# Population and human development indicators of UMkhanyakude District Municipality

By

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# COLLEGE OF HUMANITIES

## Declaration

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(ii)   This dissertation has not been submitted for any degree or examination at any other university.

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Signed …………………………………

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# Acronyms

- AIDS — Acquired Immunodeficiency Syndrome
- ARVs — Antiretroviral
- BRICKS — Brazil, Russia, India, China, South Africa
- CAPI — Computer Assisted Personal Interviewing
- CEB — Child Ever Born
- CS2016 — Community Survey 2016
- DOB — Date Of Birth
- DTT — Demographic Transition Theory
- ECD — Early Childhood Development
- GDI — Gender Development Index
- GDP — Gross Domestic Product
- GNI — Gross National Income
- HDI — Human Development Index
- HDR — Human Development Report
- HIV — Human Immunodeficiency Virus
- ICPD — International Conference on Population and Development
- KZN — KwaZulu-Natal
- LFS — Labour Force Survey
- MDGs — Millennium Development Goals
- NDP — National Development Plan
- SA — South Africa
- SDGs — Sustainable Development Goals
- SR — Sex Ratio
- Stats SA — Statistics South Africa
- TVET — Technical Vocation Education and Training
- UDM — UMkhanyakude District Municipality
- UN — United Nations
- UNDP — United Nations Development Programme
- UNISA — University of South Africa

# Abstract

Observing population and human development indicators is essential for excellent planning and proper distribution of resources. Central to all planning and development shall be the people at heart. The significance of understanding population dynamics and developmental capabilities play an influential role to the advancement of its citizens. Human development should be in relation to the set district, provincial, national and international standards. Hence, statistics and findings are important because they provide an understanding of both areas of challenges and achievements, thus a need for strategic planning. The objective of planning for development should be about and for the human advancement at its core and purpose. The District of Umkhanyakude is not immune from the challenges of poverty, unemployment and inequality. South Africa as a member state at the United Nations has subscribed to the established global agenda of sustainable development goals (SDGs) with a time-frame of 15 years (which started in 2015 until 2030). The District has obligations to alleviate unemployment, poverty, inequality, and be pro-improved human living conditions. Developing programmes that ought to respond to the global set agenda needs to have time-frame, and measured.

UMkhanyakude District remains one of municipalities in KZN that needs great investment of resources to better living conditions of its citizens. The population of UMkhanyakude remained relatively young. More than 50% of the population in the District is below the age of 35 years and women were the majority. Women and the youth bear much of high unemployment problem. The District racial composition was composed of all racial groups found in the country, which are, Black/African, Coloured, Indian/Asian, and White. The Black/African race constituted about 99% of the total sample data. Coloured, Indian and White race make almost 1% of the total sample. Female headed about 60% of household and their average age was above 65 years old. Moreover, 90% of average income received by the District comes from grants and subsidies. Most of the household in the District live on grants and subsidies. Income levels have increased since the dawn of democracy however remained low. High levels of educational attainment tend to be the key to unlock human potential and personal development. Investment in education and health infrastructure is important for a healthy population, in particular that is youthful and growing. This may positively contribute to increased skills and future workforce that can participate meaningfully to the economy of the District and provincially, as well as for the country as a whole. There was a relatively low educational attainment, especially for post matric qualifications. There was a considerable high number of people with no education at all, about 23% of the data sample.

The study undertook a quantitative approach to explore the data. The sample data used came from community survey 2016, and UMkhanyakude had 47,179 sample data. The data was analysed using Stata 14 programme, and micro soft excel. The Community Survey 2016 (CS2016) data was used to explore population profile of the district. General demographic indicators presented the district population estimate by local municipalities, sex composition ratio, which was the number of males per 100 females. Population pyramids for the District over the years were included to better understand patterns of population dynamics by age and population group.

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# Chapter One

Introduction

## 1.1 Introduction of the study

At the beginning of 1970s, the term development was perceived to connote rising income (Anand and Ravallion, 1993). The association of development with rising income however received significant critique. The average income approach was argued as inadequate to better the lives of less fortunate people, and began to focus towards poverty reduction direction. The World Bank in its first Annual Meeting in 1968 acknowledged that growth alone was insufficient to better the lives of people, and begun to encouraged poverty reduction objectives, and that the bank should be of developmental in its primary pursuits (Birdsall and Londono, 1997). In relations to this paper, the term development shall be understood as a course that creates progress, positive change, additional economic, environmental, social and demographic components, which raise level and quality of life of a population (Israel, 2018). Development may not necessarily be immediate, nevertheless visible and involves quality change, as well as sustainability (Israel, 2018). The report of United Nations Development Programme (UNDP) came up with a convincing conceptualisation of human development (UNDP, 1990). It defined human development as a process that enlarges both people's choices as well as the level of their achieved well-being (UNDP, 1990: 10). This definition embraced numerous approaches to development since it captured comprehensively human life complexities. Furthermore, it entailed all the conventional approaches that had been proposed such as the human welfare approach, human capital formation and human resource development, and the gross national product growth (UNDP, 1990).

There were three primary human choices that were advanced under the human development definition and clearly income was one of them (UNDP, 1990). Access to income was seen as a means because it can be used to access a number of essential needs such as medicines, adequate food, better shelter etc., which all enabled for a decent living. The other two components of human development that needed to be expanded were access to education and acquiring knowledge or literacy, as well as to lead long and healthy life or longevity.

The human development definition was essential since it can be operationalised and measured. Measurement of human development focused on longevity, education or literacy, and income as the essential elements of human life (UNDP, 1990). Longevity relates to life expectancy at birth as an indicator. With the common belief that a long life was valuable and

relates with several indirect benefits such as appropriate and adequate nutrition and good health were observantly connected with higher life expectancy (UNDP, 1990). Knowledge component of the human development definition relates to literacy figures, which reflects access to education. Good quality education necessitate productive life in the modern world of information and technology. Literacy was an individual's first critical stage of learning and knowledge-building, thus literacy data was central in measurement of human development (UNDP, 1990). The last critical component of the three of human development definition was access to income. Access to income could be measured through employment level statistics. Employment statistics relates to the access to income and other indirect benefits. The conceptualisation of human development employed in this study emanated from the UNDP report of 1990 (UNDP, 1990). In this paper, human development had to do with educational attainment, leading a long healthy life and access to employment opportunities.

At the centre of development lies the factor of population, which had its multi-dimensional features. In any social setting, there were challenges relating to population such as educational aspects, unemployment and employment, poverty and inequality, health, environment etc., which were significant in reaching development objectives (Gharibani, 2001). Today's global economy requires a population with necessary skills and knowledge, in an appropriate economic position, segmented and distributed accordingly among sectors of an economy. These were some important considerations in economic development, which may be based and differ given a population structure of a society. The population growth level, population age structure, level of education among the employed, workforce output etc. were essential to explore. Thus, employment, income, and high educational attainment were essential factors for realising improved human development progress.

Participants in the 1987 United Nations World Commission on Environment and Development (UNWCED) recognised a need for new development path. One that sustain human development globally (Barnes and Hoerber, 2013). Amongst deliberations in the UNWCED was that development should meets the needs of present without compromising the ability of the future generation to meet theirs. The White Paper on population for South Africa provides an all-inclusive and multi-sectoral framework for addressing population problems for sustainable socio-economic and environmental development (Population Policy for South Africa, 1998: Viii). Hence, grasping and understanding the population of UMkhanyakude District Municipality (UDM) was a prerequisite for the provision of sustainable developmental services that would meet present needs without diminishing

capabilities for future generation to meet its own needs. It was essential for UDM to have a comprehensive understand of its inhabitants in relation to human development indicators and progress, and in order to assess necessary services to take priority to ensure sustainable standard of living, healthier, and educated society. People of heterogonous ages and sex differ in their needs and services. For persons below age 14 years required services such as access to education and quality education facilities, clean drinkable water and adequate food supply etc. A populace under the age of 14 years would require more services that would respond to their needs, however, an increase of persons over the age of 64 years and older would require different services to ensure better health and longevity, social security services etc. Children would have peculiar needs that required specific dedication that will ensure sustainable early childhood development and the need for investment of resources to promote maximum child development from birth. In that way, the country will ensure its future generations were at better potential for development and prosperous society. Middle age and elderly population require different attention such as building of houses for elderly, old-age homes, and increased facilities for pension access, and hospitals and clinics within the community. Population group by sex structure was essential and demanded a special focused attention for service delivery and development. Female population may have particular necessities, such as provision of sanitary towels for young girls from struggling families, which differ from male counterpart. Statistics were important as they highlight facts and parallels people's living conditions, places and opportunities. The gaps by age and sex among the residents of UDM had to be acknowledged and addressed to guarantee universal right to life and longevity. This study focused on few of development indicators, which were demographic profile of the District, household headship, employment levels and, educational levels.

The study was located in KwaZulu-Natal under the district municipality called UMkhanyakude. The district extends from Mtubatuba in the south and cross to the Lubombo Mountains in the west. The municipality was in the main rural, it shared borders with Swaziland and Mozambique. Large areas of the land were under the Ingonyama Trust, remaining areas were under state conservation or private ownership. The District Municipality was not immune from the challenges of poverty, unemployment and inequality. The inhabitants found in this municipality required greater attention for service provision and a study about population dynamics would ensure necessary policy intervention and planning by authorities.

## 1.2 Objectives of the study

There are two set objectives of the study;

1. To understand demographic and household composition of the people of UMkhanyakude District Municipality
2. To explore human development levels in the District Municipality

## 1.3 Research questions

The study ought to answer four critical questions, which are the following,

1. How is the population of UMkhanyakude District Municipality distributed by age, and sex?
2. What is the household composition of District Municipality?
3. What is the level of education of the people in this Municipality?
4. What are employment levels within the Municipality?

## 1.4 Motivation of the Study

Paul (1994) wrote that a well-nourished, in good physical shape, educated, skilful labour force becomes an essential assert. The Human Development Reports of the United Nations Development Programme (1990 through 1996) had widen beyond economic expansion to comprise questions of human welfare and quality of life. The reports emphasised that at the centre of development, had to be the people. Arthur Lewis (1955) and Human Development Report (1990) described human development as a process that entailed expanding population's choices (Paul, 1994). Human Development Index (HDI) was invented as a tool to indicate the degree of attainment of some choices (Noorbakhsh, 1998). The HDI attempted to capture three significant levels of socioeconomic life, which individually encompass diverse element of economic choices for human welfare. These socioeconomic choices were income, education, and health. Income was perceived as a resource to secure simple goods and services to meet an average living standard (Noorbakhsh, 1998). Education was a variable, which ought to indicate population's attainment level of knowledge, including adult literacy rates and enrolment ratios for students at all levels of education. Health or longevity (life expectancy at birth) variable indicated a population's degree to live a long healthy life. Population and human development indicators had been employed to understand the population profile of UMkhanyakude District Municipality using data from Community

Survey 2016. The framework of the study was based on the Human Development Reports, and that development should be for the well-being of the populace.

The democratic government of South Africa presented a new advanced constitution, institutions, and law-making frameworks in which it would able to discharge transformation project of a democratic, non-sexist, non-racial, and prosperous society (Stats SA report, 2013). Countries were ranked as least developed, developing, and developed with social indicators. This ranking was essential for the assessment of the District's residents in terms of human development, in particular education and employment levels. Social indicators were a useful approach of human, social, and economic development measurement because they encompassed features, which cannot be revealed with income-based measures (Hicks and Streeten, 1979). Social indicators involved health, development, nutrition, housing, access to clean water, primary school enrolment, income distribution, cultural aspects, and social development, which would indicate measurement of the populace having simple and basic needs shortages (Hicks and Streeten, 1979). Population by age and sex, and the universal human development indicators would be benchmarked by exploring at household headship, level of education and employment. Human development progress towards meeting portion of the targets of the millennium development goals (MDGs) was essential in uplifting the lives of the previously disadvantaged. MDGs were a global time-framed and quantifiable targets for addressing life-threatening poverty in numerous facets such as starvation, sickness, lack of sufficient housing as well as advancing gender parity, education and ecological sustainability (United Nations, 2000). The year 2016 marked the beginning of sustainable development goals (SDGs) for the next 15 years to shift the globe to an ecological path (Sachs, 2012). The SDGs considered international primacies, which needed energetic universal public involvement, political emphasis, and quantitative measurement, as well as learning from the MDGs.

The democratic government of South Africa allocates funds based on the number of people in a province and development level, and provinces allocates its budgets per the number of people per municipalities as well as in relation to urgent needs. Government planning necessitate the importance of demographic features in delivering services. In year 2012, South Africa had about 5.3 million children below the age of five (Department of Social Development, 2015:41). The province of KwaZulu-Natal (KZN) commanded about 20.6 percent thereafter by Gauteng with 19.6 percent. Free State as well as Northern Cape had the smallest share of children with 5.3 percent and 2.3 percent respectively (Department of Social

Development, 2015: 41). Thus, the findings, which are only available by means of demographic features and indicators, inform government planning and budget spending.

Children as from the age of 6 years are expected to start schooling, and remain in school for 18 years. Teenage pregnancy in South Africa has been existing for a number of years. The department of education had to deal with a number of cases of teenage pregnancies, which tend to delay the future of learners especially for girls as they bear pregnancy. KZN is one of the hardest hit provinces where about 5 358 cases of teenage pregnancy were recorded in 2005 alone (Ramoroka, 2006). The government had to plan based on population and demographic composition of the municipality in relation to the number of schools, books and other stationary, nutritional programmes.

A population that was in mid-twenties would be expected to had achieved enough educational attainment and be at the workplace. Demographers were able to provide information that would be informative to authorities on services needed and take centre stage based on how geographically, by sex and age, level of education and unemployment, diseases, employment, migration, mortality and fertility ratios on how population is changing in relation to a number of human development indicators. Demographers engage in research activities that may lead to improved understanding of dynamics on human population by studying primary population phenomenon.

The population of South Africa was estimated to be youthful, where the majority of the people were below the age of 36 years as indicated by the 2015 Mid-year population estimates (Stats SA, 2015). However, a noticeable number of people was above the age of 65, a special attention of services that would be tailor made for them was imperative. Demographers had statistical tool that may be known as elderly dependence ratio (Mulholland, 2011). Demographic indicators played a crucial role in quantifying prevalence of social ills, and it was not logical to attempt to address issues without checking demographics. It calculated how many people of working age were there to old people who were unable to work as well the children, who through their taxes, had to support the elderly. Children and elderly persons who no longer able to work and earn income and insufficient pension benefits, were theoretically supported by the working age people (Mulholland, 2011). This burden would be higher in few decades in South Africa because of the improved life expectancy at birth due to medical accessibility, increase in literacy rate especially for women and increased standard of living resulting to life longevity. Aging population was likely to

exert significant pressure on public spending programmes, in particular health care and pensions. Demographic research and human development indicators should be studied as they relate to socioeconomic changes. Evaluating level of development of a geographic area was an enormous task because countries had heterogeneous cultures, economic systems, development, and people. In circumventing the problem, experts employed a number of development indicators to assess a country's stage of development (Nzimande et al, 2010). Indicators were crucial because they specified the quantitative and qualitative detail of a particular set of objectives. Selected development indicators using data from population census and community survey would be utilised to cover areas relating to demographic and socio-economic aspects of the population of KZN UDM.

The Community Survey 2016 (CS 2016) was an extensive survey, which furnished populace and household statistics at a local level of a municipality, to government and private sector as a way to enhance development planning as well as policymaking. The general demographic indicators from the CS 2016 estimated South African population to be near 55.6 million, in which females were about 51% and male 49%, and the youth accounted for 36.2% of the entire population. According to the CS 2016, KZN was the next biggest province in South Africa with approximated residents of 11.1 million, just after Gauteng with 13.4 million. UDM as per the CS 2016, had a total population of 689 090, where persons age 15 – 35 account about 37.9% of the population. A good population information was required and made public to recognise the nation's developmental challenges and successes, assess how the country can use limited resources in a more justifiable manner, and improve policies that impact living conditions, as well as to provide a foundation for a strong voice as an emerging state when setting developmental priorities (du Plessis, 1995).

## 1.5 Theoretical framework

Demography is a concept short on theory, but engulfed with quantification (Kirk, 1996). Demographic transition has given one of the well-recognised generalisations in the field of social sciences (Kirk, 2010). Frank Notestein is acknowledged to be first to publish on demographic transition in 1945 (Kirk, 2010). Demographic transition describes a process whereby whole populations advance from an experience of high birth and high death rates to both low rates as well as relatively stable (Crook, 1996). A number of various writers documented this theory during the 1930s and 1950s, with a predominantly European experience (Chesnais, 2009; Szreter, 1993 and Vincent, 1945). In the process, death rates

decline first, then some decades later fertility rates also decline. There were many stipulated reasons that led to mortality decline during first stages of the transition theory. Amongst others were development of states and public order, which led to decline in conflicts and wars, improvement of agricultural activities, rising income and improved medicine intervention (Kirk, 1996). The transition period is distinguished by increased population growth rates emanating from excess birth rates over death rates. The society's demography is presumed to transform from many children and fewer elderly, to fewer children and many elderly, which means from a shorter life to longer lifespan and ageing (Lee and Reher, 2011). Analysis point out that the decline in fertility was because of a rise in demand for human capital (Galor, 2012). Childbearing was seen to be economically disadvantageous. Economic factors have been argued to have contributed significantly to fertility decline. In the modern day, the process takes about 30 – 50 years to complete (Crook, 1996). Figure 1.1 explains precisely the birth and death rates model in pre-transit, the transit and post transit stages.

Given the description of the demographic transition theory in the preceding paragraph, this research departs and adopts theoretical framework in exploring human development aspects of education attainment indicators, population dynamics, employment level, and longevity indicators.

*Figure 1.1*. **The demographic transition model**
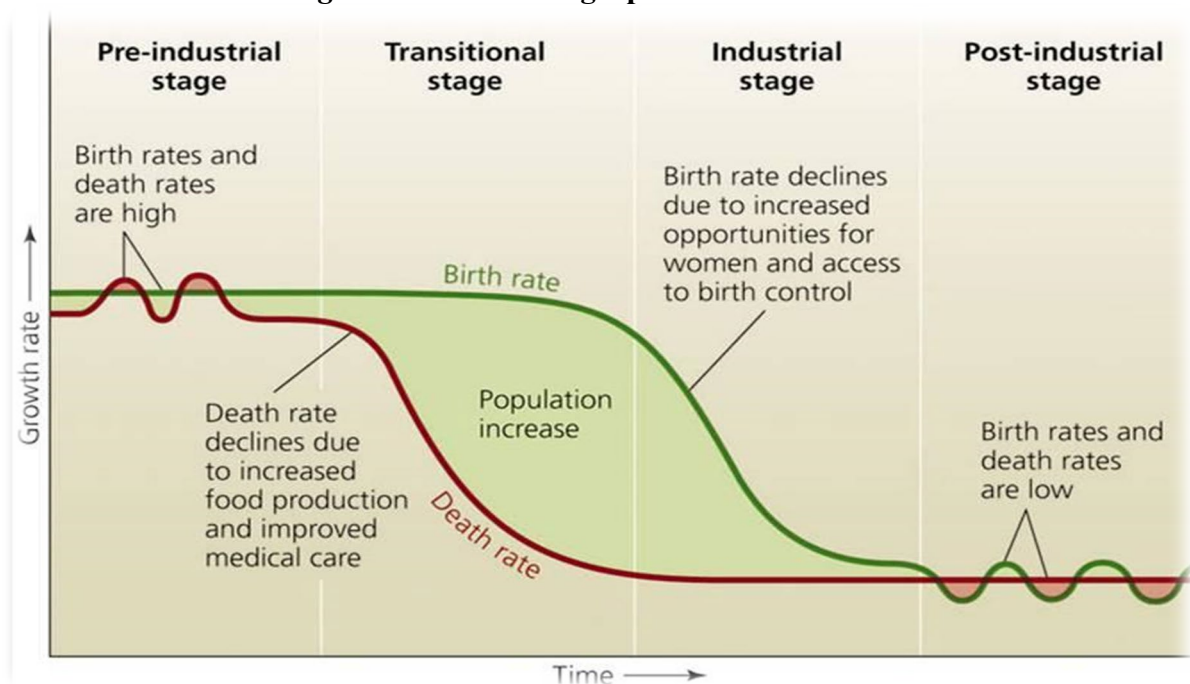


Demographically, the pre-transit stage was characterised by common high birth and death rates that cancelled each other, thus no long-run population growth rate (Crook, 1996). The

first stage of demographic transition process began early 1800s through early 1900s in the Western developed nations (McLanahan, 2004). This stage was characterised by an equilibrium of population growth size, where infant mortality was high and fertility equally high. High mortality was influenced by the absence of modern forms of medicine, agriculture, transport and sanitation services (Teitelbaum, 1975). Powerful pronatalist norms coupled with both sacred and secular popularly institutionalised values maintained high fertility (Teitelbaum, 1975).

Transitional stage was mainly characterised by sudden plummeted death rates while birth rates remain high. The world population suddenly began to grow faster than ever before particularly in England, Europe and North America. It has been argued that agricultural revolution has contributed enormously to population burst. The industrial revolution after the 1750s brought most importantly invention of mass production, adequate transportation, efficient agricultural machines and improved technologies, which transformed the method of manufacturing products and delivery to markets. This transformation resulted to an unprecedented creation of wealth, and some of which was channelled to the betterment of residential areas and make communities healthier. The creation of massive wealth produced personal hygiene, cities installed sewer systems, food and water supplies were preserved for longer. These public improvements, consequently led to healthier population, hence lived longer. Stage two of demographic transition theory began much later in Africa, Asia, and Latin America, that was after 1950. Medical innovations eliminated a number of death causes in less developed countries, and enabled the population to live longer and healthier lives.

Stage three of the transition was symbolically characterised when birth rates began to decline considerably because of increased women's status, contraceptive use, and improved economic conditions. Thus, the decline in mortality and birth rates led to slow population growth, hence stage four of the demographic transition theory. Highly developed countries are in stage four and beyond, while most less developed countries are in stage three of the theory. Developed countries normally have higher education attainment, advanced healthcare, a higher proportion of working women who are career driven, and stronger economies (Grover, 2014).

This demographic transition theory (DTT) is particularly significant to the study conducted as it relates to population and human development. The theory is centred on population dynamics as they are influenced by human development and wellbeing of a society. Each stage of the DTT differs to another as a result of human development and provision of

straightforward services which may include health care, cleanliness, access to education, provision of clean water, agricultural improvements, increased income to name a few. With human development indicators, it will be possible to examine the District's stage of DTT and its population. A stage of DTT may influence resource allocation and prioritisation of services. For instance, if the District is said to be in stage one of DTT, that may suggest high mortality rate, inadequate health care services, wars, less agricultural produce, poverty and lack of sanitation services. Through evaluating level of education attainment, income levels, employment and unemployment rates, dependency ratio, youth fertility and mortality levels, as well as the general provision of basic services can give a comprehensive picture of where the District regarding stages on demographic transition theory. It is of great logic therefor to consider the DTT for the study of population and human development indicators in order to categorise the District, after having answered the main research question.

There were other models in the field of demography, which may relate to the title and purpose of this paper such as the theory of preindustrial population dynamics (Wood, 1998). Nonetheless, were found incomprehensive to best capture the objectives and questions of the study. This preindustrial population dynamics model was central to the well-being concept. The well-being concept construe aspects of physical condition which influence a person's capacity to survive and reproduce. The model leaves a lot to be desired, a number questions remained unanswered by the preindustrial population. The empirical findings generated thus far have been clouded by problems of interpretation and limitations, such as longitudinal records of population change are unavailable, ages are unknown, and demography. This model was not suitable for this study because of questions posed cannot be unswered and the data would be incomplete and ambiguous.

## 1.6 Organisation of the dissertation

This dissertation would be a collection of six sections, where chapter 1 would introduce and afford background of the study at the outset. The chapter highlighted objectives, research questions and theoretical framework in going about the study. Chapter 2 expanded on the research topic by engaging on the literature that has been produced by experts and scholars in the field of human development indicators, social progress, as well as millennium development goals and sustainable development goals. Population policy issues that are international and national where reviewed at, as well as developing and developed countries. Chapter 3 outlines the collection of data to be used and methodology to analyse the data. This chapter introduces South Africa's population census and Community Survey data which will

be fundamental in responding to the key research questions. Chapter 4 provides descriptive statistics on the population of UMkhanyakude District Municipality by age and sex, household composition, level of education, and employment levels. Chapter 5 summarises the outcomes of chapter four findings. The final chapter of the study would conclude the whole study to highlight whether it achieved all the main goals, its contribution of the research, and its limitations. This chapter will conclude the study by combining the research topic, objectives and research questions.

# Chapter Two
Literature Review

## 2.1 Introduction

A country's population dynamics are critical for ordering and evaluating its economic, social and demographic situations as well as developing well-informed policies and programmes (Stats SA, 2011). Population distribution by country's provinces, regions as well as districts is central for equal distribution of wealth, government services and funding education, health and public facilities (Stats SA, 2011). It would be vital for population's choices to be harnessed and their capabilities enlarged through education in order to lead long happy and healthy lives (UN, 1998 and Stats SA, 2011). Human development approach has been intercontinentally affirmed to be the basis of population management (UN, 1998). The 1948 Universal Declaration of Human Rights sustained that every person is entitled to well-being such as food, clothing, housing, medical care, education, to work and social security (UN, 1998). This chapter will look at the world population size, population policies in developing countries as well as South African population policy, millennium development goals, sustainable development goals, human development index, KZN development indicators and district indicators.

## 2.2 Population size

The World Bank (2007b: 1) argued that population as a concept, encompassed a number of aspects, *inter alia*, reproductive, maternal, and sexual health topics, health services, levels and trends in births, deaths, as well as migration which influence population growth and age arrangement. The economic growth and other segments of the society were then influenced by this concept and its size. Developing countries were undergoing a significant population growth because of continued decline in death rates and massive hasten of birth rates due to a number of factors such as improving health care provision at low cost and increased supply of medical technologies (Lee and Reher, 2011). According to Cassen et al (1994), developing countries grew by 2.4 billion people within the 1950 and 1990 period. These countries were characterised by a larger proportion of youth population, which further perpetuated population growth. Demographically, improved health and greater long life enjoyed by women of reproductive ages tend to enhance fertility performance, thus contributing to population growth (Omran, 1971). A youthful population particularly in under-developed countries will hasten population growth. This will at first fuel population growth, even if it grows less than the replacement level of 2.1, it will keep growing and eventually decline as

explained by stage three of the demographic transition theory. Demographic momentum has kept a massive surge in population growth because of youthful age structures, which inevitably expose them to sexual activity and pregnancy. This tended to keep population increasing even after fertility declined. Cassen et al, (1994) argued that a youth age structure in developing countries would further contribute a billion population in the next 22nd century, particularly in urban areas and major cities. Population growth was debated to have enormous elements for developing-nation's economic growth and social development prospects, preservation of global environment, and relationship with other developed nations. Developed nations had undergone similar significant population growth during the last two centuries before 1950. However, the population growth in developed countries expanded across centuries rather than decades in the case of developing world. Over the last 1750 through 1950 centuries, population in more advanced countries had more than quadrupled from 191 to 832 million people. In the same period, population had more than tripled in developing nations, from 567 to 1,684 million people (Cassen et al, 1994). The developing world contributes more to the world population increase, particularly from Asia. China and India continue to be the world's most populated developing nations, which account more than 40% of the global populace. The continent of Africa and Latin America have one of the largest population increases, Nigerian and Mexican population almost tripled when compared to that of China, which doubled over the last 55 years (Cassen et al, 1994).

The world population continues to undergo a process of a demographic transition particularly in developing countries (Galor, 2012). Prior to demographic transition, studies suggested that birth rates have been traditionally high in the world, however, were offset by high death rates (Kirk, 1996). In the period of 1750 through 1950, global population fluctuated and grew by smaller margin (Khan, 2008). Europe and its industrial revolution brought about improved living conditions, advances in public health and medical technology, thus a decline in mortality. In developed regions, fertility had increased due to better conditions of living, but the social, economic and cultural changes linked with industrial revolution brought decline in fertility (Khan, 2008).

Table 2.1 below shows population in millions and percentage share by regions of the total population. The table has divided the world according to developed and developing nations, and selected regions and countries where there has been high population growth. The table depicted that the world population had more than doubled from 1950 to 1990. The 2012 United Nations population review, estimated citizen of the world to rise from 7.2 billion to

8.1 billion by year 2025 (UN, 2012). Another rise in the world population had been projected to rise to 9.6 billion by 2050, and 10.9 billion by 2100 (UN, 2012). Prior to this massive increase in world population, the 2002 United Nations Revision of the populace approximations and projections, suggested that the growth rates started growing gradually through the 17$^{th}$ and 18$^{th}$ centuries given a decline in mortality. With emerging achievements in long life, the increasing amount of the global residents compounded significantly particularly in the 20$^{th}$ century where it stretched to a pick rate of 2.07%. Based on table 2.1, by 1990, about 37% of the world populace resided in China and India. Moreover, about eight nations constituted an additional 22% of the world population, namely, United State of America, Indonesia, Brazil, Parkistan, Nigeria, Japan, Russian Federation and Bangladesh (UN, 2012). The 75% of the 233 nations had populations of less than 20 million residents in 2013 and, they sum to 10% of the world's population. The South African population has more than doubled from 1950 to 1990, and it has been estimated to increase to 69 million by 2025 and, that is equal to 0.8% of the world population.

In developing countries and regions, with youthful population, young persons below the age of 15 years constituted about 28% of the population, and persons among the age of 15 to 24 years accounted about 18% (UN, 2012). This situation may pose difficulties because they have to be provided with education and health facilities, as well as opportunities for employment and income. In least developed countries, the situation was even concerning, persons under the age of 15 years constituted about 40% of populace, and 20% of young people (UN, 2012). From table 2.1, Africa has been projected to have more than 1.4 billion inhabitants in 2025, which constitute 17.6 of the world population. It is apparent from table 2.1 that more than 75% of the population will be concentrated in two regions of the world, namely, Asia and Africa. India's global share of population, has been estimated to continue rising from 16.1% in 1990 to 16.9% in 2025, while China contracts from 21.5% in 1990 to 18.1% in 2025. It was encouraging that more than 80% of the world residents will be located in developed states, suggesting that the world is improving in most of basic conditions of living.

**Table 2.1** **Global Population, 1950 – 2025, Key Regions and Selected Countries**
**(Millions and Percent)**

| | Population (millions) | | | Percentage share of total | | |
|---|---|---|---|---|---|---|
| | **1950** | **1990** | **2025** | **1950** | **1990** | **2025** |
| **World** | **2,516** | **5,265** | **8,126** | **100.0** | **100.0** | **100.0** |
| Developed Countries | 1,684 | 4,050 | 6,762 | 66.9 | 76.9 | 83.2 |
| Developing Countries | 832 | 1,215 | 1,364 | 33.1 | 23.1 | 16.8 |
| **Africa** | **222** | **628** | **1,431** | **8.8** | **11.9** | **17.6** |
| Ethiopia | 20 | 48 | 140 | 0.8 | 0.9 | 1.7 |
| Nigeria | 33 | 96 | 217 | 1.3 | 1.8 | 2.7 |
| South Africa | 14 | 38 | 69 | 0.6 | 0.7 | 0.8 |
| **North America** | **168** | **281** | **362** | **6.7** | **5.3** | **4.5** |
| **Latin America and Caribbean** | **166** | **435** | **686** | **6.6** | **8.3** | **8.4** |
| Brazil | 53 | 149 | 224 | 2.1 | 2.8 | 2.8 |
| Mexico | 27 | 82 | 136 | 1.1 | 1.6 | 1.7 |
| **Asia** | **1,377** | **3,104** | **4,758** | **54.7** | **59.0** | **58.5** |
| China (excluding Taiwan) | 547 | 1,134 | 1,471 | 21.7 | 21.5 | 18.1 |
| India | 348 | 850 | 1,370 | 14.2 | 16.1 | 16.9 |
| Indonesia | 80 | 178 | 265 | 3.2 | 3.4 | 3.3 |
| **Europe** | **398** | **501** | **514** | **15.8** | **9.5** | **6.3** |
| **Former Soviet Union** | **174** | **289** | **338** | **6.9** | **5.5** | **4.2** |
| **Oceania** | **13** | **27** | **38** | **0.5** | **0.5** | **0.5** |

*Source: For 1950 Data, see United Nations, World Population Prospects: The 1992 Revision (New York: United Nations, 1993); for 1990 data, see Eduard Bos et al., World Population Projections: 1994-95 Edition (Washington, DC: World Bank, forthcoming 1994).*

The global population continued to grow, and it had been projected to reach 10.6 billion in 2100 (UN, 2012). Cohen (1997) once argued that human influence on the earth had surpassed more rapidly than the human population. Scholars have been arguing that rapid population growth would lead to challenges of resource depletion and hunger, and civil war (Goldstone, 2002; Weiner, 1971; and Chalkley, 2003). The population growth rate has remained low in some parts of the world, however, in a number of states in the Middle East, Southeast Asia and central, as well as in Northern Africa has been growing at a speed that leads to the population doubling within a space of nearly 25 years (Goldstone, 2002). Despite decline in countries' population growth rate, the absolute numeral of persons actually added to the globe's citizens has increased. Weiner (1971) made assertion on how concerning it was for the rapid population growth over limited resources and capabilities the universe has to offer. Nations and its governments differ with abilities to address socio-economic challenges when rapid population growth was at play. In a social order where a considerable number of individuals were unemployed, low economic growth, an instant population increase would inflict different results for young persons than in society that experiences strong economic growth and increasing demand for labour. A growing population expands demand for

education, health services, food, water, transportation and land (Weiner, 1971). Countries had different financial, political power, and administrative capabilities to address various demands of population. Hence, rapid increase in population growth in developing countries widens challenges for the governments and the environment. Environmentalists worry much about human burden on the environment. They were concerned about drastic population increase in developing countries and great consumption of resources (Chalkley, 2003). Efforts have been undertaken to study the relationship between population and environment. Concepts such as earth's heating up, ecosystem contamination, ozone depletion, loss of biodiversity, fresh water resources, oceans, land-living use and carrying capacity all have been evaluated to determine any significant relationship with population (Chalkley, 2003).

Crook (1997) asserted that agronomists were optimistic and projected food production will be able to sustain the continuing world population growth. For example, chicken population has more than doubled the human numbers globally, by 1991 there were about 17 billion chickens produced (Cohen, 1997). However, this narrative does not suggest poverty and starvation will be no more. Economists have argued that the distribution of resources remain unequal and concerning (Crook, 1997). Food supplies were disproportionately spread across the world without relation to population (Vickers, 1974). In light of the continuing increase of world population with its implications and concerns especially to the least developed parts of the globe. Some of the countries had embarked on various attempts to influence the level of population growth by means of family planning campaigns (Burke, 2014). Thus, a number of countries have adopted population policies in their developmental agenda. Population policies have several objectives, in the main is to influence fertility to achieve a particular level of population growth. The government of China introduced a population policy of one child per couple in 1979 for urban residents with the objectives to limit population growth at a certain level of growth, given difficult economic situation at the time (Hesketh and Xing, 2005). Cohen (1997) believes that a number of governments continue to retain demographic goals as part of their development strategies. There had been a number of population policies that have been developed and exist around the globe. These population polices had evolved across times given population dynamics, economic, and environmental changes.

## 2.3 Population polices

Cocks (1996) argued that a country's population was imperative to be acknowledged regardless of one's views on rate of population change or increase, and population size. It was critical that countries should have population policy in order to safeguard equal welfare

as well as resource distribution. Sala-diakanda (1991) was able to outline the rationale for policy on population since he argued that demographic variables should be at the center when planning to improve welfare of the people especially when resources are limited. In light of population policy, there had been a universal acceptance that population policy cannot be fully voiced without a fundamental development strategy (Sala-diakanda, 1991). Countries were in different levels of development and policy on population may vary given the level of advancement in a region or in a country. At the 1974 World Population Conference, there was strong divergent perspectives on population policy to be undertaken by the conference. Developed nations had a conviction that developing regions have delayed economic growth and development because of high fertility and population growth, and they should adopt a population policy that would discourage high fertility levels (Sala-diakanda, 1991). Sullivan (2007) attempted to define what population policy may mean, he then suggested that population policies entail the efforts, which steer demographic variables such as fertility, mortality, growing populace, migration, or the population distribution to a certain level idealized by a State.

Poverty, environment and population can no more be dealt with individually, though they were separate topics, they were interlinked in practice and cannot be delinked in the formulation of policies (Cocks, 1996). At Bucharest Population Conference in 1974, the world recognised the lengthy population problems and their strong relationship with socio-economic developmental issues (Johnson, 1987). A number of literature has been produced not only at international level but also at country's national level on population guiding principle (Barrett, 1999). Modern population polices had shifted from demographic targets to individual concerns, and they expose the framework of Malthusian, Marxist, and Boserupian approach (May, 2012). Hence, there were diverse viewpoint on matters of population policies amongst government leaders, academics, policymakers, and various organisations across continents, either in developing or developed, as well as individual countries (Barrett, 1999).

There were population policies with an intention to reduce national fertility growth rates particularly for developing nations (Barrett, 1999). In the last two decades, a number of governments particularly in developing regions had acknowledged the significance of lowering high rates of population growth (UN, 2013). While in developed and highly industrialised nations, there was a shift in population policies towards encouraged higher fertility rates due to substantial low or no growth rate of population as well as an increased number of ageing people (UN, 2013). The United Nations Report (2013) revealed that out of

193+ Member States, 37% of them had population policies intended to reduce the rate of population growth. About 20% of the highly industrialised countries had adopted policies that promote higher fertility rate and thus, population growth. Only 43% of the Member States had maintained and did not interpose influence on the population growth rates. A community of experts during the mid-1960s held a view on excess population growth as a primary setback on economic expansion mainly in the developing world. This view led to the United Nations Declaration on Population in 1966 to commend leaders of countries to assess their demographic settings to inform policies about fertility reduction rates to be streamlined with development goals (Barrett, 1999). The Cairo 1994 International Conference on Population and Development where Africa was part of, representatives from 180 countries reached a consensus that links population and development (African Population Conference, 1999). A number of policies can worsen or better the impact of population policy on quality of life (Cocks, 1996). The world agreed to collaborate in implementing the common goals of guaranteeing worldwide accessibility to reproductive health attention and family planning services, radically reduce newborn, child and maternal mortality, and that doors of learning be open to all citizen, in particular girls and women (African Population Conference, 1999). This consensus replaced concerns over human numbers with concerns over human needs, and moved away from demography-oriented to a democracy-centered approach, to stabilize world population growth (African Population Conference, 1999).

The main intention of introducing populace policy was to influence changes in the world population growth, supported by national government's commitment informed by international policy. Barrett (1999) outlined population policy as a specific legislation intended to lower fertility rates. Hence, policies with objective for reduced fertility rates had received great diffusion since 1970s. Unambiguously, these policies emanated as a result of international community activities after the world war two (Barrett, 1999). May (2012) presented a definition of population policy, which encapsulated human developmental aspects. He outlined population policy as an action, explicitly or implicitly, through governments to hinder, postpone or deal with discrepancies between demographic changes on one side, and on the other, social, economic, and political achievements. The world community greatly recognised and encouraged population policies, which were monitored through the United Nation Department of International Economic and Social Affairs. Development agencies, multilateral and bilateral have afforded support in establishing and implementing population policies, mostly in less and least developed states (Barrett, 1999).

### 2.3.1 Global overview

Most governments have responded to population topics at a state level through collecting demographic data in the form of censuses, civil registration systems, and recently surveys in order to design specific public health and population polices that will speak to mortality, fertility, and migration , and to implement them (May, 2012). Population dynamics had ignited debates internationally. World leaders under the umbrella of the United Nations Organisation congregate regularly to discuss matters of world population, as well as policy interventions. Since the first United Nations international population conference in 1974, the emphasis has been largely on the need to monitor population policies (World Population Policies, 2011). In particular, the International Conference on Population and Development (ICPD) which took place in Cairo, 1994, advocated actions towards measurement, assessment, and evaluation of decreasing population, as well as the overriding goal to improve human welfare and encourage sustainable development. The World Population Plan of Action, which was embraced at the Bucharest in 1974, was intrinsically a political document because of exerted political pressure during proceedings of the conference and the culmination of events prior the conference (Miro, 1977: 421). Consequently, displeasure by some was apparent and others attempted to deduce the World Population Action Plan in numerous ways. This could be traced back to Malthusian theory of population proposal that an unchecked population growth would lead to a state of hunger, famine, diseases and eventually death. He articulated that population growth tend to increase in a geometric ratio or doubling itself every 25 years, while subsistence for the people grows in an arithmetical ratio (Malthus, 1798: 6). Others especially from developing nations who assumed a military stance at Bucharest conference, supported by Socialist countries were displeased about the posture of the conference (Miro, 1977). Hence, Karl Marx argued in his outlook that increasing population growth and scarce resources as well as population control, is an attribute of historical, social, political, and economic relations that needs to be considered. He argued that excessive population was not a problem but the created social institutions and social relations were the source of the problems (Gimenez, 1971).  Thus, at the first World Population Conference in Bucharest, it was logical to anticipate contending perspectives towards world population posture, as it was first of its kind.

The World Population Plan of Action was a consensus agreed upon the founding of certain principles for future political action pertaining to population field. The first commitment was the promotion of development and improvement of life quality (Miro, 1977: 424). Therefore,

in principle, the social, economic and cultural development objectives are fundamentals of population goals and policies to better the levels and quality of life. Nonetheless, the action plan does recognise the trends of population increase, distribution, and structure when there was disequilibrium with social, economic, and environmental features, there would be additional problems delaying attainment of sustainable development. In addition, a person's reproductive behavior and aspiration should tally with that of the society. A nation's population policy was to be established under the guidelines consistent with international principles. In addition, a country's population policy guided by the principles of world population plan should respect and make certain, irrespective of that nation's set demographic aims, the liberty of individuals to determine freely, in an accountable manner, the number and spacing of their children (Miro, 1977).

Population has been linked with a number of variables, which may be influenced either directly or indirectly. Young (2004) wrote that organisations that were human population-based had vehemently built their influences of population growth on development and human wellbeing especially in developing region with higher population increase.

### 2.3.2 Population policy in developing nations

Developing regions of the world include Asia, Latin America, and Africa, which were engulfed with recurrent problems of rapid increase in population, and this may prevent their desired objectives for social and economic growth (Igun, 1972). Africa, as part of the global community, was a continent that has been characterised by a number of persistent challenges such poverty, rapid population growth, HIV/AIDS and starvation (African Population Conference, 1999). The proportion of population growth was mostly set by the imbalance of birth over death, and developments in medicine, sanitation, and food production, which contributed to a rapid fall in mortality (Igun, 1972).

There was a discrepancy between places where food was produced and the location of hungry people. On the one side, there was over consumption and waste mostly in advanced regions, while on the other, millions of people particularly children dying of poverty and starvation, most likely in least developed world (African Population Conference, 1999). The challenge of HIV/AIDS pandemic would be the influence on population patterns of growth. More than twenty one million people in Africa were living with HIV/AIDS, and majority of them will die in less than a decade where antiretroviral (ARV) or health care infrastructure was unavailable (African Population Conference, 1999). Wars continuing on the African

continent had destroyed social fabric of countries. Demographic research in population trends as a result of wars, HIV/AIDS pandemic, disease and poverty should inform governments policy and planning. Studying continent's population and development remained essential in order to pursue sustainable development in a comprehensive manner. A sharp decline in fertility from developing regions complemented by endeavors to realise rapid social and economic advancement, which will ameliorate the demographic difficulties (Igun, 1972).

Doyen (1974) distinguished the effects of population size and rates of population growth. The impacts of populace size included the burden of a larger populace on fixed provisions of land and natural resources. The impacts of continuing populace growth rates as the reason of high fertility, the base of age structure will be dominated by a younger population and requires resources to be made available to feed, clothe, house, educate, and equip the increasing numbers, and this demand of resources will be enormous except in lower fertility nations (Doyen, 1974). High rate of population increase was a major challenge for African policy makers and the international community (African Population Conference, 1999). Agricultural advancements and nutritional improvements in public health provision, and the pioneering of low-cost technologies such as antibiotics, oral rehydration and vaccines, contributed to rapid decrease in infant and child mortality, while fertility levels remained at high continuance levels (African Population Conference, 1999). These improvements resulted in rapid population increase as children survive longer and most people live longer, thus keeping population at high-rise.

The world's populace was accelerating at a high rate that would enable it to double after every 35 years (Doyen, 1974). Bulk of the world's population increase was condensed in developing nations, which according to Doyen (1974) amounted to 80% of the world population increase from 1950 to 1970 period, and nearly 19% from 1970 to 1980. Countries within developing regions, which had contributed with a bulky populace, include the People's Republic of China, India, Indonesia, Brazil, Bangladesh, Parkistan, Nigeria, and Mexico (Doyen, 1974). These countries had contributed more than 1500 million people between 1950 and 1990, and the continuing present levels of fertility in developing nations, and possibility for future population growth that was uncontainable (Doyen, 1974). Accelerating population growth in Western and Central Africa signified future crises of food shortage, youth unemployment and a potential of civil unrest (May, 2012). India was the first country to announce a national program to control population growth and funds were set aside for the

program (Kirk, 1967). The rationale was to influence determinants of fertility by means of policies and legislations (Doyen, 1974)

Over the last fifty years, three topics had dominated population policy debate particularly for developing nations (May, 2012). Firstly, population policies were set to respond to high fertility rates. The notion was that low fertility rate was believed to contribute to low mortality rate, thus low population growth. Since 1960s through 1970s, the underlying principle for low fertility was to address socio-economic and environmental impacts of accelerating population growth (May, 2012). From the 1980s, population policies sought to openly reduce fertility levels because smaller families would enhance economic and health conditions (May, 2012).

Developing nations were generally branded by higher fertility growth rates and relatively inadequate infrastructure to meet the growing population needs (Igun, 1972). Population debates and theories had assumed that a continued population growth in developing nations tend to delay development, which leads to more hungry people in the world, and reduced longevity (African Population Conference, 1999). Thus, international community comprising governments, global institutions, academics and experts commend national governments to take actions to lower fertility rates (Doyen, 1974). Connell (2003) argued that world population has been more than controlled, in that fertility rates have dropped across the continents' of the globe. Since the 20th century, on average, women birthed half children as they did over the last fifty years. Policymakers in India had expressed distress from an inability of voluntary family planning effort, which led them to turn to solutions that were coercive and forced sterilization during the so-called Emergency of 1975-1977 (May, 2012). As well, the government of China resorted to similarly coercive policies with their One-Child Policy, which influenced natural population growth rate.

Casterline and Sinding (2000) have argued that the chief objective in population policy entails the degree of unintended fertility and the call to reduce high fertility by means of fertility regulation. Family planning policy has been one of the strategies suggested internationally and some of the developing countries have implemented the policy (Casterline and Sinding, 2000). The government of Rwanda recognised family planning as a developmental tool (Casterline and Sinding, 2000).

There were a number of African countries which yet thus far have not embraced populace policies, these countries included Angola, Burundi, Comoros, Congo, Democratic Republic

of the Congo, Djibouti, Equatorial Guinea, Eritrea, Gabon, Guinea-Bissau, Mauritius, Sao Tome et Principe, Somalia, Sudan, and Swaziland (Sullivan, 2007). Table 2.2 shows countries and a year of adopted population policies. By 1988, only three nations that recognised the need for a population policy, amongst which was Nigeria, the most populated nation in Africa. From 1988 through 1999, only 28 countries in the African continent that have adopted population policy as one of strategic initiatives for development and human advancement. That was about 51% of countries have adopted a policy for its inhabitants, given the 54 countries as recognised by the African Union (Central Intelligence Agency, 2017). Mozambique was the last nation to recognise the importance of having population policy that will serve as a guide for development and resource allocation as well as prioritization of services.

**Table 2.2 Adoption of National Population Policies in Sub-Saharan Africa, 1988-99**

| Year | Country | Annual frequency | Cumulative frequency |
|---|---|---|---|
| 1988 | Liberia, Senegal, Nigeria | 3 | 3 |
| 1989 | Sierra Leone, Zambia | 2 | 5 |
| 1990 | Madagascar, Rwanda | 2 | 7 |
| 1991 | Burkina Faso, Mali | 2 | 9 |
| 1992 | Cameroon, Gambia, Guinea, Niger, Tanzania | 5 | 14 |
| 1993 | Ethiopia | 1 | 15 |
| 1994 | Chad, Malawi, Lesotho | 3 | 18 |
| 1995 | Cape Verde, Mauritania, Uganda | 3 | 21 |
| 1996 | Benin | 1 | 22 |
| 1997 | Botswana, Cote d Ivoire, Namibia | 3 | 25 |
| 1998 | Central African Republic, South Africa | 2 | 27 |
| 1999 | Mozambique | 1 | 28 |
| Total | | 28 | |

(*Sullivan, 2007*)

### 2.3.3 South African population policy

South Africa has been a democratic nation since 1994 when all the inhabitants voted for their government of choice. Earlier, South Africa was a nation characterized by race division of Blacks, Whites, Coloureds, and Indians/Asian. The new country's population policy recognised flaws of the past-government policy approach to demographic processes of fertility, mortality, and migration (Population for South Africa, 1998). The past population policy focused on movement constraint of the majority of the black populace, coercive means of fertility and population growth, more demographic target than human development, and limiting right to educational and employment prospects. Apartheid government had deficient information and incorrect assumptions that poverty was a result of extraordinary rate of

population. Hence, development planning and programming were based on insufficient demographic information, and systematically excluded the majority of the population. Former government population policies were regarded as a population and development model that was no longer documented. At the beginning of 1980s, the administrative executive chose to put into practice a strategy, which overtly endeavored to lessen the national populace growth level with a belief that water resource could not sustain continued population growth rate. Arable land with well water-resource was systematically reserved for the minority population. Family planning programme was pursued to advance contraceptive services to reduce the black majority population rate of growth. Ironically, the government promoting white population immigration for population increase. Thus, there was no viable strategy for an overall socio-economic development plan for South Africa. Post 1994, there was a need for the establishment of a new population policy for South Africa that would be human development oriented and centered.

The new democratic South African's population policy has an international perspective, in that; it has introduced fundamental changes towards sustainable as well as human-driven development (Population Policy for South Africa, 1998). In 1994, South Africa participated in the Human Development Reports of the UN Development Programme (UNDP) as well as the Programme of Action of International Conference on Population and Development (ICPD). The Programme of Action endorsed an approach of action designed to realise a durable development path, which emphasised a shared relationships amongst populace, development, and the environment (Population Policy for South Africa, 1998).

South Africa has endorsed a population policy approach that aims to guarantee all citizens the right to reproductive health by providing essential information and services (African Population Conference, 1999). The country's new democratic Constitution clearly guarantees resident's rights to reproductive decision-making and control over their bodies and to health care. The government model moves at all levels to link social development and population planning to economic strategies, to advance social integration (Population Policy for South Africa, 1998).

## 2.4 Population and development frameworks

May (2012) asserted that the relationship amongst demographic variables and socioeconomic developments were intricate. They require one to evaluate the outcome of population increase and, the consequences of economic advancement on demographic trends. For instance,

fertility was an imperative variable in explaining historic demographic growth in developing nations, one should examine the relationship between socioeconomic development and fertility (May, 2012). It was important to evaluate whether economic development favored a decline or an increase in fertility. In addition, whether a decline in fertility advanced economic growth.

Over recent years, there has been a dominating need for an indicator system that would show a comprehensive view of overall development, particularly on the social aspect (Damashona, 1987). The development indicators need to be measureable, they should be quantifiable on the dimensions of social welfare and levels of living, as well as on the interrelationships of gross domestic product with employment, class structure and property relations. Not only should they track progress in terms of targets, but also in regards to instruments, for instance, infrastructural growth may not be supported at the cost of environmental or air pollution (Damashona, 1987). However, it was worth noting that quantitative indicators were unable to explain qualitative attributes, for example, enrolment rate may have progressed over the years however, what was the quality of education being offered and children who have not enrolled. Hence, development indicators were intertwined in numerous ways and influence each other in ways difficult to explicate (Damashona, 1987). For example, life expectancy can be a function of many models, such food availability, social order, advanced health care system, adequate shelter, water, sanitation, quality education, high income and wealth creation all may lead to higher life expectancy.

The relation among population growth as well as goals for development remains sophisticated, and the net impact of population aspects on sustained economy may at some instances be uncertain. It may be well considered that a reduction in population increase improve a nation's hope for economic expansion that will, as believed to advance a nation's capacity to better the lives of its people (African Development Bank, African Development Fund, 2000). While this overview not yet widely held, however, the rationale behind it was that, a decline in fertility decreases the size and share of persons below the age group of 5 years old, and thus, decreases the demand for education and health services from the government's budget (African Development Bank, African Development Fund, 2000). Hence, a decrease in population growth level indirectly had been considered to enhance human lives. Nevertheless, other analyses believe that the tangible impact of population decline on the improvement of human lives depend on the provision of services and implementation of education, health, and economic policies.

The framework below illustrates direct and indirect impact of population growth on food production, environment, employment, health and education, as well as economic growth. The affiliation among inhabitants and development implies the attainment of sustained economic development, together with variables such as reproductive wellbeing, education, employment as well as rural-urban movement, ecological administration, all lead to human advancement and competence in numerous respects.

**African Development Bank, African Development Fund, 2000**
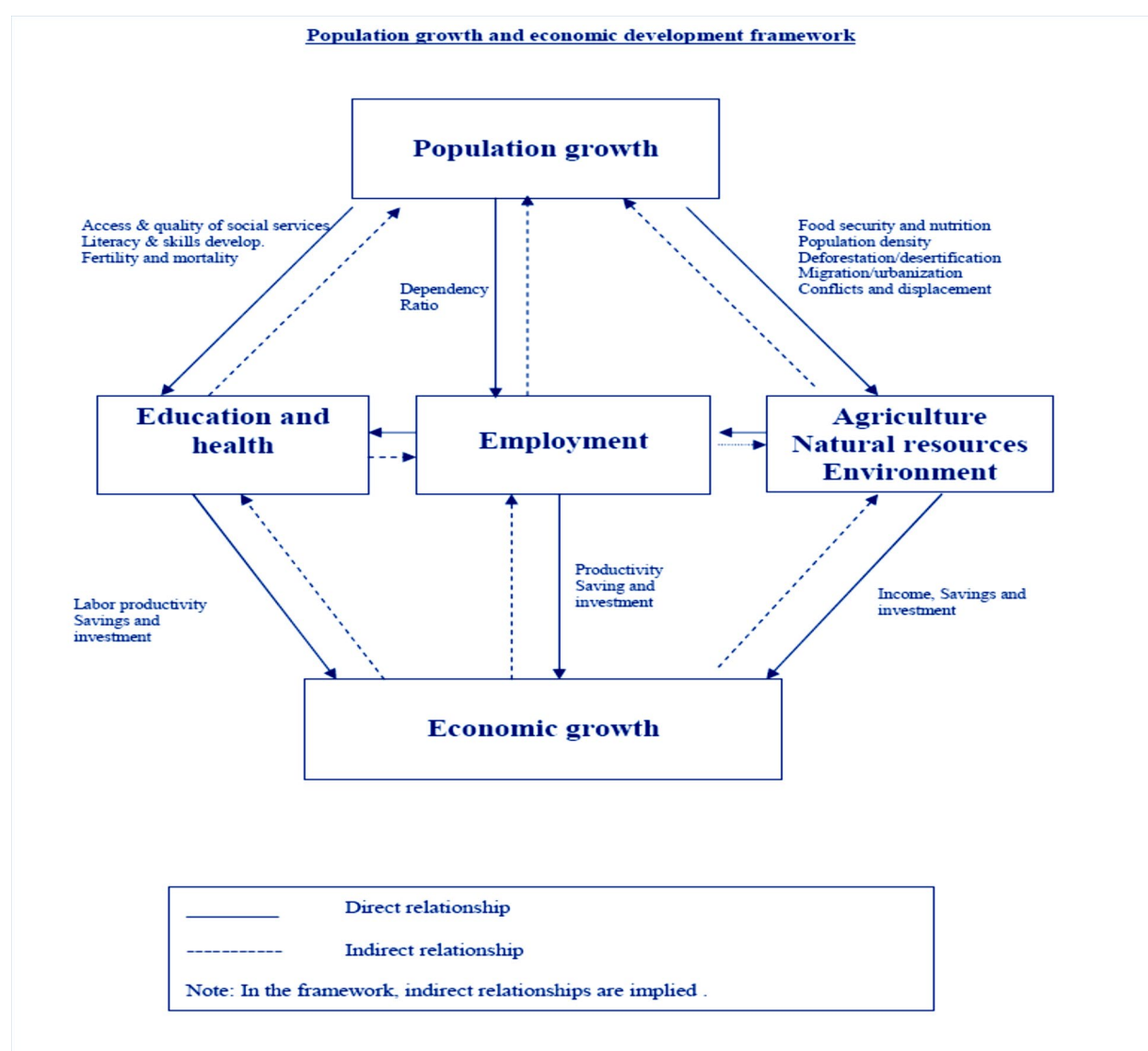


Contemporary searches submit that education and health were indicators for development progression both at personal and community levels (African Development Bank, African Development Fund, 2000). The kind of education invested in today's children will have great impact on the capabilities and competencies of tomorrow's labour force. Excessive

population growth may exert pressure on existing resources for educational needs, such as low teacher-learner ratio, insufficient pedagogic equipment and infrastructure. It goes the same with health service provision, rapid population growth put pressure on the side of government' per head expenditure. Therefore, a reduction on population increase leads to increased government's budget for other services. Quality education for the citizens was important, and well-informed parents would prospectively have less children since they would be more privy on the use of contraceptive and family planning processes (African Development Bank, African Development Fund, 2000).

There was a direct relationship between population increase and the supply of labour, absorption and or employment, education and health. Lower fertility would stimulate better education, more employment opportunities and redress the dependency ration. Rapid population growth increases burden on the land-dwelling and agricultural production, moreover, land-use practices tended to speedily lead to deforestation.

## 2.5 Influence of social institutions and their competencies on human development

The Human Development Report Office has been reporting on human development for more than 25 years (Stewart, 2013). It has expounded human development as a process of expanding choices for a human life (Human Development Report, 1990). Hence, there were a number of social institutions, which would influence human development. They had direct influence on individuals and had essential role in forming a character of individuals as well as choices people make. They included the state, social movements, trade unions, the family, community and neighborhood association, physical environmental and political organisations (Stewart, 2013). These social institutions and their competencies on human development can have either positive or negative impact. The process of development should strive to create an enabling environment for people, individually and collectively to develop to their full potential to lead reasonable, productive and creative lives (Stewart, 2013).

Persons cannot progress alone when they are born, however, a family becomes their life support. In addition, families cannot function independently of the societies in which they reside around (Stewart, 2013). Being a member of a family, locality and of a larger society is a crucial component of a prosperous existence. These groupings can provide good or bad conditions for an individual, not only their existence but also their nature relevant to human development. The promotion of safe and sustainable environment, economic growth and good social institutions were means to human development (Stewart, 2013). Human

development needed to be accompanied by various policies, which ought to encourage individuals to make good human development choices. Determinations that would improve the information about options individuals should opt for as well as consequences of certain actions. Polices were needed for social institutions to help provide a positive impact for persons' choices and reduce their negative impacts (Stewart, 2013). Some social institutions may not have positive impact on human development such as norms of discrimination. Discrimination on employment opportunities, access to education attainment, good health, material accumulation and mental well-being of some population groups would undermine human development (Stewart, 2013). Social institutions penetrate individuals in how they see and respond to the way they see the world and the choices they make. Social institutions and norms should be an object of policy development in order to promote and foster conditions conducive to influence individual choices in a positive manner for human advancement (Stewart, 2013).

## 2.6 Human Development

The United Nations Human Development Report (1990) outlined a fundamental objective of development, which related to creating a supporting environment for societies to delight in lengthy, healthy as well as modern lives. Human development stands as a process of increasing people's options, which can be infinite and change overtime (United Nations Human Development Report, 1990). The report advised that most significant human development targets include one to live a lengthy and healthy natural life, better quality education, and access to means for befitting ordinary living, as well as income because of its ability to influence additional human options and it may facilitate the use of all other choices. The report also acknowledged that longevity and knowledge components of human development relate to the formation of human capabilities. In the absence of these choices, a number of other opportunities become difficult to attain.

The term human development entailed two sides, one was an approach aiming for cumulative people's opportunities and the second one was a level of well-being. The first side dealt with public delivery of necessary goods and services that include clean drinkable water, hygiene, health attention, epidemiological protection, basic education, which all leads to better-quality social outcomes (Anand and Ravallion, 1993). The second side involved economic growth, which expands the range of human choices, it gives people greater control over their environment, and in turn increase people's freedom and leisure (Srinivasa, 1994). Economic

growth significance matters only when used to finance better provision of social services (Anand and Ravallion, 1993).

The concepts of human capital formation and human resource development identified people mainly as a resource, as well as an instruments for furthering commodity production. The theory of human resource development focuses on the supply side of human beings. It assumes investment in schooling and education lead to economic development as well as a substantial encouraging outcome on personal as well as at societal level (Ardichvili et al, 2011). Human capital was a summation of understanding, skills, capabilities, and proficiencies attained by human beings over time in their lives (Ardichvili et al, 2011). Lynham and Cunningham conducted a study in 2006, which suggested that an investment in the general public effects in an improved performance at a personal level, better-quality productivity at an organisational level, and economic advancement as well as other benefits on the communal level (Ardichvili et al, 2011).

Since the 1960s, the world has progressed politically and economically, although some sections of the world progressed slightly than others such as the African continent where basic test of development questions remain yet to be achieved (Biekpe, 2012).

### 2.6.1 Millennium development goals (MDGs)

The year 2000 marked the birth of millennium development goals (MDGs). The world leaders converged at a global summit of the United Nations (UN) to set themselves eight millennium development goals (MDGs) (Chetty, 2015). The goals were set with targets and indicators to measure progress and success. Likewise, they had time frame of 15 years, which ended in year 2015. The 189 nation states and 147 Head of States, in September 2000, agreed to commit in reducing the world's population living in extreme poverty by 50% (Ncayiyana, 2010). They were an agreement by developed and developing nations to work together in sustaining the world's environment and reducing poverty. The list of MDGs were politically, policy oriented, financially as well as programmatic to safeguard advancements. A number of development organisations, financial institutions, the private sector, non-governmental organisations, and a growing number of philanthropists pledged their efforts in working together behind the MDGs targets (Morales-Nieto, 2008). MDGs have received most comprehensive support by the international community, which was for the first time in history in which world community agreed overwhelmingly (Ncayiyana, 2010). The foundation strategy for the attainment of MDGs emanated on human values, political

economy choices, economic policy interventions, and policy clusters (Morales-Nieto, 2008). Below is a figure depicting the foundations of MDGs in which emanated.

*Figure 2.1* **Principles of MDG**



**Human Development Values**

- Peace
- Freedom
- Justice
- Equality
- Solidarity
- Cultural liberty
- Respect for nature
- Shared responsibility

**Political Economy Choices**

- Structural reforms on state, society and markets
- Access of poor people to means of production (land, capital, labour & technology)
- Political change in rich countries for aid, debt, trade & technology transfer

Millennium Development Goals

**Policy Clusters**

- Social cluster
- Agricultural cluster
- Infrastructure cluster
- Industrial cluster
- Human rights and social equity cluster
- Environmental and urban cluster

**Economic Policy Goals**

- Macroeconomic stability
- Sustainable economic growth
- Full employment
- Income distribution
- Social equity
- Environmental sustainability

The Human Development values in figure 2.1 presented a bundle of ethical and moral values. They governed MDGs, and their significance in developing relationships between all stakeholders at global and domestic levels remained crucial. The human development modus operandi calls for cessation of wars, realisation of human rights and the right to exercise choices, fair distribution of social benefits, equality and assurance of same rights as well as opportunities for all, tolerance and recognition of multiculturalism, environmental friendliness and sustainability, and development that considers everybody.

The Political Economy Choices from figure 2.1 gave a catalogue of political choices that should be observed for the purposes of better managing the relative power of poor persons in the economy and the social construct in its totality. This can be possible in three basic ways, firstly, instigate a systemic change of the social construct as a whole, secondly, escalate

access for poor people to the means of production, and thirdly, modify the relationship among the developed and developing nations, in particular the international and financial institutions towards developmental outlook.

The Economic Policy Goals lists a standard set of goals for the classic theory of economic policy as a prerequisite condition for achievement of MDGs. The stability and growth goals, employment and income distribution, and social equity as well as environmental development goals were all inevitable in the pursuit of MDGs. Lastly, the Policy Cluster package encapsulate the millennium policy agenda and several social and natural disciplines to better policy formulation, choice and performance.

This current study ought to work and focus mainly on goal 1 of the MDGs, which was about eradicating extreme poverty. In addition, it focuses on goal 2, which dealt with access to universal primary education, and goal 3, which was about enablement of the vulnerable groups such as women and children. The MDGs were commitments adopted with targets in order to advance developmental agenda and drastically reducing poverty by 2015 (UN, 2000). These goals and targets were set to impact more than one billion human needs, such as food, health, safe drinking water, sanitation provision, education, gender equality, reasonable income, debt relief, technology transfer (Morales-Nieto, 2008). The goals had numeric targets of saving more than 300 million people from hunger, 30 million children to be saved, more than 500 million people to be relieved from poverty, save more than 2 million maternal deaths. The MDGs also aimed to have no more than 350 million people living without water, 650 million without basic sanitation, and improve access to health care, education, economic and political opportunities, as well as security (Morales-Nieto, 2008).

The key attainment of the MDGs (MDGs Report, 2015)

1. More than one billion individuals have been elevated out of life-threatening poverty since the 1990
2. Child mortality cut down by more than half since the 1990 and adoption of the MDGs
3. The quantity of out of school children has declined by more than half as from the 1990
4. HIV/AIDS infections cut down by nearly 40% since the adoption of the MDGs

The fifteen years' time-framed MDGs were a watershed global development discourse (MDGs Report, 2015). The year 2015 marked end of the MDGs as well as the future events that will shape the world development agenda. The legacy of MDGs gave us fundamental

information and knowledge to continue working on new established goals. More work needs to be done in ending hunger, attaining full gender equity, improving health care services, getting all children into beyond primary school (United Nations Development Programme, 2016). Hence, safeguarding and continuing further than the achievements gained through MDGs as well as the need for new approaches that will remain imperative and sustainable for generations to come (MDGs Report, 2015).

**2.6.2 Sustainable Development Goals (SDGs)**

The SDGs came into being at the United Nations Conference under the theme of Sustainable Development in Rio de Janeiro in 2012 (United Nations Development Programme, 2016). The objective was to come up with a set of worldwide goals that encounter pressing ecological, political and economic difficulties. The SDGs came after the end of the millennium development goals (MDGs) in 2015. SDGs were a bold commitment to complete the progress achieved by the MDGs and to address other pressing world challenges for the next fifteen years. The SDGs were interrelated, in that, success from one of the goals affect another (United Nations Development Programme, 2016). The SDGs were unique in that they not only focus on the present challenges but also provide an opportunity for the current generation to improve life for the future generation (United Nations Development Programme, 2016). They further reaffirm the global commitment to eradicate poverty everywhere, and they entail a more sustainable, safer, and prosperous planet for all humanity. Amongst the 17 adopted SDGs, the study only focused only to SDG 1, which talks about ending poverty in all forms everywhere, SDG 3, which looks at access to health and longevity, SDG 4, which entail comprehensive and reasonable quality education and learning opportunities.

**Figure 2.2 Pillars of the SDGs**
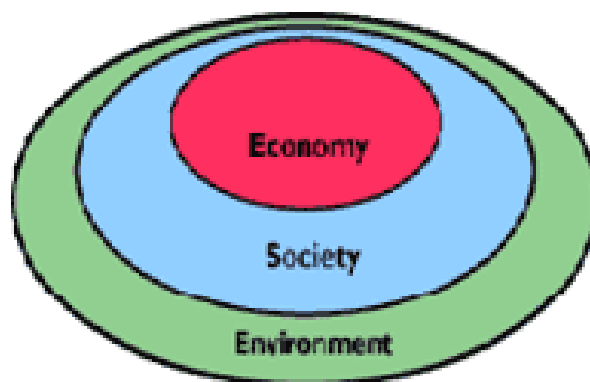
The SDGs encourage member states together with the private sector to pay attention concurrently on the tree dimensions of sustainable development (Thwaites, 2015). Figure 2.2 shows the three pillars of sustainable development goals. These were the pillars of sustainability, which may be also known as economy, equity, and ecology; or economic well-being, social harmony, and ecological integrity. The economic pillar promotes invention, capital effectiveness, risk controlling, growth expansion and total stakeholder return. The social pillar for sustainability was about embracing diversity, human rights, community outreach, indigenous communities as well as labour relations. The environment pillar stresses the importance of clean air, water and land emissions reductions, zero waste, releases and spoils into biodiversity. These pillars were the basis of the SDGs and they were tremendously interrelated, for instance, climate change and environmental degradation threaten to destruct future welfare and development advancements that have been attained over the years (Thwaites, 2015).

The success of the SDGs lies in the investment, political will and adequate resource allocation especially in developing regions such as Africa. Matthews (2015) argued that African governments have a lot of hard work ahead to achieve the new set goals. Africa had difficulty to reach a number of MDGs especially around maternal health. The continent recorded 289 maternal deaths for every 100,000 live births, compared to world average of 21 deaths for every 100,000 live births (Matthews, 2015). Only four African countries, Cabo Verde, Equitorial Guinea, Eritrea, and Rwanda that reached MDG of reducing maternal mortality rate by 75% as per the 2013 data (Matthews, 2015). With the SDGs, Africa should fully commit and sustain financial investment in health, education, and infrastructure development, enhancement of economic growth, job creation, clean governance and other SDGs.

## 2.7 Population and development indicators

Table 2.3 below gives population estimates across parts of the globe. The dense of the world population was concentrated in East Asia and pacific, which has been estimated to be more than 2 billion by year 2000. At the end of 2015, East Asia and pacific was said to be more than 2.2 billion people, and projections suggest that by 2025, this region will have more than 2.3 billion inhabitants. However, the population growth will decline from 0.7% to 0.5% between 2000 – 2015 and 2015 – 2025, respectively. Developmental achievement and policies that discouraged high fertility contributed densely to average annual population

growth rate. From table 2.3, Northern America, East Asia and pacific, and Europe together with Central Asia hosted most of the world's aged population, which is the age that is above 65 years old, in 2015 and this may be expected to continue growing. These regions experienced longevity and thus experiencing aging population. Sub-Saharan Africa was estimated to have about 1 billion people in 2015, and by 2025 was projected to have more than 1.2 billion residents. This region would be one of the world's fastest growing and by 2025, only 3% of its citizens would be age above 65 years. Indicating youthfulness and a large working population below the age of 65 years, and the African continent may be said to host most of the world's economic active population. The world population was projected to grow less, from 1.2% to 1.0% by 2025. Longevity would increase the number of the aged population beyond 2025, and the world would be experiencing aging.

*Table 2.3* **World Population by 2025**

| | Population Millions | | | Average annual population growth percentage | | Population age composition | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Ages 0-14 % | Ages 15-64 % | Ages 65+ % |
| Region | 2000 | 2015 | 2025 | 2000-15 | 2015-25 | 2015 | 2015 | 2015 |
| East Asia & Pacific | 2,046 | 2,279 | 2,386 | 0.7 | 0.5 | 20 | 71 | 10 |
| Europe & Central Asia | 862.0 | 907.9 | 922.8 | 0.3 | 0.2 | 18 | 67 | 16 |
| Latin America & Caribbean | 526 | 633.0 | 694.0 | 1.2 | 0.9 | 26 | 67 | 8 |
| Middle East & North Africa | 315 | 424.1 | 497.4 | 2.0 | 1.6 | 30 | 65 | 5 |
| North America | 313 | 357.3 | 384 | 0.9 | 0.7 | 19 | 66 | 15 |
| South Asia | 1,386 | 1,7442 | 1,963 | 1.5 | 1.2 | 30 | 65 | 5 |
| Sub-Saharan Africa | 667.7 | 1,001 | 1,292 | 2.7 | 2.6 | 43 | 54 | 3 |
| World Population | 6,115 | 7,347 | 8,139 | 1.2 | 1.0 | 26 | 66 | 8 |

It was advisable to incorporate the population variable into development planning processes, chiefly in developing countries (Mandishona, 1987). This would enable equitable allocation of resources to most pressing challenges for human development such as illiteracy, self-reliance, meaningful participation in economic life, and creation of opportunities especially in developing nations. The continent of Africa was said to be consuming what it does not produce and producing what it does not consume (Mandishona, 1987). The continent does not have adequate technologies to produce enough food to stain itself, and exports a number

of minerals outside in exchange of consumable products. Thus, proper planning and understanding of a nation's demographics was essential to effect development that would be people centered. Government spending needed to be informed by the population's needs and improvements should be measured as a way to evaluate progress. There had been development and improvements across time on how human development was to be measured. Human development indicators had been used to determine a country's achievements especially in socio-economic aspects.

The 1954 United Nations report on social policy and planning regarded economic growth (measured by gross domestic product) as a measure of welfare in a republic (Noorbakhsh, 1998). A country's national income was employed to measure development and thus, well-being of population. However, this measurement was questioned because of one-sidedness and that a country's income may be concentrated to a few as well as unequally distributed. Hence, a decade later, in 1969, specialists in social policy and planning cautioned that economic growth would not alone help alleviate areas of poverty, unproductivity, marginality, and exclusion from economic and social advancement (Noorbakhsh, 1998). Development was largely viewed equally with growth in average income (Anand and Martin, 1993). However, criticism intensified on the method of measuring welfare of a society. Proposition were put forward that the goal of development should focus on the reduction of poverty (Anand and Martin, 1993).

**2.7.1 Development indicators**

The need to have a holistic indicator system was apparent at an international stage that would include an overall development (Mandishona, 1987). An indicator system that allowed itself to be measured and improved if needs be. A system that would to put emphasis not only in economic growth but also in social aspects of welfare and levels of living. Development indicators that would be both with quantifiable and qualitative attributes on dimensions of economic growth relations and employment, property relations and social ladder as well as environmentally friendly. On September 2015, at the UN General Assembly, countries agreed to end poverty and hunger, ensuring peace and stability as well as just and inclusive society, equality, nourishing ecosystem, look after the earth against dilapidation, implement exigent tactics on weather change, and that more focus should be on the poorest and vulnerable (The World View, 2016).

South Africa as a member state of the UN has its own development indicators that were both numerical and qualitative (South African Government, 2014). These indicators were interpreted from the country's broader historic, socio-economic context. The Stats SA (2013) published eight development indicators which measures the nation's progress in a number of aspects ranging from agricultural, education, environment, health, housing, social development, transportation, as well as water and sanitation. The government of South Africa together with various stakeholders measure the development and progress of the country using the following indicators. Economic growth and transformation, employment, poverty and inequality, household and community assets, health, education, South African demographic trends, good governance, international relations, safety and security, and social cohesion (South African Government, 2014). The significance of population and development indicators is more on government spending and prioritization of services. This will ensure sustainable development and thus longevity.

**2.7.2 Human Development Index (HDI)**

HDI was a synopsis assessment of long-term progress attainment of a nation in trio basic facets of human advancement, which entail a long and healthy life, access to knowledge, and a decent living standard (Human Development Report, 2015). A long healthy life was measured by life expectancy at birth. Access to knowledge was measured by average years of education among the adult populace of 25 years and above. Decent living standard was measured through the gross national income (GNI) per head (Human Development Report, 2015). HDI was essential because it determined whether a country was developed, developing or underdeveloped (Brand South Africa Info, 2011). The HDI ranges between one and zero, where one indicated the highest achievement of human development, while zero was the extreme lowest achievement of human development. In 2008, Sub-Saharan Africa showed an average of 0.493 HDI as composed through the attainment of life span, ability to read and write, and GDP per head (Morales-Nieto, 2008). This HDI indicated a very low rank of human development.

The Human Development Report (1990) argued that the construct of the HDI involves many facets, thus it should incorporate a few ranges of indicators as possible. Nevertheless, having many indicators in the HDI would cloud its focus, and difficulty in interpretation or use. Hence, there was a need to compromise some of the indicators (Human Development Report, 1990). Noorbakhsh (1998) argued that the HDI was a construct index made up of four

indicators that represent three human choices of longevity and healthy life, knowledge attainment, and access to resources for a decent life. There had been critiques of the HDI, arguing that it does not consider the income differentials among countries, and the three indexes were equally weighted. Extreme values of each component will affect the level of HDI (Noorbakhsh, 1998: 591). Thus, HDI should not attach equal weights to its components. Experts have articulated that an increase in income would increase human choices, hence it should be given a higher weight (Noorbakhsh, 1998). BORDA rule had been widely accepted to rank the sum of each component. In addition, countries were ranked based on their composite scores.

The Human Development Report (HDR) (2015) had studied the complex relation between work and human development. The term work means more than job or employment, it involved the reduction of inequality, securing livelihoods, empowering individuals, caring for other people, voluntarism, strengthening of family and community relations, and contribution towards the public good (HDR, 2015). This term entailed critical components of human development. The report also notes that the work and human development have no automatic positive connection. The positive relationship can be broken due to unequal opportunities, abusive conditions, and work related discrimination, which extend social and economic imbalance.

Human choices were infinite and change across time, and the HDI concept cannot comprehensively capture all its richness, breadth and depth. The study had data limitation, it was impossible to estimate at small area level such as the District of UMkhanyakude because of data limitations. Since human choices were infinite, however, at all levels of development there were three significant ones because they were able to give access to other opportunities and development. These three choices were to lead a long land healthy life, attainment of knowledge, and access to resources necessary for a decent standard of living (Jahan, 2016). The recent Community Survey 2016 had data on educational level and thus educational level was used to measure some part of human development. In the modern day of globalisation and information age, higher educational attainment made it possible to access employment and income needed for living a decent life. Thus, employment level in the District would give an understanding of people living a decent life and with easy access to resources such as advanced health, proper shelter, clean drinkable water and enough food. Poverty levels were also incorporated into the study because they were a significant measure of human development as they indicate decent living and leading a long and healthy life. Educational,

Employment, and poverty levels do capture the basic dimensions of HDI, thus chosen for exploring UMkhanyakude human development.

### 2.7.3 South African HDI trends over the years

In 2014, South Africa's Human Development Index (HDI) value was 0.666, which places the country in medium category. Globally, out of 188 countries South Africa (SA) was positioned at 116, ranked with the likes of El Salvador and Viet Nam (HDR, 2015). Across the years (1990 - 2014), the country's HDI had improved by 7.2%, (0.621 – 0.666). The HDI indicators had improved since 1980 to 2014, life expectancy at birth stretched by 0.5 years, average years of schooling widen by 5.0 years, and the GNI per head spread by 11.8% over the period (HDR, 2015). Table 2.6 contained all that data for the South African HDI.

HDI continues to be an imperative indicator for a country's ranking and its sub regions. However, these indicators may not be easy to estimate at smaller population level such as at a district level. The establishment of HDI was to measure a country's development, at a national level with a large data. Although HDI does rank South African provinces, given their considerable population size. There were countries in the world, which may be equal to one of the South African provinces by population size such as Tunisia, Botswana, Swaziland, Burundi, Libya, Cape Verde, Mauritius, Seychelles, and other (Statistics Times, 2015). Moreover, to use the HDI at a district level would not yield reliable outcomes to determine development levels. The study employed population size, household headship composition, educational attainment level and employment to track progress achieved, so that necessary intervention may be undertaken with clear certainty. These indicators could give good understanding of a District's in so far as the progress towards the SDGs and national as well as provincial set goals of development. The use of demographic transition theory gives much understanding of the population and the development level, thus the use of HDI was not considered for the study.

**Table 2.6 South Africa's HDI trends based on consistent time series data**

| Years | Life expectancy at birth | Expected years of schooling | Mean years of schooling | GNI per head (2011 PPP$) | HDI value |
|---|---|---|---|---|---|
| 1980 | 56.9 | | 4.9 | 10,843 | |
| 1985 | 59.9 | | 4.9 | 10,188 | |
| 1990 | 62.1 | 11.4 | 6.5 | 9,987 | 0.621 |
| 1995 | 61.4 | 13.1 | 8.2 | 9,566 | 0.654 |
| 2000 | 55.9 | 13.2 | 8.8 | 9,719 | 0.632 |
| 2005 | 51.6 | 13.4 | 8.9 | 10,935 | 0.613 |
| 2010 | 54.5 | 13.5 | 9.6 | 11,833 | 0.643 |
| 2011 | 55.5 | 13.5 | 9.7 | 11,977 | 0.651 |
| 2012 | 56.3 | 13.6 | 9.9 | 12,041 | 0.659 |
| 2013 | 56.9 | 13.6 | 9.9 | 12,134 | 0.663 |
| 2014 | 57.4 | 13.6 | 9.9 | 12,122 | 0.666 |

**2.7.4 Gender Development Index (GDI)**

The Human Development Report introduced a new measure, the gender development index (GDI) in 2014, based on sex. It measures gender disparities in attainment of the three basic aspects of human development (HDR, 2014). Long and healthy life is measured by female and male life expectancy. Education is evaluated by female and male expected years of schooling and mean years for adults of age 25 and above. Access to economic resources is measured by female and male estimated GNI per head. The 2014 GDI value for female and male was 0.646 and 0.681, respectively, and the South African GDI value amounted to GDI 0.948. Table 2.7 shows GDI value for Namibia and Congo were, respectively, 0.981 and 0.922, as well as the Sub-Saharan Africa where the Republic of South Africa is located.

**Table 2.7 Gender Development Index**

| | Life expectancy at birth | | Expected years of schooling | | Mean years of schooling | | GNI per head | | HDI values | | F-M ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Female | Male | Female | Male | Female | Male | Female | Male | Female | male | GDI value |
| South Africa | 59.3 | 55.2 | 13.7 | 13.4 | 9.7 | 10.2 | 8,713 | 15,713 | 0.646 | 0.681 | 0.948 |
| Namibia | 67.3 | 62.1 | 11.4 | 11.3 | 6.3 | 6.1 | 7,672 | 11,267 | 0.620 | 0.632 | 0.981 |
| Congo | 63.9 | 60.8 | 10.9 | 11.3 | 4.9 | 6.5 | 5,165 | 6,859 | 0.561 | 0.609 | 0.922 |
| Sub-Saharan Africa | 59.7 | 57.1 | 9.1 | 10.3 | 4.2 | 6.0 | 2,626 | 4,148 | 0.480 | 0.550 | 0.872 |
| Medium HDI | 70.6 | 66.8 | 11.5 | 11.8 | 4.9 | 7.3 | 3,333 | 9,257 | 0.574 | 0.667 | 0.861 |

**2.7.5 South African population and development indicators**

South Africa had rendered advancement to all its residents in the last 22 years of democracy, since Black-majority rule replaced the wrongs of the apartheid system. The country has advantages of abundant mineral resources, modern infrastructure and advanced financial system (Lowe, 2015). However, educational attainment in particular the Black community remains a concern, high unemployment, frequent recurrence of violent strikes, and property destruction (Lowe, 2015).

South Africa had a population of 55 108 900 million, as per the 2016 Community Survey (Stats SA, 2016). South Africa has been experiencing positive population growth since year 2002 to 2016, and life expectancy has over the period increased from 55,2 to 62,4 years of age. Free access to ARVs over the years, in particular 2006 – 2016, had partly contributed to people with HIV/AIDS now living longer life (Stats SA, 2016). There had been reduction of AIDS related deaths over the period by almost 50%. The female population in South Africa was more than 51% as per the 2016 Community Survey (Stats SA, 2016). Hence, there was gender imbalance in South Africa as well as in almost all of her provinces, as given by the 2016 Community Survey where females were 51.3% while males were 48.7%. The KZN province reflected about 48% of males and 52% females (Community Survey, 2016).

 South African development indicators were a database system used to collect and circulate data on human development (UNICEF, 2018). The system could be used to produce graphs, tables, and maps for presentation, reports as well as advocacy materials. The system consists of 123 indicators organized by the MDG and sectors, which include demography, economy, education, environment, health, HIV/AIDS, nutrition and protection (UNICEF, 2018). The data could be accessed in three spheres of government, which were national, provincial and local level. The National Development Plan of South Africa, postulated that the country had reached its demographic transition where birth rates were declining, and the population was stabilizing (South African Government, 2018).

The national development plan (NDP) articulated clearly that South Africa as a member of the international community, and member of BRICS states. The world development indicators were essential to the country's trajectory of human development objectives. The World Bank had listed development indicators that were essential for a country's development, and South Africa had an obligation to realise growth and human development. Some of these indicators included agriculture and rural development, climate change,

economy and growth, education, energy and mining, environment, external debt, financial sector, gender, health, infrastructure, poverty, private sector, public sector, science and technology, social development, social protection and labour, trade, and urban development (The World Bank, 2016). These indicators incorporated social, economic, and health components of human development.

**2.7.6 KZN development indicators**

The province of KwaZulu-Natal (KZN) was an area of about 92,100 Km$^2$, roughly the size of Portugal. The KZN province shared borders with three countries, Mozambique, Swaziland, and Lesotho. Domestically, KZN boundaries were linked with three provinces, which were Mpumalanga, Free State, and Eastern Cape. KZN was divided into eleven district municipalities, one of which was a metropolitan municipality (eThekwini), and the rest were district municipalities. Namely, they were Amajuba, Zululand, uMkhanyakude, uThungulu, uMzinyathi, UThukela, uMgungundlovu, iLembe, EThekwini Metropolitan, UGu, and Harry Gwala District Municipality. Tabling development indicators provided an opportunity to measure progress towards national and international development goals. Moreover, they critically avoided economic, social and environmental destruction (Nzimande, 2010).

There were 86 approved indicators to measure the country's progress in all aspect of human development (Development Indicators, 2014). The study focused on human development contribution towards the betterment of humanity, such as, but not limited to employment rate or gross national product growth, income levels, educational attainment, and demographic indicators.

Development indicators could be categorised into a number of dimensions of social, economic and demographic aspects. Demographic and mortality indicators for human progress included population by age-sex, total fertility rate, infant mortality rate, child mortality rate, under-five mortality rate, and life expectancy. For social and economic indicators, *inter alia,* educational attainment by age-sex, economic active population, age dependency ratio, unemployment and employment levels, income levels, Adults living with HIV and related deaths, maternity deaths.

A number of policies guides and bind the KZN province through the national government prescripts, such as the New Growth Path, National Planning Commission, National Development Plan, and Sustainable Development Goals (KZN Provincial Planning Commission, 2012). There were 6 provincial government priorities before it, which were

food security and rural development, combating crime and corruption, improved health services, better education, economic growth for creation of employment, and lastly, good governance and nation building (KZN Online, 2017). There were also twelve national outcomes that the province should adhere to, amongst others were quality basic education, longevity, high level of employment, improved housing for the provincial citizens (KZN Provincial Planning Commission, 2012). Stats SA (2013) measured the KZN province on its demographics, education, employment and unemployment, health, transport, good governance, and social cohesion.

### 2.7.7 District level indicators

UMkhanyakude District Municipality was primarily a rural district, and made up of five local municipalities. They were Mtubatuba, Hlabisa, Big five, Jozini, and Umhlabuyalingana Local Municipalities. The republic's constitution grouped municipalities into three classes of A, B, and C (Community Survey, 2016). Group A municipalities were more often metropolitan, which had exclusive municipal executive and statutory powers in their boundaries. Group C municipalities were normally district municipalities, with an executive and statutory authority in a land that had more than one municipalities. Group B municipalities were generally local municipalities with shared municipal executive and legislative authority in its boundary with category C municipalities with whose area where it belonged (Community Survey, 2016). Developmental indicators for UMkhanyakude entailed but not limited to education attainment levels, births rates, HIV/AIDS prevalence and related death rates, poverty, unemployment, labour force, water and sanitation, household income levels, agricultural households, electricity, transportation, and refuse removal. These indicators were important in positively contributing to human development, particularly for a largely rural district.

### 2.8 Population Composition

The world population was profoundly dynamic in its composition, and Hugo (1994) argued that research on population composition, although little attention given to this area was particularly important for policymaking. Population composition influences the demand for most of goods and services given by each arms of government with private sector based on the characteristics of a population as well as its size power. Stolnitz (1956) added that less focus had been attributed to the interrelations between socioeconomic sectors and the changes in population as a whole. Changing population composition was almost certainly cause demographic variables to be different from what it would have been with fixed composition.

Population composition illustrates characteristics of a given group of people (Hunter, 2000). Age and sex structure were utmost frequently considered features of populace composition. Socio-economic characteristics such as household income levels, levels of education, employment levels, and health status etc. were considered parts of population composition (Hunter, 2000). Nowadays' world residents seem to be described by the largest-ever generation of young persons on every single region with the exception of Europe. More than 1.05 billion people were amongst the ages of 15 through 24 years, and this age group was swiftly getting bigger (Hunter, 2000). Given the improved public health and technological advancement, which contributed to a decline in mortality and increased long life have given rise to the spreading out of older residents. Internationally, the average life probability in 1950 was roughly 46 years of age, and the average life expectancy by 2050 was anticipated to be 76 years according to the UNFPA in 1999 (Hunter, 2000). Age structure had vital effects for population increase that was yet to come since the younger population retains a grander growth momentum. This means that, even if fertility rate would instantaneously drop to replacement levels of almost two children per woma n in all countries, population size would carry on to rise because of the enormous number of women in reproductive ages (Hunter, 2000)

### 2.8.1 Age and sex structure of developing world

Age and sex structure of a population continue to be a significant demographic characteristics, taken from a population census. These demographic features possess substantial influence for a person's role in a society (Riyaza, 2000). Age structure was a distribution of population in different age categories, and serves as an important theme of demographic study as well as development planning (Riyaza, 2000). Age component relates to fertility, mortality, and including changes in family planning and other social arrangements. The importance of age structure was not only limited to demographic study but to other important aspects. Public policies' objective should seek to better the welfare of a populace, and age component contributed in shaping present and future planning as well as population needs.

### 2.8.2 Sex and race structure of KZN and South Africa

Table 2.8 below depicts the mid-year estimates by population group and sex for South Africa. The mid-year population estimated 55 908 900 million people living in the country (Community survey, 2016). More than 80% (45 109 900) of the South African population

were Black African population group. The least population group in South Africa as per the 2016 mid-year estimate is the Indian/Asian community with 2.5% or 1 386 000 million people. The Coloured and White population groups were estimated at 8.8% and 8.1, respectively.

*Table 2.8* **Mid-year estimates by population group and sex, 2016 – (Stats SA, 2016)**

| Population group | Male | | Female | | Total | |
|---|---|---|---|---|---|---|
| | **Number** | **% of total male population** | **Number** | **% of total female population** | **Number** | **% of total population** |
| African | 22 119 200 | 80,8 | 22 990 700 | 80,6 | 45 109 900 | 80,7 |
| Coloured | 2 368 000 | 8,6 | 2 529 200 | 8,9 | 4 897 200 | 8,8 |
| Indian/Asian | 701 900 | 2,6 | 684 100 | 2,4 | 1 386 000 | 2,5 |
| White | 2190 700 | 8,0 | 2 325 100 | 8,1 | 4 515 800 | 8,1 |
| Total | 27 379 800 | 100,0 | 28 529 100 | 100,0 | 55 908 900 | 100,0 |

The Community Survey of 2016 published its findings on the mid-year population estimate for the nine provinces of South Africa (Community Survey 2016). There were two largest provinces in the country, Gauteng and KwaZulu-Natal, respectively. They were estimated to be at 13.5 and 11.1 million, which counted about 24.1% and 19.8% of the entire population of 55.9 million (Community Survey, 2016). These two provinces enjoyed nearly 45% of the country's share of citizens. Least provinces were Northern Cape and Free State provinces, with a population of 1.2 and 2.9 million, which counted around 2.1% and 5.1% of the entire South African population. Table 2.9 gives a comprehensive picture of 2016 mid-year population of South Africa, estimated per each of the nine provinces.

*Table 2.9* **Mid-year population estimate by province for 2016 - *(Stats SA, 2016)***

| Provinces | Population estimate | % of total population |
|---|---|---|
| Eastern Cape | 7 061 700 | 12.6 |
| Free State | 2 861 600 | 5.1 |
| Gauteng | 13 498 200 | 24.1 |
| KwaZulu-Natal | 11 079 700 | 19.8 |
| Limpopo | 5 803 900 | 10.4 |
| Mpumalanga | 4 328 300 | 7.7 |
| Northern Cape | 1 191 700 | 2.1 |
| North West | 3 790 600 | 6.8 |
| Western Cape | 6 293 200 | 11.3 |
| Total (South Africa) | 55 908 900 | 100 |

## 2.9 Conclusion

This chapter expanded the research topic through engaging literature. The chapter covered population policies at global, regional and national levels. Through the course of this section, a number of concepts were outlined for the purposes of the study. The South African population policy was looked at, as well as the development indicators were reviewed. The Human Development Report of the United Nations Development Programme were considered and their emphasis on population and development. They argued emphatically that development should be about and for the human development at its core. Literature on the South African development indicators were mentioned in the course of this chapter, which entailed provincial and district development indicators. Statistics South Africa publications, in particular the 2016 Community Survey was reviewed as it relates to the research topic. Millennium Development Goals as well as Sustainable development Goals were part of the literature review. Noting that the focus is now on the SDGs, since MDGs time frame lapsed in 2015, and the world has adopted the more inclusive and comprehensive sets for achievement in order to better human well-beings.

# Chapter 3
Methodology

## 3.1 Introduction

Methodology implies a research process, tools and procedures employed when undertaking research and it is guided by theories (Ntini, 2015). This chapter explains research design and methodological considerations appropriate to respond to all questions posed in chapter one. It explored in detail the chosen data (Community Survey 2016) and the sampling tools employed by Statistics South Africa in pursuit of the survey. This enables an understanding of potential limitations of the study, included in the last section of the chapter. Furthermore, the chapter provides a description of the study sample and variables under investigation. Below is the recap of the research topic and primary questions of the study.

### 3.1.1 Study background

Population and human development indicators of UMkhanyakude District Municipality was the title of the study. The study sought to explore the population profile of UMkhanyakude District Municipality (UDM) demographic and human development indicators. The study provides an essential understanding of not only population characteristics of the District, but also for developmental services such as provision of education, incentives and opportunities for income required for the betterment of the people. Furthermore, the study was designed to contribute in informing authorities on urgent priorities for the District Municipality. Human development indicators are critical for all levels of government, as well as for the international community. Through the measure of human development, as well as social indicators, which may involve health development, primary and post school enrolment, employment and unemployment, income and grant distribution may give a good picture of level of development in the District. A demographic research was also examined as it relates to socio-economic dynamics.

## 3.2 Research approach

Welman et al (2005) argued that there were two approaches to research design. One of which was the positivist approach, premised on a philosophical manner referred to as logical positivism. The fundamental basis of positivist approach was the natural-scientific method in human behavioral research, which believed that research must be restricted to what we can observe and measure objectively or independently of the emotional state and judgements of persons (Welman et al, 2005). Positivist approach to research was regarded as the

quantitative approach (Ngidi, 2011). Quantitative methods lead to numeric information that would be analysed by approved statistical test and models. Chirowodza (2006) cited words of Tredoux and Durrheim (2002) which summed the useful of quantitative approach that it entails efficiency, approximation and powerful research analysis language.

## 3.3 Research design

Research design was a primary foundation for the study and informed the research topic. This study employed a quantitative descriptive research design, which seeks to describe systematically a situation, problem, phenomenon, service or programme, or provides information (Kutoane, 2012). Descriptive designs were research strategies, which contribute eloquently in explaining the existence and description of characteristics of a particular phenomenon (Hepper et al, 2008). This study was about the population and selected human development indicators for UMkhanyakude Municipality, located in KwaZulu-Natal, which was the second most populous province in South Africa after Gauteng. UMkhanyakude District had, according to the population census 2011, 625 846 people living in the municipality with a vast majority being Black Africans, which was about 98.8%. The population distribution by age and sex, UMkhanyakude had as per the census 2011, 46.1% were male and 53.9% were female population. With the Community Survey 2016, the District's population has risen up to 689 090, and youth accounted about 37.8% of the population.

Descriptive research entailed exploration and description of events in real life as what actually existed, as well as frequency at which phenomenon occurred. This approach was utilised because it described that which can be empirically verified and actual existing facts. In this research design, we attempted to describe a situation or the research questions through descriptive statistics. This research design followed precisely defined steps in responding to the research questions. Such steps may include generally research design, sampling, measurement, analysis and conclusion. The ultimate goal of quantitative research was to generalise the truth found in the data samples to the population. The study will generalise the population of UMkhanyakude Municipality. As given the research topic and together with the research questions, generality of the result would be required, when the data collected and analysed.

**3.4 Data source**

**3.4.1 Community Survey 2016**

The study used data from the 2016 Community Survey (CS 2016), which was the second large-scale survey that took place in between Censuses 2011 and 2001. The purpose of Community Survey was to provide a snapshot of indicators at all spheres of government for planning and monitoring. The CS 2016 remain essential for monitoring the performance of certain development initiatives such as education access and success, employment creation , improved health facilities, household headship composition and access to opportunities for young people. The objective of the CS 2016 was to provide information on population and household statistics both at municipal, provincial, national sphere to government and to the private sector over the period, mainly to strengthen planning and decision-making processes (Community Survey, 2016). The government of South Africa endorsed that the population Censuses will take place every after 10 years gap. In between the timeframes of population censuses, community survey would be conducted to capture population dynamics and a wider socioeconomic, cultural and natural environmental dynamics (Office for National Statistics, 2012). Community Surveys were conducted to fulfil a diverse range of needs concerning to resource allocation, policy making, local service provision, commerce and research (Office for National Statistics, 2012). Thus, a country's profile is reported through the 2016 Community Survey.

Approximately, 1.3 million households were sampled for the CS 2016, unlike the population census where every household is visited to gather data (Statistics South Africa, 2016). Unlike the first conducted CS in 2007, which used paper method. In the CS of 2016, the data was collected electronically using Computer Assisted Personal Interviewing (CAPI) system. This new method was expected to lower monetary and time costs in data processing and improving data quality (Community Survey, 2016). The sample design used was a stratified single stage sample design. Eligible people for enumeration were all persons in the household of the sampled residence units on the midnight of 6 March to 7 March 2016. The CS 2016 used existing dwelling frames for data collection processes, based on the Census 2011 information. The first phase of sampling process for enumeration was through systematic random sampling (Community Survey, 2016).

**3.4.2 Censuses**

The study made use of data from country's national population censuses since the dawn of democracy. The data was used in order to track progress from the first 1996 population

census and the years followed. It was important to describe the trends with its historic background. The data was used in conjunction with past community surveys. The District's population growth, dependency ratio and unemployment percentage were tabled using both censuses and community surveys to give a comprehensive picture since 1996 to 2016.

**3.4.3 Labour Force Survey (LFS) 2015 - 2016**

The difficulty of finding employment and unemployment data from community survey 2016 led to the employ of Labour Force Survey (LFS) 2015-2016. This data was essential for the analysis of employment as well as unemployment to respond to the research questions. The data did give an outlook not only for 2016 but also for 2015. This gave an interesting picture across time, and data from censuses and LFS were used together to track progress.

**3.4.4 Study Sample**

Given the study background from preceding paragraphs, the purpose of the study is to examine the population profile of UMkhanyakude District Municipality by age and sex, composition of family headship, and the human development indicators particularly education attainment, and employment level. In principle, there are three categories of municipalities as per the constitution of the Republic. Since UMkhanyakude District falls within category C, which has municipal executive and legislative authority in an area that entails more than one municipality. Hence, there were five category B municipalities within UMkhanyakude District, namely they are Mtubatuba, The Big-Five, Hlabisa, Jozini, and Umhlabuyalingana local municipalities. The sample data for the study was 44,719, and from this sample, 44,586 were residents of the study area, UDM. The study sample considered was 44,719 since more than 99.69 percent of the sample data respondents were residents of the District.

Sampling is a process of selecting a portion of the population that is understudy to represent the entire population (Kutoane, 2012). One of the reasons for sampling was feasibility, particularly when considering factors such as cost, effort and time. The study employed non-experimental method and analyse existing data sets through population census and community surveys. Notably, the sample was unevenly distributed across all the age groups. With the largest observation of 44,476, the mean age for Black African was 26.03 years and relatively smallest than the rest of other groups. White population group had the highest mean age of 43.67, suggesting they are on average older population group. The sample distribution by mean age and population group revealed that Black African and Coloured population

group were the youngest population groups, while Indian/Asian and White population groups were the much older groups.

## 3.5 Indicators

There were various indicators and systems developed both at international and national levels. At the beginning of the millennium there were Millennium Development Goals (MDGs) which had a timeframe ended in 2015 (Nzimande, 2010). Sustainable Development Goals (SDGs) were adopted in 2015 for the following 15 years ending in 2030 to collect crucial information to assess the world's progress towards eradication of poverty and hunger, child mortality, environment degradation, political instability and crime, illiteracy, gender inequality. Collection of data through population censuses, various household survey, vital registrations and other specified methods of data gathering are essential to rank countries in their level of development and achieving SDGs by 2030. The presented study made use of secondary data analysis from Community Survey 2016 to evaluate selected population and socio-economic indicators. Stata version 14.1 and Microsoft excel were used to perform data analysis. Extraneous variables were included in the evaluation of the indicators, such as marital status, gender, language, and race. At first, univariate and bivariate analyses were ran for each to establish preliminary understanding of the data. With the results attained, variables were then selected to construct a multivariable model. Age was computed in groups such as of child, youth, adult as well as elderly and was selected with sex and population group variables to give more meaning to the result. The results were presented in various formats and then described. This study has selected a few development indicators that have been indicated as key in assessing global population and human development.

### 3.5.1 Population indicators

Population indicators were important to give comprehensive picture pertaining to demography, such as population by sex, population group, sex ratio, geographic area, age, and language. These demographic indicators were essential to the questions and objectives of the study. Below are all the variables that were employed and how they were managed to provide a comprehensive outcome needed to analyse study questions in an open manner. Each variable had its question(s) and note that gives more information on how and to whom was asked so that everyone can be able to understand and relate to the background of the question and its outcome.

*3.5.1.1 Variables used*

Age play an essential role in analysing population and its distribution in demographic studies. It is critical in the system of indices when it comes to planning for development of economic and cultural life of a society. When analysing a population, age pattern and age groups may suggest differences on behavior and activities of a populace. Hence, age played a significant part in understanding the population of UMkhanyakude District Municipality.

- **Age**

    Questions asked for the date of birth (D.O.B) was "**What is** (*name*)**'s date of birth?"**

    Day-Month-Year

Message to user

The date of birth question was inquired to every person who was part of the household on the reference night. The enumerators were trained to crisscross that they had carefully chosen the correct month, year and day that the respondent had given. This question was then allied to the age question and in instances where the two were not consistent, an error message was highlighted so that the enumerator could in depth or probe further questions to attain the right date of birth.

  o Definitive code list

    Day Month Year: 1900 to 2016

- **Age in completed years (Age)**

    Question asked "**What is** (*name*)**'s age in completed years?"**

Message to users

The age in completed years question, speak of the respondent's age at their last birthday in relation to the reference night (twelve midnight 06 to 07/03/2016). If wrong information was captured, an error note would be highlighted to alert the enumerators know that they have entered improper years and they should confirm the birth date and or age in completed years with the respondent.

  o Definitive code list

    Age: 000 to 116 in single years

**Variable management**

- **Age**

Age was grouped into three categories which were **Age_Group 1, Age_Group 2 and Age_Group 3**. This grouping was applicable to all persons in the sampled dwelling unit. **Age_Group 1** was re-coding the variable **Age** into five-year age groups from 0 to 85+. The table given below shows the recode of **Age** to **Age_Group 1.**

- **Functional age groups**

This was a re-coding of the variable **Age** into broad age groups from 0 to 65+ and was applicable to all persons in the sampled dwelling unit, this is shown in the table below.

- **Reproductive age groups**

This was a recoding of the variable **Age** into reproductive age groups from 12 to 50 and this was applicable to all women in the sampled dwelling unit aged between 12 and 50. This is shown in the table below and was **Age_Group 3**.

| Age_Group 1 | Age_Group 2 | Age_Group 3 |
|---|---|---|
| 1 = 0-04 | 1 = 0 - 14 (Children) | 1 = 12-14 |
| 2 = 05-09 | 2 = 15 - 34 (Youth) | 2 = 15-19 |
| 3 = 10-14 | 3 = 35 - 64 (Adults) | 3 = 20-24 |
| 4 = 15-19 | 4 = 65+ (Elderly) | 4 = 25-29 |
| 5 = 20-24 | | 5 = 30-34 |
| 6 = 25-29 | | 6 = 35-39 |
| 7 = 30-34 | | 7 = 40-44 |
| 8 = 35-39 | | 8 = 45-49 |
| 9 = 40-44 | | 9 = 50 |
| 10 = 45-49 | | |
| 11 = 50-54 | | |
| 13 = 55-59 | | |
| 14 = 60-64 | | |
| 15 = 65-69 | | |
| 16 = 70-74 | | |
| 17 = 75-79 | | |
| 18 = 80-84 | | |
| 19 = 85+ | | |

**Variable used**

- **Sex**

Questions asked was "**Is (***name***) male or female?"**

1 - Male
2 - Female

Message to users

The sex question spoke of the person's birth status (that is, his/her sexual structure and genetic material), and not gender.

**Variable management**

- **Sex**

All individuals in the sampled residence unit were asked for sex, and it was definitively coded as follows:

1 = Male
2 = Female

**Variable used**

The South African population has been grouped historically according to race and it is essential to consider this fact when attempting to understand a population of a particular region. Population group is a variable that categorises population to enable which race is concentrated in a region.

**Population group (PopGroup)**

Question asked was "**What population group does (**_name_**) belongs to?**"

1 - Black African
2 - Coloured
3 - Indian/Asian
4 - White
5 - Other
6 - Refused

Message to users

The purpose of the question was inquired to determine a population group of all individuals in a dwelling unit. The enumerator was directed to inquire every person in the dwelling unit, regardless if the population group may be obvious, and assume not. Furthermore, enumerators had to be aware that this was a sensitive question to ask for some respondents. Some respondents would not want to recognise themselves according to any population group. Enumerators were to explain the motives for this question in the survey. In cases where the respondent still did not want to answer this question, category 6 "Refused" would be used. Again, enumerators had to bear in mind that individuals of different population groups occasionally form part of the same dwelling unit, thus they could assume not the population group of any dwelling unit member. They had to receive the response as given, even if not agreeing and under no circumstances was the respondent asked. With individuals who classified

themselves as "Other" on the population group question, enumerators were directed to capture in the classification of the population group that the respondent had given.

**Variable management**

- **Population group**

The PopGroup variable was re-coded into four categories and all individuals who specified "other", were then evaluated and dispersed to the four specific groups. All individuals records, recode PopGroup to Population_group as per to the table below.

> 1. = Black African
> 2. = Coloured
> 3. = Indian/Asian
> 4. = White

**Variable used**

- **Geography information**

**DC_MDB_C_CODE2011**

The variable referred to the 44 district municipalities and 8 metropolitans of South Africa based on 2011 municipal boundaries.

**MN_CODE_2011**

The variable referred to the 226 local municipalities based on 2011 municipal boundaries

**Variable management**

- **GEOTYPE_CODE**

This variable referred to three geographical settings, they were urban, tribal/traditional as well as farm.

> **Geographic type codes were as follows:**

> 1. = Urban areas
> 2. = Tribal/traditional areas
> 3. = Farm areas

**Variable used**

- **Relationship to head/acting household head (Relation_To_Head)**

> Question asked was "**What is (**name**)'s relationship to the head or acting head of the household?"**

Message to users

The initial individual listed on the dwelling unit roster was the head or acting head. Enumerators were directed to be mindful that there could only be one head or acting head of the dwelling unit in each household. The enumerators were directed to select the relationship of each individual listed on the roster in relation to the head or acting head of the dwelling unit. With the partner of the head of the dwelling unit, category 2 "Husband/wife/partner" would be selected, even for partners whom were two people living together like a married couple even though they were not married to each other. If same-sex persons chose this category, enumerators had to record the information without probing further.

**Variable management**

- **RelationToHead** coding was as follows:

   1 = Head/Acting Head
   2 = Husband/Wife/Partner
   3 = Son/Daughter
   4 = Adopted Son/Daughter
   5 = Stepchild
   6 = Brother/Sister
   7 = Parent (Father/Mother)
   8 = Parent-in-law
   9 = Grandchild/Great Grandchild
   10 = Son-in-law/Daughter-in-law
   11 = Brother-in-law/Sister-in-law
   12 = Grandmother/Grandfather
   13 = Other Relative (e.g. aunt/uncle)
   14 = Non-related person

**Youth fertility measure**

**Variable used**

- **Children ever born (C.E.B)**

   Questions asked was "**Has (**name**) ever given birth to a live child, even if the child died soon after birth?**"

   Message to users

   Enumerators were instructed to ask this question to all females at the ages between 12 years through 50 years old. They were directed not to count stillbirths (that is,

children born dead) and miscarriages. They were also directed to include all biological children that were still alive, either still residing in the dwelling unit, or adults as well as children living in another place. It was ideal that the females between ages of 12 years through 50 years old answer the questions themselves if they were around, and not a proxy. Females below the age of 12 or older than 50 years, and males included were **not** preferred to answer this question.

**Variable management**

- **Children ever born**
  All persons who were females between ages 12 to 50 years in the sampled household were asked the question and were to answer in the following code list below.

  Definitive code list

  1. = Yes
  2. = No
  3. = Do not know
  4. = Not applicable
  5. = Unspecified

**Variable used**

- **Births in the last twelve months**

  Question asked was "**was** (name)**'s child born in the last 12 months?**"

**Variable management**

  **Births in the last twelve months**

  Variable code

  1 = Yes
  2 = No
  3 = Not applicable

## 3.5.1.2 Human development indicators

The importance of human development indicators was that they deliver an understanding of country's health and developmental status against set global agenda, and this study focused on the case of District of Umkhanyakude. The study only selected indicators that provided data on education, gender balance in the District, dependency ratio, employment as well as households headed by women. These indicators capture more aspects of the society since they bring the notion of some political, economic, and technological aspects, which help to

assess the district and its people towards achieving sustainable development goals. In addition, they were directly linked to social-policy-making because they facilitated a succinct, wide-ranging and balanced judgement about the condition of major aspects of society (Land, 1983).

Education as a socio-economic indicator has considerable potential impact on access to resources and earnings because of cognitive capabilities as well as information that add value to one's health and wellbeing (Elo and Preston, 1996). High education attainment by individuals above age 18 years is crucial for labour force participation, development and employability (Nzimande, 2010). The study employed this indicator for the purposes of evaluating level of educational attainment in the District and domestic municipalities. It looked at persons with no formal schooling years, some primary schooling, finished primary schooling, some secondary schooling, completed grade 12 or Standard 10 (matric), and higher education attainment of persons of all ages. Furthermore, the study looked at education by local municipalities in terms of attainment. In order to get information on education attainment, critical question was asked in the 2016 Community Survey.

**Variable used**

- **Education Attendance**

    Questions asked was "**is (person's** name**) currently attending an educational institution?"**

Message to users

School attendance here means registered at and attending regularly to any of the accredited educational institution (either private or public) for organised learning at any educational level. Educational attendance can be on full-time or part-time basis, as well as distance learning was included. Provisional absence as a result of illness for instance, does not disturb school attendance. An institution was referred to a school, university, home school, Early Childhood Development Centre (ECD) (for example, day care, crèche, pre-school, nursery school or pre-primary school), distance or correspondence education. Again, school attendance does not denote the physical day-to-day attendance only, it moreover included home schooling and distance or correspondence education attendance, such as University of South Africa (UNISA). However, attendance of courses of six months or less was not included (such as, a person who attended a three-month course in security training or a short course in manicure and pedicure training was not included as school attending).

**Variable management**

- **Education attendance**

All individuals in the sampled household were asked the question.

Definitive code list was as follows:

1. = Yes
2. = No
3. = Do not know
4. = Unspecified

**Variable used**

- **Education institution type (EducInstitutType)**

Question asked was "**at what type of institution did (**name**) obtain this qualification?"**

Message to users

A public school stand for to a government school, which included former model C schools, even if they were fee-paying, that is a school directly under the Provincial Department of Education. A private or independent school stand for all non-government schools privately maintained, even if some were subsidised by the government. In cases where respondents were not sure whether an institution was public or private, option 3 (Do not know) was encompassed.

**Variable management**

- **EducInstitutType**

All individuals in the sampled household who were attending an educational establishment would respond given the code list below,

Definitive code list was as follows:

1. = Public (government)
2. = Private (independent)
3. = Do not know
4. = Not applicable
5. = Unspecified

**Variable used**

- **Highest level of education (EducLevel)**

  Question asked was "**what is the highest level of education that** (name) **has successfully completed?"**

98 = No schooling
0 = Grade 0
1 = Grade 1/Sub A/Class 1
2 = Grade 2/Sub B/Class 2
3 = Grade 3/Standard 1/ABET 1
4 = Grade 4/Standard 2
5 = Grade 5/Standard 3/ABET 2
6 = Grade 6/Standard 4
7 = Grade 7/Standard 5/ABET 3
8 = Grade 8/Standard 6/Form 1
9 = Grade 9/Standard 7/Form 2/ABET 4/Occupational certificate NQF Level 1
10 = Grade 10/Standard 8/Form 3/Occupational certificate NQF Level 2
11 = Grade 11/Standard 9/Form 4/NCV Level 3/Occupational certificate NQF Level 3
12 = Grade 12/Standard10/Form5/Matric/NCV Level 4/ Occupational certificate NQF Level3
13 = NTC I/N1
14 = NTCII/N2
15 = NTCIII/N3
16 = N4/NTC4/Occupational certificate NQF Level 5
17 = N5/NTC 5/Occupational certificate NQF Level 5
18 = N6/NTC 6/Occupational certificate NQF Level 5
19 = Certificate with less than Grade 12/Std 10
20 = Diploma with less than Grade 12/Std 10
21 = Higher/National/Advanced Certificate with Grade 12/Occupational certificate NQF
22 = Diploma with Grade 12/Std 10/Occupational certificate NQF Level 6
23 = Higher Diploma/Occupational certificate NQF Level 7
24 = Post-Higher Diploma (Master's, Doctoral Diploma)
25 = Bachelor's degree/Occupational certificate NQF Level 7
26 = Honours degree/Post-graduate diploma/Occupational certificate NQF Level 8
27 = Master's/Professional Master's at NQF Level 9 degree
28 = PHD (Doctoral degree/Professional doctoral degree at NQF Level 10)
29 = Other
30 = Do not know

Message to users

The question dealt with uppermost level of education (highest completed grade at school or post-schooling qualification acquired), not the level an individual is at present studying. Individuals aged 15 years and younger could not be noted down as having completed a tertiary requirement. A diploma or certificate should have been at least twelve months' study period full-time (or alike).

**Variable management**

- **EducLevel**

This question was applicable to all persons in the sampled dwelling unit aged 5 years and older. Moreover, it was initially grouped into thirty-two levels for respondents to prefer their choices of educational level. For the purposes and analysis of the study, the schooling levels were categorized into nine levels as shown on the table below starting from no schooling up until postgraduate PhD level.

Definitive code was as follows:

1 = No school
2 = Primary
3 = Secondary
4 = Certificates
5 = Diplomas
6 = Bachelors
7 = Honours
8 = Masters
9 = PhD

**Variable used**

- **Age of head of household**

The age of head of household was consequent from the inquiries **(Age)** and **(Relationship)**. The age of the head of household was then attained by assigning the age of the individual who showed category 01 (head or acting head) in response to the **Relationship** inquiry.

Final code list

10
11
12
.
.
.
116

**Variable used**

- **Sex of household headship**

This variable was consequentially to indicate the sex of household headship.

Sex of head of household was derived from the questions (Sex) and (Relationship). The sex of the head of household is obtained by allocating the sex of the person who indicated category 01 (Head/acting head) in response to the **Relationship** question.

**Variable used**

- **Employment and unemployment status**

Economic active people are between ages 15 and 65 years as per the Labour Relations Act 66 of 1995. This population group can therefore carry out work for remuneration, profit or family gain for at least an hour in the seven days prior to the interview, and or receive some form of payment. This study looked at gender by employment and unemployment. Employment is an important indicator when assessing a population of an area, such as the District of UMkhanyakude. There has to be a positive association between availability of opportunities and population growth. The African Development Bank Fund (2000) suggested that population growth determines the supply of labour and employment. However, rapid population growth may result to a mismatch on employment opportunities and supply of labour. Thus, the relationship has to be evaluated to ensure equal opportunities and respond when there are disparities through policy-making. Employment status is an important socio-economic contributing factor of a person's health because it enables access to resources, finances and health facilities that improve wellbeing (Vawda, 2011).

Employment status can be grouped into three categories, which are, employed, unemployed (strict and broad definition), as well as not economic active. Employed individuals were those who have worked for one hour in the past one week in relation to the time of the questionnaire. Using the strict meaning of unemployed individuals, were those people who were willing and available to work as well as have been keenly searching for work. With the broad definition of unemployed, it includes those who were willing to work but have not been searching for work in the past four weeks (at the time of date collection). Inactive population entailed those persons who were not included in the definition of unemployment (Kingdon, 2006). The use of broad definition of unemployment was critical in the study because it encapsulated a number of factors that explain elements of socio-economic determinants.

Questions asked

Bundles of questions were employed to sort employment status in a comprehensive manner:

- Are you at present being remunerated a wage or income to work on a normal basis for an employer whether permanent or part-time?
- Have you been involved in any self-employment activities for the period of past 30 days?
- Have you done occasional work to earn in the past 30 days?
- How long ago was it since you last worked?
- What was the chief purpose you stopped working in your latter job/business?
- In the last four weeks,
  o Where you looking for any kind of work?
  o Where you trying to start any kind of business?
  o What kind of working/business arrangement were you looking for?
  o What have you done to hunt for paid work (job) or start a business?
  o For how extensively have you been without work and trying to find paid work (occupation) or start a business?

**Variable management**

- **Employment status**

  Employment status was grouped into three categories namely:

  Definitive code list

  o Employed
  o Unemployed
  o Economically inactive

**Variable used**

- **Age dependency ratios**

Age dependency ratio seek to measure, by definition, the number of dependent persons of age group 0–14 and age above 65 years to those in economically productive ages of 15-64 in the population (Nzimande, 2010). It is linked to the functional age groups as the ratio of persons in the dependent ages to those in economically active ages. An indicator that measure the economic burden the productive portion of a population must support. Countries and regions with high birth rates tend to have the highest age dependency ratios because of the increase in children under the age of 15 years. This study conducted both old-age dependency as well as child dependency. In addition, total dependency ratio was also conducted for each of the five local municipalities.

Functional age groups in the questionnaire was a re-coding of the variable **Age** into broad age groups from 0 to 65+. This question was applicable to all persons in the sampled dwelling unit. Dependency ratio by definition is as follows:

**Variable management**

$$Dependency\ ratio = \frac{(number\ of\ people\ at\ ages\ 0-14\ \ and\ ages\ 65\ and\ over)}{number\ of\ people\ between\ ages\ 15-64} \times (100)$$

The total dependency ratio would be composed of child dependency ratio as well as the aged dependency ratio;

$$Child\ dependency\ ratio = \frac{number\ of\ people\ ages\ 0-14}{number\ of\ people\ between\ ages\ 15-65} \times (100)$$

$$Aged\ dependency\ ratio = \frac{number\ of\ people\ aged\ 65+}{number\ of\ people\ between\ ages\ 15-64} \times (100)$$

**Variable used**

- **Household headed by women**

There are a number of factors that result to female-headed household, some of the factors include marital dissolution and high death rate among males, especially at older ages. A number of studies suggest a decline in male headship because of shorter longevity of males. Gender equality for employment opportunities is important particularly in an event where a male-bread winner departs the world of the living, a female can be able to support the family. Through the demographics, variables of sex, age, population group, and marital status were included in obtaining information on household head. The following question was asked to attain information about household head.

- **Average age of the household head**

> Questions asked was **"what is** (the person's) **date of birth and age in completed years?"**

This variable was derived in order to indicate the age of the household headship in five yearly cohorts

**Variable management**

The household headship age was draw on from the date of birth and relationship inquiries. The household head age was achieved through assigning the age of an individual who indicated category 01 (head or acting head) in response to inquiry of relationship.

<div align="center">

Definitive code list

01 = 0-04
02 = 05-09
03 = 10-14
04 = 15-19
05 = 20-24
06 = 25-29
07 = 30-34
08 = 35-39
09 = 40-44
10 = 45-49
11 = 50-54
13 = 55-59
14 = 60-64
15 = 65-69
16 = 70-74
17 = 75-79
18 = 80-84
19 = 85+

</div>

**Variable used**

**Relationship to head/acting household head**

Question asked was "**what is (***name***)'s relationship to the head or acting head of the household?"**

Message to users

The initial individual registered on the dwelling unit roster was assigned the household head or acting head. The enumerator was instructed to note that there could only be one head/acting head of the household in each household. The enumerators were directed to select the relationship of each individual listed on the roster in relation to the head or acting head of the household. For the partner of the head of the household, category two "Husband/wife/partner" was selected, even for partners who were two people living together like a married couple although they were not married

to each other. If same-sex persons chose this category, enumerator had to record the information without probing further.

**Variable management**

Sex of the household head was stemmed from the inquiries (sex) and (relationship). The headship sex of the household was attained through assigning the sex of the person who indicated category 01 (head or acting head) in response to the relationship inquiry

Definitive code list

01 = Heard or acting head
02 = Husband or wife or partner
03 = Son or daughter
04 = Adopted son or daughter
05 = Stepchild
06 = Brother or sister
07 = Parent (father or mother)
08 = Parent-in-law
09 = Grandchild or great grandchild
10 = Son-in-law or daughter-in-law
11 = Brother-in-law or sister-in-law
12 = Grandmother or grandfather
13 = Other relative (e.g. aunt or uncle)
14 = Non-related person

**Variable used**

▪ **Average income per municipalities**

Questions asked was "what is the income category that best defines the gross income of (**this person**) before tax?"

| Code | Range | Proxy values allocated |
|------|-------|------------------------|
| **01** | No income | 0 |
| **02** | R 1- R 4,800 | 3,200 |
| **03** | R 4,801- R 9 600 | 7,200 |
| **04** | R 9,601- R 19,200 | 13,576 |
| **05** | R 19,201- R 38,400 | 27,153 |
| **06** | R 38,401- R 79,800 | 54,306 |
| **07** | R 76,801- R 153,600 | 108,612 |
| **08** | R 153,601- R 307,200 | 217,223 |
| **09** | R 307,201- R 614,400 | 434,446 |
| **10** | R 614,401- R 1,228,800 | 868,893 |
| **11** | R 1,228,801- R 2,457,600 | 1,737,786 |
| **12** | R 2,457,601 or more | 4,915,200 |

Message to users

Users should be warned to use this variable with caution and be aware of its limitations. Household income has been derived from personal incomes collected in ranges. For each range, an assumption had to be made as to the appropriate point to use for the calculations. This has made the results tentative. Household income does not provide a measure of total income and its accuracy in representing relative income is unknown. Direct comparisons with other data sets cannot be made. The main reason for releasing this variable in the data is to show patterns and trends, rather then precise estimates.

**Variable management**

The annual household earnings was derived from inquiry income grouping, which gave an income of each person. The yearly earnings for a household was calculated through tallying together the individual earnings of all household members. The outcome of each family was then reshuffled into the appropriate income group.

Definitive code list

No income
R 1- R 4,800
R 4,801- R 9 600
R 9,601- R 19,200
R 19,201- R 38,400
R 38,401- R 79,800
R 76,801- R 153,600
R 153,601- R 307,200
R 307,201- R 614,400
R 614,401- R 1,228,800
R 1,228,801- R 2,457,600
R 2,457,601 or more

**Variable used**

- **Grants and subsidies received as a percent of total income in 2015**

  Question asked was "**in the past 12 months, what type of social grant(s) did** (name) **receive?"**

**Variable management**

This inquiry was directed to all individuals who agreed that they receive social grants as their primary source of income. The enumerator was retold that social grants must be recorded

under an individual who is the beneficiary of that grant, not the individual who collects the grant.

Definitive code list

Yes or No
1. = Older person's grant (old-age grant)
2. = Disability (permanent or temporary) grant
3. = Child support grant
4. = Care dependency grant
5. = Foster care grant
6. = War veteran's grant
7. = Grant-in-aid (should be having another grant)

## 3.5.2 Indicator development

### 3.5.2.1 Population indicators development

❖ **Population pyramids**

Population pyramid was a graphical tool that illustrates various age distribution of a population, and in this case, it showed a District of UMkhanyakude. The importance of employing population pyramid was that it gave clear picture of either a growing, declining or a stationary population. This information would enabled authorities to plan for the future needs of a population. Sex was shown on the y-axis for both males and females, while the x-axis display percentages. Both age and sex composition of a population determine the ultimate shape of a population pyramid.

❖ **Population distribution by line graph**

The significance of population distribution by a line graph was that it gave more information that was not easily identifiable with only the use of population pyramids. The line graphs made it clearer the distribution differences among the sex structures of the population. Line graphs and population pyramid were more informative when both were used to analyse the same information. The line graph clearly displayed how a population was increasing or decreasing over time at specific age groups.

❖ **Population growth line**

A line graph used to express the data consisted two axes, the y-axis, which was vertical, and x-axis on the horizontal. The use of population growth line allowed one to have a clear understanding of the populace dynamics and events at some point in time. It gave a historical view of growth across time, and it was much easier to project future growth of population. This was critical for planning in advance, hence

responding appropriately to pressing needs of the population. An improved living standard requires an already established infrastructure and facilities. The population growth line gave a well-presented line graph and enhanced readability of population of the district across time. The pattern of the population can be seen easily and assist readers of the trends in the data in various periods.

❖ **Sex ration (CR)**

The proportion of males to females for population of UMkhanyakude was essential to analyse since it may indicate which population was born more than the other was, and which dies earlier than the other does. SR as it can be expressed as the number of males per 100 females, was explored to broaden understanding of demographic dynamics. Separate data about males and females was essential to consider. The sex ratio general formula is;

$$= \frac{\text{number of males}}{\text{number of females}} \; X \; 100$$

The patterns by age tend to be higher at very young ages and the gap narrows with increasing age. This may be due to a number of characteristics as influenced by population dynamics and human development.

❖ **Dependency ratio**

Dependency ratio as an age-population ratio of persons not in the labour force and persons in the labour force, it measures the burden on productive population. This ratio may have both direct and indirect influence on population growth and thus, it was significant to consider it when exploring population and human development indicators. The dependency ratio was calculated using three population groups, which were 0-15, 16-64, and 65 and above years. There were three age dependency ratios that can be calculated, youth dependency ratio, old-age dependency ratio, and total age dependency ratio, below are the formulas used to calculate these ratios, respectively;

- o youth dependency ratio $= \frac{\text{Population age } 0-14}{\text{population age } 15-64}$

- o old − age dependency ratio $= \frac{\text{population age } 65 \text{ above years}}{\text{population age } 15-64}$

- o total age dependency ratio $= \frac{\text{population age } 0-14 + \text{population age } 65 \text{ and above}}{population\ age\ 15-64}$

### 3.5.2.2 Human development indicators development

❖ **Education levels**

Higher education attainment was crucial especially for least and developing regions because it aids a population to formulate and have points of view about their lives, thus increasing choices as to how to lead a better life (Doumbia, 2013). Education as a process of attaining information and building knowledge was utmost important any society in today's world. Access to quality education enables a greater part of the population to live a healthy life, and easy access to better services and quality of life. It was chosen for the reasons that it contributes towards sustainable human development. The person's education level recoded was based on the accomplished level of education on the day of community survey data collection. The education levels were categorised into nine groups, no school, primary, secondary, certificates, diplomas, bachelors, honours, masters, and PhD. Formal education had been divided into a number of levels, in the main there is basic education or primary, secondary and higher education. In addition, within each educational level, there are sub-levels. For the purpose of the study, education levels were divided into at least nine.

❖ **Geographic distribution**

Geographic distribution variable was explored to understand concentration of the population in three categories of areas, which were urban, tribal, and farm. A geographical setting may have great impact to living standard because of development and other factors such as climate, landforms, as well as vegetation. A concentration of population in an area, may give more information about the geographic type, people and developmental state.

❖ **Household headed by women**

In a household where an adult was a female, the main bread winner and decision maker may suggest some poverty levels. In most settings, women were not normally assumed heads of household except where no male adult was residing permanently in the household. Household headed by women may be due to the divorce, death of male partner, separation or no longer living together. In developing countries, women remain the vulnerable group economically, and in income and employment prospects. Exploring this variable of women headship was imperative when focusing on human development indicators.

## ❖ Employment and unemployment levels

Sustainable long-term economic growth was essential for any economy as it affect human development, thus a standard living. Employment may mean access to income and more choices for a better as well as healthy life. Employment and unemployment levels were imperative for almost all societies to be measured and addressed. A growing economy was a pre-requisite for high employment and low unemployment levels. However, the study focused on employment as a determinant for improved lifestyle. Unemployment rate was the number of persons in the labour force divided by the number of unemployed. The study had used statistical data from census and previous community survey to evaluate explore employment and unemployment levels for the District.

## ❖ Employment status of UMkhanyakude

This human development was chosen for the study because it has essential indication of income received by the people of the District. Employment status determines who are actively participating in the labour force, thus contributing to the development and growth of the municipality. Employment status may have great impact for a person on the access to adequate food, health, shelter and other human basic needs required for a long healthy standard of living. Data from quarterly labour force survey of 2015-2016 was considered because it was the most updated.

## ❖ Employment status by age

Young people constituted more than 55% of the population, hence, employment status by age was essential to explore to be able to determine by age who were most employed. This indicator, combined with others can give a comprehensive indication of the district in relation to population growth, majority population group, attainment of skills and share of employment. Thus, an understanding of access to income by age and extent of share into resources that enables improved living conditions.

## ❖ Education attendance by institutions

This indicator provides details on the success rate of secondary education completed and further access to types of higher education institutions attended by the population of the District. Higher learning institutions required a certain level of pass, thus with more people of the District attending higher learning institutions may give a positive picture of knowledge attainment, skills and improved living conditions. There were

institutions of learning that were public, community based and others in private sector, this variable may gave an understanding of enrolment and qualifications attained from.

❖ **Youth fertility tables**

A number of scholars had paid great consideration to the increase in fertility and motherhood among young women in numerous countries in Sub-Saharan Africa and Latin America (Rodriguez-Vignoli and Cavenaghi, 2014). Fertility remains high in developing countries and youth fertility was a concern due to its association with social inequality. According to Rodriguez-Vignoli and Cavenaghi (2014) argued that in developing countries, the probability of becoming a mother at age group of between 15-19 years old was thrice higher in the least developed nations when equated to first world nations. Trends in youth fertility and motherhood at young age groups and its social inequality are important to enlighten the public consideration and taking on policies and actions to remedy the issue. Youth fertility was significant in a study that explores population and human development because it may influence living conditions. Youth and teenage pregnancy may delay at most the progress of females than boys towards education completion at secondary education.

❖ **Average income distribution**

Employment levels may not give a clear picture of income circulation in a social setting such as in the District of UMkhanyakude. However, average income distribution seeks to level how income would be distributed out among members of a society. This indicator was explored by comparing each local municipalities of UDM. In these local municipalities, income distribution may falls somewhere in the middle between equal and unequal. It may be significant to consider this variable when analysing human development and growth.

❖ **Grants and subsidies as a percentage of income received**

The community survey 2016 published findings on grants and subsidies as a percentage of income received by the District. This variable plays interesting role when explaining dependency ratio, education levels, employment and unemployment levels as well as average income distribution. Low employment levels and high unemployment levels may suggest that the District's main income was through subsidies and grants, and it may point out low economic activities in the municipality.

❖ **Poverty levels**

Variable that were used to measure poverty in the District were poverty headcount and intensity of poverty for both years 2015 and 2016. The importance of poverty headcount was that it provided a percentage of population that is below poverty line and easy comparison (Richmond, 2007). Poverty can be defined in either narrow or broad terms. In a narrow sense, poverty may suggest lack of income. While in broad sense, it may entail multidimensional issues such as lack of housing, education, access to health services and resources, and social power relations (Richmond, 2007). The Republic of South Africa has assured itself with a number of international obligations to adopt a poverty measure, and commitment towards ending poverty. The republic has international treaties and constitutional obligations (Richmond, 2007). South Africa has been a signatory to the MDGs, and now with SDGs, International Covenant on Economic, Social and Cultural Rights, the African Charter on Human and Peoples Rights, the African Charter on the Rights and Welfare of the Child, and others. The Republic constitution does address matters of people's well-being, the right to adequate housing, health care, sufficient food, and water, social security, as well as social assistance and education (Richmond, 2007). The Statistics South Africa, which was an agency that conducted and published statistics for the government, had measures of poverty. It used poverty headcount, and intensity of poverty and the study had used these measures of poverty too.

## 3.6 Limitations of the study

Practically there were few research studies if any that do not experience limitations and constraints on findings as well as conclusions. It is therefore imperative to acknowledge study shortcomings in order to inform the reader of what limitations were encountered and how they could be avoided in further research studies as well as remedies. The constraint of the study was due to the fact that data was initially collected by Statistics South Africa with different analysis and objectives than of this study. The study had limitations to measure levels of education and household composition. Collection of qualitative data aid and improve data quality, which gives a detailed picture of a phenomenon. The study could not account for individual differences between educational attainment levels or employment disparities. Statistics South Africa sampled data may not be a true representative of the

population of UMkhanyakude District, hence a need to be cautious of generalisation of findings.

## 3.7. Conclusion

The determination of this chapter was to outline research design as well as methodological procedures for the study. Community Survey 2016 conducted by Statistics South Africa was described including the data used for the study. Characteristics of the data sample were presented. The level of education and employment as well as unemployment, and household distribution by sex headship were discussed in the chapter. The chapter discussed limitations and constraints through the research process.

# Chapter 4

Findings

## 4.1 Introduction

The study employed quantitative research approach, which in its nature leaded to numeric information that would be analysed by an approved statistical programme. This chapter presented findings of the study through describing population indicators of UMkhanyakude District, household headship composition by sex, levels of educational attainment, and employment levels. In order to understand the context of the findings, this chapter began with population profile description within boundaries of the District. Much of the data was presented in graphics and tables, which helped in describing phenomenon and providing information (Kutoane, 2012). The study drew on data from the Community Survey 2016, which took place in-between national censuses. The aim of this study was to understand demographics and household headship composition by sex, as well as exploring human development levels in the District. Sustainable development goals were of paramount importance when analysing the objectives of the study. MDGs and SDGs were critical as they set the global direction for all nations, in particular less and least developed nations as a blueprint path out of poverty and better living conditions. They were also important to describe levels of human development and population distribution.

## 4.2 Sample distribution per local municipality

The share of the District's population by each local municipality was a significant indicator when considering a need for developmental planning. Population distribution per local municipalities influence channeling of resource, and a municipality with a great number of population required a great deal of allocation. An information about each municipality population concentration was important to have and to understand, as it was a foundation for effective planning. Figure 4.1 presented the sample proportion distribution of the local municipalities of the District. Jozini Local Municipality has the highest proportion at 31.1% (13891) followed by Umhlabuyalingana at 26.9% (12010) as well as Mtubatuba at 25.6% (11466) of the 44719 total sampled population. The least proportion of the population observed were Hlabisa at 11.5% (5129) and the Big 5 Falls Bay at 5% (2223), respectively. About 85% of the population in the District were clustered in three local municipalities, which were Jozini, Umhlabuyalingana, and Mtubatuba municipalities. Thus, these

municipalities should be allocated a greater proportion of resources compared to the least in numbers municipalities, the Big Five and Hlabisa.
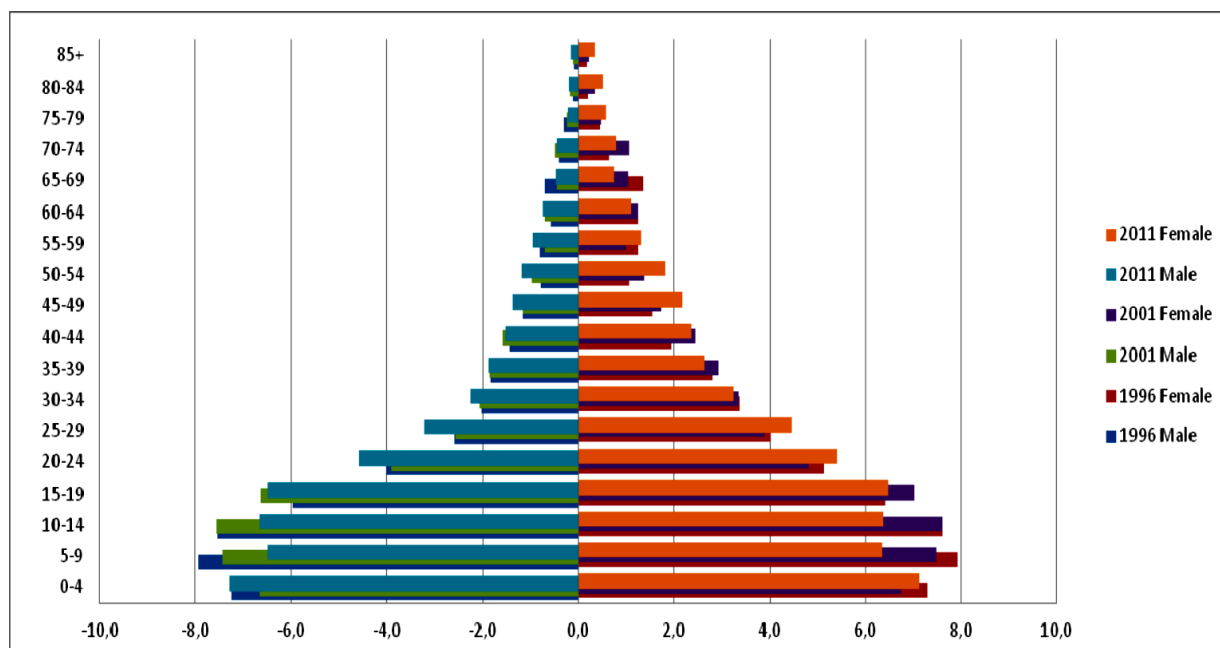
**_Figure 4.1_: Population distribution for UDM Local Municipalities, CS2016 South Africa**
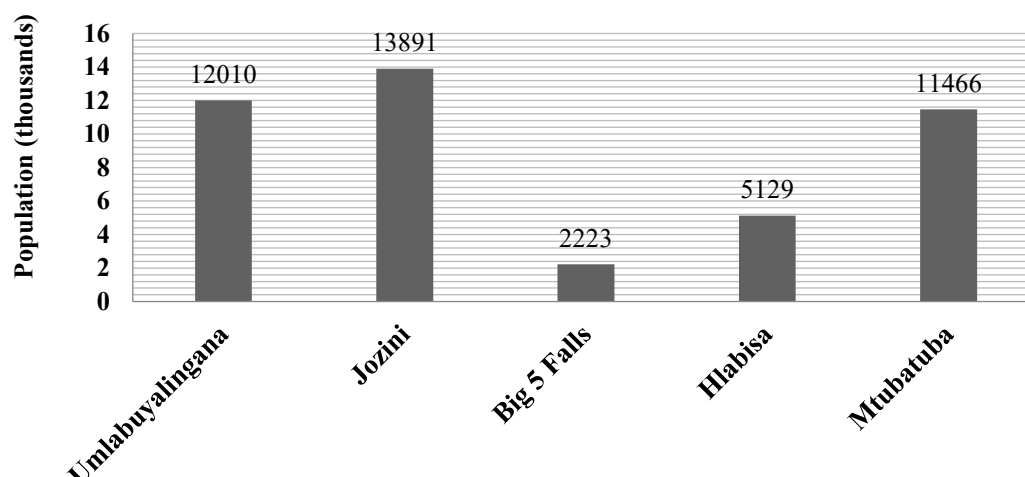


## 4.3 Population distribution by age and sex of UMkhanyakude 1996, 2001, and 2011

Since the breakthrough of democracy in 1994, few population censuses had been conducted. Figure 4.2 showed population pyramid of UMkhanyakude District for 1996, 2001 and 2011 population censuses. The horizontal bars in the population pyramid reflect the percentage of populace in that age cluster, such as the age cluster 0-4 at the bottom of the pyramid. Age group 0-4 was a new birth cohort and thus appeared at the bottom of the pyramid. As the cohort moved up by age groups, it ages and mortality decreases and or migration increase or decrease the population (Nzimande, 2010). It showed a particular sequence of fertility, mortality and migration. Greater mass of the people in UMkhanyakude remained young because of the base of the pyramid. It had a broad base, which indicated a growing population. However, the population pyramid showed a declining base across time, since 1996 to 2011 censuses. Although it remained broad at its base, nonetheless it had been declining for both sexes. At age 20-24 and 45-49 there was a considerable increase of females, especially with the 2011 population census. Hence, the number of female population remained higher than males. The population pyramid of the District showed no considerable difference across time of the censuses especially on migration and mortality. The District pyramid was consistent with the KZN and national population censuses in that the proportion of females was greater than of males especially at oldest age groups, and the number of female population was greater than male populace.

Population pyramid remained as a universal graphical way to display age and sex composition of a population. Figure 4.3 portrayed population pyramid of UMkhanyakude District Municipality (UDM) over five-year age groups and sex structure in 2016. The pyramid showed a population growth where the base of the figure, at age 00-19 was larger relatively to older age groups of 65 years and above. Furthermore, it showed that majority of the District's population was relatively young. Notably, there were more males than females, especially ages below 24 years. At the age group of 00-04 years, revealed more male births than female. Male population may either emigrate to other districts for various reasons such as of economic opportunities and never return or because of high mortality levels of male population. This leaded to increased number females at ages above 25 years. At ages above 85 years, the pyramid showed that females live longer than males. Survivorship was low in older ages particularly for males, thus the number of people in old age was minimal. Hence, females outnumber males at old ages. The sample data had 31,871 people under the age of 35 years, Black/African amount to 99.71%, White 0.14%; Coloured about 0.10% and the least population group were Indian/Asian. Persons of age 15 to 35 years were termed as youth in South Africa, this age group of persons constituted a lion share of the population of the country, the KZN province as well as in the District of UMkhanyakude. People within age group of 0-34 were significant for any country that was developing. A number of demographic and socioeconomic features focus on this age group, such as fertility rate,

school enrolment and educational attainment levels, household headship, employment and unemployment levels. At the age group 00-04, there were 5,175 infants born, and about 99.88% were Black/African, Indian/Asian were the least children born, accounted 0.02%. Population in age group 5-19 may be expected to have enrolled in primary and secondary education, and age group 20-24 would be expected to have completed their first higher education level. Age group 25-29 would be expected to fully participate in the economy and labour market.



*Figure 4.3*: **UMkhanyakude District Population Pyramid, CS2016 South Africa**
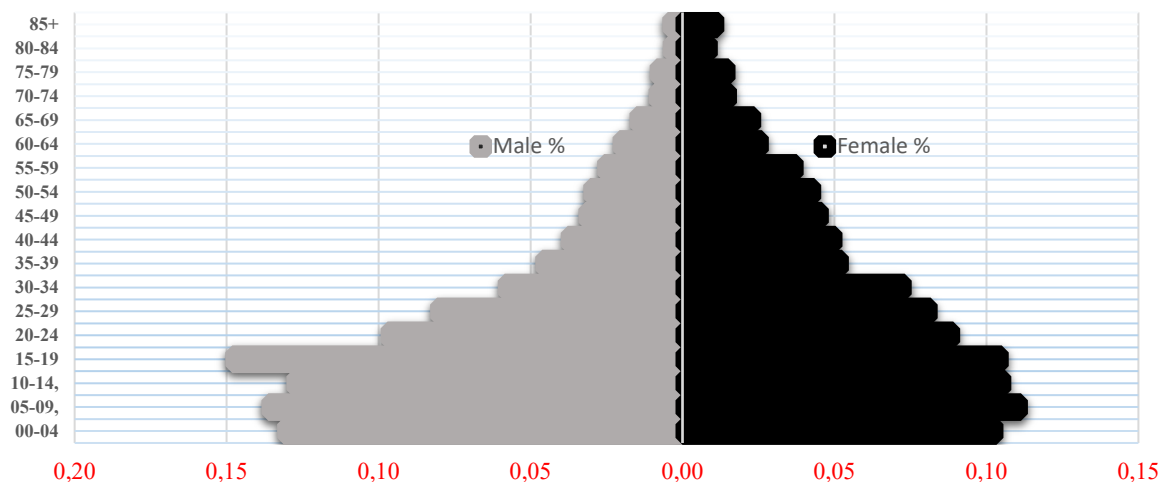
To find more information about the District, it was important to make use of other graphical formats to display the same data to understand more and broadly of the District. The line graph in figure 4.4 showed an interesting picture of the population of UMkhanyakude District that was not clear with the population pyramid in figure 4.3. The line graph was composed of the same data as the District's population pyramid, the community survey 2016 (CS2016). Figure 4.4 showed more males are born than females between ages 00-04. With the line graph, age and sex structures can be analysed clearly across time. At the beginning of ages 00 to 19, there was no significant divergent of males and females. At the age group of 05-09 years, there seemed to be an equal number of males and females at a decreasing rate. However, at ages above 20 years, there was sharp decline of the population for both sex groups. In addition, the data suggested there were more females than males. Males leave the population at a higher rate than females hence, the number of females remained much higher. This gap continued however, it get lesser across time as the population gets older, and

females outlive males at older ages. The significance of this relationship between males and females by age goes further than demographic study but also public planning to effect betterment of the population. This line graph gave more understanding of the widening gap between males and females than would be in a population pyramid. More intervention should be directed to sustain males because they exit the population at a higher rate. Age dynamics were as a result of variables such as composition of fertility, mortality, area of residence and family planning as well as socioeconomic status. Age and sex composition was an important consideration for a demographic study as well as planning for developmental interventions to devise ways to keep the population living longer and healthy. This would be possible through investment in personal development and access to education, opportunities for access to resources, as well as infrastructural development that would support education and employment creation.

*Figure 4.4*: **Line graph of age by sex, CS2016 South Africa**
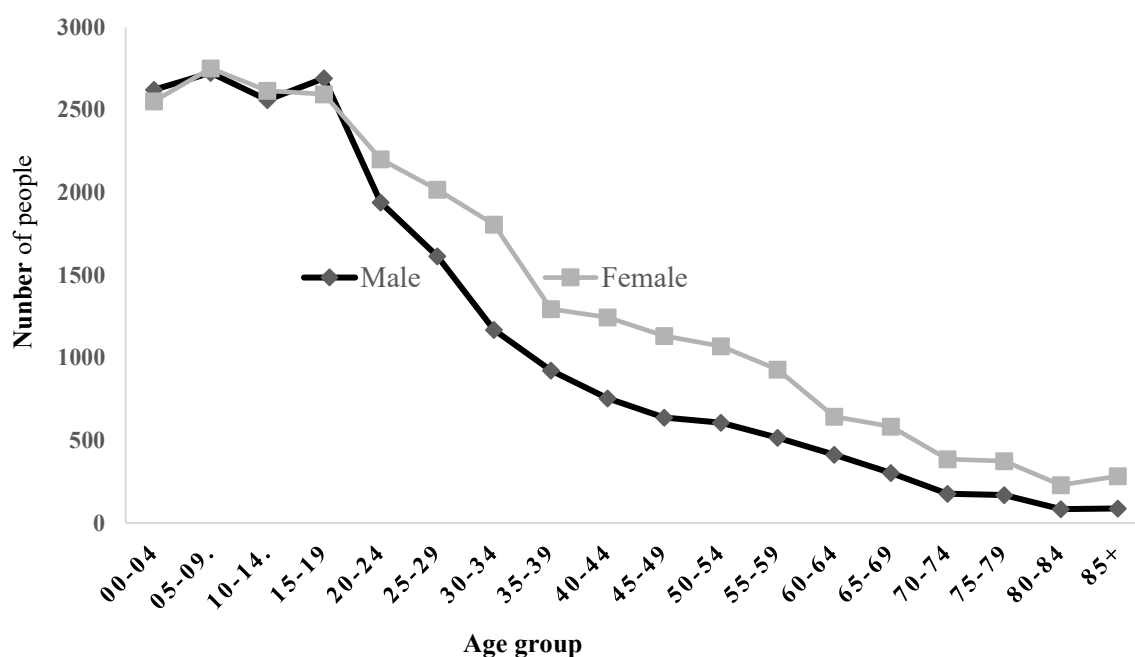


## 4.4 Population growth of UMkhanyakude District

Population growth may increase through improvements in sanitation, medicine, agriculture, and technology (Mondal, 2013). However, population growth may also be a contributing factor in climate crisis, deforestation, pollution and loss of biodiversity (Mondal, 2013). On the other side, population growth may decrease because of extensive correct use of contraceptive methods, abstention and small families. In addition, famine, disease, wars, and accidents results to a decreased population growth. There were a number of statistical

measurements conducted since 1996 to 2016, which can be utilised for the District's population growth analysis. Fertility and population growth rate that was on average 2.1 children per woman was at replacement, thus no increase in population growth. Over the last twenty years, the population of UMkhanyakude District had grown by a rate of 2.5% from 1996 to 2016. A population growth rate of 2.5% was considerable high, more than replacement. The population of the District was relatively increasing during 1996 and 2001. The growth rate increased on a decreasing rate within the period of 2001 and 2007. The growth rate was calculated using figures from the year 2001 population census, and community survey (CS) 2007, which resulted to 1.3% population growth. The KZN province had relatively high HIV/AIDS rate, intense campaign on condom use and protected intercourse, may have contributed to lower population growth in this period. Improvement in access to ARVs, increased enrolment at both primary and secondary schooling, as well as provision of infrastructure had increased population growth rate between 2011 and 2016. The growth rate for census 2011 and CS2016 was 2.2%. The population growth was gaining momentum as in 1996-2001 period and may continue to increase and that HIV/AIDS was no longer a dead sentence. The population of the District had slightly grown across time, in particular the period of 1996 to 2016. The provision of necessities such as health facilities, clean water, free housing, and encouraged measures for young people to be in school, roads, social grants for elderly and children as well as supermarkets may have given rise to population growth. A continued population growth rate of 2.2% will require additional resource allocation by authorities at all spheres of government to fund education and improve its access and employment creation opportunities. In addition, these population growth rates may suggested that the District would remain with majority of youthful population, and lastly social grant administration offices would be required for ease of sorting challenges that may emanates and thus, improve access to such resources.

*Figure 4.5:* **Growth rate of UMkhanyakude District**

*(Census 2011 and CS2016)*
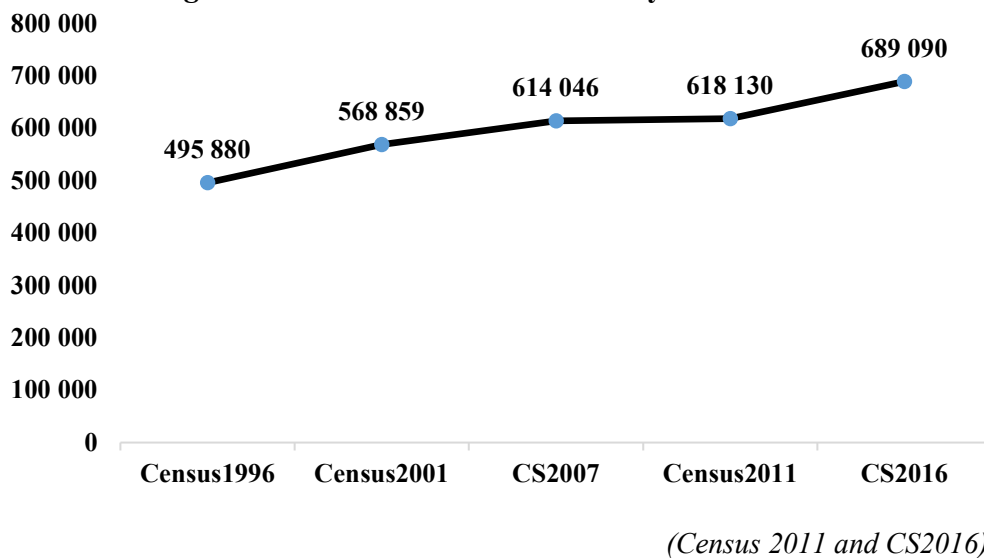
**4.5 Population age-sex structure of Local Municipalities in UMkhanyakude District**

The population pyramids in figure 4.5.1 to figure 4.5.5 displayed the age and sex structure of each of the local municipalities in the District for 2016. All the local municipalities reflected a growing population since the base of the pyramids were broad at ages below 14 years. All the local municipalities' pyramids were similar to that of the entire District, high level of fertility, thus showing a growing population. More than 97% of the people in the District were Black Africans. Evidently, the line graph in figure 4.4 relatively showed that the proportion of women was greater than that of men especially after age of 19 years. There was considerable higher survival of women in old age, the pyramids and line graph clearly gave a good picture. Figure 4.5.5 depicted population of Mtubantuba, which relatively had the broadest base of the population pyramid in the District, followed by Jozini and Umhlabuyalingana Municipalities. Noticeable in all the Local Municipalities particularly Hlabisa and The Big Five Municipalities, there had been a considerable decline of population especially at age 35 years and above.

The sample population of Umhlabuyalingana Local Municipality presented in a population pyramid depicted a growing population. There was a high fertility rate, and majority of the people were youth. Umhlabuyalingana population pyramid may have contributed immensely for figure 4.4, which showed a higher population proportion at younger ages. The shape of the pyramid followed that of the District. Significantly, there were more males below age of 19 years. However, females lived longer than males over the age of 34 years and above. Umhlabuyalingana was expected to have a continued population growth over the coming

years, since majority of its population were within reproductive ages, and a youthful population. Jozini population sample was the largest, about 13,891 participants were enumerated to be the best representative of the entire population. Figure 4.5.2 depicted the population picture of Jozini population, and revealed that population was young and growing. The base of the pyramid was considerable large at young age and had the possibility to grow further. The proportion of male population at young age was greater relatively to that of females. However, males were leaving the population structure more than females in adulthood, enabling an increased proportion of females in older ages. Hence, the population pyramid of Jozini Local Municipality had contracted at the top. Survivorship of females above age 85 years was more than that of males.

The Big Five Local Municipality had the lowest sample compared to the rest of the other four District's municipalities. Community Survey 2016 (CS2016) enumerated 2,223 participants to be a true reflection of the municipality. Figure 4.5.3 was a reflection of sample data from CS2016. The pyramid showed that the municipality population was young and growing. Female population lived longer than male. There was high birth of boys than girls, and at the age group 15-19, the sample showed a high percentage of male population. At the age group of 20-24, there was sharp decline of male population. Figure 4.5.4 display a population sample of Hlabisa Local Municipality in 2016. The bottom base of the pyramid was expansive, a reflection of high fertility prevalence in the municipality. Remarkably, there was high number of male children than female at the age group of 00-04. In addition, this scenario is consistent with the World Health Organisation's (2017) assertion that nature tend to deliver the number of newborn males to outnumber the newborn females, hence the sex ratio at birth may be observed to range at 105. Age group 05-09 depicted a picture of high deaths or out-migration of male people while there was steady increase of female in the same age group. Young adults from the age group 30-34 decreased extensively resulted to a narrowed population pyramid of both sexes, and decreased number of people at the local municipality. Hlabisa population pyramid sample emulated that of the District in particular at the age of 85 years and beyond, there was a high share of females over males. Pyramid of Mtubatuba Local Municipality showed a growing population with its extensive expansion base at the bottom. From the age group 00-04 to 25-29 there was a higher quantity of males over females. However, the trend differed at 45-49 and beyond where female population began to exceed males. There was a similar comparison at the age group 15-19 for males with other local municipalities of the District in that male population exceeded that of female

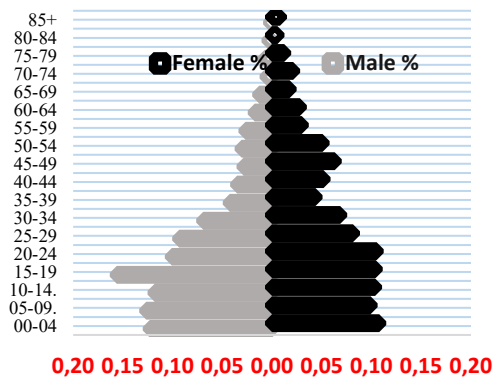**Figure 4.5.1 – 4.5.5 Population pyramid for UMD local municipalities, CS2016 South Africa**
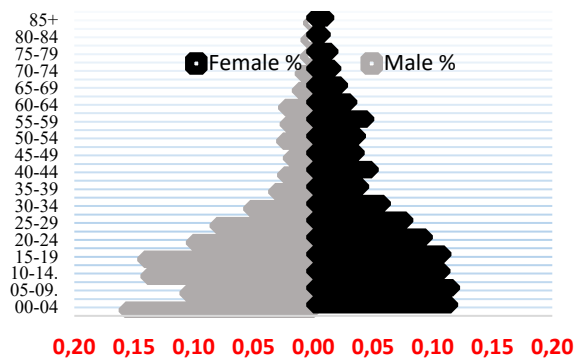
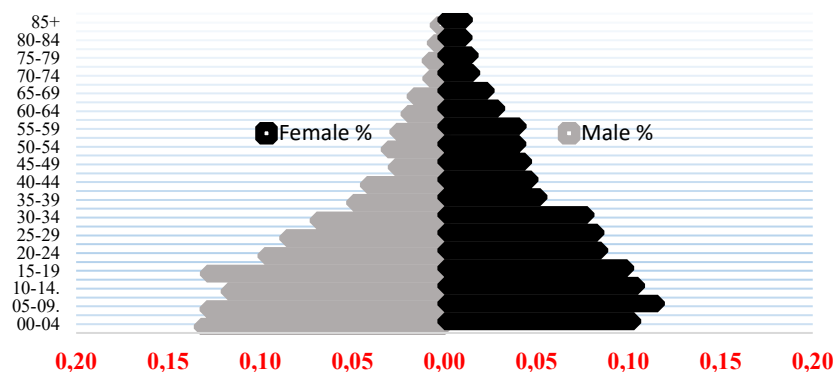*Figure 4.5.1:* **Umhlabuyalingana**
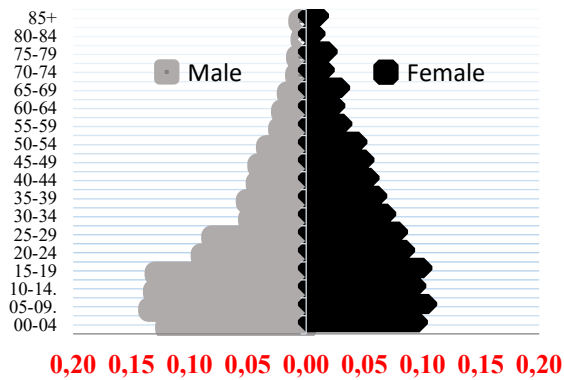
*Figure 4.5.2:* **Jozini**
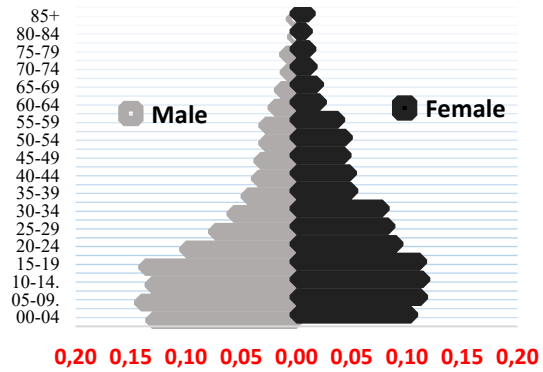




*Figure 4.5.3:* **The Big Five**

*Figure 4.5.4:* **Hlabisa**





*Figure 4.5.5:* **Mtubatuba**

## 4.6 Age profile of UMkhanyakude District Municipality

Age was a significant variable in most demographic processes. Age was considered particularly when analysing variables such as death rates, population age structure as it reflected history of birth rates, death and migration. Population age structure was a function of birth, death, and migration rates history (Nzimande, 2010). Table 4.1 was statistics summary for UDM and its local municipalities. The table showed mean age for the District of 26 years, which imply youthful population. Umhlabuyalingana Municipality had the highest mean age of 27 years, which was slightly above of the District. Jozini Municipality had the lowest mean age at about 24 years. The District of UMkhanyakude was relatively youthful and government services such as basic education, health and employment opportunities should take center stage. This would play an imperative role for the betterment of the people of UMkhanyakude.

*Table 4.1:* **District Age Profile for both sexes, CS2016 South Africa**

| Municipality | Mean | Std. Dev | [Min, Max] |
|---|---|---|---|
| District | 26.1 | 20.4 | [0, 114] |
| Umhlabuyalingana | 27.3 | 20.8 | [0, 107] |
| Jozini | 25.4 | 19.9 | [0, 109] |
| The Big Five | 25.6 | 19.4 | [0, 105] |
| Hlabisa | 24.9 | 20.5 | [0, 103] |
| Mtubatuba | 26.4 | 20.6 | [0, 114] |

## 4.7 Sex distribution per local municipalities of UDM

Human sex ratio (SR) for males and females had been of interest to anthropologists and demographers (Leigh, 1970). The World Health Organisation (2017) argued that population sex ratio (males per 100 females) among males and females at nativity was generally likely to favor the male sex. The SR was frequently estimated to be at 105, which typically inform that at birth there were 105 males for every 100 females born (World Health Organisation, 2017). This meant that the birth of males tended to exceed the birth of females. If the ratio was less than 100, that would mean there were more females than males. The ratio can give valuable observation especially after birth of the sex groups in relation to migration and mortality. After birth, sex ratio tended to vary given the patterns of migration and mortality. The

District had five local municipalities, it was then important to tabulate sex structure per each domestic municipality of the District.

Table 4.2 showed that females constituted a larger share of the sample and in all the local municipalities. A fundamental measure of the sex composition of the District is the sex ratio (SR), also referred to as gender masculinity ratio (Nzimande, 2010). SR as the amount of males per 100 females was calculated by dividing the percentage of males over females. When the ratio was greater than 100, that would imply there were more males than females, also, when the ratio was less than 100, it would mean there were more females than males. Table 4.2 depicted a SR of the District Municipality as well as for each individual local municipalities. Overall, the District SR was 80.9, which meant that there were more females than males. Umhlabuyalingana and Hlabisa Local Municipalities had the lowest sex ration of 78.0 and 78.9 respectively, which meant that these municipalities were dominated by female gender in absolutely numbers. The Big Five Local Municipality had a sex ratio of 94.8, much higher than that of the District Municipality. The Big Five Local Municipality had the closest SR than any other local municipalities in the District. The SR in UMkhanyakude revealed a considerably unequal number of male and female populations, 44.73% and 55.27% respectively. This ratio was relatively different with both provincial and national estimates. The imbalance on the sex ration had implications on the family structure as well as service provision by the state and long term development planning. Table 4.2 below was a breakdown of the sex ratio by local municipalities.

*Table 4.2:* **General demographic indicators of UMkhanyakude District, CS2016 South Africa**

| Local Municipality | Male | Female | Total | Sex Ratio |
|---|---|---|---|---|
| Umhlabuyalingana | 5,262 | 6,748 | 12,010  (27%) | 78.0 |
| Jozini | 6,306 | 7,585 | 13,891  (31%) | 83.1 |
| The Big 5 Falls | 1,082 | 1,141 | 2,223    (5%) | 94.8 |
| Hlabisa | 2,249 | 2,880 | 5,129    (11%) | 78.9 |
| Mtubatuba | 5,103 | 6,363 | 11,466  (26%) | 80.2 |
| UMkhanyakude District | 20,002 | 24,717 | 44,719 (100%) | 80.9 |

There had been growing attention on the increasing size of globally population, especial in Africa, which would be expected to account about 80% of the 4 billion increase by 2100 (Drummond, 2014). The working age population would also increase. A country with demographic transition can be characterised by an upsurge of the working age populace, which may be advantageous for higher economic growth. An expansion in the working age population can play a significant role when properly managed with appropriate policies focused on human and physical capital (Drummond, 2014). Working age populace grows labour supply and economic growth prospects, thus making a payment towards demographic dividend. Demographic dividends is a process of outcome propelled by decrease in mortality as well as in fertility rates. The rise of working age populace leaded to a fall in dependency ratio, which resulted to economic output rising, improving reserves of resources and investments (Drummond, 2014).

In demographic analysis, dependency ratio was employed to construe variations in standards of living and economic development (Kleiman, 1967). It was a measure of the dependency load carried by the working age population, in particular ages of 15–64. The dependency load was made-up of individuals who were overly underaged and overmuch old for employment, which were children, youth, and retired aged people (Kleiman, 1967). Economical dependent population age groups were referred to as net consumers, while economically active age group was a net producer. Hence, age groups of 0–14 and 65+ continue to be potentially a dependency load of the working age people, 15–64 age group. However, there were limitations in the measure of dependency ratio. Since not all people of working age group were economically active, and people of age 65 and above not all were retired and economically inactive for the produce of products and services in an economy.

The dependency ratio for UDM was 77.8 in 2016, which would be the burden of the working age people. The proportion of age 0-14 structure, which accounted about 62.9 into the total dependency ratio, thus influenced the high ratio of the District. Dependency ratio for aged people was lower than the child dependency ration because of relatively less proportion of people over the age 65 years due to mortality and or emigration. The District's total dependency ratio was 77.8, which would be considerably high. The District was relatively a young population, given its mean age of 26.1 years in table 4.3 contributing heavily to higher dependency ratio. This indicated that people of age group 15-64 needed to be supported economically and provided with social services. This ratio also indicated high fertility rate

and a growing population growth. Hlabisa Local Municipality had the highest dependency ratio of 89.2 while The Big Five Local Municipality had the lowest ratio of 69.1.

Demographic dividends were not yet realised in the District of UMkhanyakude because of the significant high dependency ratios. Child dependency ratio was considerably high and exerting greater contribution to the total dependency ratio. There was a high number of persons below the age of 15 years. This growth in the dependency ratio required proper management and policies that will promote education attainment and appropriate infrastructure in place that would advance employment opportunities. Access to education and income prospects will lead to realisation of demographic dividends because it would reduce mortality and improve quality education attainment, which would tend to delay fertility. Hence, declining mortality and fertility lead to an increase in higher life expectancy and a growing working age population, thus increasing supply of labour and increasing total productivity. Changing age structure had been argued to favour savings, higher female labour force participation, hence lowering fertility rates (Drummond, 2014).

*Table 4.3:* **UMkhanyakude District dependency ratio, CS2016 South Africa**

| Municipalities | Child dependency | Aged dependency | Total dependency |
|---|---|---|---|
| District | 62.9 | 14.9 | 77.8 |
| Umhlabuyalingana | 59.4 | 16.7 | 76.1 |
| Jozini | 64.4 | 12.8 | 77.2 |
| The Big Five | 57.2 | 11.9 | 69.1 |
| Hlabisa | 72.9 | 16.3 | 89.2 |
| Mtubatuba | 61.8 | 15.4 | 77.2 |

The burden borne by the working population age 15-64 who theoretically support those in age group 0-14 and 65+ years had declined over the years. Figure 4.6 displayed dependency ratios of the District from 1996 to 2016. Dependency ratio as it can be expressed as a number of dependents for every 100 workers. In 1996, the ratio was 100, which meant that the working age population was heavily burdened. Since 1996, the ratio had considerably declined from 100 to 92.2 by 2001, and from 2011 to 2016, it declined to 77.8. The rate had declined at a slower pace relatively since year 2011 to 2016. Child dependency ratio had remained relatively high in the District and had been a major contributor to the high total dependency ratio. What would have contributed to the decline of the ratio would be the young population joining the working age population. Population below the age 15 years was

critical when natured well because they would be future workers supporting the population below the age of 15 years and population above the age of 65 years.

**Figure 4.6 UMkhanyakude District dependency ratios**



## 4.8 Youth fertility by local municipalities

Youth fertility was a significant variable to explore and focus on, because not only constituted more than 50% of the population at national, provincial and at the district level, such as UMkhanyakude, but challenges such as unemployment, poverty and inequality was high among the youth. Teenage pregnancy remained a concern and delayed young girls in schooling system where they may have to deliver a baby for a year. Unplanned teenage pregnancy may be associated with lack of economic provision for the child born. Hence, a number of scholars have paid great consideration to the increase in fertility and motherhood among young women in numerous countries in Sub-Saharan Africa and Latin America (Rodriguez-Vignoli and Cavenaghi, 2014). Fertility remained high in developing countries and youth fertility was a concern due to its association with social inequality. According to Rodriguez-Vignoli and Cavenaghi (2014) argued that in developing countries, the probability of becoming a mother at age group of 15-19 years old was thrice greater in the least developed nations when equated to the first world nations. Trends in youth fertility and motherhood at young age groups and its social inequality are important to enlighten the public consideration and taking on policies and actions to remedy the issue. However, South Africa's total fertility rate was assessed to be the least in Sub-Saharan Africa, and declining (Kaufman et al, 2001). Despite the decline, adolescent childbearing remains high and a concern to policy makers. In 1998, about 30% of 19 years old girls had given birth at least once in their lifetime (Kaufman et al, 2001). Women who started childbearing as adolescents

and have few additional children in later life may cause the declining fertility trend in South Africa. Table 4.4 displayed percentages of females who had ever gave birth and percentages of women who had gave birth in the last 12 months at specific age groups. On average, the District had about 5% of women whom had ever gave birth at age group 15-19 years old in 2016. It was critical to take note of this age group because it was schooling age in South Africa. The 5% of women who had ever gave birth at this specific age group implied that females at age 15-19 years old had experienced a schooling disruption. Having a child at ages below 19 years old may mark an end of continuing with schooling for girls in most settings. Most of women who had ever gave birth are in age groups 20-24, 25-29 and 30-34. It accounted more than 55% of women who had ever gave birth in the District. Jozini and Mtubatuba Municipalities had the highest women who had ever gave birth in age groups 25-29 and 30-34 where they averaged about 20% in each Municipality. Age group of 25-34 years accounted the peak of young women who had ever gave birth in the District. More than 50% of births were in age groups of 20-24 and 25-29 years. Age group 20-24 amounted to 28.7% of births in the last 12 months of conducting the study. Youth fertility remained high in the District about 85% of women who had gave birth in the last 12 months were under the age of 35 year. About 18% were between the ages 15-19 years, mainly of these were young women undergoing secondary schooling.

**Table 4.4:** **Percentage of women who have ever given birth among the youth, CS2016 South Africa**

|  | 15-19 | 20-24 | 25-29 | 30-34 | Total |
|---|---|---|---|---|---|
| **Umhlabuyalin** | 80 | 220 | 267 | 289 | 896 |
|  | 4.9% | 13.5% | 16.4% | 17.4% | 55% |
| **Jozini** | 83 | 243 | 335 | 331 | 1,026 |
|  | 4.9% | 14.2% | 19.6% | 19.4% | 59% |
| **Mtubatuba** | 89 | 315 | 412 | 413 | 1,268 |
|  | 4.3% | 15.0% | 19.7% | 19.7% | 60.6% |
| **Big Five, Hlabisa** | 65 | 212 | 218 | 197 | 711 |
|  | 5.6% | 18.2% | 18.7% | 16.9% | 60.9% |
| **Total (District)** | 317 | 990 | 1,232 | 1,230 | 3,901 |
|  | 4.81% | 15.0% | 18.7% | 18.6% | 59.1% |

**Percentage of women who have gave birth in the last 12 months among the youth**

|  | 15-19 | 20-24 | 25-29 | 30-34 | Total |
|---|---|---|---|---|---|
| **Umhlabuyalin** | 27 | 41 | 34 | 32 | 134 |
|  | 15.3% | 23.2% | 19.2% | 18.1% | 75.8% |
| **Jozini** | 37 | 61 | 46 | 32 | 176 |
|  | 18.1% | 29.9% | 22.6% | 15.7% | 86.3% |
| **Mtubatuba** | 43 | 82 | 60 | 41 | 226 |
|  | 17.1% | 32.5% | 23.8% | 16.3% | 89.7% |
| **Big Five, Hlabisa** | 35 | 43 | 41 | 23 | 142 |
|  | 22.2% | 27.2% | 26.0% | 14.6% | 90% |
| **Total (District)** | 142 | 227 | 181 | 128 | 678 |
|  | 18.0% | 28.7% | 22.9% | 16.2% | 85.8% |

**4.9 Sample distribution by population group and geographic type**

About 95.35% of the people of UMkhanyakude were living in tribal areas and geographic type was in the main a rural setting. According to the sample data, which further emphasised that UMkhanyakude was predominantly a rural area, where about 95.14% of the Black people resided in rural area that was owned by the Ingonyama Trust or the Zulu Tribe nation. From the sample data, only 0.03% Coloured and Indian/Asian population were in urban setting of the District, and 0.13% were White people. Out of the sample data (44,719), about 4.13% of the people were residents of urban settings and Black/African people accounted about 3.94% as residents of urban areas in the District. Only 0.52% of the population were farm residents in the District, and there were no Coloured or Indian/Asian population found to be living in farms but only Black/African (0.37) and White (0.14) were residents. Table 4.5 showed the entire profile picture of the population group and geographic type.

*Table 4.5* UDM Population group distribution by geographic type, CS2016 South Africa

| Population Group | Geographic type | | | Total |
|---|---|---|---|---|
|  | **Urban area** | **Tribal land** | **Farm area** |  |
| Black | 1,762 | 42,547 | 167 | 44,476 |
|  | 4% | 95% | 0.4% | 99.5% |
| Coloured | 15 | 36 | - | 51 |
|  | 0.03% | 0.08% | - | 0.11% |
| Indian/Asian | 15 | 17 | - | 32 |
|  | 0.03% | 0.04% | - | 0.07% |
| White | 56 | 40 | 64 | 160 |
|  | 0.13% | 0.09% | 0.14% | 0.36% |
| Total | 1,848 | 42,640 | 231 | 44,719 |
|  | 4.1% | 95.4%% | 0.5% | 100% |

The data was also distributed per local municipalities and showed an interesting unfolding. Umhlabuyalingana had no urban area, except farm and tribal land. This municipality would

require a great deal of planning and investment by both the public and private sectors to create opportunities for residents, which may improve living conditions in a sustainable manner, this may be through education and employment. Across the District, more than 95% of the population was located in tribal areas and was Black/African. The rest of the 5% population shared farm and urban lands. Black/Africans remained the majority in all types of land, Mtubatuba and Jozini were municipalities that had higher number of residents in urban areas, and this trend can be expected to continue. Various economic activities tended to happen to these municipalities, and need to invest on education and developmental services. Tribal areas were less developed and lack adequate infrastructure. Development should be prioritised especially schools, higher education institutions, and incentives for job creation.

*Table 4.5.1:* **Umhlabuyalingana**

|  | Tribal area | Farm land | Urban area | Total |
|---|---|---|---|---|
| Black/African | 11,936<br>99.61% | 27 |  | 11,963<br>99.61% |
| Coloured | 14<br>0.12% | 0 |  | 14 |
| Indian/Asian | 6<br>0.05% | 0 |  | 6 |
| White | 27<br>0.23% | 0 |  | 27 |
| Total | 11,983 | 27 |  | 12,010 |

*Table 4.5.2:* **Jozini**

|  | Tribal area | Farm land | Urban area | Total |
|---|---|---|---|---|
| Black/African | 13,227<br>99.82% | 30<br>78.95% | 589<br>97.84% | 13,846<br>99.68% |
| Coloured | 10<br>0.08% | 0 | 1<br>0.17% | 11 |
| Indian/Asian | 7<br>0.05% | 0 | 0 | 7 |
| White | 7<br>0.05 | 8<br>21.05% | 12<br>1.99% | 27<br>0.19% |
| Total | 13,251 | 38 | 602% | 13,891 |

*Table 4.5.3:* **Mtubatuba**

|  | Tribal area | Farm land | Urban area | Total |
|---|---|---|---|---|
| Black/African | 10,522<br>99.89% | 53<br>75.71% | 809<br>93.85% | 11,384<br>99.28% |
| Coloured | 9<br>0.09% | 0 | 10<br>1.16% | 19<br>0.17 |
| Indian/Asian | 3<br>0.03% | 0 | 15<br>1.74% | 18<br>0.16% |
| White | 0 | 17<br>24.29% | 28<br>3.25% | 45<br>0.39% |
| Total | 10,534 | 70 | 862 | 11,466 |

*Table 4.5.4:* **The Big Five**

| | Tribal area | Farm land | Urban area | Total |
|---|---|---|---|---|
| Black/African | 1,910 | 43 | 205 | 2,158 |
| | 99.69% | 52.44% | 91.11% | 97.08% |
| Coloured | 0 | 0 | 4 | 4 |
| | | | 1.78% | 0.18 |
| Indian/Asian | 0 | 0 | 0 | 0 |
| White | 16 | 39 | 16 | 61 |
| | 7.11% | 47.56% | 7.11% | 2.74% |
| Total | 1,916 | 82 | 225 | 2,223 |

*Table 4.5.5:* **Hlabisa**

| | Tribal area | Farm land | Urban area | Total |
|---|---|---|---|---|
| Black/African | 4,952 | 14 | 159 | 5,125 |
| | 99.92% | 100% | 100% | 99.92% |
| Coloured | 3 | 0 | 0 | 3 |
| | 0.06% | | | 0.06% |
| Indian/Asian | 1 | 0 | 0 | 1 |
| | 0.02 | | | |
| White | 0 | 0 | 0 | 0 |
| Total | 4956 | 14 | 159 | 5,129 |

## 4.10 Education attainment and population distribution

Provision of quality education is of benefit not only to individual development but also as a tool for advancing economic growth. Emphasis on primary, secondary and tertiary education is seen as a gateway out of poverty for a society (Bloom et al, 2006). Apart from personal development and improvement in economic growth, increased education attainment, especially higher education may create additional tax revenue, increase savings and investments, and a civic society that is of benefit for both public and private sectors. Education attainment levels by a society are an important social determinant to rank development and advancement. A greater education attainment is associated with employability, lead to more entrepreneurial, technological innovations, higher income earning, improved nation's health, and standard of living, as well as longevity (Bloom et al, 2006). With the dependency ratio in table 4.3, UMkhanyakude District has considerable high rate especially of child dependency ratio. Provision of quality education and policies promoting enrolment and attainment of higher education especially the majority of young people is critical for realisation of demographic dividends. Building and improvement of school facilities, health facilities and infrastructural investment will be of great benefit for the population of the District. This will lead to reduction of mortality and fertility rates, which

will expand working age people with the required knowledge to participate in the knowledge economy. The private sector and government will reap the fruits of educated, innovative, skilled, and civic population that would be a role player in the economy not only of the District but also of the province of KZN and the country at large. Policies focusing on human development and pro infrastructure expansion will be instrumental for the District to realise its set objective to be a metropolitan municipality by 2030 (KZN Top Business Portfolios, 2012). Table 4.2 shows majority population group in the District were women and the youth below the age of 35 years. Resources and empowerment programmes should be channeled towards the youth and women. For the reason that women outlive men, and the increased household headed by women should be considered for developmental purposes and planning, as well as for creation of opportunities.

People who enrolled for formal education attended various types of institutions. Table 4.6 below displayed types of institutions attended by both sex groups. There was a low number of higher education institutions enrollment when equated with technical vocational education and training (TVET), which was about 2%, and 34%, respectively. Secondary schooling were experiencing an increased number of learners, about 44.8% while primary schooling enrollment was less than 35%. These findings may suggest a number of possibilities and challenges. Among them is that the working age population will increase, and there may be a pressure for the District's economy to absorb the growing number of those not willing to further their studies to post matric learning institutions. The dramatic fall of primary learning may be as a result of a decreased number of children ready to enroll. In terms of gender enrollment, the proportion of males was greater than that of females in both primary and secondary schooling. This may be expected given a higher number of males being born relatively to females. At higher education institutions of learning, there was a turn of tables, there were more females than males. Males may be exiting formal education system either by out-migration, drop out or death. There might be a possibility of immigration of females or they stay much longer in the post matric education institutions than males. Table 4.6 suggest that across time, the proportion of females was greater than males as evidenced by the population line graph in figure 4.4.

*Table 4.6:* **Learning institution type attended, CS2016 South Africa**

| Learning institution type | Male | Female | Total |
|---|---|---|---|
| Pre-school (incl. education centre) | Male | Female | Total |
| Primary school (grade r to 7) | 846 | 805 | 1,651  (8.4%) |
| Secondary school (grade 8 to 12) | 4,492 | 4309 | 8,801 (44.8%) |
| Technical vocational education and training (TVET) | 3,332 | 3,429 | 6,761 (34.4%) |
| Other colleges (incl. private and public) | 258 | 289 | 547    (2.8%) |
| Higher educational institution | 127 | 239 | 366    (1.9%) |
| Community education and training college | 447 | 715 | 1,162 (5.9%) |
| **Total** | | | 19,647 |

**4.10.1 Levels of educational attainment**

A growing population may have negative consequence on economic advancement and progress precisely when the population has extreme low education attainment and with no skills and knowledge to participate in the knowledge economy. Lack of proper policies that promote attention to human and physical capital advancement as well as health, given a growing population and an increasing working age population may lead to high unemployment, which may lead to reduced tax revenue collection for government, and weakening state capacity, would fueling economic and social crisis. Table 4.7 shows about 22.5% (10,081) of the people sampled have no schooling at all, females amounted to 58.82% of the sample with no education, and males were 41.18%. Out of the total population sampled 44719 in UMkhanyakude, about 23% have never attended formal education. This is a considerable high percentage of people with no skills to run and manage complex today's economy. This will delay demographic dividends for the District. The District needs to spend its resources to its residents for educational development and on adequate infrastructure that would meet the needs of a growing populace. Attainment of formal education is remarkably low and more enquiry and research should be pursued to get deeper understanding of the reasons behind. Higher education attainment was very low, and more focus should be directed towards enrolment for higher learning for all the people of UMkhanyakude. The table below shows unimpressive post-secondary schooling attainment levels of the District. The District has low levels of higher education achievement.

*Table 4.7:* **Percentage of education attainment by sex structure, CS2016 South Africa**

| | Male | | Female | | Total | % |
|---|---|---|---|---|---|---|
| No education | 4133 | | 5948 | | 10,081 | 22.5% |
| Primary education | 770 | | 833 | | 1,605 | 3.6% |
| Secondary education | 2921 | | 3873 | | 6,794 | 15.2% |
| Diploma | 118 | | 230 | | 348 | 0.8% |
| Bachelors | 135 | | 210 | | 345 | 0.8% |
| Honours | 43 | | 115 | | 158 | 0.4% |
| Masters | 10 | | 7 | | 17 | 0.04 |
| PhD | 11 | | 17 | | 28 | 0.06% |

**4.11 Levels of education per Local Municipalities of UMkhanyakude District**

Figure 4.7 depicts enrolment levels of Umhlabuyalingana Local Municipality. Enrolment for post schooling is less than 3% in this Local Municipality. This sharp fall in enrolment maybe influenced by lack of educational facilities and resources, parental emphasis on education at a household level should be encouraged to keep learners commitment on educational attainment. About 25% of the people of Umhlabuyalinga have never been to school and may have considerable contributed to low post-school attainment in the District. Less than 1% of the people of Umhlabuiyalinga were with masters and doctor of philosophy qualifications. Nonetheless, enrolment for diploma is encouraging compared to any other post school attainment. About 2.3% of the people of Umhlabuyalingana were with diploma qualifications. Most of the population in Jozini Municipality had enrolled in secondary school levels, about 39% were in grade 8 to grade 12 in 2016. However, there was very low rate of further education attainment. Figure 4.8 showed an attainment of education, enrollment, and people with no formal schooling in their entire life. Nearly 24% of the people were with no formal schooling years. Only about 1% of the population of Jozini who have enrolled for diploma qualification and completed. Emphasis was highly critical for Jozini and across the District for higher education attainment as it is interrelated with increased income and good health for the people, and shows stratum of growth in the Municipality.
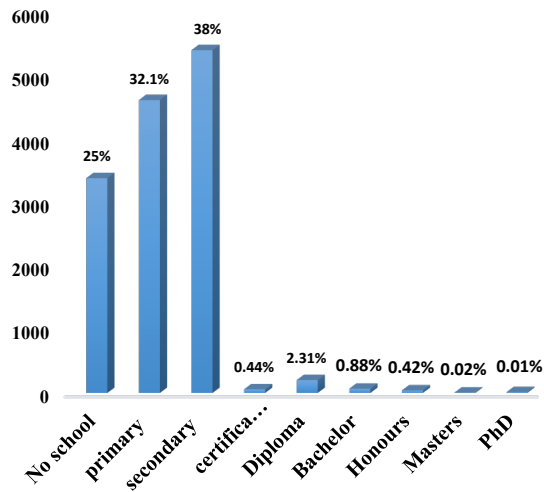
The Big Five Local Municipality had less people with no schooling when compared to Jozini and Umhlabuyalingana Municipalities. Less than 20% of people with no schooling year. Almost 3% of the population had acquired diploma and bachelor degrees. About 45% of enrollment in secondary education and the municipality had no people with masters and PhD qualifications. Hlabisa Local Municipality is not immune to the trends across all the local municipalities in UMkhanyakude, where there was a sharp drop of education attainment and
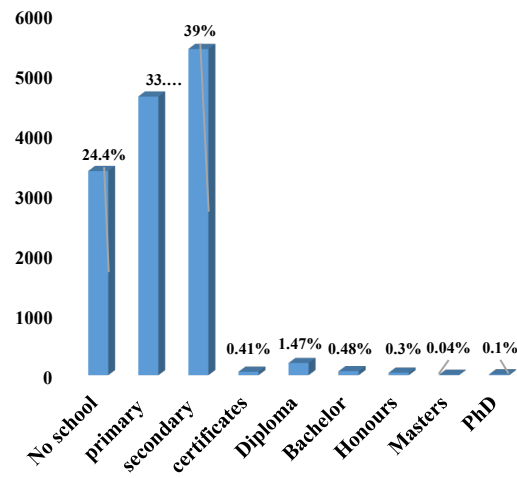
enrollment after secondary education. However, what seems different from other municipalities within the district is that Hlabisa had the highest number of masters and PhD enrolled qualifications. Mtubatuba Municipality had a relatively higher number of enrolled secondary education almost equal to that of The Big Five Municipality as well as a low number of people with no schooling years. About 4% of the population had attained post-schooling education. A greater proportion of higher education attained was diplomas. Across the district, there was a similarity on the low pursuit of higher education. More could to be done both at governmental and social levels for emphasis on post-schooling or higher education achievement. An institution such as a university of technology, and or technical vocational education and training would play a positive lift for higher learning attainment in the District. More education achieved by population of UMkhanyakude would lead higher income earning, and increased opportunities for employment.

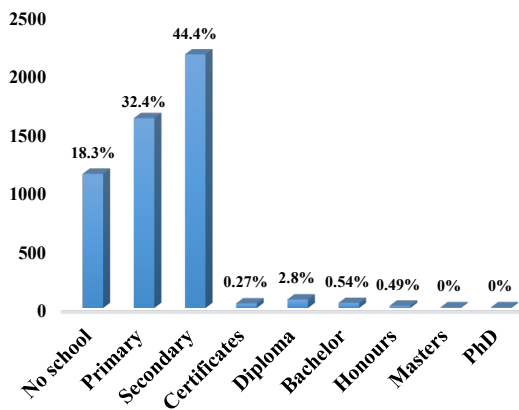## Figure 4.10.1: – 4.10.5: Levels of education per local municipalities, CS2016
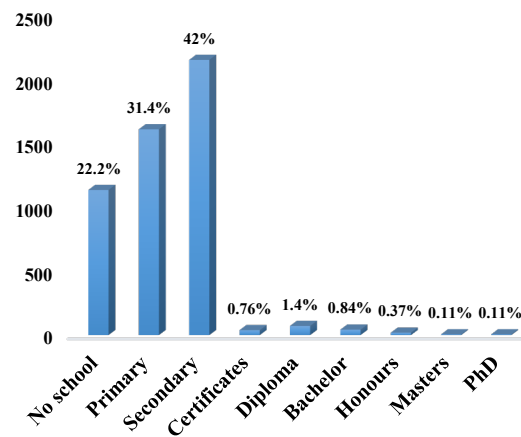
### Figure 4.10.1 Umhlabuyalingana Local Municipality



No school 25%, primary 32.1%, secondary 38%, certifica… 0.44%, Diploma 2.31%, Bachelor 0.88%, Honours 0.42%, Masters 0.02%, PhD 0.01%

### Figure 4.10.1: Jozini Local Municipality



No school 24.4%, primary 33.…, secondary 39%, certificates 0.41%, Diploma 1.47%, Bachelor 0.48%, Honours 0.3%, Masters 0.04%, PhD 0.1%

### Figure 4.10.3: The Big Five Local Municipality



No school 18.3%, Primary 32.4%, Secondary 44.4%, Certificates 0.27%, Diploma 2.8%, Bachelor 0.54%, Honours 0.49%, Masters 0%, PhD 0%

### Figure 4.10.4: Hlabisa Local Municipality



No school 22.2%, Primary 31.4%, Secondary 42%, Certificates 0.76%, Diploma 1.4%, Bachelor 0.84%, Honours 0.37%, Masters 0.11%, PhD 0.11%

### Figure 4.10.5: Mtubatuba Local Municipality



No school 18.7%, Primary 31.9%, Secondary 44.6%, Certificates 0.68%, Diploma 2.16%, Bachelor 1.02%, Honours 0.32%, Masters 0.02%, PhD 0.07%
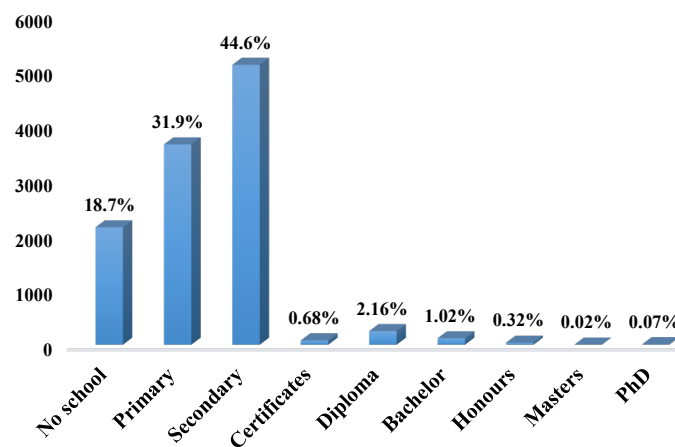
## 4.12 Percentage distribution of household headed by females

Household headship is a demographic variable, which has been of substantial interest to sociologists and economists. Household is a significance variable because it locates people in units. People can be found in and identified with a household unit which is critical for data gathering (Kobrin, 1973). Household as a population characteristic can provide valuable information about the size, age and sex, marital status, relationship between headship, education and income. A households consist a group of individuals or persons who normally live and eat together, they share same house unit, facilities and food. Respondents designate one person as a household provided that a woman cannot be the household head if her husband is living in the household (Kobrin, 1973). In the household, there may be persons related due to birth, marriage or adoption or unrelated at all. The composition of household head by sex is important for sociologists, planners and policy makers. There is global increase of household headed by female because growing marital dissolutions and high mortality among males at older ages (Nzimande, 2010). The occurrence of marital dissolution, would lead to an increased female-headed households, which may be generally older, as well as poorer than male-headed households because of remittances lost from men.

Table 4.8 shows an average age of household headed by both females and males. On average, the data sample gave females age at about 28 years with a standard deviation of 21.266 while for males were at 23 years old with a standard deviation of 18.862. Average age of females was relatively higher than that of male counterpart, this would be anticipated because there was a greater number of women in old age groups. The population pyramid joined with the population line graph of the District in figure 4.3 and 4.4, the proportion of females was greater than that of males especially in older ages, and thus, the average mean age of females would be expected to be higher than males.

**Table 4.8 Average age of household headed by females and males**

|  | Observations | Mean | Standard deviation | Min | Max |
|---|---|---|---|---|---|
| **Females** | 24,717 | 28.3477 | 21.26583 | 0 | 110 |
| **Males** | 20,002 | 23.32862 | 18.86222 | 0 | 114 |

Figure 4.11 display percentages per local municipality of the District as to how it has been since 2011 for household headed by females. There has been a general increase to households headed by females. Hlabisa Local Municipality had a dramatic increase of household headed by females from 58.9% to 70.58% in 2011 and 2016, respectively. Mtubatuba was the second

with substantial increase of 52.8% to 61.73%. Jozini Municipality had the lowest increase of household headed by females, it grew by 2.2% from 53.7% to 55.9% in 2011 and 2016, respectively. At the District level, there has been an increase of 5.85% of household headed by females from 53.9% to 59.75%. The overall increase in household headed by females may reveal a number of causes such as high marriage dissolutions or death of males who head a household. Increased household headed by females may reflect negative outlook of economic well-being and lack of authoritative responsibility of a household. Empowerment opportunities for women and young people should be prioritized especially to municipalities such as Hlabisa and Mtubatuba where the percentage of household headed by females is considerably high. Prioritisation of opportunities to women and the youth may arrest poverty, unemployment and inequality, thus enhance living conditions. An increased income for females in the District may lead to betterment of the population since females head about 60% of the household.

**Figure 4.11 Percentage of household headed by females**
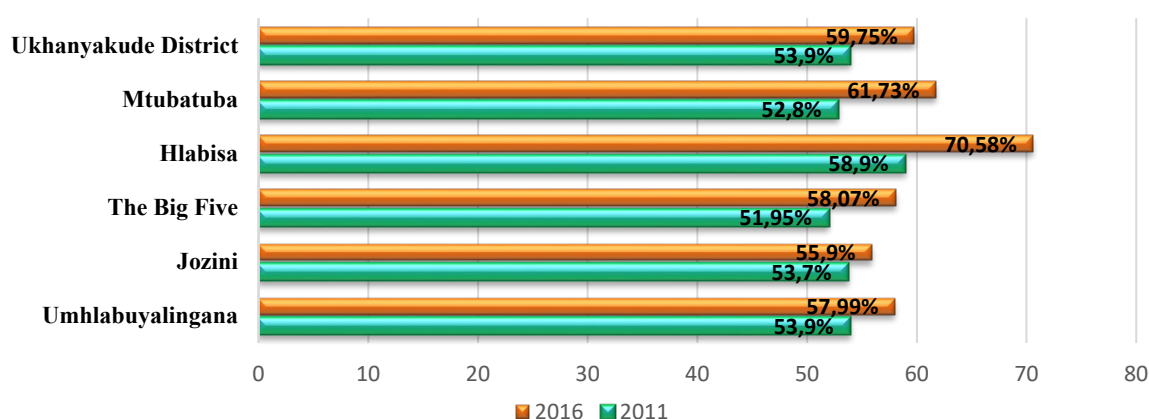


## 4.13 Distribution of the population aged between 15 and 64 years by employment status and municipality - 2001 and 2011

Employment is a major contributor to economic growth and personal development. In an economy where workers produce valuable goods and services in exchange of a wage which they can use as a means to access basic necessities, is an important tool for human development to lead a healthy life. The labour market where workers and employers interact is imperative for the betterment of social, economic and political situations. The labour market statistics give critical information on what is in an economy and society in the main (Nzimande, 2010). Indicators that have been used to give an outlook of the labour market

may not give a comprehensive picture of what is happening, however, efforts are undertaken to improve the way labour market is conceptualised and estimated (Nzimande, 2010:85).

The province of KZN has been one of the fastest growing since the democratic breakthrough in 1994. The province has been growing at an average of more than 3.5%, and contributed to immensely (more than 15%) to the national gross domestic product (KZN Top Business Portfolios, 2012). The challenge of KZN economic activities are concentrated in few municipalities, EThekwini, UMgungundlovu, UThukela and UThungulu (Nzimande, 2010). District such as UMkhanyakude have low economic activities, thus few employment opportunities taking place compared to EThekwini and UMgungundlovu municipalities. The study employed data from census 2011 to explain labour market trends because the community survey 2016 used had no employment variables to enable analysis for the District, thus opted for the latest reliable data from census 2011 of Stats SA. Figure 4.12 display distribution of employment between age group 15 and 64 years by employment status in UMkhanyakude. There has been considerable economic growth in the province of KZN (Nzimande, 2010) and the District has contributed and benefited from the increased employment opportunities. Figure 4.12 shows that the District had most economic activities were concentrated in Mtubatuba and Jozini Municipalities for both 2001 and 2011. Employment distribution has declined in Mtubatuba, however, still remain higher relatively to all other local municipalities in the District. Prior to the beginning of 2001, Mtubatuba had the highest increase in employment distribution amongst the local municipalities of UMkhanyakude District where it reached the highest of 38.8% in year 2001. Jozini had substantive increase in employment distribution, it grew by 3.1% since 2001. It had been the fastest growing municipality since 2001 to 2011. More government and private sector resources may have been a considerable factor for Jozini employment growth. Jozini had the highest population distribution and increased investment in the municipality will lead to more people finding employment opportunities. Employment opportunities were distributed disproportionally as per the population distribution, especially for Jozini and Mtubatuba Local Municipalities. Mtubatuba was leading with 34.4% of employment in 2011 yet was in third position in the District's population distribution. Employment opportunities should be created in Umhlabuyalingana Municipality given its considerable population distribution as shown in figure 4.1 as well as its geographic type, which was considerably rural. It had the second highest number of people in the District, hence it should be prioritized in terms of investment and government spending. The least municipalities with employment distribution

were The Big Five and Hlabisa municipalities. Hlabisa, The Big Five and Umhlabuyalingana were municipalities that need great focus for investment by both the public and private sector to create employment opportunities.

**Figure 4.12 Distribution of population between age 15 and 64 years by employment status in UMkhanyakude**
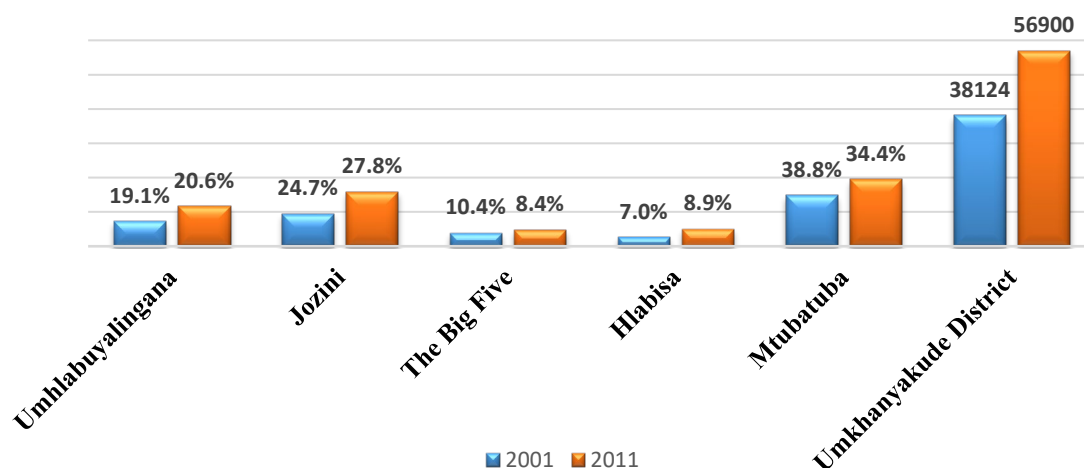


Table 4.8 shows employment status in UMkhanyakude from 2015 to 2016, unemployment has grew substantially while employment increased by a small margin. The economy of UMkhanyakude lacks capacity to generate opportunities in order to absorb a greater proportion of young people joining the labour force. Thus, this adds to the high number of unemployed pool. Through analysing employment by gender, females tend to be absorbed more in employment when compared to males. Female employment had increased by 13.81% from 2015 to 2016. While male population employment increased by 3.42% within the same period. This may be as a result of implementation of policies that favor and promote women employment. On the other hand, unemployment had declined for males from 53% to 49.9%. Moreover, unemployment for females had declined more dramatically from 47.19% to the lowest of 33.38%, which was 29.3% decline. Nonetheless, males remain the highest unemployed sex in the District since it declined by 6.4%.

**Table 4.9 Employment in UMkhanyakude**

| | 2001 | 2011 | 2015 | 2016 |
|---|---|---|---|---|
| Employed | 6.70% | 9.21% | 9.59% | 9.61% |
| Unemployed | 62.8% | 42.8% | 7.36% | 19.57% |
| **UMkhanyakude** | | | **71,384** | **82,305** |
| **Employment status by gender in UMkhanyakude** | | | | |
| **Male** | | | **66,130** | **66,250** |
| Employed | | | 46.65% | 50.07% |
| Unemployed | | | 53.35% | 49.93% |
| **Female** | | | **5,255** | **16,056** |
| Employed | | | 52.81% | 66.62% |
| Unemployed | | | 47.19% | 33.38% |
| **UMkhanyakude** | | | **71,385** | **82,306** |

Source : Quarterly Labour Force Survey 2005 – 2016, and census 2001, 2011

Figure 4.13 displays a trend of unemployment for the District since census 1996 to 2011. Unemployment has decline across time in the District, however, it remained high at 43% in 2011. However, unemployment had worsened between 1996 and 2001, unemployment moved from 54% to 63%, respectively. Prior 2001 census, employment was centered around one municipality, which was Mtubatuba as shown in figure 4.12. This was evident in figure 4.14 where Mtubatuba Municipality had the highest distribution of average income in the District, more than 27000. While the District had an average of income of 19173, which was lower than Mtubatuba. Average income distribution has tremendously increased at a District level over 2001 to 2011 period. Almost in all the local municipalities, the average income has more than doubled, and this was a positive sign of resources and investments by both public and private sector. Umhlabuyalingana had a lower increase in the distribution of average income despite having had the second largest population after Jozini. Mtubatuba and The Big Five Municipalities have been leading with higher distribution of income, greater than that of the District average. Higher average income leads to better wellbeing of the population, because of the access to proper and decent shelter, access to health facilities, drinkable water, electricity and options for food to consume. Mtubatuba and The Big Five Municipalities may have more economic activities taking place compared to the rest of the local municipalities.

## Figure 4.13 Percentage of unemployment UMkhanyakude
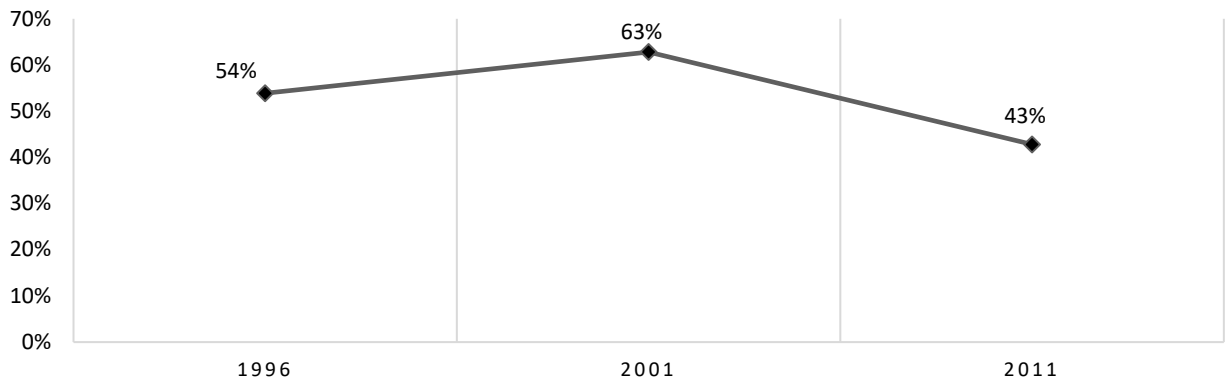


## Figure 4.14 Distribution of average income by local municipalities
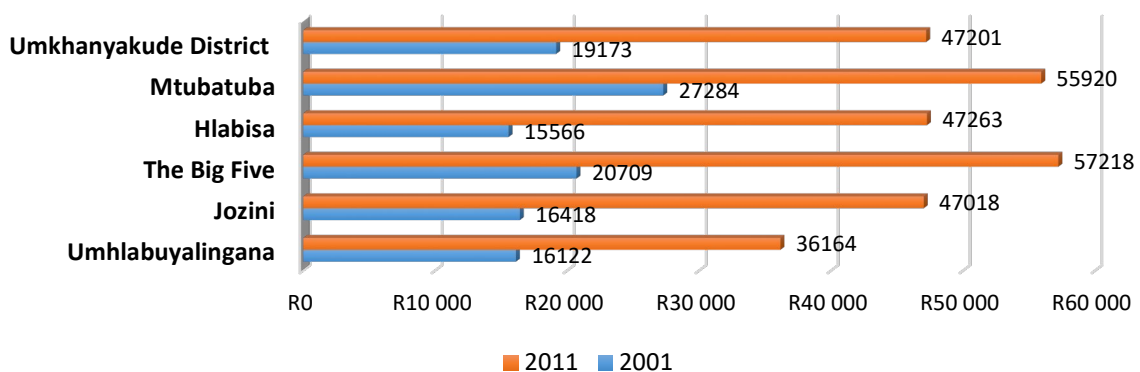


UMkhanyakude as a District Municipality relies heavily on grants and subsidies from provincial and national government. Figure 4.15 shows distribution of grants and subsidies received as total percentage of income for 2015 year. Hlabisa had the lowest percentage of employment in figure 4.12 and it has been receiving the most of the grants and subsidies as a total income, in 2015, it had received about 92.7%. While municipalities with the highest distribution average income received 71.1% and 69.6%, these were Mtubatuba and The Big Five Municipalities. Figure 4.15 may suggest that municipalities with low distribution of employment and relatively low distribution of average income, receive a greater share of grants and subsidies as a percentage of income. The District had a high dependency ratio especially for youth may suggest that social grants for children and the elderly constitute a larger portion of income received and that there were no economic activities and opportunities to generate substantive income. Social grants by government and donations by private sector were of great contributor for alleviating poverty and uplifting standards of living. The high unemployment percentage in the District suggest lack of employment

opportunities and low level of education with the skills required for a modern economy, thus leads to the 90% of grants and subsidies as a form of income for the District. The municipality needs a greater focus on creating opportunities for business to strive, heavily investment on infrastructure such as roads, health, education facilities and in that way, opportunities may be created for the young population to join the labour market.

**Figure 4.15:** **2015 grants and subsidies received as a % of total earning**
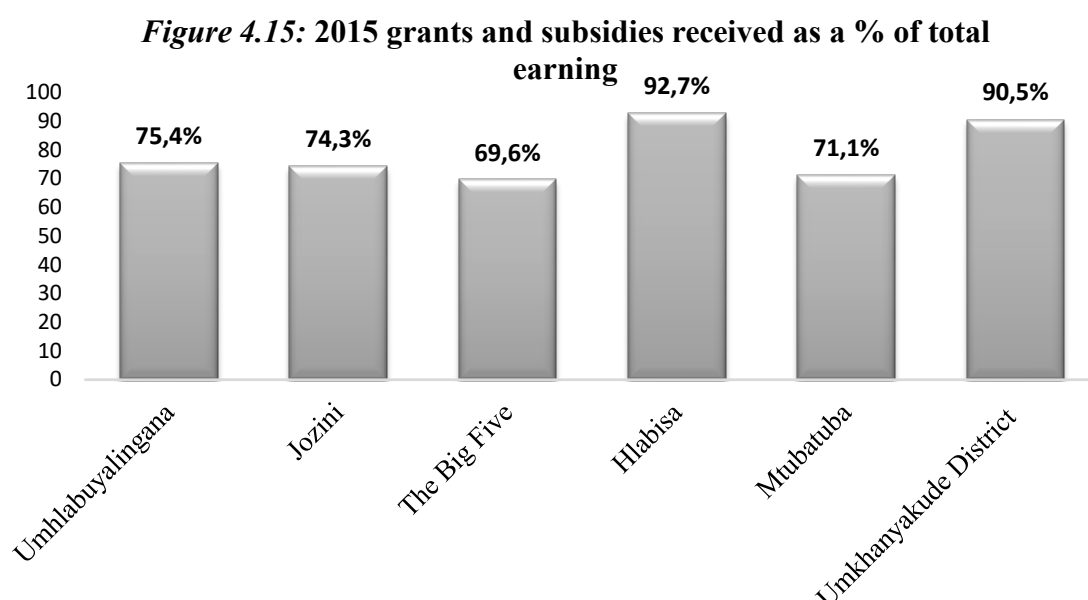


Despite high percentage of unemployment and low levels of employment for the District, it is essential to get a picture of how education in the District contributes to employment opportunities. Table 4.10 displayed employment status by uppermost level of education for age groups of 15 through 64 years in the District. Educational attainment is important for employment because of skills and knowledge acquired. The highest completed educational level was secondary education and thus most of the population employed have at least enrolled secondary education. The population with no education was considerably high in the District at about 23% of the study sample while its employment was low. Completing secondary education was a significant factor for employment opportunities because persons with secondary education level had the highest percentage of employment. The uppermost level of education finished by majority of the people of UMkhanyakude was secondary education level, hence the high percentage of people employed with secondary education, which was at 48%. Employment of people with tertiary education remained low at about 13% relatively to secondary education when using the QLF data as shown in table 4.10. This level of employment with tertiary education was expected since few have enrolled and attained tertiary education and their employment was low. Strategies need to focus towards promoting

tertiary education attainment and building of higher education institutions in the District. This may have an impact towards increased tertiary attainment level. Alternatively, the low employment of people with tertiary qualifications may be due to out-migration to other municipalities or provinces. In addition, this shift may have opened up space for those with secondary education completed, thus their employment has dramatically remained high. Unemployment remained high because of greater proportion of those completed secondary education joining the labour market while District's economy grew by small margin. From table 4.10 evidently suggest that young people who have just either completed or did not complete secondary education borne the brunt of unemployment. The District of UMkhanyakude had no tertiary education facility, thus it would be expected to have a high number of employed people with only secondary education because there were only schools for formal education. Completing secondary education and with tertiary education is important for skills production and development of the District. Education attainment is key to the betterment of the population and more resources should be sought for investment on higher learning institutions because it is more expensive to travel and relocate especial for young people coming from poor households that live through grants, for acquiring skills and knowledge. Moreover, those who had out-migrated for educational attainment may not return with the skills because of lucrative opportunities in other municipalities and provinces, hence the continued employment of secondary education in the District.

*Table 4.10:* **Employment status by highest level of education in UMkhanyakude**

|  | **2015** | **2016** | **Percentage for 2016** |
|---|---|---|---|
| **Employed** | **66,130** | **66,250** | **80.5%** |
| No schooling | 2,270 | 1,867 | 2.3% |
| Less than primary completed | 6,557 | 5,823 | 7.1% |
| Primary completed | 2,961 | 1,756 | 2.1% |
| Secondary not completed | 20,539 | 15,846 | 19.3% |
| Secondary completed | 23,616 | 32,196 | 39.1% |
| Tertiary | 10,187 | 8,762 | 10.6% |
| **Unemployed** | **5,255** | **16,056** | **19.5%** |
| No schooling | 887 | 229 | 0.3% |
| Less than primary completed | 330 | 2,435 | 3.0% |
| Primary completed | 624 | 1,329 | 1.6% |
| Secondary not completed | 1,753 | 5,823 | 7.1% |
| Secondary completed | 1,535 | 6,050 | 7.4% |
| Tertiary | 126 | 189 | 0.2% |
| **UMkhanyakude** | **71,385** | **82,306** | **100%** |

Source: Quarterly Labour Force Survey 2005 - 2016

Prioritisation of youth and women employment has yielded fruits across all spheres of an economy given their large proportion in a population, hence there had been increase of people below the age of 35 years. Table 4.10 shows employment status by age for UMkhanyakude District. Employment of young people remained high in 2016 for age group 25-34 which was at 32%. This percentage was expected since people below age of 35 years were the majority, and their employment should be relatively high. Employment of persons above the age of 34 years may be expected to rise in future because of people under the age of 35 years old would be aging and increasing employment of persons above the age of 34 years. There should be equal attention to those ages above 34 years for employment because they are still an essential part of labour market and should be given opportunities to participate. Generally, unemployment had increased across all ages, this was expected because the District had high number of youth dependency ratio and more people who were not parcel of the labour force begin to join, while the market has inadequate capacity to absorb much of the new labour force entrants with only secondary education.

**Table 4.11 Employment status by age for UMkhanyakude**

|  | 2015 | 2016 | Percentage for 2016 |
|---|---|---|---|
| **Employed** | **66,130** | **66,250** | **80.5%** |
| 15-24 years | 6,609 | 4,193 | 5.09% |
| 25-34 years | 21,756 | 26,338 | 32.00% |
| 35-44 years | 21,508 | 18,136 | 22.03% |
| 45-54 years | 12,024 | 14,930 | 18.14% |
| 55-64 years | 4,233 | 2,654 | 3.22% |
| **Unemployed** | **5,255** | **16,056** | **19.5%** |
| 15-24 years | 865 | 1,655 | 2.0% |
| 25-34 years | 1,541 | 3,937 | 4.8% |
| 35-44 years | 2,038 | 8,143 | 9.9% |
| 45-54 years | 685 | 1,654 | 2.0% |
| 55-64 years | 126 | 667 | 0.8% |
| **Total** | **71,385** | **82,306** | **100%** |

Source: Quarterly Labour Force Survey 2005 - 2016

Poverty intensity indicator measures the degree to which the living standard of the poor persons in under the poverty line. This is through the income of the poor people which lies under the poverty line. On the other hand, poverty headcount measures a segment in an entire population living below a poverty line (Nelson, 1997). These measures are essential when they are considered both in an analysis of poverty in a population. The population of UMkhanyakude has increased over time, this was evident in figure 4.5. Given the high unemployment percentage in the District, which was at above 40% in 2011 shown in figure

4.13. Intensity of poverty would be expected to climb up because of inability of the District's economy to absorb the growing population, which was the young populace and with low educational attainment. With a growing population and low economic activities, where 90% of average income was from contributions and subsidies, the proportion of people with an income below poverty line will increase. Table 4.12 shows measures of poverty, and the intensity of poverty has risen from 42.4% to 44.1% since 2011 to 2016. Mtubatuba and The Big Five Municipalities had higher proportion of income distribution, and their poverty headcount slightly lowered. The percentage of the total population living under poverty line had fallen in all the municipalities of UMkhanyakude in particular for Jozini and Umhlabuyalinga. Grants and subsidies have increased dramatically in these municipalities, and this had reduced persons under the poverty line. A shelter and flushing toilet are one of the basic needs for improved standard of living and there had been improvements in access to formal education, employment opportunities across all the municipalities in the District since 2011 to 2016. Basic needs provision has improved across all local municipalities, however, the improvement has been minimal given the growing volume of people in UMkhanyakude. The pace for provision of human basic services needs to be strengthened in all aspect, which may include health, investment in job creation activities, access to electricity and clean drinkable water, and education.

**Table 4.12 Poverty, main dwelling and toilet facility**

|  | Poverty | | | | Main dwelling | | Toilet facility | |
|---|---|---|---|---|---|---|---|---|
|  | 2011 | | 2016 | | 2011 | 2016 | 2011 | 2016 |
|  | Poverty headcount | Intensity of poverty | Poverty headcount | Intensity of poverty | Formal | Formal | Flush toilet | Flush toilet |
| **UMkhanyakude** | 20.4% | 42.4% | 15.7% | 44.1% | 91,964 | 106,090 | 37,624 | 45,813 |
| **Umhlabuyalingana** | 29.5% | 42.7% | 22.7% | 45.9% | 19,525 | 27,731 | 7,400 | 5,872 |
| **Jozini** | 22.3% | 42.6% | 16.4% | 43.8% | 29,702 | 29,196 | 12,571 | 13,596 |
| **The Big Five** | 17.6% | 42.1% | 16.2% | 43.8% | 6,369 | 8,943 | 3,118 | 4,364 |
| **Hlabisa** | 16.2% | 41.8% | 10.3% | 41.7% | 8,273 | 8,781 | 4,365 | 7,866 |
| **Mtubatuba** | 11.7% | 41.5% | 10.0% | 41.4% | 28,096 | 31,439 | 10,170 | 14,115 |

## 4.14 Conclusion

The population of UDM reflects national outlook in terms of male and female imbalance. The population of UMkhanyakude was relatively young and was expected to continue being young. Population growth may instigate high dependency ratio when a proportionately few active population is expected to support a growing section of the population. Population with age under 15 years accounted a great share of the total populace, which inflated total

dependency ratio of the District to be higher. Largest local municipalities within the District were Jozini, Umhlabuyalingana, and Mtubatuba, respectively with a combined population nearly over 90%. More than 95% of the population in the sample were Africans residing in tribal land. The District is a rural area and need more resources especially to local municipalities such as Hlabisa, Jozini and Umhlabuyalingana. Investment on educational institutions such as for technical vacation trainings to allow secondary education leavers to enroll for skills needed to build the economy of the municipalities. There was a considerable number of persons with no prearranged education attainment and in addition to that, majority of them were females. The highest educational attainment was secondary education, and unemployment was relatively high just above 40% as per the census 2011. Young people and females borne much of the unemployment in the District and receive most of its income from not productive economic activities but grants and subsidies. The District needs more attention and investments to build the economies of local municipalities so that they absorb much of school leavers into employment and into tertiary enrollment options. A number of tables and graphs were employed to give population profile at municipality level. Line graph was part of the tools to explore inhabitant growth rate over the last 20 years since the down of democracy. Populace distribution gave a picture of district's population share by each local municipality.

# Chapter 5

Discussion

## 5.1 Introduction

The focal resolution of the study was to gain understanding of the population of UMkhanyakude District Municipality in relation to age and sex structure as well as the household headship composition. The evaluation of development indicators were another significant aim particularly educational attainment and employment levels. As part of gaining knowledge of the District, Local Municipalities were essential to consider as they differ to one another in numerous ways. This chapter will summarise the main findings of the research, provide information, which would add for planning on services delivery, distribution of resources and development initiatives. In addition, the intention of this chapter was to answer the research questions.

## 5.2 The population of UMkhanyakude District Municipality by age and race

The sample data from the Community Survey 2016 for the District was reported to be 44,719 and 99.70% of this sample (44,586) were residents of the District. Since 99.70% of the sample were people of UDM, 44,719 sample was used for findings and discussion. The data sample was a sum sample of all the Local Municipalities within the District, namely Umhlabuyalingana, Jozini, Hlabisa, The Big Five, and Mtubatuba. Amongst the five municipalities Jozini, Umhlabuyalingana, and Mtubatuba were the largest in terms of population concentration, respectively. The Big Five, and Hlabisa Municipalities were the least in population distribution. On average, majority of UDM population is under the age of 34 years. The District can be classified as youthful since more than 70% of the people are below the age of 35 years. Adult population (35-64) amounted to 20% of the enumerated sample, and elderly population is below 9%. This may be argued that the District was a growing population, where its population pyramid was broad at its base. With enough basic needs and resources supplied to nature the growing population, the District would grow in size and possibly reach a million citizens in the near future.

Majority of the population living in the District were Black/Africans in race terms, about 99.46% were Africans and other racial groups such as Indian/Asians, Colourds, and White amounted to less than 1% of the entire data sample. At the age group of 00-04, there were more males born than females, however, at the elderly age (65 and beyond) there were more females. The sample data suggested that females live longer than males, almost similar for

national and provincial findings. The data also shows at age group 15-19 there were more males than females. This can be due to a number of factors affecting females such as death and or migration. At this age group of 15-19, females may be dying more relatively to males or there were more males migrating into the District, and or females were migrating out of the District to other places leaving a higher number of male population at this age group. Qualitative research may be undertaken to find out what was it that shaved female population at this age group. The population of UDM is youthful, and on average was Black, dominated by females. About 19% (8,369) of the sample data showed married people, or been living together as couples. Person never married amounted to be about 42% of the total sample data. The District had been one with high dependency ratio, and a considerable share of children, which amounted to be 35% of the sample, inflated the District dependency ratio. Studies had found out that across the globe, a considerable rise in the number of persons over 60 years of age and above (Nzimande, 2010). In UMkhanyakude District nearly 9% (3,736) of the sample data were senior people who were 60 years old and beyond. The older residents were the least relatively to children, youth, and adults, 35%, 35% and 20% respectively. With improvement in developmental services and growing economy, access to health, shelter, employment and equal distribution of income, and increased educational attainment there would be however, expectation of a rise in the number of older individuals, keeping on with the established global trend in developed world. Longevity is more apparent in first world nations such as Germany, United Kingdom, and Canada. Development in the district to that of the developed world would improve human basic services provision and would further contribute to persons living longer in the District. Improved life expectancy as a results of enhanced medical and health care, education, marriage, income and nutrition will advance longevity in the District for both sex groups.

## 5.3 Household headship in the District

A person who bears economic and leadership responsibility for a household and its members was referred to as household head (Nzimande, 2010). In understanding the household headship and composition was essential to explore as it relates to the wellbeing and shared responsibility. The mean age of household head in the District was 52.8. The headship average age suggested a number of possibilities. One of which was that elderly persons were responsible and bear economic responsibility for providing economic essentials for their households. Given the retirement age in South Africa, which was at 60 years for females and 64 for males, and elderly pension began from age 60 years, thus pensioners at the District

would be expected to be bearing the economic responsibility. With 24,717 observations, the mean age for household headed by females was 53.3 while male headship mean age was 52.1. The average age of household headship, suggest that grandparents were bearing both economic and authoritative responsibilities. Household head mean age reflects economic strength of the unit, and the mean age of above 52 years does not suggest economic healthiness and since these were people who fell almost outside of labour market and were closer to the retirement age, thus grants and donations would be expected to remain as the primary source of income. Since UMkhanyakude District is in the province of KwaZulu-Nata, and the most spoken language tend to be IsiZulu. The sample found that 96.6% of the language most spoken in the households was IsiZulu. About 60% of the households in the District were headed by females and 60% of them were IsiZulu speaking. Household headed by males was 40% and IsiZulu was the most spoken language. Language is important since it carries culture and tradition with it. The data found that 95% percent of the area was tribal/traditional area. The tribal Zulu king own the tribal/Traditional land. Only 4% of the land was urban, and about 1% was a farm. UMkhanyakude remains dominantly a rural and a municipality that needs investment for basic services.

## 5.4 Level of education

Education forms part of socioeconomic indicators because it influences earning potential, cognitive abilities and access to resources, which then positively enhance one's value of life and healthiness (Nzimande, 2010). Out of the 44,719 sample data, 35,469 (79.32%) strongly agree to the importance of education in advancing an individual's standard of living. Only 20% of the data sample did not strongly agreed on the importance of education, and less than a percent of the data sample did not specify on the relevance of education in one's life. It is critical to analyze the data sample on the importance of education, and almost 80% of the people sampled strongly agreed on the importance of education. In a society where education was strongly valued, it would be more likely to be literate and living enhanced life because of the knowledge and advancement. On the contrary, a society that value less education, it would be more expected to have a considerable high number of people unable to read and write. UMkhanyakude District data sample indicated that education was a vital tool for human advancement and increased standard of living. Moreover, this suggested that the District had a considerable number of persons with the capacity to read and put pen to paper.

The data however showed an unimpressive finding on the number of persons sampled who attended types of educational institutions. In the District only (19,753) 44.2% of the

population who went to government or public schools, and 539 (1.21%) of the people who went to independent or private schools. About 34% of the people have gone to technical vocational education and higher educational institutions. There were 44.8% of persons who went through grade 8 to grade 12. Furthermore, 840 persons attended only university education, that was about 1.88% of the sample, and (2.8%) 266 have attended private colleges. The data also revealed that, persons who went to higher educational institutions, half of them (485) were in the field of (teaching) education, this would add capacity to the primary and secondary schooling. Persons who pursued engineering and health profession and related fields were 0.08% and 0.16%, respectively. Zero percent of the persons who went to higher education studied physical and life science as well as mathematical and statistical fields. Worryingly, a large number of the sample have not gone to either types of education institutions. About 24,403 or 54.57% of the sample have not gone to government or private schools. The number of person who have not gone to school exceeds the number of who attended school.

## 5.5 Employment level

Economic activities are an important factor for employment opportunities as well as access to income and it is the responsibility of both the private and public sector to work hand-in-hand for more opportunities to be created. Employment requires people with the relevant skills and knowledge to participate fully and productively in an economy. Thus, education should speak to the needs of the economy for employment and opportunities for earning an income. With a great number of people with no skills and knowledge needed in the modern economy of the District, it would be then expected to have high unemployment and those who have given up from searching for work. UMkhanyakude had considerable unemployed people, thus grants served as bridged between lack of economic activities for access to income and lack of income. The economy of the District lacked the capacity to absorb its population and as a result, unemployment remained high at about 40% in 2011. Persons joining the labour market remain high and mismatch happened, unemployment may be expected to continue remaining high. However, the situation started to encourage because more youth and women employment had increased since 2015-2016 period. With the right legislation that prioritised the majority of the people in the District which were youth and women. Nonetheless, male population remained the most in employment. Investment to productive sectors by all players in the economy would better conditions of employment thus, living standards. Jozini,

Umhlabuyalingana, Hlabisa may be the municipalities that can be prioritised for the creation of employment opportunities, hence enabling earing of income.

**5.6 Conclusion**

The District can be characterised as a youthful population because majority was under the age 35 years. Amongst them were females, which approximately over 51%. This would suggest that authorities should prioritise their planning and programmes that would aid development of young people and women. Proper human basic needs such as enough nutrition, adequate schools with conducive facilities, future employment opportunities, and affordable higher education. It was found that the District's population was growing, however, fewer was able to live longer in particular for males. At birth, there was high birth of boy child than girl child, while at elderly age females survive more than males. Thus, male may be leaving the population of the district either by out-migration or by death. Employment and investment into educational facilities would increase skills and generate new ideas, thus improving living conditions. Basic services needed to be heavily directed in may include public health, public education, higher education facilities, roads and creation of conducive environment for private sector to invest. The District was promising with the right legislation for employment and adequate allocation of resources to the needy local municipalities.

# Chapter 6

Conclusion

## 6.1 Introduction

This current study had motivation, research question as well as theoretical framework for the title of the study. This final chapter of the study ought to give conclusion for the whole paper in order to highlight whether the study achieved all the main goals, highlight the contribution of the research and its limitations. In addition, it should conclude in relation to the theoretical underpinnings of the study.

## 6.2 Conclusion of the study

Chapter one has introduced the objectives of the study, which were to understand demographic and household composition of the people of UMkhanyakude District Municipality, as well as to explore human development indicators. The chapter asserted that a well-nourished, youthful and educated population would be an asset for development and economic growth. Demographically, the population of UMkhanyakude was relatively young, however, greater proportion of its population lacked skills necessary to generate goods and services by the economy. Hence, planning for development and economic activities should be people centred so that they can lead long healthy lifestyle. The District was trapped with a growing population and with no economic growth, lack of proper skills by the residents in the District.

Development indicators were to be considered to measure how health, educated and skilful the population in order to participate fully in an economy. Secondary data was going to be employed for the research, in particular the Community Survey of 2016 from Statistics South Africa (Stats SA). The study considered to make use of demographic transition model as a guiding theoretical framework. The demographic transition theory was understood to best inform the research questions and the population of UDM from pre-industrial stage, transitional, industrial and post-industrial stage.

The literature review attempted to consider a number of aspects that related to topic at hand. Such as the world population size, population policy, human development indicators and narrowing them down to the District level. The developing world contributed more in world population increase, particularly from Asia. China and India continued to be the world's most peopled developing nations, which accounted more than 40% of the global populace. Moreover, about eight nations constituted an additional 22% of the world population, namely,

United State of America, Indonesia, Brazil, Parkistan, Nigeria, Japan, Russian Federation and Bangladesh. Africa had been projected to have more than 1.4 billion inhabitants in 2025 and, which will constitute 17.6 of the world population. The global population continued to grow, and it had been projected to reach 10.6 billion in 2100. Rapid increase in population growth in developing countries will widen challenges for the governments and the environment. South Africa had a population of 55 108 900 million, as per the 2016 Community Survey. South Africa has been experiencing positive population growth since year 2002 to 2016, and life expectancy has over the period increased from 55,2 to 62,4 years of age. Free access to ARVs over the years, in particular 2006 – 2016, had partly contributed to people with HIV/AIDS now living longer l.

It was critical that countries should have population policy in order to safeguard equal welfare as well as resource distribution. Population policies entailed efforts, which steer demographic variables such as fertility, mortality, populace growing, migration, or the population distribution to certain level idealised by a State. Policy on population may vary given the level of advancement in a region or in a country. Most governments have responded to population topics at a state level through collecting demographic data in the form of censuses, civil registration systems, and recently surveys in order to design specific public health and population polices that will speak to mortality, fertility, and migration , and to implement them. The new democratic South African's population policy had an international perspective, in that; it had introduced fundamental changes towards sustainable as well as human-driven development, guarantee all citizens the right to reproductive health by providing essential information and services.

The SDGs came after the end of millennium development goals (MDGs) in 2015. They further reaffirm global commitment to eradicate poverty everywhere, and they entailed a more sustainable, safer, and prosperous planet for all humanity. The government of South Africa together with various stakeholders measured the development and progress of the country using the following indicators. Economic growth and transformation, employment, poverty and inequality, household and community assets, health, education, South African demographic trends, good governance, international relations, safety and security, and social cohesion.

KZN was an area of about 92,100 $_{km2}$, roughly the size of Portugal and was divided into eleven district municipalities, one of which was a metropolitan municipality (eThekwini), and

the rest were district municipalities. Stats SA (2013) measured the KZN province on its demographics, education, employment and unemployment, health, transport, good governance, and social cohesion.

Chapter three provided an overview of the meaning of methodology and introduced paradigm as well as designs to the data collection tools. This study employed a quantitative descriptive research design, which seeks to describe systematically a situation, problem, phenomenon, service or programme, or provides information. This study was to focus on the population and selected human development indicators for UMkhanyakude Municipality. UMkhanyakude District had, according to the Community Survey 2016 a population of 689 090 where the majority were Black Africans, about 98% and youth accounted about 37.8% of the population. The study also made use of country's national population censuses in order to track progress from the first 1996 population census and the years followed. Labour Force Survey (LFS) data for 2015-2016 period was considered as well in the study and was essential for the analysis of employment as well as unemployment to respond to the research questions.

Chapter four presented findings of the study through describing population indicators of UMkhanyakude District, household headship composition by sex, levels of educational attainment, and employment levels. Much of the data was presented in graphics and tables, which helps in describing phenomenon and providing information. District's population by each local municipality was significant indicator when considering a need for developmental planning and it influenced channeling of resources. A municipality with a great number of population required a great deal of allocation. Jozini Local Municipality had the highest proportion at 31.1% (13891) followed by Umhlabuyalingana at 26.9% (12010) as well as Mtubatuba at 25.6% (11466) of the 44719 total sampled population. About 85% of the population in the District was clustered in these three local municipalities. The least proportion of the population observed were Hlabisa at 11.5% (5129) and the Big 5 Falls Bay at 5% (2223), respectively. The population pyramid of the District showed declining base across time, since 1996 to 2011 censuses. Although it remained broad at its base, nonetheless it has been declining for both sexes. At age 20-24 and 45-49 there was a considerable increase of females, especially with the 2011 population census. The District pyramid was consistent with the KZN and national population censuses in that the proportion of females is greater than of males especially at oldest age groups, and the number of female population was greater than male populace. The pyramid showed population growth where the base of

the pyramids, at age 00-19 was larger relatively to older age groups of 65 years and above. The sample data had 31,871 people under the age of 35 years, Black/African amount to 99.71%, White 0.14%; Coloured about 0.10% and the least population group were Indian/Asian. Over the last twenty years, the population of UMkhanyakude District had grown by rate of 2.5% from 1996 to 2016. A population growth rate of 2.5% was considerable high, more than replacement. The growth rate increased on a decreasing rate within the period of 2001 and 2007. Improvement in access to ARVs, increased enrolment at both primary and secondary schooling, as well as provision of infrastructure had increased population growth rate between 2011 and 2016. The provision of necessities such as health facilities, clean water, free housing, and encouraged measures for young people to be in school, construction of roads, social grants for elderly and children as well as supermarkets may have given rise to population growth. All the local municipalities reflected growing population. There was high fertility rate, and majority of the people were youth. Umhlabuyalingana would be expected to have a continued population growth over the coming years, since majority of its population were within reproductive ages, and a youthful population. Jozini population revealed that it was young and growing and that its population pyramid was considerable large at young age and has the possibility to grow further. Age group 05-09 depicted a picture of high deaths or out-migration of male persons while there was steady increase of female in the same age group. Population age structure was a function of birth, death, and migration rates history. The mean age for the District of 26 years, which imply youthful population. Jozini Municipality had the lowest mean age at about 24 years while Umhlabuyalingana had the highest mean age of 27 years, above that of the District. Human sex ratio (SR) of males and females had been of interest to anthropologists and demographers. The SR was frequently estimated to be at 105, which typically inform that at birth there were 105 males for every 100 females born. This meant that the birth of males tend to exceed the birth of females. The District's SR was 80.9, which meant that there were more females than males. Umhlabuyalingana and Hlabisa Local Municipalities have the lowest sex ration of 78.0 and 78.9 respectively, which means that these municipalities were dominated by female gender in absolutely numbers. The SR in UMkhanyakude revealed a considerably unequal number of male and female populations, 44.73% and 55.27% respectively.

Dependency ratio was employed to construe variations in standards of living and economic development. The dependency ratio for UDM was 77.8 in 2016, which would be the burden

of the working age people. It was considerably high. This indicated that people of age group 15-64 would need to support economically and provide social services. This ratio also indicates high fertility rate and a growing population growth. Demographic dividends were not yet realised in the District of UMkhanyakude because of the significant high dependency ratios. This growth in the dependency ratio requires proper management and policies that will promote education attainment and appropriate infrastructure in place that would advance employment opportunities. Access to education and income prospects will lead to realisation of demographic dividends because it may reduce mortality and improve quality education attainment, which may tend to delay fertility. Child dependency ratio had remained relatively high in the District and had been a major contributor to the high total dependency ratio. What could be contributed to the decline of the ratio would be the young population joining the working age population and be economically active in production of goods and services in an economy.

Youth fertility was a significant variable to explore and focus on, because not only constituted more than 50% of the population at national, provincial and at the district level, such as UMkhanyakude, but challenges such as unemployment, poverty and inequality remained high among the youth. Teenage pregnancy remained a concern and delays young girls in schooling system where they may have to deliver a baby for a year. Unplanned teenage pregnancy may be associated with lack of economic provision for the child born. Fertility remained high in developing countries and youth fertility was a concern due to its association with social inequality. However, South Africa's total fertility rate was assessed to be the least in Sub-Saharan Africa, and declining. Despite the decline, adolescent childbearing remained high and a concern to policy makers.

Having a child at ages below 19 years old may mark an end of continuing with schooling for girls in most settings. Most of women who had ever given birth were in age groups 20-24, 25-29 and 30-34. It accounted more than 55% of women who had ever given birth in the District. Youth fertility remained high in the District, about 85% of women who have given birth in the last 12 months were under the age of 35 year. About 18% were between the ages 15-19 years, mainly of these were young women undergoing secondary schooling. About 95.35% of the people of UMkhanyakude were living in tribal areas and geographic type was in the main rural setting. UMkhanyakude was predominantly a rural area, where about 95.14% of the Black African people resided in rural area that was owned by the Ingonyama Trust or the Zulu Tribe nation. there were no Coloured or Indian/Asian population found to

be living in farms but only Black/African (0.37) and White (0.14) were residents. Umhlabuyalingana had no urban area, except farm and tribal land. This municipality would require a great deal of planning and investment by both the public and private sectors to create opportunities for residents, which may improve living conditions in a sustainable manner, this may be through education and employment. Emphasis on primary, secondary and tertiary education would be seen as a gateway out of poverty for a society. Higher education may create additional tax revenue, increase savings and investments, and a civic society that would be of benefit for both public and private sectors. A greater education attainment was associated with employability, lead to more entrepreneurial, technological innovations, higher income earning, improved nation's health, and standard of living, as well as longevity. The private sector and government will reap the fruits of educated, innovative, skilled, and civic population that would be a role player in the economy not only of the District but also of the province of KZN and the country at large. In terms of gender enrollment, the proportion of males was greater than that of females in both primary and secondary schooling. About 23% had never attended formal education and this was a considerable high percentage of people with no skills to run and manage complex today's economy. The District had low levels of higher education achievement. Household headship was a demographic variable, which had been of substantial interest to sociologists and economists as locates people in units. There has been a general increase to households headed by females. Hlabisa Local Municipality had a dramatic increase of household headed by females from 58.9% to 70.58% in 2011 and 2016, respectively. The District had an increase of about 6% of household headed by females from 53.9% to 59.75%.

The overall increase in household headed by females may reveal a number of causes such as high marriage dissolutions or death of males who head a household. Also, it may reflect negative outlook of economic well-being and lack of authoritative responsibility of a household. The challenges of KZN economic activities were concentrated in few municipalities, EThekwini, UMgungundlovu, UThukela and UThungulu. UMkhanyakude had low economic activities, thus few employment opportunities took place compared to EThekwini and UMgungundlovu municipalities. District had most economic activities were concentrated in Mtubatuba and Jozini Municipalities for both 2001 and 2011. Employment distribution had declined in Mtubatuba, however, still remain higher relatively to all other local municipalities in the District. Prior to the beginning of 2001, Mtubatuba had the highest increase in employment distribution amongst the local municipalities of UMkhanyakude

District where it reached the highest of 38.8%. It had been the fastest growing municipality since 2001 to 2011. Unemployment had grew substantially while employment increased by a small margin. The economy of UMkhanyakude lacks capacity to generate opportunities in order to absorb a greater proportion of young people joining the labour force. Female employment had increased by 13.81% from 2015 to 2016. While male population employment increased by 3.42% within the same period. Males remain the highest unemployed sex in the District since it declined by 6.4%. Higher average income leads to better wellbeing of the population, because of the access to proper and decent shelter, access to health facilities, drinkable water, electricity and options for food to consume. Mtubatuba and The Big Five Municipalities had more economic activities taking place compared to the rest of the local municipalities. UMkhanyakude as a District Municipality relies heavily on grants and subsidies from provincial and national government.

After considering all the chapters and their intentions, one can deduce that the District of UMkhanyakude can be associated with Transitional stage of the DTT. The District is in transitional stage because its population growth is increasing at a decreasing rate, death rate had decreased. There was a fairly good service delivery in particular on health services and medical technologies. The population can live longer than before, particularly on the era of high HIV/AIDS epidemic. ARVs provision tended to keep population living longer. The District in no longer at high rate of deaths and births, nonetheless, births rate continued to remain while deaths rate declined. The District cannot be associated with industrial stage of the DTT because there was lack of economic activity when compared with eThekwini and UMgungundlovu Municipalities. UMkhanyakude had a lot grants for its sustainability from provincial and national government. There was high unemployment rate and obviously employment was low. Hence dependency ratio was high, meaning that a number of uneconomic active persons were high, while at the same time there was low economic activity and high unemployment rate. Thus, the District cannot be associated with any other stage of the DTT other than transitional stage. The District of UMkhanyakude remained young, low skills and educational attainment, low employment level and high unemployment in particular for the youth. Great attention on investment for personal and generally human development would be required by all sector of the economy. The population is still expected to grow at a decreasing rate because most the sexually active population is not in formal education, neither in the formal economy. The District is yet to realise demographic dividends when investment is made for the youth on education and skilling the population to

fully participate in the economy by creating its own opportunities and employment. Future studies on the District should focus on opportunities and job creation for the District, in terms of what is needed by the residents and for the residents. Development planning should be for the people and by the people of UMkhanyakude. Creation of sports facilities, road infrastructure, institutions for technical and vocational colleges, factories that produce goods and services sustainably, farming and self-sufficient in food production, as well as export to its neighboring countries and provinces, the District would contribute a great proportion to the KZN and country's gross domestic product.

**6.3 Limitation of the study**

The study had its own limitations in particular with data sources. The CS 2016 data on employment was not easily available and the use of QLF and national census were considered in order to respond to the research questions. The data maybe of ancient and its purpose may be different than that of the current study.

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