitated by Elizabeth Opiyo. I have had the opportunity to ask the facilitator any questions related to this session and received satisfactory answers to my questions, and any additional details I wanted. I am aware that I may withdraw from the session without penalty at any time by advising the facilitator of this decision.

This project has been reviewed by and received ethics clearance through a University of Waterloo Research Ethics Committee. However, the final decision about participation is mine. I understand that if I have any comments or concerns for the ethics committee resulting from my participation in this study, I can contact the Chief Ethics Officer, Office of Research Ethics, at 1-519-888-4567 ext. 36005 or ore-ceo@uwaterloo.ca. I have been notified that calls will be accepted, and translators employed as necessary. For all other questions contact [Elizabeth Opiyo on +254 720 959153].

With full knowledge of all foregoing, I agree, of my own free will, to participate in this session and to keep in confidence information that could identify specific participants and/or the information they provided.

_____

Print Name

_____

Signature

_____

Date

_____

Witness

Appendix A10: Feedback letter for ground truthing and feedback meeting

Project Title: *Exploration and appraisal of health and wellbeing of Kenyans*

Student Investigator: Elizabeth Opiyo, Department of Geography, eopiyoon@uwaterloo.ca
Faculty Advisor: Prof. Susan J. Elliott, Department of Geography, susan.elliott@uwaterloo.ca, +1 (519) 888 4567 (Ext 31107)

We appreciate your participation in our study and thank you for spending the time helping us with our research!

The purpose of this study was to identify population health indicators that matter to Kenyans. Employing the eco-social framework, the study aimed to assess the meaning of health and wellbeing to lay people and to populate the identified indicators into the existing secondary data with an objective of producing a wellbeing index for Kenyans. Therefore, this study identified socially, culturally and geographically relevant indicators of health and wellbeing. We will now discuss the variables that emerged from the data that I collected from our focus groups and the IDIs. These are outlined as follows:

------ (to be included once the study is completed)

If you think of some other questions regarding this study, please do not hesitate to contact Elizabeth Opiyo. We really appreciate your participation, and hope that this has been an interesting experience for you.

Thank you for participating in this session!

Appendix B1: Focus group discussion schedule with youth (15-24 years)

Study Title: Exploration and appraisal of health and wellbeing of Kenyans		
Purpose of the checklist: This checklist will be a guide in the collection of data relating to meaning and perceived health and wellbeing status and the population health indicators that matter to the participants		
Construct	**Question**	**Probes**
Meaning of healthy community	Please let me know what makes for a healthy community? When you think about a healthy community, what pictures comes to your mind? If we start a new community here, what things would you want to put in place to help you know if the community is healthy?	Considering what you have described, do you consider this community as one that is healthy? Why or why not? What is the most important aspect to you? Why?
Perceived health	What do you think are some of the health issues facing youth in this community? What are some of the challenges that you meet in relation to health as a youth? What difference would you like to see in this community to make the life of the youth better?	What is the most important aspect to you? Why? How do you overcome such challenges? What aspect is most import to you? Why?
Assessment of essential determinants of health and wellbeing		
Social factors	Ok, thank you for such a great overview. I am now going to ask you questions relating to your community and daily life What are some of the social factors you think are import in your community? How have these changed over time? Are there any emerging social issues in relation to health of youth in this community?	How are family ties in this community? Have you experienced any changes over time? Are there social networks and support within your community? Are there opportunities and time for engagement in volunteer or church activities or local associations? How does this relate to health of youth?
Economic factors	Please, what are some of the economic factors that matter to you? Can you tell me more about employment? How	

	does this relate to youth? How has the free primary education policy impacted on your community? What would you like to be done differently in the education system? Can you tell me more about housing status, income?	How does this relate to health of youth? How have you adapted to these?
Cultural factors	Can we now talk about the cultural values and norms in your community? Can we comment on cultural discrimination or segregation experienced by youth? What are some of the cultural issues that you can say most affect the health of the youth?	How are these related to the health of the youth? How have you adapted as youth in this community?
Political context	What are some of the political factors that influence youth in this community? Are youth in your community actively engaged in political issues? If you were in the position of policy maker, what are some of the issues that you would prioritize?	How has this impacted your health? How are they engaged? If not, why? Why?
Physical environment	What do you think are some of the environmental issues facing youth in the community? What are some of the challenges in relation to the environment that youth face in this community?	How is this related to the health and wellbeing of the youth? What are your thoughts about soil quality, water quality, air quality and roads, employment conditions? How has this impacted on your health? How have you adapted?
Lifestyle and behaviour	What kinds of behaviours do you think make a person healthy? Why? What's the most common foods in this community? Have these always been the food that we eat? Is cigarette smoking a common practice in your community? Which populations are most affected?	Relate this to the health of the community. Which one matters to you the most? What do you think of the changes in food? Good/bad/ How is the community adapting

	Is gender-based violence a common practice? Who are the most affected? Is alcoholism a common practice in your community? Who are most affected?	to such challenges?
Health services	Thank you for such a great discussion. Can we now discuss health care services? What do you think are some of the most important issues with reference to health care services? What are some of the challenges with reference to health care services that we experience?	Considering what you have described, would you consider the health care system effective? If yes/no, why? Can we also talk about accessibility, drug availability, health insurance, specialized care and waiting time? How have you adapted? Are there alternatives?
Public health programs	Can we now discuss public health activities in the community? Please, let me know of the public health programs that matter to you? Can we discuss potable water and sanitation in this community? What are some of the challenges that we experience in relation to public health programs in this community?	Which one matters to you the most? How has water and sanitation impacted on your health? And how have you adapted? Can we also comment on waste management, immunization, awareness creation and health education …? How have you adapted?
Health outcome assessment		
Health outcome	Thank you for such a great discussion! We will now discuss the health outcomes in your community. Can you comment on the health outcome trend in your community? Has this changed over time? Which health conditions matter to you most? Why? How would you rate the wellbeing of your community? In relation to mental health, how would you gage the health of your community? Which are some of the major mental/psycho-social health issues in your community?	Are there any current emerging health issues that confront your community today? Obesity, diabetes, HBP, HIV, cancer etc. Why so or why not? Why so or not so? Why so or not so?

	How would you rate the longevity of your community? What informs your thought? Would you consider disability a key health indicator in this community?	Why or why not? Motorcycle accidents, road carnages and disability due to chronic diseases
General/concluding questions	If you could change just one thing about your community, what would it be? If you could do one thing to make life healthier for your children, what would it be? Is there anything else you would like to add that we haven't already talked about?	

Thank you for your time and the information given!

Appendix B2: Focus group discussion schedule with the middle-aged adults (25-49 years)

Study Title: Exploration and appraisal of health and wellbeing of Kenyans		
Purpose of the checklist: This checklist will be a guide in the collection of data relating to meaning and perceived health and wellbeing status and the population health indicators that matter to the participants		
Construct	**Question**	**Probes**
Meaning of healthy community	Please let me know what makes for a healthy community? When you think about a healthy community, what pictures come to your mind? If we start a new community here, what things would you want to put in place to help you know if the community is healthy?	 Considering what you have described, do you consider this community as one that is healthy? Why or why not? What is the most important aspect to you? Why?
Perceived health	What do you think are some of the health issues facing women and girls in this community? What are some of the challenges that you meet in relation to health as a woman? Let us now focus on child health. What do you think are some of the health issues facing children in the community? How would you like your children's life to be different from yours?	What is the most important aspect to you? Why? How do you overcome such? What aspect is most important to you? Why?
Assessment of essential determinants of health and wellbeing		
Social factors	Ok, thank you for such a great overview. I am now going to ask you questions relating to your community and daily life. What are some of the social factors you think are import in your community? How have these changed over time? Are there any emerging social issues in relation to health of women, girls and children in this community?	 How are family ties in this community? Have you experienced any changes over time? Are there social networks and support within your community? Are there opportunities and time for engagement in volunteer or church activities or local associations? How does this relate to women's, girls and children's health?

		How have we overcome such limitations?
Economic factors	Ok, great! Thank you for such a great discussion. I will now ask as to discuss the economic factors that matter to us most as women. Please, let me know the economic factors that matter to you? Can you tell me more about housing status? How has the free primary education policy impacted on your community? What would you like to be done differently in the education system? Can you tell me more about employment, and income? How does this relate to women, girls and children?	How does this relate to health of women, girls and children? How have you adapted to these?
Cultural factors	Can we now talk about the cultural values and norms in your community? Can we comment on cultural discrimination or segregation? What are some of the cultural issues that you can say most affect the health of women, girls and children?	How are these related to the health of the women and children? How have you adapted as women in this community?
Political context	We will now focus our discussion on politics. What are some of the political factors that influence women and girls in this community? Are women and girls in your community engaged in political issues? If you were in the position of policy maker, what are some of the issues that you would prioritize?	How has this impacted your health? How are they engaged? If not why? Why?
Physical environment	Let us now discuss our physical environment. What do you think are some of the environmental issues facing women and girls in the community? What are some of the environmental challenges that you face as women and girls in this community?	How is this related to the health and wellbeing of women and children? What are your thoughts about soil quality, water quality, air quality and roads, employment conditions?

		How has this impacted on your health? How have you adapted?
Lifestyle and behaviour	Can we now focus on lifestyle and behavior factors? What kinds of behaviours do you think makes a person healthy? Why these ones? What are the most common foods in this community? Have these always been the food that we eat? Is cigarette smoking a common practice in your community? Which populations are most affected? Is gender-based violence a common practice? Who are the most affected? Is alcoholism a common practice in your community? Who are most affected?	Relate this to the health of the community. Which one matters to you the most? What do you think of the changes in food? Good/bad How is the community adapting to such challenges?
Health services	Thank you for such a great discussion. Can we now discuss health care services? What do you think are some of the most important issues with reference to health care services? What are some of the challenges with reference to health care services that we experience?	Considering what you have described, would you consider the health care system effective? If yes/no why? Can we also talk about accessibility, drug availability, health insurance, specialized care and waiting time? How have you adapted? Are there alternatives?
Public health programs	Can we now discuss public health activities in the community? Please, let me know of the public health programs that matter to you? Can we discuss potable water and sanitation in this community? What are some of the challenges that we experience in relation to public health programs in this community?	Which one matters to you the most? How has water and sanitation impacted on your health? And how have you adapted? Can we also comment on waste management, immunization, awareness creation and health education …? How have you adapted?
Health outcome assessment		
Health outcome	Thank you for such a great discussion! We will now discuss the health outcomes in your community. Can you comment on the health outcome trend in your community? Has this changed over time?	Are there any current emerging health issues that confront your community today? Obesity, diabetes, HBP, HIV, cancer etc.

	Which health conditions matter to you most? Why? How would you rate the wellbeing of your community? In relation to mental health, how would you gauge the health of your community? Which are some of the major mental/psycho-social health issues in your community? How would you rate the longevity of your community? What informs your thought? Would you consider disability a key health indicator in this community?	Why so or why not? Why so or not so? Why so or not so? Why or why not? Motorcycle accidents, road carnages and disability due to chronic diseases
General/concluding questions	If you could change just one thing about your community, what would it be? If you could do one thing to make life healthier for your children, what would it be? Is there anything else you would like to add that we haven't already talked about?	

Thank you for your time and the information given!

Appendix B3: Focus group discussion schedule with older adults (50 years and above)

Study Title: Exploration and appraisal of health and wellbeing of Kenyans		
Purpose of the checklist: This checklist will be a guide in the collection of data relating to meaning and perceived health and wellbeing status and the population health indicators that matter to the participants		
Construct	**Question**	**Probes**
Meaning of healthy community	Please let me know what makes for a healthy community? When you think about a healthy community, what pictures comes to your mind? If we start a new community here, what things would you want to put in place to help you know if the community is healthy?	Considering what you have described, do you consider this community as one that is healthy? Why or why not? What is the most important aspect to you? Why?
Perceived health	What do you think are some of the health issues facing seniors in this community? What are some of the challenges that you meet in relation to health as a senior? What do you think are some of the health issues facing children/grandchildren in this community? How would you like your children's or grandchildren's life to be different from yours?	What is the most important aspect to you? Why? How do you overcome such? What aspect is most import to you? Why?
Assessment of essential determinants of health and wellbeing		
Social factors	Ok, thank you for such a great overview. I am now going to ask you questions relating to your community and daily life What are some of the social factors you think are import in your community? Has these changed over time? Are there any emerging social issues in relation to health of seniors in this community?	How are family ties in this community? Have you experienced any changes over time? Are there social networks and support within your community? Are there opportunities and time for engagement in volunteer or church activities or local associations? How does this relate to health of youth? How have we overcome such

		limitations?
Economic factors	Ok, great! Thank you for such a great discussion. I will now ask as to discuss the economic factors that matter to us most as women. Can you tell me more about employment, income? How does this relate to seniors? Please, let me know the economic factors that matter to you? Can you tell me more about housing status? How has the free primary education policy impacted on your community? What would you like to be done differently in the education system?	How does this relate to health of youth? How have you adapted to these?
Cultural factors	Can we now talk about the cultural values and norms in your community? Can we comment on cultural discrimination or segregation? What are some of the cultural issues that you can say most affect the health of the seniors?	How are these related to the health of the older adults? How have you adapted as older adults in this community?
Political context	What are some of the political factors that influence older adults in this community? Are youth in your community engaged in political issues? If you were in the position of policy maker, what are some of the issues that you would prioritize?	How has this impacted your health? How are they engaged? If not why? Why?
Physical environment	What do you think are some of the environmental issues facing older adults in the community? What are some of the challenges in relation to the environment that seniors face in this community?	How is this related to the health and wellbeing of the older adults? What are your thoughts about soil quality, water quality, air quality and roads, employment conditions? How has this impacted on your health? How have you adapted?
Lifestyle and behaviour	What kinds of behaviours do you think makes a	Relate this to the health of the

	person healthy? Why these ones? What's the most common foods in this community? Have these always been the food that we eat? Is cigarette smoking a common practice in your community? Which populations are most affected? Is gender-based violence a common practice? Who are the most affected? Is alcoholism a common practice in your community? Who are most affected?	community. Which one matters to you the most? What do you think of the changes in food? Good/bad/ How is the community adapting to such challenges?
Health services	Thank you for such a great discussion. Can we now discuss health care services? What do you think are some of the most important issues with reference to health care services? What are some of the challenges with reference to health care services that we experience?	Considering what you have described, would you consider the health care system effective? If yes/no why? Can we also talk about accessibility, drug availability, health insurance, specialized care and waiting time? How have you adapted? Are there alternatives?
Public health programs	Can we now discuss public health activities in the community? Please, let me know of the public health programs that matter to you? Can we discuss potable water and sanitation in this community? What are some of the challenges that we experience in relation to public health programs in this community?	Which one matters to you the most? How has water and sanitation impacted on your health? And how have you adapted? Can we also comment on waste management, immunization, awareness creation and health education …? How have you adapted?
Health outcome assessment		
Health outcome	Thank you for such a great discussion! We will now discuss the health outcomes in your community. Can you comment on the health outcome trend in your community? Has this changed over time? Which health conditions matter to you most?	Are there any current emerging health issues that confront your community today? Obesity, diabetes, HBP, HIV, cancer etc.

	Why? How would you rate the wellbeing of your community? In relation to mental health, how would you gage the health of your community? Which are some of the major mental/psycho-social health issues in your community? How would you rate the longevity of your community? What informs your thought? Would you consider disability a key health indicator in this community?	Why so or why not? Why so or not so? Why so or not so? Why or why not? Motorcycle accidents, road carnages and disability due to chronic diseases
General/concluding questions	If you could change just one thing about your community, what would it be? If you could do one thing to make life healthier for your children or grandchildren, what would it be? Is there anything else you would like to add that we haven't already talked about?	

Thank you for your time and the information given!

Appendix B4: In-depth interview schedule with key informants (e.g. community-based organization representatives, women groups, youth groups, men groups and senior adult group representatives and policy makers etc.)

Study Title: Exploration and appraisal of health and wellbeing of Kenyans		
Purpose of the checklist: This checklist will be a guide in the collection of data on population health and wellbeing determinants and indicators that matter to Kenyans according to the key informants		
Construct	**Question**	**Probes**
Population health and wellbeing	To start off our discussion today, can you please tell me about your county/ organization/ministry and its involvement with health and wellbeing issues Please, let me know what makes for a healthy community? What matters to you in relation to living a good life? When you think about a healthy community, what pictures come to your mind? If we start a new community here, what things would you want to put in place to help you know if the community is healthy?	Considering what you have described, do you consider this community as one that is healthy? Why or why not? What is the most important aspect to you? Why? From your experience working in the community, what aspects of a healthy community matter to the community you serve?
Specific theoretical determinants of health and wellbeing		
Social factors	Ok, thank you for such a great overview. I am now going to ask you questions relating to your community and daily life What are some of the social factors you think are import in this community? Has these changed over time? Are there any emerging social issues relevant to health of this community?	How are family ties in this community? Have you experienced any changes over time? Are there social networks and support within your community? Are there opportunities and time for engagement in volunteer or church activities or local associations? How does this relate to health of

		the community?
Economic factors	Ok, great! Please, let me know the economic factors that matter to this community? Can you tell me more about employment, income? How does this relate to of the community? Can you tell me more about housing status? What would you like to be done differently in the education system? How has the free primary education policy impacted on your community?	 How does this relate to health of the community? How has this community adapted to these?
Cultural factors	Can we now talk about the cultural values and norms in this community? Can you comment on cultural discrimination or segregation? What are some of the cultural issues that affect the health of the people that you serve?	How are these related to the health of the men? How has the community adopted?
Political factors	What are some of the political factors that influence men in this community? Comment on actively political engagement by the community members? How is women leadership viewed in this community? As a decision-maker or policy maker, what are some of the policy issues that you would prioritize in this community?	How has this impacted your health? How are they engaged? If not why? Why do you feel that is important?
Physical factors	What do you think are some of the environmental issues facing this community currently? What are some of the challenges in relation to the physical environment that this community faces?	How is this related to the health and wellbeing of the community members? What are your thoughts about soil quality, water quality, air quality and roads, employment conditions?

		How has this impacted community's health? How has the community adapted?
Lifestyle and behavior	What are some of the lifestyle and behavior issues that confront this community? What's the most common foods in this community? Have these always been the food that we eat? Is cigarette smoking a common practice in your community? Which populations are most affected? Is gender-based violence a common practice? Who are the most affected? Is alcoholism a common practice in your community? Who are most affected?	Relate this to the health of the community. Which one matters to you the most? What do you think of the changes in food? Good/bad/ How is the community adapting to such challenges?
Healthcare services	Thank you for such a great discussion. Can we now discuss health care services? What do you think are some of the most important issues with reference to health care services? What are some of the challenges with reference to health care services that we experience?	Considering what you have described, would you consider the health care system effective? If yes/no why? Can we also talk about accessibility, drug availability, health insurance, specialized care and waiting time? How has the community adapted? Are there alternatives that the community have opted for?
Public health programs	Please, let me know of the public health programs that matter to the community? Can we discuss potable water and sanitation in this community? What are some of the challenges that we experience in relation to public health programs in this community?	Which one matters to this community the most? How has water and sanitation impacted on your health? And how has the community adapted? Can we also comment on waste management, immunization, awareness creation and health education …? How have you adapted?
Health outcome assessment		
Health outcome	Thank you for such a great discussion! We	

	will now discuss the health outcomes in this community. Can you comment on the health outcome trend in your community? Has this changed over time? Which health conditions matter to you most? Why? How would you rate the wellbeing of your community? In relation to mental health, how would you gage the health of your community? Which are some of the major mental/psycho-social health issues in your community? How would you rate the longevity of your community? What informs your thought? Would you consider disability a key health indicator in this community?	 Are there any current emerging health issues that confront your community today? Obesity, diabetes, HBP, HIV, cancer etc. Why so or why not? Why so or not so? Why so or not so? Why or why not? Motorcycle accidents, road carnages and disability due to chronic diseases
General/concluding questions	If you could change just one thing about this community that you serve, what would it be? If you could do one thing to make life healthier for the population in this community, what would it be? Is there anything else you would like to add that we haven't already talked about?	

Thank you for your time and the information given!

Appendix C1: Theme code set for the in-depth interviews with key informats

Interview with Key Informants for the study on Exploration and appraisal of health and wellbeing of Kenyans Part 1 Coding schedule		
Themes/sub-themes/codes	**Code labels**	**Description**
I. Sociodemographic		
Sex	[SDS]	Gender of participant
1. Male	[SDS1]	
2. Female	[SDS2]	
Age bracket	[SDA]	Age bracket represented by participant
1. 15-24 yrs.	[SDA1]	
2. 25-49 yrs.	[SDA2]	
3. >50 yrs.	[SDA3]	
County/Province	[SDC]	County of residence
1. Nyanza	[SDC1]	Kisumu, Seme
2. Nairobi	[SDC2]	Langata, Kibera, Nairobi
3. Central	[SDC3]	Nyandarua, Ndaragua
4. Eastern	[SDC4]	Makueni, Kitise, Kathonzweni
		Education level completed
Education level	[SDE]	
1. None	[SDE1]	
2. Primary	[SDE2]	
3. Secondary	[SDE3]	
4. Tertiary	[SDE4]	
Occupation	[SDO]	Source of income
1. Farmer	[SDO1]	
2. Teacher	[SDO2]	
3. Small-scale business	[SDO3]	
4. Casual worker	[SDO4]	

5. Motorcycle rider	[SDO5]	
6. Others	[SDO6]	
Employment status	[SDEm]	Hair dresser, house help, welder, retiree
1. Employed	[SDEm1]	
2. Unemployed	[SDEm2]	
Average monthly income level	[SDI]	Estimated monthly income
1. >500	[SDI1]	
2. 501-1000	[SDI2]	
3. 1001-5000	[SDI3]	
4. 5001-10000	[SDI4]	
5. >10000	[SDI5]	
Household size	[SDHs]	Number of people in the household
1. <2	[SDHs1]	
2. 2-5	[SDHs2]	
3. 6-10	[SDHs3]	
4. >10	[SDHs4]	
Marital status	[SDMs]	
1. Single	[SDMs1]	
2. Married	[SDMs2]	
3. Separated	[SDMs3]	
4. Divorced	[SDMs4]	
5. Widowed	[SDMs5]	
Duration of stay in the area of residence	[SDD]	How long have you lived in this county/village
1. 1-5 yrs.	[SDD1]	
2. 6-10 yrs.	[SDD2]	
3. 11-15 yrs.	[SDD3]	
4. 16-20 yrs.	[SDD4]	
5. >20 yrs.	[SDD5]	

II. Description of community work	[DCW	
1. MCA – law maker	[DCW1	
2. Lay Representative	[DCW2	
3. CBO/Ngo Representative	[DCW3	
III. KI's engagement in health and wellbeing in the community	[EHW]	
1. Representative in county assembly	[EHW1]	Ward representatives
2. Making health and wellbeing policy	[EHW2]	Policy maker
3. Community service	[EHW3]	Funeral services support, youth group leader, spiritual care provider, healthcare service provided, organizing for clean ups, conducting home visits, healthcare referrals,
IV. KI's perceived change health and wellbeing of the community	[SHW]	
1. Improved	[SHW1]	It's better now, some improvements
2. Deteriorated	[SHW2]	Worse than before
3. No change	[SHW3]	In between or no change, is the same
V. Perceived challenges to health and wellbeing by KIs	[CHW]	
	[CHW1]	Services out of reach of those of low socio-economic status
1. Inequality in by social class	[CHW2]	Remuneration of healthcare providers, equipping hospitals
2. Devolution of health	[CHW3]	Doctor's strike, healthcare providers ratio to patients,
3. Health service provision issues		distribution of healthcare facilities, drug availability
	[CHW4]	Gender differences in access and roles
4. Gender inequality	[CHW5]	Marginalization by tribe
5. Ethnic/tribal alignments	[CHW6]	Quality of water and time taken to draw water
6. Water access and quality	[CHW7]	Access roads, health facilities, communication, schools
7. Infrastructural development	[CHW8]	Unreliable rainfall, hot sun, drought
8. Climate change		
VI. Perceived descriptors of healthy community by KIs		What makes for a healthy community
i. Perceived subjective measures	[SM]	

1. Happiness	[SMH1]	Feeling of happiness, joy, proud of community
2. Overburdened	[SMO2]	Feeling of being overstretched, overburdened, overwhelmed
3. Security	[SMS3]	Feeling of being secure
ii. Perceived objective measures by KIs	[OM]	
a. Perceived general issues by KIs		
1. Ability to meet basic needs	[OMG1]	Clothing, food, balanced diet, shelter, security
2. Physically healthy people	[OMG2]	Less cases of NCDs, communicable diseases
3. Mortality rate	[OMG3]	Funeral attendance rate, number orphaned and widowed
4. Food secure	[OMG4]	Have 3 meals a day, good yields from farms
5. Water availability	[OMG5]	Water access, quality of water, distance to water points, gender roles and water supply
b. Perceived social issues by KIs		
1. Social responsibilities	[OMS1]	Contributions towards funerals, medical bills and social support
2. Strong social support and cohesion	[OMS2]	Family ties -brothers, sisters, parents are supportive
3. Availability of social capital	[OMS3]	Community is supportive
4. Strong social welfare systems	[OMS4]	OVC and seniors' money program accessible to all
5. Trust	[OMS5]	People trust each other in community
6. Stability in families	[OMS6]	Divorce and separations cases, GBVs
c. Perceived economic issues by KIs		
1. Living standards within reach	[OME1]	Inflation rates, housing status, dignified living conditions
2. Employment opportunities available	[OME2]	People have access to employment opportunities
3. Stable sources of income	[OME3]	Job security or security in source of income
4. Source of incomes	[OME4]	Diverse activities that can generate some income, allow for constructive time use
d. Perceived political issues by KIs		
1. Political engagement	[OMP1]	Political voice respected, active engagement in policy making
2. Balanced government	[OMP2]	Not divided in tribal alignments
e. Perceived cultural issues by KIs		
1. Culture is preserved	[OMC1]	Culture is preserved and passed on to generations
2. Culture is respected	[OMC2]	Current generation respect the culture

3. Spiritual health	[OMC3]	People pray and fear God
f. Perceived service availability by KIs		
1. Healthcare services	[OMSa1]	Access to health facilities, drug availability, doctor/patient ratio, equipping the facilities, referral systems, access health info, patient/healthcare provider interactions
2. Transportation services	[OMSa2]	Access roads, quality of the roads, weather dependent
3. Access of information	[OMSa3]	Access information on health, governance, politics etc.
4. Education access	[OMSa4]	Children access education, affordable education, school environment suitable for the children, quality education
5. Security services	[OMSa5]	People feel secure and there are security services, no fear of al-Shabaab
VII. Perceived healthy community experiences in the community by KIs		
a. Community healthy	[CHE]	
1. Yes	[CHE1]	
2. No	[CHE2]	
b. Perceptions of unhealthy Community by KIs	[CUE]	
1. Unhappy community	[CUE1]	
2. Feeling of insecurity	[CUE2]	
3. Inability to meet basic needs	[CUE3]	
4. People are physically unhealthy	[CUE4]	
5. High mortality rate	[CUE5]	
6. Food insecure	[CUE6]	
7. Water scarce	[CUE7]	
8. Huge social responsibilities	[CUE8]	
9. Weak social support and cohesion	[CUE9]	
10. Absence of social capital	[CUE10]	
11. weak social welfare systems	[CUE11]	
12. Lack of trust	[CUE12]	

13. Instability in families	[CUE13]	
14. Living standards out reach	[CUE14]	
15. Lack of employment opportunities	[CUE15]	
16. Unstable sources of income	[CUE16]	
17. Lack of political engagement	[CUE17]	
18. Tribalism in government	[CUE18]	
19. Inaccessible healthcare services	[CUE19]	
20. Poor road network	[CUE20]	
21. Lack of access to information	[CUE21]	
22. Inaccessibility of education	[CUE22]	
23. Insecurity	[CUE23]	
c. Perceived important aspect of healthy community by KIs	[IAHC]	
1. Water availability	[IAHC1]	
2. Employment opportunity	[IAHC2]	
3. Social welfare system	[IAHC3]	
4. Disease free community	[IAHC4]	
5. Social support	[IAHC5]	
6. Social capital	[IAHC6]	
7. Living standards within reach	[IAHC7]	
8. Healthcare services access	[IAHC8]	
9. Access of quality education	[IAHC9]	
10. Political engagement	[IAHC10]	
11. Spiritual connection	[IAHC11]	
12. Preservation of culture	[IAHC12]	
13. Good road networks	[IAHC13]	
14. Feeling of being secure	[IAHC14]	
15. Accessibility of information	[IAHC15]	
16. Good life choices	[IAHC16]	
VIII. Perceived picture of good life in community by KIs		
a. Perceive immediate factors by KIs	[PGLI]	

1. Disease free community	[PGLI1]	
2. Water availability	[PGLI2]	
3. Food secure	[PGLI3]	
4. Good life choices	[PGLI4]	
5. No traffic jam	[PGLI5]	
6. Sanitary and hygiene services available	[PGLI6]	
7. Feeling of being secure	[PGLI7]	
b. Perceived main structural factors by KIs	[PGLS]	
1. Education accessibility	[PGLS1]	
2. Healthcare services accessible	[PGLS2]	
3. Feeling of trust	[PGLS3]	
4. Social support	[PGLS4]	
5. Employment opportunities available	[PGLS5]	
6. Good physical environment	[PGLS6]	
7. Access information	[PGLS7]	
8. No tribalism	[PGLS8]	
9. No social class differences	[PGLS9]	
10. Gender equity	[PGLS10]	
11. Life is affordable to all	[PGLS11]	
12. Good social welfare systems	[PGLS12]	
IX. Things in place in a new community for better health and wellbeing	[TNC]	
1. Health institutions	[TNC1]	
2. Water supply	[TNC2]	
3. Good road network	[TNC3]	
4. Good physical environment	[TNC4]	
5. Sanitary and hygiene services	[TNC5]	
6. Food security	[TNC6]	
7. Access of healthy foods	[TNC7]	
8. Well organized education system	[TNC8]	

9. Good housing	[TNC9]	
Part 2 of coding schedule		
X. Social factors		
a. Social factors of importance to the community according to the KIs	[SFM]	
1. Social support	[SFM1]	
2. Social capital	[SFM2]	
3. Social welfare systems	[SFM3]	
4. Family stability	[SFM4]	
5. Life satisfaction	[SFM5]	
6. Volunteer opportunities	[SFM6]	
7. Community service	[SFM7]	
8. Girlfriend/boyfriend relationships	[SFM8]	
9. Participation in church activities	[SFM9]	
10. Gender equality	[SFM10]	
11. Sexual immorality	[SFM11]	
12. Crime rates	[SFM12]	
13. Gender based violence (GBV)	[SFM12]	
b. Emerging social issues in the community by KIs	[ESI]	
1. Social media interruptions	[ESI1]	e.g. Facebook, twitter, Instagram, pornography
2. Individualism and weaker social ties	[ESI2]	
3. Illicit drug use and abuse	[ESI3]	
4. Boy child/men feeling neglected	[ESI4]	
5. Single parenthood	[ESI5]	
6. Homosexuals	[ESI6]	
7. Social groups are more businesses oriented	[ESI7]	
8. Psychosocial health issues	[ESI8]	
9. Poor organization of the social welfare system	[ESI9]	
XI. Economic factors		

a. Economic factors of importance to the community according to KIs	[EFM]	
1. Employment opportunity	[EFM1]	
2. Cost of living and inflation	[EFM2]	
3. Employment conditions	[EFM3]	
4. Housing status	[EFM4]	
5. Education system	[EFM5]	
6. Unemployment rate	[EFM6]	
7. Urbanization	[EFM7]	
8. Income status	[EFM8]	
9. Unemployment rates	[EFM9]	
10. Poverty	[EFM10]	
11. Negative fallback plans	[EFM11]	e.g. brewing changaa, crime, prostitution, sex for fish
12. Social class difference	[EFM12]	
b. Economic issues relating to employment in the community according to KIs	[IRE]	
1. Gender inequality in employment	[IRE1]	
2. Perceptions towards blue collar jobs	[IRE2]	
3. Lack of industries to create employment	[IRE3]	
4. Social network (whom do you know)	[IRE4]	
5. Corruption in employment	[IRE5]	
6. Engagement in unproductive activities	[IRE6]	
7. Increased crime rates	[IRE7]	
8. Casual work	[IRE8]	
9. Low income status	[IRE9]	
10. Regional inequality in employment	[IRE10]	
c. Economic issues relating to education in the community according to KIs	[EdSy]	
1. Quality of the education	[EdSy1]	e.g. geared towards white collar employment
2. Transition to different levels	[EdSy2]	e.g. primary, secondary, university etc.
3. State of school infrastructure	[EdSy3]	e.g. classrooms, desks, uniform, books, libraries etc.

4. Gender equality in education access	[EdSy4]	e.g. female/male ratio, gender preference in access and priority
5. Social capital in education access	[EdSy5]	e.g. community schools, community support in fee payment
6. Working conditions for teachers	[EdSy6]	e.g. teacher/pupil ratio, income for teachers
7. Inequality in education access	[EdSy7]	e.g. the poor vs the rich, social class in education access
8. Free primary education diluted quality of education	[EdSy8]	e.g. effects of FPE
9. No Free Primary Education (FPE)	[EdSy9]	Nothing is free, does not exist
d. Economic issues relating to housing status		
i. Description of housing in the community by KI	**[DOH]**	
1. Good housing status	[DOH1]	
2. Poor housing status	[DOH2]	
3. Moderate housing status	[DOH3]	
ii. Challenges related to housing in community according to KIs	**[CRH]**	
1. Many/number of occupants	[CRH1]	
2. Single roomed housed	[CRH2]	
3. Multiple uses and users of the house	[CRH3]	e.g. shared with animals, cooking area, sleeping and living room
4. Cultural issues relating to housing	[CRH4]	e.g. grownup children not sleep under same roof with parents, widow has to build new house, male figure for a lady to construct a house, orphaned children relocate to grandparents' house, building a house on fathers land
5. Spread of diseases	[CRH5]	e.g. RTI, infectious diseases
6. Psychosocial issues due to lack of privacy	[CRH6]	e.g. parents lack privacy, grownup children too, instability
7. Teenage pregnancy	[CRH7]	e.g. teenage girls not under the care of parents in the night
8. Sexual immorality	[CRH8]	
9. Lack of land title deeds	[CRH9]	
10. Rise of shanties	[CRH10]	
11. Social inequality between landlords & tenants	[CRH11]	
12. Lack of political will to improve housing in	[CRH12]	

slums		
XII. Physical environmental factors		
a. Physical environmental factors of importance in community according to KIs	[PEFM]	
1. Changes in climate	[PEFM1]	e.g. drought and harsh/hot sun, unreliable rainfall, uncertainty
	[PEFM2]	in crops to plant, unpredictable rainfall patterns
2. Water quality	[PEFM3]	e.g. water safety, turbidity etc.
3. Air quality	[PEFM4]	e.g. stench in the air - slums
4. Environmental degradation	[PEFM5]	e.g. deforestation, invasive plant species, invasive termites
5. Unavailability of water for irrigation	[PEFM6]	water available not sufficient for irrigation
6. Infrastructure in the physical environment	[PEFM7]	e.g. roads access, weather dependent roads
b. Perceived issues relating to the physical environment according to KIs	[IRPE]	
1. Food insecurity	[IRPE1]	e.g. people cannot have 3 meals a day, reduced farm yields, changes in eating habits (i.e. skipping meals)
2. Poor water quality	[IRPE2]	e.g. water related diseases - diarrhea, typhoid, water stinking, water is turbid
3. Spread of diseases	[IRPE3]	e.g. dusty condition causing coughs, colds, RTIs, waterborne and water related diseases
4. Water scarcity	[IRPE4]	e.g. travel long distance to get water, no rainfall here
5. Effects on economic activities	[IRPE5]	e.g. fishing time, fish catch, food production, farm productivity
6. Unsafe roads	[IRPE6]	e.g. poor roads, potholes, weather dependent roads
7. Natural disasters	[IRPE7]	e.g. flooding in slum areas, drought prone areas
XIII. Public health services		
a. Perceived public health services of importance by KIs	[PHSM]	
1. Sanitation and hygiene services availability	[PHSM1]	
2. Water safety	[PHSM2]	
3. Water supply	[PHSM3]	

4. Immunization services	[PHSM4]	
5. Liquid waste management	[PHSM5]	
6. Solid waste management	[PHSM6]	
7. Access to health education	[PHSM7]	
b. Perceived issues relating to sanitation and hygiene by KIs	[IRSH]	
1. Availability of sanitation and hygiene services	[IRSH1]	e.g. safe places for disposal of sanitary towels, access of sanitary towels, toilet access, bathrooms availability, unplanned for in informal settlements, water availability
2. Inequalities in access of sanitary and hygiene services	[IRSH2]	e.g. girls and boys, informal and formal settlements, payment for this basic need
3. Loss of human dignity	[IRSH3]	e.g. use of flying toilets, people relieving themselves only in the night in the open trenches, it's embarrassing
4. Social issues associated with sanitation and hygiene	[IRSH4]	e.g. early marriages for girls, teenage pregnancy, defilement cases, school absenteeism
5. Social insecurity	[IRSH5]	e.g. can't invite a friend or a relative to my house, seclude myself during menstruation
6. Transmission/spread of diseases	[IRSH6]	e.g. due to open defecation, fecal oral diseases, contamination of water sources
7. Gender inequalities in sanitation services	[IRSH7]	e.g. focus is more on the girls than on boys
Perceived issue relating to water supply and safety by KIs	[IRWSS]	
1. Water sources protected	[IRWSS1]	e.g. treated water, not at risk of contamination
2. Water sources unprotected	[IRWSS2]	
3. Water supply reliable	[IRWSS3]	
4. Water supply unreliable	[IRWSS4]	e.g. water rationing, weather dependent water sources
5. Water safe for consumption	[IRWSS5]	
6. Water unsafe for consumption	[IRWSS6]	e.g. risk of contamination by open sewer, open defecation, increased cases of water related diseases

c. Perceived issues relating to waste management by KIs	[IRWMg]	
1. Water management services are absent	[IRWMg1]	e.g. the city council not doing much, no private companies providing such services, people unwilling to pay for the services, open sewers
2. Waste management services are present	[IRWMg2]	e.g. services available, private companies collect the waste, people willing to pay, proper sewer lines
3. Lack of invest in waste management services by government and landlords	[IRWMg3]	
d. Perceived issues relating to immunization by KIS	[IRIm]	
1. Children are over exposed to lots of vaccines	[IRIm1]	
2. Provides protection against childhood diseases	[IRIm2]	
3. Immunization services are accessible	[IRIm3]	
e. Perceived issues relating to health information access by KIs	[IRHIn]	
1. Health information is accessible	[IRHIn1]	
2. Health information is inaccessible	[IRHIn2]	e.g. radio, TV, social media
3. Health facility main source of information	[IRHIn3]	
4. Media playing a key role	[IRHIn4]	
XIV. Lifestyle and behavior issues		
a. Lifestyle and behavior issues of importance in community according to KIs	[LBIM]	
1. Alcoholism	[LBIM1]	
2. Cigarettes smoking	[LBIM2]	
3. Sedentary lifestyle/physical inactiveness	[LBIM3]	
4. Drug abuse	[LBIM4]	
5. Gender Based Violence (GBV)	[LBIM5]	

6. Boy/girl relationship	[LBIM6]	
7. Eating habits	[LBIM7]	
b. Perceived issues related to alcoholism by KIs	[IRA]	
1. Serious health effects	[IRA1]	e.g. diseases, malnutrition, cause of mortality, disabilities such as blindness, road carnages and deaths, causing infertility (ruining the next generation, addiction
2. Social disruption	[IRA2]	e.g. family breakups, single parenthood, overburdening grandparents with care for grandchildren, associated with GBV, associated with low self-esteem, seen as a way of socializing, seen as a cool thing
3. Economic disruption	[IRA3]	e.g. associated with poverty (a cause and an effect), low productivity, is an escape strategy from reality, ruining next generation
c. Population at risk of alcoholism according to KIs	[PRA]	
	[PRA1]	
1. Males	[PRA2]	
2. Females	[PRA3]	
3. Youth		
d. Perceived issues related to drug use by KIs		
i. Types of drug frequently used according to KIs	[DFU]	
1. Marijuana (Bhang)	[DFU1]	
2. Miraa (khat)	[DFU2]	
3. Shisha	[DFU3]	
ii. Population at risk of drug abuse according to KIs	[PRDA]	
1. Males		
2. Females	[PRDA1]	

3. Youth	[PRDA2] [PRDA3]	
iii. Issues related to drug use		
1. Emerging health issue	[IRDA]	
2. Social disruption	[IRDR1]	e.g. causing infertility, diseases such as dental health issues, ling disease, cancers
3. Culturally, seen as a sign of maturity	[IRDA2]	e.g. GBV, is a cool thing, addiction
4. Economic disruption	[IRDA3]	
5. Psychosocial health issues	[IRDA4]	e.g. is an escape strategy from reality, low productivity
6. Class differences in drug use	[IRDA5]	e.g. mental health issues, stress
	[IRDA6]	e.g. the difference between the rich and the poor, rich women and men
e. Perceived issues related to cigarette smoking by KIs		
i. Population at risk of cigarette smoking according to KIs	[PRCS]	
1. Males		
2. Females	[PRCS1]	
3. Youth	[PRCS2]	
	[PRCS3]	
ii. Issues related to cigarette smoking according to KIs	[IRCS]	
1. Serious health issue		
	[IRCS1]	e.g. cause diseases of the lung, cancers, TB, dental health issues, addiction and issues of second hand smoking
2. Economic disruption		
	[IRCS2]	e.g. diversion of the little income to buy the cigarettes and low productivity if one gets disease associated with cigarette smoking
3. Culturally, seen as a passage right		
	[IRCS3]	
f. Perceived eating habits by KIs		
i. Types of food eaten in the community according to KIs		
1. Traditional or local food	[TFEC]	
2. Processed foods		
3. Junk food	[TFEC1]	

	[TFEC2]	
ii. Changes in eating habits according to KIs	[TFEC3]	e.g. pizza, French fries (chips), sodas (pop)
1. Yes)	[CFH]	
2. No		
	[CFH1]	e.g. more processed foods, junk foods, sodas (pop)
iii. Issues relating to eating habits according to KIs	[CFH2]	e.g. not changed, we still eat the same foods as before
1. Economic issues	[IRFH]	
2. Climate change issues	[IRFH1]	e.g. people not able to afford 3 meals a day, skipping meals to survive hard economic times
3. Cultural erosion	[IRFH2]	e.g. the farms are no longer productive, and we have to buy food
	[IRFH3]	e.g. traditional foods not appreciated anymore, junk food associated with higher SES, we do not train the next generation to appreciate traditional foods, the traditional cooking methods
4. Food safety		such as boiling not appreciated
5. Neighborhood effects	[IRFH4]	e.g. food is not safe anymore, we use all these chemicals to produce our food
	[IRFH5]	
g. Issues related gender-based violence (GBV) by KIs		e.g. rise of fast food vends, rural-urban difference in the foods eaten
i. Types of GBV according to KIs		
1. Physical abuse		
2. Rape cases	[TGBV]	
3. Cases of incest	[TGBV1]	
4. Verbal	[TGBV2]	e.g. wife beating, husband beating
	[TGBV3]	
ii. GBV social issues according to KIs	[TGBV4]	
1. Stigmatized		
2. Sign of weakness	[GBVSIs]	
3. Sign of love	[GBVSIs1]	
4. Single parenthood	[GBVSIs2]	e.g. no one should talk about GBV they experience

5. Homicide and suicide cases	[GBVSIs3]	
6. Early marriages	[GBVSIs4]	
7. Psychosocial health issues	[GBVSIs5]	
	[GBVSIs6]	
	[GBVSIs7]	
XV. Healthcare services		
a. Healthcare service issues on importance in community according to KIs	[HCSIM]	
1. Distance to the health facilities	[HCSIM1]	
2. Cost of the services	[HCSIM2]	
3. Drug availability	[HCSIM3]	
4. Doctor-patient ratio	[HCSIM4]	
5. Drug availability	[HCSIM5]	
6. Distance to referral services	[HCSIM6]	
7. Waiting time for specialized care	[HCSIM7]	
8. Inequality in access of health services	[HCSIM8]	
9. Access of health information/education	[HCSIM9]	
10. Care for people living with HIV/AIDs	[HCSIM10]	
11. Cost for treatment of NCDs & chronic disease	[HCSIM11]	
12. Patient – healthcare provider interaction	[HCSIM12]	
13. Facilitation of CHVs as local care providers	[HCSIM13]	
14. Availability of ambulance/emergency services	[HCSIM14]	
15. Cost of health insurance	[HCSIM15]	
16. Accessing services for specialized groups	[HCSIM16]	e.g. seniors, children, women, unemployed youth
17. Engagement of TBAs in service provision	[HCSIM17]	
b. Description of healthcare services by KIs	[DHCS]	
1. Good	[DHCS1]	
2. Moderate	[DHCS2]	
3. Bad	[DHCS3]	
c. Perceived challenges to healthcare service	[CHCSP]	

provision in the community by KIs		
1. Absence of drugs in health facilities	[CHCSP1]	
2. Inequality in access of healthcare service access	[CHCSP2]	
3. Gender difference in health seeking behavior	[CHCSP3]	
4. Doctors strike	[CHCSP4]	
5. Lack of well-equipped ambulances in time of emergency	[CHCSP5]	
6. Increasing prevalence of NCDs	[CHCSP6]	
7. Privatization of healthcare services	[CHCSP7]	
8. In accessibility of health care services	[CHCSP8]	e.g. cost, distance, a burden to the households and the elected leaders that have to support their communities etc.
9. Understaffed health facilities	[CHCSP9]	e.g. overcrowded health facilities, doctor/patient ratio
10. Waiting time for specialized care	[CHCSP10]	
11. Poor referral systems	[CHCSP11]	e.g. delayed care leading to deaths of loved ones
12. Devolution of health without proper structures	[CHCSP12]	
13. Poor working conditions for healthcare workers	[CHCSP13]	e.g. poor remuneration of healthcare workers, doctors nurses, lack of safety measures in facilities, unequipped hospitals
14. Inaccessibility of health cover/insurance	[CHCSP14]	e.g. too expensive, some conditions are not covered, having such conditions is like a death sentence
15. Demotivated community health volunteers	[CHCSP15]	
16. Corruption in healthcare service provision	[CHCSP16]	
d. Alternatives to healthcare services in the community according to KIs	[A2HCS]	
1. Use of herbal medicine	[A2HCS1]	
2. Traditional healers	[A2HCS2]	
3. Over the counter medication	[A2HCS3]	
4. Rely on your social network	[A2HCS4]	
5. Pray to God for healing	[A2HCS5]	
6. Wait for your death	[A2HCS6]	

XVI. Cultural factors		
a. Description of culture of the community by KIs	[DC]	
1. Existent	[DC1]	
2. Non-existent	[DC2]	
3. Diluted by Christianity	[DC3]	
b. Cultural issues of importance in the community according to KIs	[CIM]	
1. Traditional foods	[CIM1]	
2. Communal living	[CIM2]	e.g. strong ties with family, society and having social support as it was in the past
3. Religion and spirituality	[CIM3]	
4. Wife inheritance	[CIM4]	
5. Passage of rights e.g. FGM, circumcision	[CIM5]	
6. Gender roles	[CIM6]	
7. Respect by current generation	[CIM7]	
8. Mentorship by grandparents	[CIM8]	
9. Traditional farming practices	[CIM9]	
10. Belief in superstition	[CIM10]	
11. Dowry payment	[CIM11]	
12. Polygamous marriage	[CIM12]	
c. Perceived emerging issues relating to cultural erosion in the community by KIs	[EIRCE]	
1. Lack of respect	[EIRCE1]	e.g. by current generation, girls are not taught by their grandmothers and boy with the grandfathers/fathers
2. Individualist society	[EIRCE2]	e.g. children no longer owned by the community, never know who your neighbor is, ploughing of farms done at individual levels
3. Loss of social and family ties	[EIRCE3]	e.g. I am more comfortable being invited by a friend for lunch than going to my brother's house to ask for lunch
4. New cooking methods	[EIRCE4]	e.g. deep frying, use of lots of cooking oil seen as a sign of

		social class and a way of making the food more presentable and
5. Change in diet e.g. more processed foods, junk foods associated with status and traditional foods with poverty	[EIRCE5]	palatable
6. Voluntary Male Medical Circumcision (VMMC) embraced by non-circumcising communities	[EIRCE6]	e.g. spread of HIV and other STIs, malnutrition, NCDs
7. Occurrence of diseases	[EIRCE7]	
8. Women can now own land	[EIRCE8]	
d. Discriminative cultural practices in the community according to KIs	[DCPs]	
1. Land ownership by women	[DCPs1]	
2. Dowry payment in marriage	[DCPs2]	e.g. women not expected to lead, boys expected to be man
3. Restriction of foods eaten by gender	[DCPs3]	enough, not to cry, to provide from a tender age
4. Girls/boys roles and community expectations of the different gender	[DCPs4]	
XVII. Political factors		
a. Political factors of importance in the community according to KIs	[PFM]	
1. Polarity in tribal lines by the government	[PFM1]	
2. Corruption in government	[PFM2]	
3. Political uncertainties	[PFM3]	e.g. you can never tell what is coming tomorrow in politics
4. Unintended consequences of politics	[PFM4]	e.g. political rampages, misuse of our children by politicians, death, injuries, family break ups during campaigns
5. Real engagement of the people	[PFM5]	e.g. my voice to be heard in the ballot, government for and by the people, politicians not just coming in for votes but ensuring that we are actively involved
6. Bribing of voters	[PFM6]	e.g. politician giving money to voters and failing to deliver when elected
7. Devolution without proper structures	[PFM7]	e.g. health, devolved corruption
8. Civic education	[PFM8]	e.g. lay populace need to be educated on their rights, many have

		no clue
9. Lack of political will by government to bring change	[PFM9]	
b. Issues relating to active engagement in politics according to KIs	[IRAEP]	
1. Voting	[IRAEP1]	e.g. we participate in voting, community knows that they have to vote
2. Positive change with devolution	[IRAEP2]	
3. Voices in policy formation	[IRAEP3]	e.g. politicians only come to ask for votes, but they do not seek our opinion on policy
c. Perceptions of women leadership in the community according to KIs	[WLC]	
1. Accepted in the community	[WLC1]	e.g. current rules do not favor women, culturally is
2. Unacceptable in the community	[WLC2]	unacceptable, you see even God in the bible is a male, women are brainwashed and are enemies of themselves and they vote for the males though the main voters etc.
3. Improved with promulgation of new constitution	[WLC3]	e.g. the women representative positions, it's more inclusive now
4. Gender inequality	[WLC4]	e.g. society demands more from women leaders, who is the husband, is she married, whom is she talking to, women are enemies of themselves, women are expected to be naïve and to play politics of vulnerability
d. Policy priority areas if elected political position according to KIs	[PPAE]	
1. Portable water supply	[PPAE1]	
2. Change of people's attitude	[PPAE2]	
3. Healthcare facilities access	[PPAE3]	
4. Improve agricultural practices	[PPAE4]	e.g. provide water for irrigation, better seeds, regulate prices for farm inputs
5. Land ownership issues	[PPAE5]	

6. Job creation	[PPAE6]	
7. Education access	[PPAE7]	
8. Access roads	[PPAE8]	
9. Access to information	[PPAE9]	e.g. health and civic education
10. Drug supply in health facilities	[PPAE10]	
11. Provision of sanitary towels to girls	[PPAE11]	
12. Closure of pubs/bars	[PPAE12]	
13. Closure of local alcoholic brewing dens	[PPAE13]	e.g. changaa dens
14. Illegalize planting of khat/miraa/muguka	[PPAE14]	
15. Provision of sanitary and hygiene services/facilities	[PPAE15]	e.g. toilets in residential areas, landlords must have provision of these basic services in their houses
16. Diversify sources of income	[PPAE16]	e.g. make women and youth funds accessible to all so that they can have sources of capital, construct better open-air markets to boost business, Alternative sources of income to alcohol brewers
17. Regulate market prices for farm produce	[PPAE17]	e.g. coffee, milk, maize, cattle through creation of SACCOs to provide better pricing
18. Better social welfare for special groups	[PPAE18]	e.g. seniors, OVCs, widows
19. Better governance	[PPAE19]	e.g. fight corruption
VIII. Health outcomes		
a. Health outcome trends according to KIs	[HOT]	
1. No change	[HOT1]	e.g. same diseases, same lifespan
2. Improved health	[HOT2]	e.g. people living longer today, better access to ARVs, better access health care services, less spread of and mortality due to HIV
3. Worse health	[HOT3]	e.g. new diseases occurring, NCDs on the rise, reduced longevity, more disabilities, road and motorcycle injuries and deaths, increased prevalence of HIV/STIs
b. Health outcomes of importance in the community according to KIs	[HOM]	
1. Life expectancy	[HOM1]	

2. HIV and the opportunistic diseases	[HOM2]	
3. Zoonotic diseases	[HOM3]	
4. Waterborne and related diseases	[HOM4]	
5. High mortality rates	[HOM5]	
6. Suicide cases	[HOM6]	
7. Homicide cases	[HOM7]	
8. Vector borne diseases	[HOM8]	e.g. malaria
9. Malnutrition rates	[HOM9]	
10. Maternal mortalities	[HOM10]	
11. Mental health state	[HOM11]	e.g. stress, depression
12. Genetically inherited diseases	[HOM12]	e.g. sickle cell anemia, psychiatric health problems
13. Epidemic diseases	[HOM13]	e.g. cholera, polio
14. Disabilities	[HOM14]	e.g. paralysis due to polio, genetically inherited disabilities,
15. Personal wellbeing	[HOM15]	motorcycle accidents and road carnage associated disabilities
c. Issues related to psychosocial health according to KIs	[IRPH]	
1. Neglected health outcome issue	[IRPH1]	
2. Stress due to hard economic times	[IRPH2]	
3. Stress due to unemployment	[IRPH3]	
4. Stress due to weaker social ties	[IRPH4]	
5. Stress due to high disease burden	[IRPH5]	
6. Stigmatized condition	[IRPH6]	
7. Emerging health issue	[IRPH7]	
		e.g. rate of suicide and homicide
d. Issues related to disability according to KIs	[IRDis]	
1. Major health issue	[IRDis1]	
2. Not that common	[IRDis2]	
3. Associated with motorcycle use	[IRDis3]	
4. Immunization services beneficial	[IRDis4]	
5. Discrimination of those with disability	[IRDis5]	
6. Slight improvements with new constitution	[IRDis6]	

Appendix C2: Theme code set for the focus group discussions

Theme Code Set for FGD for the study on Exploring health and wellbeing of Kenyans		
Themes/sub-themes/codes	**Code labels**	**Description**
XIX. Sociodemographic		
Sex	[SDS]	Gender of participants
3. Male	[SDS1]	
4. Female	[SDS2]	
Age bracket	[SDA]	Age bracket represented by group
4. 15-24 yrs.	[SDA1]	
5. 25-49 yrs.	[SDA2]	
6. >50 yrs.	[SDA3]	
County/Province	[SDC]	County of residence
5. Nyanza	[SDC1]	Kisumu, Seme
6. Nairobi	[SDC2]	Langata, Kibera, Nairobi
7. Central	[SDC3]	Nyandarua, Ndaragua
8. Eastern	[SDC4]	Makueni, Kitise, Kathonzweni
Average monthly income level for the group	[SDI]	Estimated average monthly income for the group
6. >500	[SDI1]	
7. 501-1000	[SDI2]	
8. 1001-5000	[SDI3]	
9. 5001-10000	[SDI4]	
10. >10000	[SDI5]	
Average household size	[SDHs]	Average number of people in the household
5. <2	[SDHs1]	
6. 2-5	[SDHs2]	
7. 6-10	[SDHs3]	

8. >10	[SDHs4]	
Range of duration of stay in the area of residence	[SDD]	Range of duration of stay in the study area by participants
6. 1-5 yrs.	[SDD1]	
7. 6-10 yrs.	[SDD2]	
8. 11-15 yrs.	[SDD3]	
9. 16-20 yrs.	[SDD4]	
10. >20 yrs.	[SDD5]	
XX. Perceived descriptors of healthy community by FGD participants		What makes for a healthy community
iii. Perceived subjective measures	[SM]	
4. Happiness	[SMH1]	Feeling of happiness, joy, proud of community
5. Overburdened	[SMO2]	Feeling of being overstretched, overburdened, overwhelmed
6. Security	[SMS3]	Feeling of being secure
iv. Perceived objective measures by FGD Ps	[OM]	
g. Perceived general issues by FGD Ps	[OMG1]	Clothing, food, balanced diet, shelter, security
6. Ability to meet basic needs	[OMG2]	Less cases of NCDs, communicable diseases
7. Physically healthy people	[OMG3]	Funeral attendance rate, number orphaned and widowed
8. Mortality rate	[OMG4]	Have 3 meals a day, good yields from farms
9. Food secure	[OMG5]	Water access, quality of water, distance to water points, gender roles and water supply
10. Water availability		
h. Perceived social issues by FGD Ps	[OMS1]	Contributions towards funerals, medical bills and social support
7. Social responsibilities	[OMS2]	Family ties -brothers, sisters, parents are supportive
8. Strong social support and cohesion	[OMS3]	Community is supportive
9. Availability of social capital	[OMS4]	OVC and seniors money program accessible to all
10. Strong social welfare systems	[OMS5]	People trust each other in community
11. Trust	[OMS6]	Divorce and separations cases, GBVs
12. Stability in families		

i. Perceived economic issues by FGD Ps	[OME1]	Inflation rates, housing status, dignified living conditions
5. Living standards within reach	[OME2]	People have access to employment opportunities
6. Employment opportunities available	[OME3]	Job security or security in source of income
7. Stable sources of income	[OME4]	Diverse activities that can generate some income, allow for constructive time use
8. Source of incomes		
j. Perceived political issues by FGD Ps	[OMP1]	Political voice respected, active engagement in policy making
3. Political engagement	[OMP2]	Not divided in tribal alignments
4. Balanced government		
k. Perceived cultural issues by FGD Ps	[OMC1]	Culture is preserved and passed on to generations
4. Culture is preserved	[OMC2]	Current generation respect the culture
5. Culture is respected	[OMC3]	People pray and fear God
6. Spiritual health		
l. Perceived service availability by FGD Ps	[OMSa1]	Access to health facilities, drug availability, doctor/patient ratio, equipping the facilities, referral systems, access health info, patient/healthcare provider interactions
6. Healthcare services		
7. Transportation services	[OMSa2]	Access roads, quality of the roads, weather dependent
8. Access of information	[OMSa3]	Access information on health, governance, politics etc.
9. Education access	[OMSa4]	Children access education, affordable education, school environment suitable for the children, quality education
10. Security services	[OMSa5]	People feel secure and there are security services, no fear of al-Shabaab
XXI. Perceived healthy community experiences in the community by FGD Ps		
d. Community healthy	[CHE]	
3. Yes	[CHE1]	
4. No	[CHE2]	
e. Perceptions of unhealthy Community by	[CUE]	

FGD Ps		
24. Unhappy community	[CUE1]	
25. Feeling of insecurity	[CUE2]	
26. Inability to meet basic needs	[CUE3]	
27. People are physically unhealthy	[CUE4]	
28. High mortality rate	[CUE5]	
29. Food insecure	[CUE6]	
30. Water scarce	[CUE7]	
31. Huge social responsibilities	[CUE8]	
32. Weak social support and cohesion	[CUE9]	
33. Absence of social capital	[CUE10]	
34. weak social welfare systems	[CUE11]	
35. Lack of trust	[CUE12]	
36. Instability in families	[CUE13]	
37. Living standards out reach	[CUE14]	
38. Lack of employment opportunities	[CUE15]	
39. Unstable sources of income	[CUE16]	
40. Lack of political engagement	[CUE17]	
41. Tribalism in government	[CUE18]	
42. Inaccessible healthcare services	[CUE19]	
43. Poor road network	[CUE20]	
44. Lack of access to information	[CUE21]	
45. Inaccessibility of education	[CUE22]	
46. Insecurity	[CUE23]	
f. Perceived important aspect of healthy community by FGD Ps	[IAHC]	
17. Water availability	[IAHC1]	
18. Employment opportunity	[IAHC2]	
19. Social welfare system	[IAHC3]	
20. Disease free community	[IAHC4]	
21. Social support	[IAHC5]	
22. Social capital	[IAHC6]	

23. Living standards within reach	[IAHC7]	
24. Healthcare services access	[IAHC8]	
25. Access of quality education	[IAHC9]	
26. Political engagement	[IAHC10]	
27. Spiritual connection	[IAHC11]	
28. Preservation of culture	[IAHC12]	
29. Good road networks	[IAHC13]	
30. Feeling of being secure	[IAHC14]	
31. Accessibility of information	[IAHC15]	
32. Good life choices	[IAHC16]	
XII. Perceived picture of good life in community by FGD Ps		
c. Perceive immediate factors by FGD Ps	[PGLI]	
8. Disease free community	[PGLI1]	
9. Water availability	[PGLI2]	
10. Food secure	[PGLI3]	
11. Good life choices	[PGLI4]	
12. No traffic jam	[PGLI5]	
13. Sanitary and hygiene services available	[PGLI6]	
14. Feeling of being secure	[PGLI7]	
d. Perceived main structural factors by FGD Ps	[PGLS]	
13. Education accessibility	[PGLS1]	
14. Healthcare services accessible	[PGLS2]	
15. Feeling of trust	[PGLS3]	
16. Social support	[PGLS4]	
17. Employment opportunities available	[PGLS5]	
18. Good physical environment	[PGLS6]	
19. Access information	[PGLS7]	
20. No tribalism	[PGLS8]	
21. No social class difference	[PGLS9]	

22. Gender equity	[PGLS10]	
23. Life is affordable to all	[PGLS11]	
24. Good social welfare systems	[PGLS12]	
XIII. Things in place in a new community for better health and wellbeing by FGD Ps	[TNC]	
10. Health institutions	[TNC1]	
11. Water supply	[TNC2]	
12. Good road network	[TNC3]	
13. Good physical environment	[TNC4]	
14. Sanitary and hygiene services	[TNC5]	
15. Food security	[TNC6]	
16. Access of healthy foods	[TNC7]	
17. Well organized education system	[TNC8]	
18. Good housing	[TNC9]	
19. Good governance system		
XIV. The most important aspect to a good life/ healthy community by FGD Ps	[IAHC]	
1. Water availability for domestic use	[IAHC1]	
2. Water availability for irrigation	[IAHC2]	
3. Healthcare institutions	[IAHC3]	
4. Transportation system	[IAHC4]	
5. Sanitary and hygiene services	[IAHC5]	
6. Food security	[IAHC6]	
7. Education services	[IAHC7]	
8. Housing system	[IAHC8]	
9. Good governance (corruption, accountability and equal representation by tribe)	[IAHC9]	
XV. Age and gender specific health issues in community according to FGD Ps	[AGSHI]	
1. Care for orphans	[AGSHI1]	
2. Ageing diseases	[AGSHI2]	

3. Healthcare access	[AGSHI3]	
4. Water accessibility	[AGSHI4]	
5. Unemployment issues	[AGSHI5]	
6. STIs and HIV	[AGSHI6]	
7. Peer pressure	[AGSHI7]	
8. Food insecurity	[AGSHI8]	
9. Family instability and GBV	[AGSHI9]	
10. Cultural norms and beliefs	[AGSHI10]	
11. Teenage pregnancies	[AGSHI11]	
12. Lack of social support	[AGSHI12]	
13. Weaker social and family ties	[AGSHI13]	
14. Social responsibilities	[AGSHI14]	
15. Landlessness	[AGSHI15]	
16. Accessibility of sanitary and hygiene services	[AGSHI16]	
XVI. Health issues specific to children in the community according to FGD Ps	[HISCh]	
1. Malnutrition	[HISCh1]	
2. Teenage pregnancies	[HISCh2]	
3. Distance to schools and education access	[HISCh3]	
4. Lack of parental care	[HISCh4]	
5. Orphaned	[HISCh5]	
6. Child labor	[HISCh6]	
7. Defilement and rape	[HISCh7]	
Part 2 of coding schedule		
XVII. Social factors		
c. Social factors of importance to the community according to the FGD Ps	[SFM]	
14. Social support	[SFM1]	
15. Social capital	[SFM2]	
16. Social welfare systems	[SFM3]	
17. Family stability and ties	[SFM4]	

18. Life satisfaction	[SFM5]	
19. Volunteer opportunities	[SFM6]	
20. Community service	[SFM7]	
21. Girlfriend/boyfriend relationships	[SFM8]	
22. Participation in church activities	[SFM9]	
23. Gender equality	[SFM10]	
24. Sexual immorality	[SFM11]	
25. Crime rates	[SFM12]	
26. Gender based violence (GBV)	[SFM13]	
d. Emerging social issues in the community by FGD Ps	[ESI]	
10. Social media interruptions	[ESI1]	e.g. Facebook, twitter, Instagram, pornography
11. Individualism and weaker social ties	[ESI2]	
12. Illicit drug use and abuse	[ESI3]	
13. Boy child/men feeling neglected	[ESI4]	
14. Single parenthood	[ESI5]	
15. Homosexuals	[ESI6]	
16. Social groups are more businesses oriented	[ESI7]	
17. Psychosocial health issues	[ESI8]	
18. Poor organization of the social welfare system	[ESI9]	
VIII. Economic factors		
e. Economic factors of importance to the community according to FGD Ps	[EFM]	
13. Employment opportunity	[EFM1]	
14. Cost of living and inflation	[EFM2]	
15. Employment conditions	[EFM3]	
16. Housing status	[EFM4]	
17. Education system	[EFM5]	
18. Unemployment rate	[EFM6]	
19. Urbanization	[EFM7]	
20. Income status	[EFM8]	

21. Unemployment rates	[EFM9]	
22. Poverty	[EFM10]	
23. Negative fallback plans	[EFM11]	e.g. brewing changaa, crime, prostitution, sex for fish
24. Social class difference	[EFM12]	
f. Economic issues relating to employment in the community according to FGD Ps	[IRE]	
11. Gender inequality in employment	[IRE1]	
12. Perceptions towards blue collar jobs	[IRE2]	
13. Lack of industries to create employment	[IRE3]	
14. Social network (whom do you know)	[IRE4]	
15. Corruption in employment	[IRE5]	
16. Engagement in unproductive activities	[IRE6]	
17. Increased crime rates	[IRE7]	
18. Casual work	[IRE8]	
19. Low income status	[IRE9]	
20. Regional inequality in employment	[IRE10]	
g. Economic issues relating to education in the community according to FGD Ps	[EdSy]	
10. Quality of the education	[EdSy1]	e.g. geared towards white collar employment
11. Transition to different levels	[EdSy2]	e.g. primary, secondary, university etc.
12. State of school infrastructure	[EdSy3]	e.g. classrooms, desks, uniform, books, libraries etc.
13. Gender equality in education access	[EdSy4]	e.g. female/male ratio, gender preference in access and priority
14. Social capital in education access	[EdSy5]	e.g. community schools, community support in fee payment
15. Working conditions for teachers	[EdSy6]	e.g. teacher/pupil ratio, income for teachers
16. Inequality in education access	[EdSy7]	e.g. the poor vs the rich, social class in education access
17. Free primary education diluted quality of education	[EdSy8]	e.g. effects of FPE
18. No Free Primary Education (FPE)	[EdSy9]	Nothing is free, does not exist
h. Economic issues relating to housing status		
iii. Description of housing in the	**[DOH]**	

community by FGD Ps		
4. Good housing status	[DOH1]	
5. Poor housing status	[DOH2]	
6. Moderate housing status	[DOH3]	
iv. Challenges related to housing in community according to FGD Ps	**[CRH]**	
13. Many/number of occupants	[CRH1]	
14. Single roomed housed	[CRH2]	
15. Multiple uses and users of the house	[CRH3]	e.g. shared with animals, cooking area, sleeping and living room
16. Cultural issues relating to housing	[CRH4]	e.g. grownup children not sleep under same roof with parents, widow has to build new house, male figure for a lady to construct a house, orphaned children relocates to grandparents' house, building a house on fathers land
17. Spread of diseases	[CRH5]	e.g. RTI, infectious diseases
18. Psychosocial issues due to lack of privacy	[CRH6]	e.g. parents lack privacy, grownup children too, instability
19. Teenage pregnancy	[CRH7]	e.g. teenage girls not under the care of parents in the night
20. Sexual immorality	[CRH8]	
21. Lack of land title deeds	[CRH9]	
22. Rise of shanties	[CRH10]	
23. Social inequality between landlords & tenants	[CRH11]	
24. Lack of political will to improve housing in slums	[CRH12]	
XIX. Physical environmental factors		
c. Physical environmental factors of importance in community according to FGD Ps	[PEFM]	
7. Changes in climate	[PEFM1]	e.g. drought and harsh/hot sun, unreliable rainfall, uncertainty in crops to plant, unpredictable rainfall patterns
8. Water quality	[PEFM2]	e.g. water safety, turbidity etc.
9. Air quality	[PEFM3]	e.g. stench in the air - slums
10. Environmental degradation	[PEFM4]	e.g. deforestation, invasive plant species, invasive termites

11. Unavailability of water for irrigation	[PEFM5]	water available not sufficient for irrigation
12. Infrastructure in the physical environment	[PEFM6]	e.g. roads access, weather dependent roads
	[PEFM7]	
d. Perceived issues relating to the physical environment according to FGD Ps	[IRPE]	
8. Food insecurity	[IRPE1]	e.g. people cannot have 3 meals a day, reduced farm yields, changes in eating habits (i.e. skipping meals)
9. Poor water quality	[IRPE2]	e.g. water related diseases - diarrhea, typhoid, water stinking, water is turbid
10. Spread of diseases	[IRPE3]	e.g. dusty condition causing coughs, colds, RTIs, waterborne and water related diseases
11. Water scarcity	[IRPE4]	e.g. travel long distance to get water, no rainfall here
12. Effects on economic activities	[IRPE5]	e.g. fishing time, fish catch, food production, farm productivity
13. Unsafe roads	[IRPE6]	e.g. poor roads, potholes, weather dependent roads
14. Natural disasters	[IRPE7]	e.g. flooding in slum areas, drought prone areas
XXX. Public health services		
f. Perceived public health services of importance by FGD Ps	[PHSM]	
8. Sanitation and hygiene services availability	[PHSM1]	
9. Water safety	[PHSM2]	
10. Water supply	[PHSM3]	
11. Immunization services	[PHSM4]	
12. Liquid waste management	[PHSM5]	
13. Solid waste management	[PHSM6]	
14. Access to health education	[PHSM7]	
g. Perceived issues relating to sanitation and hygiene by FGD Ps	[IRSH]	
8. Availability of sanitation and hygiene services	[IRSH1]	e.g. safe places for disposal of sanitary towels, access of sanitary towels, toilet access, bathrooms availability, unplanned for in informal settlements, water availability
	[IRSH2]	e.g. girls and boys, informal and formal settlements, payment

9. Inequalities in access of sanitary and hygiene services	[IRSH3]	for this basic need e.g. use of flying toilets, people relieving themselves only in the night in the open trenches, it's embarrassing
10. Loss of human dignity	[IRSH4]	e.g. early marriages for girls, teenage pregnancy, defilement cases, school absenteeism
11. Social issues associated with sanitation and hygiene	[IRSH5]	e.g. can't invite a friend or a relative to my house, seclude myself during menstruation
12. Social insecurity	[IRSH6]	e.g. due to open defecation, fecal oral diseases, contamination of water sources
13. Transmission/spread of diseases	[IRSH7]	e.g. focus is more on the girls than on boys
14. Gender inequalities in sanitation services		
	[IRWSS]	
Perceived issue relating to water supply and safety by FGD Ps	[IRWSS1]	e.g. treated water, not at risk of contamination
7. Water sources protected	[IRWSS2]	
8. Water sources unprotected	[IRWSS3]	
9. Water supply reliable	[IRWSS4]	e.g. water rationing, weather dependent water sources
10. Water supply unreliable	[IRWSS5]	
11. Water safe for consumption	[IRWSS6]	e.g. risk of contamination by open sewer, open defecation, increased cases of water related diseases
12. Water unsafe for consumption		
	[IRWMg]	
h. Perceived issues relating to waste management by FGD Ps	[IRWMg1]	e.g. the city council not doing much, no private companies providing such services, people unwilling to pay for the services, open sewers
4. Water management services are absent	[IRWMg2]	e.g. services available, private companies collect the waste, people willing to pay, proper sewer lines
5. Waste management services are present	[IRWMg3]	
6. Lack of invest in waste management services by government and landlords		

	[IRIm]	
i. Perceived issues relating to immunization by FGD Ps	[IRIm1]	
4. Children are over exposed to lots of vaccines	[IRIm2]	
5. Provides protection against childhood diseases	[IRIm3]	
6. Immunization services are accessible		
	[IRHIn]	
j. Perceived issues relating to health information access by FGD Ps	[IRHIn1]	
5. Health information is accessible	[IRHIn2]	e.g. radio, TV, social media
6. Health information is inaccessible	[IRHIn3]	
7. Health facility main source of information	[IRHIn4]	
8. Media playing a key role		
XXI. Lifestyle and behavior issues		
h. Lifestyle and behavior issues of importance in community according to FGD Ps	[LBIM]	
8. Alcoholism	[LBIM1]	
9. Cigarettes smoking	[LBIM2]	
10. Sedentary lifestyle/physical inactiveness	[LBIM3]	
11. Drug abuse	[LBIM4]	
12. Gender Based Violence (GBV)	[LBIM5]	
13. Boy/girl relationship	[LBIM6]	
14. Eating habits	[LBIM7]	
i. Perceived issues related to alcoholism by FGD Ps	[IRA]	
4. Serious health effects	[IRA1]	e.g. diseases, malnutrition, cause of mortality, disabilities such as blindness, road carnages and deaths, causing infertility (ruining the next generation, addiction
5. Social disruption	[IRA2]	e.g. family breakups, single parenthood, overburdening grandparents with care for grandchildren, associated with GBV,

		associated with low self-esteem, seen as a way of socializing, seen as a cool thing
6. Economic disruption	[IRA3]	e.g. associated with poverty (a cause and an effect), low productivity, is an escape strategy from reality, ruining next generation
j. Population at risk of alcoholism according to FGD Ps	[PRA]	
	[PRA1]	
4. Males	[PRA2]	
5. Females	[PRA3]	
6. Youth		
k. Perceived issues related to drug use by FGD Ps		
iv. Types of drug frequently used according to FGD Ps	[DFU]	
4. Marijuana (Bhang)	[DFU1]	
5. Miraa/muguka (khat)	[DFU2]	
6. Shisha	[DFU3]	
v. Population at risk of drug abuse according to FGD Ps	[PRDA]	
4. Males		
5. Females	[PRDA1]	
6. Youth	[PRDA2]	
	[PRDA3]	
vi. Issues related to drug use	[IRDA]	
7. Emerging health issue	[IRDR1]	e.g. causing infertility, diseases such as dental health issues, ling disease, cancers
8. Social disruption	[IRDA2]	e.g. GBV, is a cool thing, addiction
9. Culturally, seen as a sign of maturity	[IRDA3]	
10. Economic disruption	[IRDA4]	e.g. is an escape strategy from reality, low productivity

11. Psychosocial health issues	[IRDA5]	e.g. mental health issues, stress
12. Class differences in drug use	[IRDA6]	e.g. the difference between the rich and the poor, rich women and men
l. Perceived issues related to cigarette smoking by FGD Ps		
iii. Population at risk of cigarette smoking according to FGD Ps	[PRCS]	
4. Males	[PRCS1]	
5. Females	[PRCS2]	
6. Youth	[PRCS3]	
iv. Issues related to cigarette smoking according to FGD Ps	[IRCS]	
4. Serious health issue	[IRCS1]	e.g. cause diseases of the lung, cancers, TB, dental health issues, addiction and issues of second hand smoking
5. Economic disruption	[IRCS2]	e.g. diversion of the little income to buy the cigarettes and low productivity if one gets disease associated with cigarette smoking
6. Culturally, seen as a passage right	[IRCS3]	
m. Perceived eating habits by FGD Ps		
iv. Types of food eaten in the community according to FGD Ps	[TFEC]	
4. Traditional or local food		
5. Processed foods	[TFEC1]	
6. Junk food	[TFEC2]	
	[TFEC3]	e.g. pizza, French fries (chips), sodas (pop)
v. Changes in eating habits according to FGD Ps	[CFH]	
3. Yes)	[CFH1]	
4. No	[CFH2]	e.g. more processed foods, junk foods, sodas (pop) e.g. not changed, we still eat the same foods as before
vi. Issues relating to eating habits according to FGD Ps	[IRFH]	

6. Economic issues	[IRFH1]	
7. Climate change issues	[IRFH2]	e.g. people not able to afford 3 meals a day, skipping meals to survive hard economic times
8. Cultural erosion	[IRFH3]	e.g. the farms are no longer productive and we have to buy food
9. Food safety	[IRFH4]	e.g. traditional foods not appreciated anymore, junk food associated with higher SES, we do not train the next generation to appreciate traditional foods, the traditional cooking methods such as boiling not appreciated
10. Neighborhood effects	[IRFH5]	e.g. food is not safe anymore, we use all these chemicals to produce our food e.g. rise of fast food vends, rural-urban difference in the foods eaten
n. Issues related gender based violence (GBV) by FGD Ps		
iii. Types of GBV according to FGD Ps	[TGBV]	
5. Physical abuse	[TGBV1]	
6. Rape cases	[TGBV2]	e.g. wife beating, husband beating
7. Cases of incest	[TGBV3]	
8. Verbal	[TGBV4]	
iv. GBV social issues according to FGD Ps	[GBVSIs]	
8. Stigmatized	[GBVSIs1]	
9. Sign of weakness	[GBVSIs2]	e.g. no one should talk about GBV they experience
10. Sign of love	[GBVSIs3]	
11. Single parenthood	[GBVSIs4]	
12. Homicide and suicide cases	[GBVSIs5]	
13. Early marriages	[GBVSIs6]	
14. Psychosocial health issues	[GBVSIs7]	
XII. Healthcare services		
e. Healthcare service issues on importance in community according to FGD Ps	[HCSIM]	
18. Distance to the health facilities	[HCSIM1]	

19. Cost of the services	[HCSIM2]	
20. Drug availability	[HCSIM3]	
21. Doctor-patient ratio	[HCSIM4]	
22. Drug availability	[HCSIM5]	
23. Distance to referral services	[HCSIM6]	
24. Waiting time for specialized care	[HCSIM7]	
25. Inequality in access of health services	[HCSIM8]	
26. Access of health information/education	[HCSIM9]	
27. Care for people living with HIV/AIDs	[HCSIM10]	
28. Cost for treatment of NCDs & chronic disease	[HCSIM11]	
29. Patient – healthcare provider interaction	[HCSIM12]	
30. Facilitation of CHVs as local care providers	[HCSIM13]	
31. Availability of ambulance/emergency services	[HCSIM14]	
32. Cost of health insurance	[HCSIM15]	
33. Accessing services for specialized groups	[HCSIM16]	e.g. seniors, children, women, unemployed youth
34. Engagement of TBAs in service provision	[HCSIM17]	
f. Description of healthcare services by FGD Ps	[DHCS]	
4. Good	[DHCS1]	
5. Moderate	[DHCS2]	
6. Bad	[DHCS3]	
g. Perceived challenges to healthcare service provision in the community by FGD Ps	[CHCSP]	
17. Absence of drugs in health facilities	[CHCSP1]	
18. Inequality in access of healthcare service access	[CHCSP2]	
19. Gender difference in health seeking behavior	[CHCSP3]	
20. Doctors strike	[CHCSP4]	
21. Lack of well-equipped ambulances in time of emergency	[CHCSP5]	

22. Increasing prevalence of NCDs	[CHCSP6]	
23. Privatization of healthcare services	[CHCSP7]	
24. In accessibility of health care services	[CHCSP8]	e.g. cost, distance, a burden to the households and the elected leaders that have to support their communities etc.
25. Understaffed health facilities	[CHCSP9]	e.g. overcrowded health facilities, doctor/patient ratio
26. Waiting time for specialized care	[CHCSP10]	
27. Poor referral systems	[CHCSP11]	e.g. delayed care leading to deaths of loved ones
28. Devolution of health without proper structures	[CHCSP12]	
29. Poor working conditions for healthcare workers	[CHCSP13]	e.g. poor remuneration of healthcare workers, doctors nurses, lack of safety measures in facilities, unequipped hospitals
30. Inaccessibility of health cover/insurance	[CHCSP14]	e.g. too expensive, some conditions are not covered, having such conditions is like a death sentence
31. Demotivated community health volunteers	[CHCSP15]	
32. Corruption in healthcare service provision	[CHCSP16]	
h. Alternatives to healthcare services in the community according to FGD Ps	[A2HCS]	
7. Use of herbal medicine	[A2HCS1]	
8. Traditional healers	[A2HCS2]	
9. Over the counter medication	[A2HCS3]	
10. Rely on your social network	[A2HCS4]	
11. Pray to God for healing	[A2HCS5]	
12. Wait for your death	[A2HCS6]	
XIII. Cultural factors		
e. Description of culture of the community by FGD Ps	[DC]	
4. Existent	[DC1]	
5. Non-existent	[DC2]	
6. Diluted by Christianity	[DC3]	
f. Cultural issues of importance in the	[CIM]	

community according to FGD Ps		
13. Traditional foods	[CIM1]	
14. Communal living	[CIM2]	e.g. strong ties with family, society and having social support as it was in the past
15. Religion and spirituality	[CIM3]	
16. Wife inheritance	[CIM4]	
17. Passage of rights e.g. FGM, circumcision	[CIM5]	
18. Gender roles	[CIM6]	
19. Respect by current generation	[CIM7]	
20. Mentorship by grandparents	[CIM8]	
21. Traditional farming practices	[CIM9]	
22. Belief in superstition	[CIM10]	
23. Dowry payment	[CIM11]	
24. Polygamous marriage	[CIM12]	
g. Perceived emerging issues relating to cultural erosion in the community by FGD Ps	[EIRCE]	
9. Lack of respect	[EIRCE1]	e.g. by current generation, girls are not taught by their grandmothers and boy with the grandfathers/fathers
10. Individualist society	[EIRCE2]	e.g. children no longer owned by the community, never know who your neighbor is, ploughing of farms done at individual levels
11. Loss of social and family ties	[EIRCE3]	e.g. I am more comfortable being invited by a friend for lunch than going to my brother's house to ask for lunch
12. New cooking methods	[EIRCE4]	e.g. deep frying, use of lots of cooking oil seen as a sign of social class and a way of making the food more presentable and palatable
13. Change in diet e.g. more processed foods, junk foods associated with status and traditional foods with poverty	[EIRCE5]	
14. Voluntary Male Medical Circumcision (VMMC) embraced by non-circumcising communities	[EIRCE6]	e.g. spread of HIV and other STIs, malnutrition, NCDs

15. Occurrence of diseases	[EIRCE7]	
16. Women can now own land	[EIRCE8]	
h. Discriminative cultural practices in the community according to FGD Ps	[DCPs]	
5. Land ownership by women	[DCPs1]	
6. Dowry payment in marriage	[DCPs2]	e.g. women not expected to lead, boys expected to be man
7. Restriction of foods eaten by gender	[DCPs3]	enough, not to cry, to provide from a tender age
8. Girls/boys roles and community expectations of the different gender	[DCPs4]	
XIV. Political factors		
e. Political factors of importance in the community according to FGD Ps	[PFM]	
10. Polarity in tribal lines by the government	[PFM1]	
11. Corruption in government	[PFM2]	
12. Political uncertainties	[PFM3]	e.g. you can never tell what is coming tomorrow in politics
13. Unintended consequences of politics	[PFM4]	e.g. political rampages, misuse of our children by politicians, death, injuries, family break ups during campaigns
14. Real engagement of the people	[PFM5]	e.g. my voice to be heard in the ballot, government for and by the people, politicians not just coming in for votes but ensuring that we are actively involved
15. Bribing of voters	[PFM6]	e.g. politician giving money to voters and failing to deliver when elected
16. Devolution without proper structures	[PFM7]	e.g. health, devolved corruption
17. Civic education	[PFM8]	e.g. lay populace needs to be educated on their rights, many have no clue
18. Lack of political will by government to bring change	[PFM9]	
f. Issues relating to active engagement in politics according to FGD Ps	[IRAEP]	
4. Voting	[IRAEP1]	e.g. we participate in voting, community knows that they have

		to vote
5. Positive change with devolution	[IRAEP2]	
6. Voices in policy formation	[IRAEP3]	e.g. politicians only come to ask for votes, but they do not seek our opinion on policy
g. Perceptions of women leadership in the community according to FGD Ps	[WLC]	
5. Accepted in the community	[WLC1]	e.g. current rules do not favor women, culturally is
6. Unacceptable in the community	[WLC2]	unacceptable, you see even God in the bible is a male, women are brainwashed and are enemies of themselves and they vote for the males though the main voters etc.
7. Improved with promulgation of new constitution	[WLC3]	e.g. the women representative positions, it's more inclusive now
8. Gender inequality	[WLC4]	e.g. society demands more from women leaders, who is the husband, is she married, whom is she talking to, women are enemies of themselves, women are expected to be naïve and to play politics of vulnerability
h. Policy priority areas if elected political position according to FGD Ps	[PPAE]	
20. Portable water supply	[PPAE1]	
21. Change of people's attitude	[PPAE2]	
22. Healthcare facilities access	[PPAE3]	
23. Improve agricultural practices	[PPAE4]	e.g. provide water for irrigation, better seeds, regulate prices for farm inputs
24. Land ownership issues	[PPAE5]	
25. Job creation	[PPAE6]	
26. Education access	[PPAE7]	
27. Access roads	[PPAE8]	
28. Access to information	[PPAE9]	e.g. health and civic education
29. Drug supply in health facilities	[PPAE10]	
30. Provision of sanitary towels to girls	[PPAE11]	
31. Closure of pubs/bars	[PPAE12]	
32. Closure of local alcoholic brewing dens	[PPAE13]	e.g. changaa dens
33. Illegalize planting of khat/miraa/muguka	[PPAE14]	

34. Provision of sanitary and hygiene services/facilities	[PPAE15]	e.g. toilets in residential areas, landlords must have provision of these basic services in their houses
35. Diversify sources of income	[PPAE16]	e.g. make women and youth funds accessible to all so that they can have sources of capital, construct better open-air marts to boost business, Alternative sources of income to alcohol brewers
36. Regulate market prices for farm produce	[PPAE17]	e.g. coffee, milk, maize, cattle through creation of SACCOs to provide better pricing
37. Better social welfare for special groups	[PPAE18]	e.g. seniors, OVCs, widows
38. Better governance	[PPAE19]	e.g. fight corruption
XXV. Health outcomes		
e. Health outcome trends according to FGD Ps	[HOT]	
4. No change	[HOT1]	e.g. same diseases, same lifespan
5. Improved health	[HOT2]	e.g. people living longer today, better access health care services, less spread of and mortality due to HIV
6. Worse health	[HOT3]	e.g. new diseases occurring, NCDs on the rise, reduced longevity, more disabilities, road and motorcycle injuries and deaths, increased prevalence of HIV/STIs
f. Health outcomes of importance in the community according to FGD Ps	[HOM]	
16. Life expectancy	[HOM1]	
17. HIV and the opportunistic diseases	[HOM2]	
18. Zoonotic diseases	[HOM3]	
19. Waterborne and related diseases	[HOM4]	e.g. malaria
20. High mortality rates	[HOM5]	
21. Suicide cases	[HOM6]	
22. Homicide cases	[HOM7]	e.g. stress, depression
23. Vector borne diseases	[HOM8]	e.g. sickle cell anemia, psychiatric health problems
24. Malnutrition rates	[HOM9]	e.g. cholera, polio
25. Maternal mortalities	[HOM10]	e.g. paralysis due to polio, genetically inherited disabilities, motorcycle accidents and road carnage associated disabilities
26. Mental health state	[HOM11]	

27. Genetically inherited diseases	[HOM12]	
28. Epidemic diseases	[HOM13]	
29. Disabilities	[HOM14]	
30. Personal wellbeing	[HOM15]	
g. Issues related to psychosocial health according to FGD Ps	[IRPH]	
8. Neglected health outcome issue	[IRPH1]	
9. Stress due to hard economic times	[IRPH2]	
10. Stress due to unemployment	[IRPH3]	e.g. rate of suicide and homicide
11. Stress due to weaker social ties	[IRPH4]	
12. Stress due to high disease burden	[IRPH5]	
13. Stigmatized condition	[IRPH6]	
14. Emerging health issue	[IRPH7]	
h. Issues related to disability according to FGD Ps	[IRDis]	
7. Major health issue	[IRDis1]	
8. Not that common	[IRDis2]	
9. Associated with motorcycle use	[IRDis3]	
10. Immunization services beneficial	[IRDis4]	
11. Discrimination of those with disability	[IRDis5]	
12. Slight improvements with new constitution	[IRDis6]	
i. Perceived wellbeing status of the community by FGD Ps	[PCWC]	It's better now, some improvements Worse than before
4. Good	[PCWC1]	In between or no change, is the same
5. No change	[PCWC2]	
6. Bad	[PCWC3]	