



The Demographic and Human Development Indicators of KwaZulu-Natal

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ABSTRACT

This study will explore Demographic and Human Development Indicators of the province of KwaZulu-Natal (KZN) from the 2016 Community Survey (CS) conducted by Statistics South Africa. Limited research has been conducted in the KZN context to outline an in-depth understanding of the population structures and human development progress within the province. Most literature available for Demographics and Human Development, which includes data for the province, are based on the entire country. There is limited information directed to the understanding of KZN as a target population group. This study uses a sample of 11 079 717 persons obtained from the 2016 CS, which was conducted by Statistics South Africa. It is imperative to understand the dynamics of KZN within districts from the entire country. South Africa reflects unique structures compared to other parts of the world, especially the developed world. This is due to past inequalities and the social transformation of the population, demographics and human development with Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS), increasing urbanisation, greater demand for education, increasing migration patterns and decreasing fertility rates, which reveal a more complex paradigm. The study uses quantitative techniques, performed through statistical software, namely, the Statistical Package for the Social Sciences (SPSS) and STATA, with the data set acquired from Statistics South Africa to observe the KZN population. The study therefore concludes that a reduction in fertility and an increase in educational attainment may prove to have a positive impact on the KZN population. Factors such as high HIV prevalence, high unemployment rates and a vast range of rural challenges may nevertheless have a significant impact and thereby influence the overall outcomes for the population in the province.

Key words

Demographic Indicators, Human Development Indicators, Fertility, Mortality, Migration

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DECLARATION

I declare that this dissertation is my own unaided work. All citations, references and borrowed ideas have been duly acknowledged. I confirm that an external editor was not used in the editing of this dissertation. It is being submitted for the degree of Masters in Population Studies in the College of Humanities, School of Built Environment and Development Studies, University of KwaZulu-Natal, Howard College, Durban, South Africa. None of the present work has been submitted previously for any degree or examination in any other University.

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Student signature

Date

Acronyms

ARV - Anti-retroviral
B-BEEE - Broad-Based Black Economic Empowerment
CEB – Children Ever Born
CS – Community Survey
DC – District Council
ECD - Early Childhood Development
GDP – Gross Domestic Product
GR – Growth Rate
HDI - Human Development Index
KZN – KwaZulu-Natal
LTSM - Learner Teacher Support Material
MTSF - Medium Term Strategic Framework
QLFS - Quarterly Labour Force Survey
SA – South Africa
SDGs – Sustainable Development Goals
SR – Sex Ratio
TB – Tuberculosis
TFR – Total Fertility Rate
TIMSS - Trends in International Mathematics and Science Study
TVET - Technical and Vocational Education and Training
UN – United Nations
UNDP - United Nations Development Plan
UNICEF - United Nations Children's Fund
YLL - Years of Life Lost

List of Contents

Cover page.....	I
Abstract.....	II
Acknowledgements.....	III
Declaration.....	IV
Acronyms.....	V
Table of Contents.....	VI
List of Figures.....	VIII
List of Tables.....	IX

Table of Contents

1	CHAPTER ONE: BACKGROUND AND INTRODUCTION	1
1.1	BACKGROUND AND OUTLINE OF THE RESEARCH PROBLEM	1
1.2	DEFINING HUMAN DEVELOPMENT INDICATORS	3
1.3	DEFINING DEVELOPMENT INDICATORS	4
1.4	OBJECTIVES	5
1.5	QUESTIONS	5
1.6	THEORETICAL FRAMEWORK	5
1.7	CONCLUSION	7
2	CHAPTER TWO: LITERATURE REVIEW	9
2.1	INTRODUCTION	9
2.2	DEFINING RURAL.....	9
2.3	INSIGHT INTO HUMAN DEVELOPMENT	10
2.3.1	<i>A History and Genesis of Human Development</i>	<i>10</i>
2.3.2	<i>The Benefits of Human Development</i>	<i>11</i>
2.3.3	<i>Human Development, Choice and Access.....</i>	<i>11</i>
2.3.4	<i>A Global Perspective on Human Development</i>	<i>12</i>
2.3.5	<i>A South African Perspective on Human Development</i>	<i>12</i>
2.3.6	<i>Definition of Education Within the Study.....</i>	<i>13</i>
2.3.7	<i>Link between Fertility (Demographics) and Education.</i>	<i>13</i>
2.3.8	<i>Challenges of Education within South Africa</i>	<i>13</i>
2.3.9	<i>The Educational spectrum in KZN</i>	<i>14</i>
2.3.10	<i>Contrast between Rural and Urban Educational Challengers.</i>	<i>14</i>
2.4	UNEMPLOYMENT	15
2.4.1	<i>An Overview of the Unemployment status in South Africa and KZN</i>	<i>15</i>
2.4.2	<i>Implication and Challenges of Unemployment within KZN.....</i>	<i>16</i>
2.4.3	<i>Implication on Racial Barriers that contribute to unemployment</i>	<i>16</i>
2.5	UNDERSTANDING DEMOGRAPHICS WITHIN THE STUDY	17
2.5.1	<i>Demographic Definitions</i>	<i>17</i>
2.5.2	<i>A Brief Global Perspective on Demographic Trends.....</i>	<i>17</i>
2.5.3	<i>Main Challenges of Demographics</i>	<i>18</i>
2.5.4	<i>Migration Trends</i>	<i>18</i>
2.5.5	<i>Size and Structure of KZN.....</i>	<i>18</i>
2.5.6	<i>Passed Statistics on the Distribution of KZN Population</i>	<i>19</i>
2.5.7	<i>Insight into Population Age Structure and Sex Ratio</i>	<i>19</i>
2.5.8	<i>Mortality trends within KZN</i>	<i>20</i>
2.6	DEMOGRAPHIC INDICATORS OF KZN.....	20
2.6.1	<i>Health as an indication of the population status.....</i>	<i>20</i>

2.6.2	<i>HIV/AIDS impact on Demographic patterns</i>	21
2.6.3	<i>Effects of HIV/AIDS on Age Structures and Sex Ratios</i>	22
2.6.4	<i>Infant Mortality as a indication of women and child development.</i>	22
2.6.5	<i>Maternal Mortality in KZN of passed data.</i>	23
2.7	CONCLUSION	23
3	CHAPTER THREE: RESEARCH METHODOLOGY	25
3.1	INTRODUCTION	25
3.2	STUDY SETTING	25
3.3	STUDY DESIGN	25
3.4	DATA COLLECTION	26
3.5	QUESTIONNAIRE DESIGN	27
3.6	DATA QUALITY	27
3.7	DEMOGRAPHIC INDICATORS	28
3.7.1	<i>Population Pyramids</i>	28
3.7.2	<i>Sex Ratios</i>	29
3.7.3	<i>Dependency Ratios</i>	29
3.7.4	<i>Child-Women Ratios</i>	30
3.7.5	<i>Fertility Analysis</i>	30
3.7.6	<i>Percentage who have ever given birth</i>	30
3.7.7	<i>Percentage who gave birth in the last year</i>	30
3.7.8	<i>Children Ever Born</i>	31
3.7.9	<i>Mortality Analysis</i>	31
3.7.10	<i>General Patterns of Mortality</i>	31
3.7.11	<i>Population Distribution</i>	31
3.7.12	<i>Growth rate of the KZN population</i>	32
3.8	HUMAN DEVELOPMENT INDICATORS	32
3.8.1	<i>Highest level of education achieved</i>	33
3.8.2	<i>Employment</i>	33
3.8.3	<i>Employment by Education Attainment level</i>	33
3.8.4	<i>Population Distribution by Functional Age Group</i>	34
3.8.5	<i>Poverty: Head Count</i>	34
3.8.6	<i>Intensity of Poverty within KZN</i>	34
3.9	SUMMARY OF CHAPTER	34
4	CHAPTER FOUR: RESULTS AND ANALYSIS	36
4.1	INTRODUCTION	36
4.2	DEMOGRAPHIC INDICATORS	36
4.3	AGE PROFILE OF KWAZULU-NATAL FOR BOTH SEXES, BY DISTRICT COUNCIL	38
4.4	POPULATION PYRAMIDS	39
4.5	AGE AND SEX STRUCTURE	40
4.5.1	<i>Age Dependency Ratios</i>	41
4.6	AGE DEPENDENCY RATIOS	41
4.7	POPULATION DISTRIBUTION OF KWAZULU-NATAL	42
4.8	GROWTH OF KWAZULU-NATAL	43
4.9	RURAL FOR EACH DISTRICT OF KWAZULU-NATAL	44
4.10	DISTRIBUTION OF POPULATION BY RACE GROUP	45
4.11	FERTILITY MEASURE	46
4.11.1	<i>Ever given birth at district level</i>	47
4.11.2	<i>Youth fertility indicators</i>	47
4.12	MORTALITY	51
4.12.1	<i>Proportion dead children ever born</i>	51
4.12.2	<i>Proportion dead of children ever born</i>	52

4.12.3	<i>Proportion dead of children ever born by District Council</i>	53
4.13	HUMAN DEVELOPMENT INDICATORS	54
4.14	EDUCATIONAL MEASURES.....	54
4.14.1	<i>Highest Education Level Attainment</i>	54
4.14.2	<i>Distribution by percentage of highest level attainment</i>	55
4.14.3	<i>Population distribution by functional age group</i>	56
4.15	UNEMPLOYMENT RATE	57
4.15.1	<i>Unemployment rates for South Africa</i>	57
4.16	POVERTY.....	58
4.16.1	<i>Poverty Head Count of KwaZulu-Natal population at District Council</i>	58
4.16.2	<i>Intensity of Poverty for KwaZulu-Natal for District Council Level</i>	59
4.17	SUMMARY OF CHAPTER.....	59
5	CHAPTER FIVE: DISCUSSION AND RECOMMENDATIONS	60
5.1	SUMMARY OF FINDING	60
5.2	FINDINGS: DEMOGRAPHIC INDICATORS	60
5.3	FINDINGS: HUMAN DEVELOPMENT INDICATORS	62
5.4	RECOMMENDATIONS	64
5.5	CONCLUSION	65

Table of Tables

<i>Table 3. 1 Profile of selected Demographic and Human Development Indicators</i>	28
<i>Table 4. 1 Demographic indicators of KwaZulu-Natal, Community Surveys 2016.....</i>	36
<i>Table 4. 2 Age profile of KwaZulu-Natal for both sexes, by District Council, 2016 CS.....</i>	38
<i>Table 4. 3 Age dependency ratios for KwaZulu-Natal by District Council.....</i>	41
<i>Table 4. 4 Youth fertility indicators in KwaZulu-Natal, District Council, 2016 CS.....</i>	48

Table of Figures

Figure 4.1 Population pyramids of the province of KwaZulu Natal, 1996, 2001, 2011, 2016.....	39
Figure 4.2 Age and Sex Structure of KwaZulu Natal for Population Groups CS, 2016	40
Figure 4.3 Percentage of Population Distribution of KwaZulu Natal by District Council, 2016 CS.....	42
Figure 4.4 The Growth of KwaZulu Natal Population, 2016.....	43
Figure 4.5: The percentage rural for each district of KwaZulu Natal, 2016 CS	44
Figure 4.6: Distribution of population by race group at District Council level, 2016 CS	45
Figure 4.7 Percentage ever given birth at district level, Ages 15 34	47
Figure 4.8: Proportion dead children ever born by District Council level, 2016 CS.....	51
Figure 4.9: Proportion dead of children ever born by population group of KwaZulu Natal, 2016 CS...	52
Figure 4.10: Proportion dead of children ever born by District Council level, 2016 CS	53
Figure 4.11: Highest Education Level Attainment of persons aged 20 years and older for KwaZulu Natal.	54
Figure 4.12: Distribution by percentage of highest level attainment of KwaZulu Natal by District Council.....	55
Figure 4.13: Population distribution by functional age group and District Council, 2016 CS.....	56
Figure 4.14: Unemployment rates for South Africa, KwaZulu Natal, Non Metropolitan and Metropolitan, QLFS March 2016	57
Figure 4.15: Poverty Head Count of KwaZulu Natal population at District Council level for 2011, 2016.	58
Figure 4.16: Intensity of Poverty for KwaZulu Natal for District Council Level, 2011, 2016	59

1 CHAPTER ONE: BACKGROUND AND INTRODUCTION

1.1 Background and outline of the research problem

Human capital is the most important strategic factor for development. In today's world, it becomes increasingly important to know how information can be accessed, how it is adopted, and how it can be assimilated. In this respect, each country allocates budget for training, education, and extension according to its own conditions. This budget may be intended for rural community-based social assistance, but the economic and welfare effect is essential. In this way, it is aimed at increasing the living standards of the families within rural areas. In addition to this, a contribution to national income and to the prosperity of society is made. The subject of human development and its indicators form part of general discussions around the world, and has also becoming an evolving topic for developing countries. Rural communities in developing countries are still faced with challenges related to access to basic services, economic opportunities and some degree of incoherence with regard to planning related to rural-urban divide. Investments in environmental protection, rural infrastructure and in rural health and education are critical to sustainable rural development and can enhance national well-being (Ozcatalbas, 2017). Government planning involves the consideration of local and national statistics, these assist government and public service bodies to create structures and systems in respect of the development within a country (Jame, 2014).

This research aims towards reflecting an in-depth analysis of the KZN province as per district level, although Statistics SA (South Africa) shows reports into KZN this research examines the province into district levels using indicators to determine the status of the province. The reason for the research is to outline the effects within other districts of the province, outlining rural and urban parts of the province to find the rate of development not as a whole but as per rural and urban. Reason being, rural areas lag behind the country as a whole on economic performance indicators, such as economic growth, labour force participation rates, unemployment, education attainment and life expectancy at birth. Challenges include insufficient skills and educational performance, socio-spatial inequalities, infrastructure deficits, housing backlogs, environmental issues, an ageing population and health disparities. In addition, rapid changes in the economy affect these regions differently from cities and towns, offering different challenges as well as opportunities. This research will therefore aim to attain statistics not publicly available.

The last extensive research done within district levels of KZN had been completed using the data from the census of 2011 by Statistics SA, the research outlined mainly socio-economic indicators, demographic indicators and health indicators, the research does not provide an in-depth focus on human development analysis within districts levels (rural). The research of a province does not take into account rural statistics. A holistic approach to a province that has a metropolitan can not show the levels of human development within the rural areas because these metropolitan areas adds to 80% of the GDP. The secondary data being utilised for this

study does not comprise of rural statistics, Statistics SA has made available metropolitan statistics only for KZN. This research will attain the unknown rural statistics of KZN through various calculations and analytical theory. This study aims to determine the contrasting effects of development within both the rural and urban spaces of KZN and determine if the indicators chosen for the study outline an in-depth analysis into the status of the populations human development and demographics.

An analysis of various national surveys such as the census, community surveys and household surveys in South Africa in 2015 showed significant increases in Human Development and demographics from the end of apartheid. The history of South Africa indicates that human development used to be white dominated and other races, especially blacks were limited to human development. The Population Registration Act, of 1950, required all residents of South Africa to be classified as coloured (European and African mixed or Asian), native (Bantu people), or white. Identity cards were issued and a registry for the entire country was initiated. This also included, The Group Areas Act which was passed into law in 1950. After its passing, the Act permitted the government to establish separate residential areas based on race. In terms of the Act Black or White South Africans were prohibited from buying property or living in areas that had been proclaimed as an area for one racial group. The Black population had to stay in designated areas known as homelands. Blacks were allowed to move from the homelands to urban areas to work in gold mines only but were not allowed to settle permanently in urban areas (Wentzel and Tlabela, 2006). This system gave the government control over education levels for specific races also curving a very unique demographic structure. This is one of the main factors contributing to the definitive type within districts. predominately White areas in present times form the urban areas of today and rural areas form the past Black areas.

In the post apartheid era, the black population of working ages from rural areas begin to migrate to urban areas and this can be attributed to historic and economic reasons. Legislations such as the Urban Areas Act have been abolished, thus Blacks have become free to move to any area or suburb they wish to (Wentzel and Tlabela, 2006). Thus, causing an influx of population movement into urban areas and a change in the dynamics of population structures and human development. The post apartheid government place huge emphasis on improving rural areas within the country that suffered from spatial challenges. This was implemented because most of the disadvantaged population were situated far from economic activity. A large focus had been placed on human development (education and skills training) and demographic components such as healthcare and fertility decline of the disadvantaged population.

This study is based on the recent publication of the 2016 Community Survey (CS) of KZN, thus restricting the location of the study to the province of KZN. Although the spatial area is substantial, the study is focused more on the development and style of demographic indicators and Human Development indicators of the population of KZN. The analysis of the data was conducted from June 2017 to November 2017. The CS represents a mass data collection process apart from the census. The ultimate aim is to accumulate statistics of the country as per district level on issues regarding households and demographics, these statistics will help government and the private sector to improve service delivery.

Statistics South Africa examined 1.3 million households within the country. It must be noted that the Census did not cover all households only selected ones. This project is the second largest activity done by Statistics South Africa. An estimated 10 000-part time workers were employed for a duration of six weeks to obtain data from selected areas (7 March 2016 to 22 April 2016). Clean up strategies were deployed, so that the process of data collection had been completed within 7 of the 9 provinces by the 6th of May 2016. This clean up process advanced over to the 13th of May 2016 in provinces such as Gauteng and Western Cape (Statistics South Africa, 2016). The data retrieved for some homes were examined through multiple instances, and utilised for segments within the Evaluation Survey, this process ensured that the data was quality information. The Evaluation Survey was conducted from 16 May 2016 to 3 June 2016 (Statistics South Africa, 2016).

A vast number of researchers have focussed on demographic and human development indicator statistics derived from the community surveys in KZN, the research available is predominately directed toward broadened statistics, in the view of KZN as a whole. District statistics in KZN has been a subject with limited research available. The common approach of analysing KZN holistically and not examining the districts individually is being challenged. Lately there has been renewed interest in analysing districts individually to determine financial budgeting and improve service delivery. A few studies done by Ada, 2013 and Thembinkosi, 2012 in rural KwaZulu-Natal have attempted to investigate factors such as Unemployment, skills training and service delivery for instance improving standard of living within rural areas as do Human Development Indicators. This study aims to identify specific demographic and human development indicators to determine the current status of the KZN population using the community surveys data of 2016. Statistics SA (2016) provides data on demographic factors and human development factors in relation to provinces and the country as a whole however district level data is not explicitly available.

1.2 Defining Human Development Indicators

According to Jha (2008), human development indicators are crucial determinants of the wellness of a population and explores educational and employment sectors of the country. Furthermore, Taylor (2000) states that human development is about increasing the richness of human existence, instead of economic systems. This approach emphasises the development of fair opportunities and choices for all people. Consequently, the focus is on enhancing the lives of humans in the long-term, instead of short-term monetary booms, which will routinely lead to additional opportunities for people. Income growth is a vital factor to development. Furthermore, Louw (2007:267) states that human improvement is about giving human beings greater freedom and possibilities to live treasured lives; in addition, this indicates improving an individual's abilities along with ample opportunity in which they can utilise their skills.

Education forms the core of human development indicators. According to Hancock, Jill and Paul (2015: 45) South Africa has become an economically driven society in which the emphasis and demand for education has never previously been as high. Furthermore, Pooley and Thomas

(2016) mention that the government's main reaction towards education is access rather than quality, highlighting that although high graduate levels from secondary schools are observed, the graduates are entering a market that is unable to absorb the workforce. In addition, Murriss (2016:658) produced similar results in her study, stating that "even though students are finishing matric, we tend to see that the skills they have when entering the markets are way below the required rate. The relation towards money and quality still is evident within South Africa, and education is not an exception. This is largely due to the large gap within society between the rich and poor".

Unemployment forms a critical component to Human Development Indicators and can measure the quality of education. According to Statistics South Africa (2015), the unemployment rate is at 26.5%, the majority of whom are young working-class people. Due to the high fertility rate in previous years, the country reflects an expansive population pyramid, which replicates a large quantity of the youth population entering the workforce. In addition, Minnis (2010:153) clarifies that "with the large amount of workforce coming into the market the country cannot cope with the increasing demand for jobs". He concludes that this is due largely to the focus on social instead of technical subjects. Consistent with Heitman and Helmoed-romer (2011), several students fall into jobs within the public sector, in which growth is deemed to be restrained, thereby encouraging them to move into the private sector, in which exploitation is common due to their inadequate skills.

1.3 Defining Development Indicators

The path to calculating the level of development of a geographic area is an enormous task, says Fearon (2003:35). In order to curb this issue, analysts may use development indicators to calculate a country's level of development.

- Development Indicators stipulate quantitative and qualitative aspects pertaining to specific objectives. In which it refers to a setting which can result once the objective is accomplished.
- Depths and Dimensions can be utilized to validate the results or outcomes of a specific programme or project
- Variables play an important role in determining the improvements reached pertaining to goals, measures or pointers which contribute to measure or define the success of results, also to monitor the improvements made towards attaining these goals; and
- Variables or measurements may be used to transmit a direct or indirect message. If measured correctly, it can be based on quantitative or qualitative information.

In addition, Co Chabane (2011) states that analysts are interested in development indicators which assist to measure and calibrate progress towards the Sustainable Development Goals. He concludes by saying that this provides an early warning and leads to the prevention of economic, social and environmental damage. In addition, Rugg (2010) states that they are also

important tools to communicate ideas, thoughts and values, which clearly have the potential for assisting in national or provincial decision-making as they can be used to:

- Identify and pursue national matters and concerns;
- Assist in providing identification of movements and developments within important sectors of the country;
- Developmental reports must be presented to the relevant stakeholders;
- Assist in monitoring the outcomes of local and national government strategic targets and evaluating these strategic targets;
- Construct and enable the delivery of governmental plans; and
- To identify the tangibility or usefulness of policies and procedures within the implementation of plans.

According to the definition and the characteristics of indicators outlined earlier, an indicator is expected to measure the change in a specific state or situation of the population, or of the beneficiaries of a project or programme. Hence, development indicators are statistics directed, specifically, towards policy concerns, which point towards successful recognisable purposes. Despite all the conundrums associated with defining development or its associated dimensions, it is imperative for national or provincial government to take stock of its development indicators and find ways for further improvement, where necessary. This can be performed by using standard indicators and data that cover the whole or part of a country (Co Chabane, 2011).

1.4 Objectives

1. To understand the Demographic Indicators of KwaZulu-Natal
2. To understand the Human Development Indicators of KwaZulu-Natal
3. To explore the relationship between Demographic and Human Development Indicators in KwaZulu-Natal

1.5 Questions

1. What are the Demographic indicators of KwaZulu-Natal?
2. What are the Human Development Indicators of KwaZulu-Natal?
3. What is the relationship Between Demographic and Human Development Indicators in KwaZulu-Natal?

1.6 Theoretical framework

This study focuses on a theoretical framework that will assist in explaining why specific indicators portray a specific trajectory. Although the framework is mainly based on a developed and western setting, it nevertheless provides a framework for identifying the status of the researched population and can highlight the difference within economic development of rural and urban spaces with KZN. The theory allows for a linking of demographic factors and human development factors such as births and death rates to the improvement of economic growth and human development. This study will utilise a quantitative approach in attaining data. Secondary data available through Statistics SA will be utilised to derive district statistics. These statistics

will be derived through data calculations and scientific theory. According to Caldwell (2007) this is achieved by acknowledging the birth rates and death rates of a population group to determine the rate of development and human improvement. According to Jean-Claude (1992), developing countries are following the same general patterns as developed countries and argues that the theory of demographic transition must include the effect of population changes on the economic progress of society. The Demographic Transition Theory involves four stages that population move through that determine the rate of development and the overall human development of the population.

In stage one, Pre-Industrial Society, death rates and birth rates are high and roughly in balance. Population growth is typically very slow in this stage, because society is constrained by the available food supply, no proper healthcare and a lack of basic services, therefore in this stage unless society improve food supply, healthcare and basic services, any fluctuation in birth rates are soon matched by death rates. In stage two, that of a developing country, the death rates drop quickly due to improvements in food supply, public health reduce mortality, especially childhood mortality and education. which increase life expectancies and reduce disease. Prior to the mid-20th century, these improvements in public health were primarily in the areas of food handling, water supply, sewage, and personal hygiene. One of the indicators often cited is the increase in female literacy combined with public health education programs which emerged in the late 19th and early 20th centuries. Without a corresponding fall in birth rates this produces an imbalance, and the countries in this stage experience a large increase in population.

In stage three, birth rates fall due to various fertility factors such as access to contraception, increases in wages, urbanization, a reduction in subsistence agriculture, an increase in the status and education of women, a reduction in the value of children's work, an increase in parental investment in the education of children and other social changes. Population growth begins to level off. It is important to note that birth rate decline is caused also by a transition in values; not just because of the availability of contraceptives. During stage four there are both low birth rates and low death rates. Birth rates may drop to well below replacement level as has happened in countries like Germany, Italy, and Japan, leading to a shrinking population, a threat to many industries that rely on population growth. As the large group born during stage two ages, it creates an economic burden on the shrinking working population. Death rates may remain consistently low or increase slightly due to increases in lifestyle diseases due to low exercise levels and high obesity and an aging population in developed countries (KC and Lentzner 2010).

The tie between Demographics and Human Development stems much deeper than just education it ties into female fertility and child mortality which are vital indicators to determine the potential transition stage of a population group. Lutz et al. (2008, 2010) states, an overall assessment of any population group must be determined with a combination of Demographic and Human Development factors. In accordance the UNDP, (2013) states that demography, which can also be defined as the mathematics of people, specifies all of its models strictly in terms of human beings according to different relevant characteristics. Hence, it offers a most

appropriate approach to the study of human development across the world. The theory allows us to implement the following measurement to any population group to determine the status of the population.

Many theories and laws have been put forward to explain the evolving phenomenon of the trajectory of a population (Massey *et al.*, 1993). The Malthusian Theory was developed in the early 1800s by Thomas Robert Malthus. Malthus theory is the only theory that does not combine Demographics and Human development, for which history has proven wrong. His main concept relates to the growth of population by fertility will outgrow the rate of food production. In many ways he failed to implement the productive nature of Humans and the rate of technology advancements. However, The Optimum Theory of Population outline very strong relations to Human Capital and Demographic. This theory was developed in 1924 by Edwin Cannan, the theory is concerned with the relation between the size of population and production of wealth. Human Capital is the most influential factor in this theory and outlines that at any time there is a consist supply of human capital.

Social factors such as household statistics and intensity of poverty levels are made possible by determining demographic factors and human development, which makes resource allocation more effective. Demographic factors such as births and fertility can influence Human Development by delaying fertility to gain education or it can restrict education by early fertility. Typically, Demography is viewed just as a statistic of a population which means a numerical examination of the population, this forms the backbone of human development. As a result, we can determine indicators such as education levels, link fertility to education levels etc. These are important factors that allow for government to shape policies and develop strategies to improve the well-being of the population. Todes (2010) undertook a qualitative research in rural KwaZulu-Natal on reasons why people in rural areas have slow development, found out that of all the people interviewed, eighty per cent of interviewees indicate that a lack of economic opportunity stagnate development. More than twenty per cent says that migration of the young working class is the reason for slow development. The South African context of development seems to suggest that quantitative data is showing a diverse population when taking into account the dynamics of the demographics. For instance, authors Supiot and Fut (2014) indicate that over time the utilisation of data has become an integral part of effective planning in regarding to a country's systems and structures.

1.7 Conclusion

This Chapter provides an overview of the current study; it outlines the background to the study and the direction in which this study will progress. South Africa is very unique when in comparison to other developing countries largely due to the impact of apartheid. This structure caused enormity within provinces and this can be see only when a province is analysed as per district level which will trickle down to rural and urban areas. However, the core function is to highlight the relation to demographic and human development indicators and how they compliment each other to give an analytic summary of the status of the population. Moreover, it is hard not to highlight the contrasting effects within rural and urban, largely due to South Africa having eighty per cent of rural land.

2 CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This Chapter will engage in a review of literature on Demographic and Human Development within South Africa, with specific representation in KZN. The various components within Demographics and Human Development are briefly discussed, however, this study will pay special attention to rural and urban differences, and on the main aspects that contribute to the formation of statistical data within a population. This Chapter will further elaborate on Human Development Indicators and Demographic Indicator contributions to trends within society and the compilation of a demographic profile.

2.2 Defining Rural

South Africa does not have an officially agreed and accepted definition of “rural”. Efforts to classify territories according to their degree of rurality, for policy purposes, have not been entirely successful. Further complicating the situation is the large-scale re-demarcation of provincial and municipal boundaries that accompanied the transformation of provincial and local government after apartheid (Todaro and Michael 2012). This process removed the administrative distinction between urban and rural areas, in recognition of the strong linkages between towns and the countryside. Although a largely positive development, it has made determining what constitutes a rural area (and by extension a rural province or municipality) more complicated. Although the importance of rural development for reducing poverty is recognised, the meaning of the concept is sometimes not clearly understood. The relationship between rural development and related aspects, such as land reform, food security, infrastructure, institutions etc., is also not always clearly defined. These terms are often used very casually when discussing public policy, without describing explicitly the places where rural programmes are intended, or having precise eligibility requirements, so the programmes can be delivered “without expensive leakages to other, unintended beneficiaries” (Isserman, 2007: 73).

Nahid (2012) states, the effectiveness and appropriateness of rural development policies depend on how places are selected, while the understanding of rural conditions and the policy context depend on the definitions used. As there is no common understanding of what constitutes a rural area or rural municipality, a hybrid of administrative, historic and literature-based approaches is used to establish a definition. Consistent with the Rural Development Framework of 1997, rural areas are defined as having at least the following two characteristics. Sparsely populated areas in which people farm or depend on natural resources, including villages and small towns that are dispersed through these areas. • Areas that include large settlements in the former homelands, which depend on migratory labour and remittances, as well as government social grants for their survival, and typically have traditional land tenure systems. The definition takes into account spaces and population densities, as well as relevant history (the “homelands”) (Todaro and Michael 2012).

2.3 Insight into Human Development

According to Mahbub ul Haq (1992) the improvement of people's freedom and opportunities should form the core values of human development, associating individual development to improve the quality of life. Human development concerns real freedom; ordinary people must choose. This involves questions about who to be, what to do and how to live. Erickson (1994) conversely views biological and psychological improvements of people falling within human development. Alternately, the United Nations Development Plan (2015) argues that there are two primary concentrations relating to human development; they emphasise that human development is an attention or focus on people and opportunities, as well as the choices of those people.

According to Edward (2014) he suggest that human development has three foundations, these foundations are a prolonged life, with good healthcare and creative thinkers, to be well educated, and obtain adequate accessibility to resources to improve their life situations. Several other matters are also important, especially in helping to create the right conditions for human development. Once the basics of human development are achieved, opportunities emerge for progress in other aspects of life. A study done by Zidan (2001) stated that human development is also known to be an improvement in human capabilities, these improvements comprises of strategies through education, skills, work productivity, and creativity which can improve one's self. The ensuing development of humans, along with physical and natural capital, serves to promote economic development. The issue is determining the most positive approaches to use the least resources to create human capital via human improvement strategies. Human capital should be trained, educated and developed within the device of an organisation, in order to beautify the productivity of the organisation, through the knowledge of its group of workers

2.3.1 A History and Genesis of Human Development

The concept of Human Development is derived from international discussions proceeding from the association between economic growth and development, this occurred in the latter part of the 20th Century (Anand & Sen, 2000). During the 1960s many theorist and role players began to move away from Gross Domestic Product (GDP) in relation to human improvement. A more comprehensive approach such as economic growth became the leading measurement of a countries progress, however GDP where never derived to measure the wellbeing of a country. The 1970s and 1980s were eras that began with alternative ways to dethrone GDP, it focused more on the employment, and began to focus on the redistribution of wealth and growth, furthermore an emphasis on basic needs where at high priority.

These ideas helped pave the way for human development approaches, which relates to expanding the standard and quality of life, apart from just focusing on the economy. The human development methodology highlighted on creating fair opportunities and choices for all individuals. This method, which was derived by economist Mahbub ul Haq (1998), is embedded on research done on human capabilities, and is often framed in terms of whether

people can 'be' and 'do' desirable things in life such as being well fed, sheltered, healthy, doing work, educated, voting, and participating in community life. Mahbub ul Haq (1998) stated that the basic purpose of human development is about giving large amounts of options to people. In conclusion, the author mentions that human development should create a people-friendly environment according to people's needs and interests. He also indicated that human development theories are evolving.

2.3.2 The Benefits of Human Development

According to Bashir and Darrat (1994) people are referred to be the most important asset within a country. The main objective around development is to supplement human freedom. The progression of development has the power to broaden human capabilities by increasing the choices that people must live full and creative lives. In addition, they further mention that people are both the beneficiaries of such development and the agents of the progress. Taylor (2004) builds on this concept, indicating that this process must benefit all individuals equitably and build on the participation of each of them. Every Human Development Report, since the first report in 1990, has advocated this approach to human development. Sen (2002) states that the theory of human development brings common ground on the issues of populations. Human development and human capabilities runs parallel in global perspectives, it aims to stimulate investment within people through education, skills, work productivity and creativity. Selwyn (2011) adds that the betterment of individuals, along with physical and natural capital, attends to encourage economic development. The issue is determining the most effective ways to utilise the least amount of resources to create human capital through human development strategies. Furthermore, Zidan (2001) mentions that human capital must be trained, educated and developed within the system of an organisation, for enhancing productivity of the organisation through the expertise of its workforce.

2.3.3 Human Development, Choice and Access

It is argued that human development can be structured into three main categories, namely, people, opportunity and choice (Fukuda-Parr, 2003). The writer further relates birth and life circumstances to an improvement of human development. Fukuda-Parr (2003:68) further makes freedom of choice central to his discussion, by stating that "a person whom chooses to abstain from food because of religious reasons is a contrast to a person that is hungry and do not have enough money to buy food".

Banerjee, Cole, Duflo and Linden (2007:67) conducted a study in India about giving people additional choices for human development. Their aim was to discover whether people continue to find fulfilment and happiness when they are determinants of their own human development. The outcome showed that people who have multiple choices for human development, show contentment with their lives and subsequently have a happier disposition to life. They also displayed a deeper commitment to their human development. They conclude the study by saying that one's 'choice' is fundamental, to having future choices. However, Duflo and Linden (2010:134) in a further study mention that while choice denotes an individual's intentions, one cannot be forced into exercising one's choice. The happiness of humans is far from guarantee;

therefore, people generally have to face consequence for their own choices. However, the progression of ‘human development’ must aim to generate a setting for individuals, with an aim to enable them to develop optimum capabilities and have access to relevant opportunity, which will enable them to live fruitful lives which they value (Banerjee & Cole, 2013).

2.3.4 A Global Perspective on Human Development

According to Musambira and Matusitz (2015:21) “within Florida there are fundamental factors that are used to measure indicators, such as life expectancy, adult literacy and collective gross enrolment in primary, secondary and tertiary schools”. Jha (2008) states that in India the country is aware of the limitations of market-based economic growth processes in addressing the issue of mass poverty and deprivation and highlights that this may not be the fact for India. The author further mentions that key human development indicators within India are major contributors to living standards, being poverty and hunger. According to Naanwaab (2017), the UNDP has developed the most comprehensive measure yet of the extent of human development across countries of the world. This measure, the Human Development Index (HDI), recognises that development is more than GDP and per capita GDP, and that a high growth rate of GDP does not necessarily correspond with human development. The HDI is a composite index that considers the level of human progress measured along three dimensions: a long and healthy life, access to knowledge and a decent standard of living. This serves as a useful metric for comparing human progress and well-being across nations. It can be noted that the perspective of human development varies across countries and its comprising factors may differ across continents.

2.3.5 A South African Perspective on Human Development

Oyebade and Adebayo (2002) explain that the social evolution of South Africa is largely similar to other European colonies in Africa. South Africa's transition to democracy has been generally peaceful, with the country making considerable progress in addressing deep-rooted inequalities of the past. The authors further state that the material well-being of most of the population, neglected during the apartheid era, has witnessed some improvement. However, overall social development has been slow, with an escalating crime rate and the HIV/AIDS pandemic continuing to hamper growth.

According to Marketline (2014) social policies have been evolving since the end of apartheid in 1994. The government has increased its focus on making a greater number of health and educational services available to the rural populations. Health facilities, particularly antiretroviral (ARV) treatment facilities, have increased substantially in rural and suburban areas, particularly affected by the AIDS pandemic. The growth, employment and redistribution, as well as Broad-Based Black Economic Empowerment (B-BBEE) initiatives initiated by the Mandela government have played a pivotal role in elevating the living standards of the Black population.

2.3.6 Definition of Education Within the Study

Psacharopoulos (2004) states that educational quality, measured by cognitive skills, has a sturdy affect on person earnings. Moreover, educational excellent has a robust and sturdy affect on economic boom with ‘truly causal relationships’. A study performed by Hlongwa and Rodrigo (2015) also concluded that schooling has a growing influence on the distribution of profits and that the level of profits distribution can also have a bearing on the cognitive stage of the person. Furthermore, education has a significant impact of the economy therefore it is important to consider education expenditure as a form of investment according to Psacharopoulos (2004). This augments people’s human capital and leads to development of communities and improved monetary earning of people. This will increase employment, and provides them with opportunities for job mobility. Their study concluded that education contributes to economic growth linked to human development only when it liberates, stimulates, informs and teaches people how to make demands.

2.3.7 Link between Fertility (Demographics) and Education.

The most direct link between fertility and education has been provided by Becker (1992) which highlight the linkage between low fertility and increased human capital. Becker argues that, if parents are highly educated, they tend to have smaller families than less educated parents. Smaller families mean more time on hand to invest in the education of their children. Becker (1992) further elaborates by stating that high levels of human capital cause low fertility and high investment in human capital.

2.3.8 Challenges of Education within South Africa

Shewmer and Naidoo (2014) mentioned that, in the context of South Africa, there has been a legacy of historical political challenges, which have created various structural complications within the education environment. A 2015 study conducted by the Poverty and Social Engaged Research Council of South Africa (PSERC) on Early Childhood Development (ECD) schooling in South Africa aimed to outline the level of education at foundational levels and socio-economic gaps in cognitive outcomes (PSERC, 2015). The study concluded that socio-economic gaps in cognitive outcomes take root, widen and become more unyielding even before children enter school. The consequence of poor quality ECD and poor-quality foundation phase education is that the opportunity to reduce learning gaps and develop the potential of children, irrespective of their home background, is lost.

The root of underperformance in the later years such as evident by high school grades, can be linked to learning deficits in the early grades, says PSERC (2015). In addition, Cooper, Grossman, and Vally (2016) state that inequalities within population groups in the educational sector persist. They further state that the progress of its majority Black population remains below levels of international standards and falls substantially lower than that of middle African countries in the same spectrum. This is further supported by research conducted by the Human Sciences Research Council (HSRC) in November 2016, on the latest Trends in International Mathematics and Science Study (TIMSS). This test is taken by 580 000 pupils in 57 countries. The analysis of the test was concluded on completion of the test. The analysis of results by

Isdale and Visser (2016) revealed that South Africa was at or near the bottom of its various rankings.

The findings show an alarming percentage for South Africa were 27% of students that have been educated for six years, do not have the ability to read, comparable to 4% in Tanzania, and 19% in Zimbabwe (HSRC, 2016). Another alarming finding is that within five years of schooling just below half of the student cannot calculate 24 divided by 3 is equal to 8. The data presented that 37% of student whom are in school will compete and pass their schooling life. In addition, only 4% will go on to acquire a degree (Isdale & Visser 2016:12). The distance from scores within the top 20% of educational centres compared to the rest of the schools is greater in majority of the countries. Within the black students out of 200 students that begin schooling only one will proceed to have the adequate skills to study engineering, in contrast, white student in the same sphere will have 10 students whom will be able to study engineering, says Visser (2016).

2.3.9 The Educational spectrum in KZN

All South Africans have the right to basic education and learning, including adult basic education and learning. Further education and learning according to the Bill of Rights of the country's constitution, indicates that the state has an obligation, through reasonable procedures, to ensure that this education is made available to all (South African Schools Act 84, 1996). According to Ntombela and Sithabile (2009:119), this is a national view which is adopted by departments of education within the country. An overall goal for the KZN Department of Education is radical economic transformation. A report published by the Department of Education outlines two major factors within the development plan of KZN education. Firstly, to strengthen TVET for greater links with industrial and agrarian economy skills demand. Secondly, they are targeting the school infrastructure as the focus areas to drive radical economic transformation.

According to Ntombela and Sithabile (2009) an improvement in the overall matriculation pass rate within KZN is optimistic. The population aged 20 years and above showed percentages whom completed matric only in KwaZulu Natal improved from 23.2 percent in 2005 to 30.5 percent in 2015 (Statistics South Africa, 2015). Spaul (2015) compliments this achievement as it reflects that more of those that fall into the working class group whom acquire foundational education as a result they could be more constructive contributors to the economy. He adds that more improvement has been made in higher education by people in KZN in 2015 (9.3%) compared to 2005 (7.4%). Perry and Mann (2016) suggest that although this was not a significant increase, it is worrying that the African population lag behind all other racial groups regarding the level of education.

2.3.10 Contrast between Rural and Urban Educational Challengers.

In a study done by Spaul (2015) on rural and urban schooling within South Africa, one of the major outcomes in the study showed that urban areas had much more teachers compared to rural areas, also spatial challenges within rural areas forced students to walk long distances to reach schooling centres. These implications have dramatic effects on the teaching and learning

in the country. In addition, a study done by Nkosi, Asah, and Pillay (2016:45) state that, “regional disparities also highlight that education performance in South Africa continues to be strongly aligned with socio-economic status”. In 2015 nearly all (82%) of the country’s best performing schools, those with a pass rate of more than 80% are in urban areas. In addition, Nkosi, Asah, and Pillay (2016) observe that most of the schools with pass rates below 30% are located within rural to semi-rural areas. Naidoo and Lewis (2006) also found similar results within their study and conclude that, foundational phase education plays an important part in long term rewards, his study showed that individuals with a good foundational phase education has much greater rewards in the future compared to individuals that has a poor foundational education, such as the poor. The highlighting factor within KZN is the spatial differences. Many pupils must still travel far distances to acquire an adequate education because the quality of education within the rural areas are way below par.

Taguma and Litjens (2017) suggest that South Africa will take some time to recover from the past injustices especially in the educational sector. Poverty within rural areas are still current challenges and basic services are not yet accessible by all people. This is supported by Yanhong (2015) who indicated that the rural to urban gap within education persists, due to high levels of difference. Contributory factors such as the lack of proper infrastructure for students and a lack of proper training for educators have also been cited.

Zhang (2016) further elaborates by stating that children in rural areas often attend schools that do not have proper basic infrastructure such as running water and electricity or books. He also highlights the fact that South Africa has 11 official languages which further complicates the situation. Such difficulties result in achievements across secondary schools within the province to vary considerably. Such difficulties filter into tertiary level education also. However, according to Ramarain (2016), while such difficulties do persist, South Africa’s education system is the most extensive and of the highest quality on the African continent, attracting more international students than any other African nation.

2.4 Unemployment

2.4.1 An Overview of the Unemployment status in South Africa and KZN

Unemployment rates have reached the highest levels since 2003, according to Statistics South Africa, (2016) in the first quarter of 2016 the unemployment rate rose to 27.7%. The expanded unemployment rate (including those who are unemployed and not actively seeking work), also reached a high of 36.4%. The proportion of those in short-term unemployment (those who have been looking for work for less than a year) increased by 2.4% to 34.2%. Altman, Miriam, Mokomane and Zitha (2014) however, state that the country sees a growth in almost all sectors of the economy except agriculture, trade and services. The introduction of a large youth population into the market makes them still fall short of the adequate jobs to cope with the influx. According to QLFS (2016) KZN experienced a marginal unemployment increase of 0.4% in 2016 between the 3rd and 4th quarters. However, the unemployment rate increased shockingly by 3.4% compared to the same period in 2015. The province had a high rate of

discouraged work-seekers compared to those actively searching for employment, which emanates from a considerably high expanded unemployment rate of 40.7% recorded in the fourth quarter of 2015 (Quarterly Labour Force Surveys, 2015).

2.4.2 Implication and Challenges of Unemployment within KZN

Miriam and Zitha, (2015) mention that various sectors within the country have experienced large amounts of strikes, which add to the complications of the overall crisis. The trade union movement in South Africa is a powerful one, which has aligned itself with the brand new government in South Africa. Further, Kingdon (2011) elaborates that there is an institutional framework released with the aid of the Bargaining Councils and Salary Bodies, to set minimal wages in an awful lot of the formal sector. These policies are prolonged to all firms, regardless of length, in the industry. The author similarly suggests that it might be thrilling to understand whether this implies that wages might be less aware of local unemployment conditions than in international locations with weaker unionisation and weaker salary-setting institutions.

Hurt and Stephen (2017) indicate that the demographic disaggregation of unemployment rates in the province of KZN spawns a key trend that relates to the persistence of the historical patterns of the labour market. Furthermore, Wittenberg and Martin (2016) conducted a study utilising statistics from Statistics South Africa (2014) into the unemployment levels of KZN, with the findings suggesting four implications. First, there is a clear racial gradient in unemployment rates in KwaZulu-Natal in 2014, highest for Africans (22.5%), followed by Indians (12.0%), and lowest for Whites (0.5%). Importantly, these KZN unemployment rates are not different from those observed nationally. Secondly, women remain relatively disadvantaged within the labour market, with an unemployment rate of 21% compared with 20.1% for men in 2014. Nationally, the gap between unemployment rates for males and females is even wider at 4.4% in favour of men. Third, there is a negative relationship between age and the rate of unemployment. Forth, unemployment is lower for individuals with higher levels of education. The unemployment rate for those with post-matric education in KZN is capped at 11.1%, compared with 22.4% for matriculants and 23.9% for those with secondary education. The biggest concern is the widening gap between the rich and the poor.” (Wittenberg and Martin, 2016).

2.4.3 Implication on Racial Barriers that contribute to unemployment

Wright and Gemma (2015) state that despite numerous initiatives enforced by the government to address different forms of inequalities among the citizens, there is still more work that needs to be accomplished so as to reduce the gap that exists amongst races, in terms of employment within the country. Miriam (2015) discuss evidence from the Quarterly Labour Force Survey (QLFS), which evidently reflects that White and Indian population groups relative to African and Coloured population groups predominantly hold highly skilled occupations. This could, however, be attributed to a shortage of tertiary qualifications and relevant skills to most of the young people among the African and Coloured population groups. Statistics South Africa (2016) highlights similar findings that White and Asian population groups constitute the largest proportion of people employed who have tertiary qualifications. Moreover, black and coloured population groups still fall short, comprising that half their population that are employ has

lower than just a matric level of education. The share of Whites and Indians employed in the fourth quarter of 2016 who had tertiary qualifications was 49.5% and 30.3%, respectively. This was in contrast with 17% and 13% for Africans and Coloureds, respectively, who were employed with tertiary qualifications, over the same period (Quarterly Labour Force Survey, 2016).

2.5 Understanding Demographics within the study

This section will be primarily focused on KZN demographics, however, this section will draw on various available sources of literature on demographics. In addition, also will define demographics and present a global and South African context on demographics.

2.5.1 Demographic Definitions

Weeks (2012) defines demography as the scientific study of human populations. This explanation was coined by Achille Guillard (1855), whom displayed this in the heading of his book *Éléments de Statistique Humaine ou Démographie Comparée*. According to Guillard (2010:36) the definition of demography is “the mathematical knowledge of populations, their general movements, and their physical, civil, intellectual and moral state”. In relation, Hirschman, Calhoun, Rojek and Bryan (2005: 394) states in cutting-edge demography, the study of the determinants and consequences of population change is apprehensive with really the entirety that affects or may be prompted by way of population size, population boom or decline, population techniques, population distribution, population shape and population characteristics. Webster (2013) defined demographics as a statistical feature of human populations together with age or earning used specially to discover markets and a change within the demographics of the country.

2.5.2 A Brief Global Perspective on Demographic Trends

Weeks (2008: 64) mentions that “there is absolute confidence of rapid growth in the past two hundred years”. High death rates restricted the quantity of human beings within the world from developing hastily until approximately the time of the commercial revolution. Hirschman (2005) suggests that international trends in population increase, which are increasing the quality of life of people, better health facilities and access, and, more these days, clinical advances, dramatically improved the tempo of growth.

Currently the global perspective shows India and China presenting the largest populations, second to them is the United States of America, followed by Indonesia, and Brazil (United Nations Development Plan, 2016). A study conducted by Tarver and Praeger (2014) relating to the trends of growing populations suggested that, everywhere in which population is growing, it is discovered decreasing in mortality rates much faster than of birth rates. There is considerable global and regional variability in both the birth and death rates and thus in the rate of population growth. Coleman (1995) identifies the problems that may persist with an increasing younger populations, in which is mainly experienced by developing countries. In contrast, developed countries, along with China, experiences an ageing population and are

experience an increasing need for labour in their markets, which will have to be obtained by growing population countries.

Findings of a study conducted by Riley (2011) on China's population and the effect of the one-child strategy, advocate that to deal with demographic change and the impacts it has on our existing lives we have to identify the problems that contribute to population change. The study concluded that an aging population has dramatic impacts on the productivity of the population's future workforce.

2.5.3 Main Challenges of Demographics

Weeks (2012) states that population studies is a new discipline within the academic world. It is centred around population growth and the challenges that may persist in increasing a population size, distribution, and structure. Furthermore, Yu (2000) states that the growth of populations is the most important finding of all time "the most revolutionary phenomenon of our times" (Yu, 2000:35). Gasset (1999:51) states that "even though we know and heard about decreasing birth rates, the number of people added to the world every year is greater than any time in history". In addition, Caldwell (1996:312) mentions that "we now live in a world crowded not only with people but with contradiction". He goes on to say, that the world has produced its largest number of educated people than ever before recorded, however it also has the largest number of illiterates, in addition there are large amount of rich people on earth in contrast there are many poor people, many children are well fed, however there are hungrier children and babies. Strides within environmental preservation and protect have never been higher yet we pollute and damage the environment.

Mortality decline globally is an important and good achievement of the global world argues Greenhalgh (1996), it is portrayed to show that this will have heavy effects due to birth rates almost never declines together with the death rate and the subsequent impact is population boom. The author further states that a population that finds itself increasing can expect to cause additional destruction to both the environment and social structures.

2.5.4 Migration Trends

Moster and Hofmeyr (2011) conducted a study on migration patterns focused especially on developing countries, findings of which suggest that the rate of population growth coincides with the aspiration to migrate to other countries, which is on a rise. The massive European extension to the developing part of the world, which commenced in the fifteenth and sixteenth centuries, is a significant instance of huge migration and population redistribution. The authors concluded that these days' migration patterns have shifted, where individuals are migrating from developing countries to developed countries. Carefully related to migration and population density is the urban revolution, the motion from rural to urban areas.

2.5.5 Size and Structure of KZN

KZN has experienced a significant decrease according to the provincial share of the national population due to outward migration says Mbatha and Roodt (2014) based on a study

conducted on internal migration. KZN shifted from the most populated province in 2006 to the second most populated in 2011 to 2016 (Statistics South Africa, 2016). The Census 2011 was instrumental in giving information on the demographics of KZN. The distribution of the population in KZN showed 34.8% of the population are children between 0 and 14 and about 36.7% are youth that are economically active (15-34 years) (Statistics South Africa, 2011). Collectively, the amount of young dependent populations reports for an estimated 71.5% of the total provincial population. this population accounts to 4 374 507 persons, and the productive group accounts to 6 705 213 persons of the population. The ripple effect causes a high dependency ratio of 42.2% (Statistics South Africa, 2011). Reed and Holly (2013) conducted a study on dependency ratios within developing countries and findings suggest that non-economically active persons within a population (high dependency ratio) depend highly on governmental and state funding for maintaining standards of living. The working age population find themselves having a sense of accountability in compensation towards governmental/public services. Reed and Holly (2013), further states that the country experiences reduced productivity and increased non-productivity within the economy, this poses as a threat to the development within a country.

2.5.6 Passed Statistics on the Distribution of KZN Population

The KZN population is divided into four racial groups namely, Blacks, Coloureds, Indians and Whites. The province is mainly predominantly Black population, instituting 87.2% of the overall KZN population, Indians portray the second largest share of 7.2%, Whites at 4.2% and Coloureds portray the least proportional share of the province at 1.4%, which was stated in the report on the Census (2011) (Statistics South Africa, 2011). According to Statistics South Africa's report on the Census (2011), the fertility rate in KZN stood at an average of 3.26 children per woman, a marginal decrease from the 2006 estimates of 3.53 children per women, when this estimate was above the national average of 2.92 children per woman and was the second highest rate in the country (Statistics South Africa, 2011). Yuhua and Jie (2009) conducted a study on high fertility rates in developing countries and concluded that high fertility rates have an impact on the resources available to a country, the fertility rates increasing imposes pressures on having increased amounts of necessities for the increased amount of people. Yuhua and Jie (2009) go on further to state that by women bearing more children each year, the levels of social and economic development produced by female individuals decreases.

2.5.7 Insight into Population Age Structure and Sex Ratio

Weeks (2009:60) states, age and sex structures (population pyramids) commonly identified to the dispersion of age groups according to a population structure, which highlights the level of demographic transition the population is experiencing. With regard to KZN, according to the Census 2011, the highest percentage of the population falls into the 0-14 years' age group. A study was done by Choudhr, Marelli, and Signorelli (2016) who find strong empirical evidence in favour of the hypothesis that the age composition of population matters for labour productivity and child dependency has a more adverse impact on labour productivity than old age dependency. The statistics of KZN illustrates similar trends in comparison to other developing countries around the world, there is an increase in the rate of fertility and life

expectancy of women as compared to men. Statistical data also identify that there are low life expectancy rates within the country (Statistics South Africa, 2011).

Sex ratios is defined to be the proportion of males to females which is presented as males to 100 females of a population. The WHO, (2014) states, that nature provides that the number of new-born males slightly outnumber new-born females. But, as they grow up, men are at a higher risk of dying than women. This is not only due to sex differentials in natural death rates but also due to higher risk from external causes (accidents, injuries, violence, war casualties). KwaZulu-Natal portray a significant higher level of females compared to males according to 2011 census reports; it showed a sex ratio at 91, this tells us that there are 91 males for 100 females in the population, this is recorded as 91:100 (Statistics South Africa, 2011). The province showed more females than males in all districts.

2.5.8 Mortality trends within KZN

A statistical release by Statistics South Africa on Mortality (2014:31) shows that mortality rates has decreased at a steady rate in KZN. However, this improvement compared to the country shows that KZN as the highest mortality rates compared to other provinces. KZN had the second to highest infant mortality rate (40.3 deaths per 1 000 live births and under five 57.8 deaths per 1 000 live births) (Statistics South Africa, 2014). With the decrease in mortality other facets of population dynamics will improve such as Life Expectancy. The World Health Organization (WHO, 2009) defines “life expectancy at birth as the number of years a newly born infant could expect to live if prevailing patterns of age-specific mortality rates at the time of birth remain the same throughout the infant’s life”. Juhn (2010) stresses that life expectancy has significant elements to the economy which highlights the overall health status of the population. In addition, Psacharopoulos (2004) also remarks that improvements to the life expectancy is accompanied by population increase. The Census 2011 portrayed KZN to fall below the nation average in life expectancy (56.5 for males and 61.8 for females) (Statistics South Africa, 2011).

2.6 Demographic Indicators of KZN

2.6.1 Health as an indication of the population status

Elements such as Investment in human capital, monetary savings, population boom, productivity and women work force contribution are components necessary for economic development, these components are inevitably compromised through levels of mortality reflected within the state of health of a population (Strittmatter, 2013). However, it must also be considered, as stated by Peters et al (2008), the path to interconnection is a two-way path where the state of the economy affects the health status of the population, moreover, limited investments and a shortage of resources causes weak systems for accessing public services. Arndt (2013: 67) relates the fundamental relationships concerning the relation to availability of health care and poverty, highlighting that health services and poverty have a converse effect. “When health care is required but failed to be accessible, populations health status may deteriorate, this ripple effect will pose a decrease in monetary income and place strain on the health care sector, which will increase poverty”. Jill and Heather (2014) indicate their

agreement to the fact that health care is an important component to the development of the country, stating that it is important for a country to access healthcare for reducing the levels of mortality.

2.6.2 HIV/AIDS impact on Demographic patterns

The three main causes of Years of Life Lost (YLL) in the districts are due to preventable diseases including Tuberculosis (TB) (21%), diarrheal disease (8.7%) and HIV (8.6%) which is stated in a report created by Statistics South Africa (2014:50). Gray, Tang, Shouse, and Mermin (2015) highlight that these diseases are also directly linked to social determinants. Adversely, pertaining to the impact on women and children, they confirm that non-communicable diseases and violence-related deaths are also a concern for the district of KZN. A similar study was done by Doshi, Millberg and Matthews (2011) who also found similar patterns within KZN. However, in spite of the progress that have been made in decreasing mortality rates in KwaZulu Natal, the province seems to be struggling with obstinate HIV/AIDS prevalence rate and excessive numbers of AIDS orphans. This is evident within the data emanating from the 2011 Census (Statistics South Africa, 2011). However, the positive aspect is that the province is seeing less HIV/AIDS-related deaths according to the Census (Statistics South Africa, 2011). This implies that those living with the disease are living longer, which further means that government is succeeding in its endeavours to improve the quality of lives of those infected (WHO, 2013). The energy should be placed on preventive measures on new infections. However, it is encouraging that 52% of the infected population in KZN are on ARV's (Public Health Report, 2014). The advancement of ARV's puts KZN as the second highest province with regards to people on treatment, the ripple effect will enable people to live longer and become contributors to economic activities within the province. (WHO, 2015).

15.2% of the KZN population are HIV positive, and only 56.6% of these people are on ARVs (WHO, 2015). Johnson, Ebonee, and Kaya (2016:243) says "the HIV epidemic is perhaps more complex to anticipate that may appear at first sight". They go on to highlight, two effects of HIV on the population composition. Firstly, the authors highlight the effects of this widespread disease on the growth rate of humans and its prevalence within the increased rates of mortality. The HIV epidemic has vast impact on the overhaul level of reproduction around the world. Secondly, the authors indicate that people within a population that have experienced the epidemic personally may find themselves dealing with the circumstances in such a manner that causes the effected to seek comfort of others during this time. One may require the support of family members or in some instances reject family and friends. However, a study done by the United Nations on the impact of HIV/AIDS on mortality in sub-Saharan Africa (1998) argues that population movement on a larger scale may also respond to human capital shortages. The compositional changes induced by the HIV epidemic are thus not limited to the 'first-order' mortality impact, and the adaptive nature of the household is key to an understanding of the aggregate and dynamic impact of the HIV epidemic (UN, 1998).

2.6.3 Effects of HIV/AIDS on Age Structures and Sex Ratios

The study of Pouget and Rodriguez (2015) on HIV and Sex Ratios highlights, that the affect of HIV/AIDS on the total population sex ratio has received minimal consideration. This is largely, due to the most severe epidemics, infected females to infected male's ratios were observed to be in the range of 1.0 to 1.4 and they conclude by saying that the values were deemed to be too close to the prevailing ratio in the population, to alter it significantly. Clinton and Rivera (2016) argue that the ratios presented can be perceived as less of an expected widespread of the disease through heterosexual relations. The level of transmission of HIV increases far greater between male to female as compared to female to male. Due to the prevalent disease increasing daily, the rates associated to population change are lowered. This will add to the ageing of the infected population groups, and which will balance out at much older ages largely due to the increase in deaths at older ages.

2.6.4 Infant Mortality as a indication of women and child development.

Children under the age of five (under-five) in KZN are highly exposed to die before reaching five years of life. A study conducted by Mondal (2014) on the effects of under-five mortalities in South Africa, showed findings on the association between some socioeconomic and demographic factors that affect under-five mortalities such as access to healthcare and HIV/AIDS infection rates. Similarly, findings of Hlongwa (2016) show that socioeconomic and demographic factors substantively determine under-five mortalities in the province. Evidence from this study suggests that interventions aimed at reducing under-five mortalities should focus on Black women, the younger women, the less educated and those with a low household income. Hlongwa's findings suggest that child mortality is significantly associated with the rural geographical location of people who do not have access to healthcare facilities (2016).

Kabudula, Ngobeni, and Gomez-Olive (2015) state that excessive child mortality has negative implications for the province's developmental desires. It is regularly used as an indicator for population health. Moreover, excessive under-five mortality adds to lower life expectancies at birth. The South African Census (2011) displayed that more than 50 000 children died in 2011 in the country, with more than 80% of these deaths occurring amongst infants. KZN recorded more than 15 000 under-five deaths during the same period, an increase from just above 8 000 in 1997 (Statistics South Africa, 2011). This was the highest amongst all the provinces in South Africa. Chowdhury, Haidar and Nahid (2012) state that, Notwithstanding the many tasks applied and a large quantity of monetary and different resources spent undertaken by government to lower the stages of under-five mortality in the province, these efforts aimed at accelerating child death reduction and investigating the root reasons associated with such excessive mortality intensities, that are essential. Kanmiki et al (2014) add to the discussion and mention that this is in particular authentic to KZN, which has recorded both the highest levels of under-five mortality in the country, but additionally the highest levels of illiteracy, unemployment, and poverty.

2.6.5 Maternal Mortality in KZN of passed data.

The World Health Organisation (2014) defined maternal death as the death of a woman whilst pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. To facilitate the identification of maternal deaths (Maternal Mortality Rate [MMR]) in circumstances in which cause of death attribution is inadequate, a new category has been introduced, Pregnancy-related death, defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death (WHO, 2014).

According to Fawcus (2013) maternal and child health are so interrelated that every study confirms that improved survival of mothers ensures better outcomes for children. In a 2012 United Nations Children's Fund (UNICEF) report, it was displayed that community healthcare workers in 21 other African countries were able to initiate antibiotic treatment and refer patients with Pneumonia in under five-year old children. However, In South Africa, a study by Klausen and Susanne (2012) outlined that there is a legislative block preventing important personnel from doing further constructive work. Unlike KZN, which is incessantly problematic, which had amongst the highest Maternal Mortality rate, in the Rural Health Fact Sheet (2014) the figure is given at 148.4 per 100 000 live births for 2013/14. This is 39% more than the target of 38/100 000. Furthermore, these were only in-facility Maternal Mortality Rates as the department does not record out of facility figures.

A study done by Bomela (2015) examines the geographic distribution of maternal causes of loss of life in KZN. The research reveals extremely good versions inside the distribution and reasons of maternal deaths by using age and district levels. Poorer districts had better MMR than the better off districts. The provinces variations within the leading reasons of dying imply the significance of centered interventions at sub-district level. Makhanya, Moodley, and Govender (2016) highlight that Eclampsia is a major direct cause of maternal mortality in KZN. Most cases of maternal mortality are probably due to late booking for antenatal care, poor quality of care and poor inter-facility transport (Mothers and babies die because they cannot get to hospitals on time or not at all and at times, they bleed to death).

2.7 Conclusion

Human development is enhanced by an increased and diversified educational system. Babalola (2003) asserts that the contribution of education to human growth and improvement happens thru its capacity to grow the productivity of a current labour force in various methods. The human development indicators provide evidence of serious problems facing the country in terms of poor economic capacity to generate enough job opportunities for the labour force and a weak educational system. KZN is a growing population, however, the province has one of the highest rural populations in the country. The impacts of a rural population places burden on the state to provide basic services and economic growth. This Chapter has included many sources of literature to improve the understanding of human and demographic indicators, thus giving us further insight into the current issues facing the province in relation to Human Development and Demographics.

3 CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

Aliaga and Gunderson (2000:45) describe Quantitative Research as “explaining phenomena by collecting numerical data that are analysed using mathematically based methods (in particular statistics)”. In addition, in keeping with Cohen (1980), quantitative studies are defined as social research that employs empirical techniques and empirical statements. He further states that an empirical declaration is described as a descriptive statement about what ‘is’ the case inside the ‘real world’ as opposed to what ‘ought’ to be the case. Usually, empirical statements are expressed in numerical terms.

This research paper is entirely based on secondary statistical records supplied through Statistics South Africa in the 2016 CS. The information is primarily numerical records, inclusive of numerous continuous variables. Consequently, quantitative measures and strategies are employed to evaluate the statistical results, and is therefore suitable for this study. Most of the findings are tabulated using statistical software programmes (STATA and SPSS) to determine the evaluation of the findings. This Chapter specifically focuses on detailed data of the study setting, study design, study population, as well as the overall sample size and the descriptions of the examiner variables. This Chapter will further elaborate on the strategies used to manage and analyse the data.

3.2 Study Setting

Located in the South Eastern part of South Africa, the province of KZN has the second largest population in the country at approximately 11 079 717 people in 2016, which accounts for 19.8% of the overall South African population (Statistics South Africa, 2016). According to Mahadea (2010:56) direct problems such as high unemployment rates are a burden to the overall development goals of the province, and these problems cascade to the lack of a proper education, especially within the vast rural areas within the province. The province portrays a high illiteracy rate of 21.8% for persons aged 18 years and older, higher than the national rate of 19.1% (Statistics South Africa, 2011). In addition, the province employment rate is at 33%, which is much higher than the national rate of 29.8% (Statistics South Africa, 2011). Household income within KZN is at about R83 053.00, also considering that 30% of households in the province reside in rural areas (Statistics South Africa, 2011). It is evident that KZN falls below most of the national levels, which highlights the underlying problems that may persist within the province therefore this study will look indebt into the province and look much deeper highlighting the variations within district levels.

3.3 Study Design

This study is based on the recent publication of the 2016 CS of KZN, conducted by Statistics South Africa, thus restricting the location to the province of KZN. Although the spatial area is vast, the study is aimed at the trends and patterns within mortality, fertility, education, social, economic levels and demographics of the population of KZN. The study is designed around secondary data however; the research is conduct to find implication within district level of the

province. Statistics South Africa reports findings on KZN as a holistic figure, therefore this study is to highlight the differences between district levels. This will improve the understand of the province and give an indebt understanding on the statistics of districts in the province. The CS in a survey that happens between the census. The ultimate goal of the CS is to assist government with statistics on household data at district levels to improve service delivery and planning. The most recent CS were done in 2016, according to Statistics South Africa (2016).

The 2016 CS was conducted from 7 March 2016 to 22 April 2016. The CS covers areas such as:

- Demographics that determine the population size;
- Provide better services to households;
- To outline the asset accumulation of household goods;
- To examine the participation in agricultural involvement;
- Education; and
- Some mortality statistics (this is very limited).

In order to realise the results of the study, the demographic variables will be divided into information referring to mortality, fertility and life expectancy, whereas households will be separated into information referring to Human Development, which will focus on Education and Unemployment. For this study, the demographic and household related information were utilised as these contain all the relevant variables, which this study requires to provide a clear analysis (Statistics South Africa, 2016).

3.4 Data Collection

Statistics South Africa examined 1.3 million households within the country. Apart for the Census, their aim did not cover all the households, just the selected ones. This project is the second largest activity done by Statistics South Africa. An estimated 10 000-part time workers where employed for a duration of six weeks to obtain data from selected areas (7 March 2016 to 22 April 2016). Clean up strategies where employed, so that the process of data collection where competed within 7 of the 9 provinces by the 6th of May 2016. This clean up process advanced over to the 13th of May 2016 in provinces such as Gauteng and Western Cape (Statistics South Africa, 2016). Some homes where examine multiple instances, if they were chosen as segments for an Evaluation Survey, this process ensured that the data was quality information. The Evaluation Survey was conducted from 16 May 2016 to 3 June 2016 (Statistics South Africa, 2016).

To ensure quality within the data an amount of 7 184 questionnaires had to go through a checking process this was done in the collection stage of the survey, in this process 5 376 (74,8%) errors were identified. During the interview observations, 1 852 observations and 3501 control visits were conducted, while a total of 7 870 points were verified and 3 787 Dwelling Units agreed while 4 083 were not out of scope (Statistics South Africa, 2016).

3.5 Questionnaire Design

The construction and layout processes within the 2016 CS questionnaire had been accompanied by means of country wide urgencies, the incorporation of international population problems where taken into account from the SDG's, statistics needs of both current/potential customers/comparison with the preceding network survey (CS, 2016) and censuses. The development of the CS questionnaire involved several phases as mentioned below (Statistics South Africa, 2016).

Stakeholder evaluation is a global first-class exercise in survey and census making plans geared toward generating products that meet user needs (Mihail, 2012). These role players are essential functions in supplying facts in the questioning on the survey. During this phase, processes (including the review of data items and questionnaires of previous censuses) were undertaken, and user consultations were conducted with key internal stakeholders on what needed to be measured in the 2016 CS. Through the consultation technique, it became clear that there was an improved demand for statistics at municipal stage (Statistics South Africa, 2016). Following the session system, Community Survey records items were then finalised and classified into broader issues of demographics, migration, general health and functioning, parental survival, education, income and social grants, employment, fertility, mortality, housing conditions, and access to and quality of basic services provision.

The 2016 CS questionnaire was designed using the World Bank Survey Solutions system, which is an online-based questionnaire design application (World Bank, 2010). During the design, skipping patterns and validation rules were predetermined and embedded in the electronic questionnaire. Data collection instruments, questionnaires in particular, were developed and subjected to thorough testing and review processes to ensure that the final product (questionnaire) solicited accurate information, as stated by Statistics South Africa (2016). This 2016 CS questionnaire consisted of new questions while some other questions were adopted from pasted CS done in South Africa.

3.6 Data Quality

The quality assurance in 2016 CS was largely automated and approached in two phases. The first phase of quality assurance involved the electronic questionnaire, being subjected to conditions and validation rules. According to Statistics South Africa (2016) this process eliminated unnecessary inconsistencies in the data during data collection. An additional automated quality assurance process was used during data collection in which completed questionnaires were flagged as rejected or accepted, based on the minimum process ability rule. Any questionnaire submitted that did not meet the set minimum criteria were marked as rejected and returned to the fieldworker for verification and correction (Statistics South Africa, 2016). According to the 2016 CS, the fieldwork supervisors were involved in taking note of the flagged questionnaires and assisted the fieldworkers in correcting the errors accordingly. For any record marked as rejected once, the running of the rejection was done at least for four different times and on different dates. This was necessary for the fieldworker to try to correct

mistakes before a questionnaire could be declared “Complete”. This process contributed tremendously in reducing missing values on several questions.

The questioning process started within the third week of the collection process. Direct and indirect examinations methods were. At the ending of the process, external bodies were used to advise the relevant bodies. These external bodies were used to evaluate pre-enumeration processes, data collection systems used during different phases, sample size and weighting strategies used, as well as plausibility of demographic estimation outcomes.

Table 3. 2 Profile of selected Demographic and Human Development Indicators

Category	Indicators
Demographic Indicators	Population by sex; Sex ratio; Total Fertility rate, Growth rate.
Mortality Indicators	Infant mortality rate; Child mortality rate; Under-five mortality rate; Life expectancy.
Human Indicators	Percent of people aged 20 years and above with no education
Economic Indicators	Percent of economically active population by sex; Age dependency ratio; Unemployment

Source: Compiled from various StatsSA reports on the 2016 CS

Table 4.1 provides a profile of the selected Demographic indicators and Human Development Indicators using data from the 2016 CS. These indicators are discussed in the subsequent sections and cover areas related to aspects of the population of KZN. Most of the data is presented at district level mainly because providing estimates at lower geographic levels help to monitor demand for services, capacity of different sectors to respond to the needs of the population and the level of services available within a community (Ellsberg, (2010): UN General Assembly).

3.7 Demographic indicators

The study will present all measurements of age for KZN starting with sex ratios, which is a ratio that determines the difference in the number of males and females of the province. Age dependency ratios provides a fair understanding as to whether the population is moving towards an aging population as well as regarding productive working-class age structures.

3.7.1 Population Pyramids

Demographics consist of age, sex and structure therefore this study highlights the importance of these three elements. Within the age category, this study will focus on age structures within population pyramids also highlighting different races within the population pyramids. Population pyramids provide an overview of the general pattern of the age structure of the population (Wilson, 2016). Population pyramids are important information in determining the structure of a specific population. Demographers find population pyramids very useful in

determining the pattern and trends within a specific population over time compared to the current status, in addition also to determine the future trends and projected increase or decrease of the specific population. Population pyramids define the age and sex structures of a population, which may additionally offer facts into political and social balance as well as economic improvement (Wilson, 2016). Population Pyramids as an indicator can give us a very specific stage in which the population is in currently. The population pyramid is divided into male and female and then further categorized into five-year age gaps, represented as horizontal bars along the vertical axis; the oldest ages are at the pinnacle of the pyramid and the youngest ages are at the lowest. The shape of the pyramid steadily evolves over time primarily based on fertility, mortality, and worldwide migration traits.

3.7.2 Sex Ratios

This ratio is defined by the number of males to every 100 females. If this ratio is higher than 100, it is considered that there are more males than females in the population. According to Onyeka (2013) the sex ratios at birth in most countries indicate a ratio of about 105 or 106, due to more males being born than females, which is the norm. However, sex ratios as an indicator will direct the setting of the study and outline how many women the population as to men. This can identify certain behaviour patterns of the population due to male or female. The Sex Ratio (SR) is the ratio of males to females in the population (normalised to 100). We calculate two sex ratios, which is at birth and in the total population. Sex ratios at birth is standard around 105 except for the African population, where it is 102-103. According to Mihail (2012) due to the high mortality amongst males, the sex ratios in the total population diminishes to 95-97 for populations with high levels of sex selective outmigration, particularly in certain age groups.

Formula: $SR = (m/f) * 100$

Where SR is sex ratio, m is the total males in the population, f is the total females in the population.

3.7.3 Dependency Ratios

A measure of the share of a population, composed of dependents (folks that are too younger or too old to contribute economically). The dependency ratio is translated into the number of people aged below 15 or above 64 divided by the number of individuals 15 to 64, expressed as a percent (Onyeka, 2013). The impacts of a high dependency ratios leave burden on the working class population and the state. In addition, many developed countries has concerns with this problem, largely due to a strain on pensions and social security systems to provide relief for dependent citizens of the country.

This ratio quantifies the number of persons in a population who are not economically active for every 100 economically active persons in that population (Mihail, 2012). It can be calculated by dividing the population 0-14 years and 65 years and older by the population that is in the 15-64-year age group. One can calculate separate dependency ratios: child dependency ratio (Pop 0-14 / Pop 15-64) and old age dependency ratio (Pop 65+/Pop 15-64).

3.7.4 Child-Women Ratios

This simple measure is not an accurate degree of fertility; it is more a measure of population structure. However, the useful beneficial is that it is simple to calculate in simple small region surveys, in addition demographically as a degree of ‘youngest’ in a population. Another benefit of its simplicity is that it can be comprised of census records, it does not require statistics about births, but that means that it is not a true fertility measure (Onyeka, 2013). The Child-Women ratio (CWR), the ratio of children under 5 per 1 000 women of reproductive age, is usually calculated by dividing the number of children in the age group 0-4 (of both sexes) by the number of women of reproductive age (15-49 years), and then multiplying by 1 000. In the absence of a direct measure of births, this ratio may be used as a rough indicator of fertility levels. In countries with high levels of infant and child mortality, this ratio can be quite biased as it only accounts for children who survive to 4 years of age (Mihail, 2012).

$$\text{Child / Women Ratio} = \frac{\text{Living children aged 0-4}}{\text{Women aged 15-49}}$$

3.7.5 Fertility Analysis

According to Mascarenhas (2012) Fertility is one of the major elements within demography and forms part of the population dynamics that is used to formulate the size and structure of a specific population. The complexities of fertility amongst different groups and areas have become the one of the most important finding within the demographic discipline. The availability of records and analysis for fertility measures proved insufficient; alternative data was to be considered due to the shortage of facts. Because of the confines of the statistics restricted evaluations where done of fertility.

3.7.6 Percentage who have ever given birth

The age at which a woman first gives birth can and regularly decides the wide variety of children a woman will conceive in her lifetime, as earlier is higher says Bumpass (1978). The percentage of those women who have ever given birth is a vital indicator as it provides knowledge of the fertility ages of women and in particular, it outlines a population’s teenage pregnancy rate. This critical indicator can determine the fertility health of a population and describes the overall status of fertility inside a contemporary population (Mascarenhas, 2012). The significance of this indicator is to interrogate if women are having children in their early ages, or if they are delaying fertility by having children at much older ages, thus affecting the general Total Fertility Rate (TFR). This is a fair indicator for a country, in determining high replacement levels or low alternative ranges.

3.7.7 Percentage who gave birth in the last year

This indicator is vital for current records, as it outlines the modern fertility of the population. Births are a strong determinant for well-known fertility styles within a population, as an association with births can develop into a fundamental indication regarding women’s fertility. Obtaining the births within the last year can assist government to determine the overall pattern of fertility within age structures. This provides a reasonable understanding of the population’s fertility ages. Accordingly, this will outline what percentage of that population age has given birth in the last year. In general, most population groups have the greatest proportions in the

ages of 20-24. This is regular as these are high fertility ages, related to the overall fertility sample (Michelo, 2016).

3.7.8 Children Ever Born

According to Murray (2000) Children Ever Born (CEB) to women in an age group is the imply quantity of children born alive to women in that age group. The wide variety of children ever born to a female is a degree of her lifetime fertility enjoyed up to the time at which the information is accumulated. This indicator is important due to realisation that women are not very different in their fertility behaviours from the original birth cohort. In terms of fertility measures, this indicator gives a general outline of the overall fertility of women within a population structure.

$$CEB = \sum jP_j$$

Where j is the number of children and P_j is the proportion of women in that age-group who have given birth to a total of j children.

3.7.9 Mortality Analysis

The handiest measure of mortality is the quantity of deaths. But, this is not beneficial for practical purposes in view that it is extremely inspired through the quantity of individuals who are liable to death (Statistic South Africa, 2016). The Crude Death Rate does no longer offer a high-quality of facts about mortality. The risk of death varies substantially with age, and the Crude Death Rate suggests nothing about this transformation. As a result, demographers frequently find it beneficial to use age-specific death rates.

3.7.10 General Patterns of Mortality

The greater well-known patterns of mortality may also encompass excessive levels of mortality inside 60+ years of age. However, Africa, as a continent, is improving with regard to life expectancy says Murray (2000). This is mainly due to developments occurring in the continent. One of the essential elements within the South African context is the HIV/AIDS epidemic, which is evident within the population pyramid of the country, whereby we tend to see a significant drop in population size around the ages of 25-45. This drop has a significant impact on the working population of the country and may further lead to sluggish economic growth.

3.7.11 Population Distribution

Population distribution means the patterns of where people live. Sparsely populated areas have less people and conversely, places that are densely populated have many people. According to Small (2009) population distribution gives us a reasonable understanding into the overall spread of the population according to districts. This indicator is significant for development planning. Acquiring the distribution of the population can aid government to allocate resources to areas with high density levels. A trend in most developed countries in which cities (metropolitans) are generally over populated compared to other districts, which are non-metropolitans has been observed. This indicator provides government with an overall indication of where the population is currently moving to as well as where internal migration is occurring. KZN reflects a high number of rural locations, however, there is large amount of

people moving to economically driven areas such as Ethekewini Metropolitan, in the hope of seeking better work opportunities. Therefore, knowing how the population is distributed may offer trends and patterns that can improve service delivery and basic services.

3.7.12 Growth rate of the KZN population

The future planning of a current country is determined by the overall growth rate of the population. The Demographic Transition Theory outlines the changes in fertility and mortality which shapes the population growth rate and projects them into economic growth. However, increasing growth is not necessarily positive, therefore programmes which attempt to reduce the population growth rate exist in certain countries (Mihail, 2012). The faster a population grows the more resources are required to take care of the increasing population, therefore the Growth rate is an important indicator in determining future planning and aids government interventions, if necessary, to enable public services to be facilitated. In the study, the Exponential growth rate formula was used to determine the growth rate of the KZN province. Exponential growth occurs once the expansion rate of the value of a mathematical relation is proportional to the function's current value. The amendment that happens once an inventive quantity is redouble by an even rate over an amount of time.

The equation used:

$$Nt = Noe^{rt}$$

Nt = the number of individuals in the population after t units of time;

No = the initial population size ($t=0$)

r = the exponential growth rate;

t = time unit (usually in years);

e = the base of the natural logarithms (2.72)

3.8 Human Development Indicators

The primary element within human development indicators is the highest level of education achieved within the province of KZN, which will cascade further into district levels of the province in order to observe trends and patterns. The reason for analysis of district levels pertains to KZN's rural to urban ratios, in which we see a large group of KZN's population still existing in deep rural areas, although the province has the second biggest city in the country. The Indicators chosen for Human Development focus on Education, Poverty and Unemployment. These measures are Highest Level of Education Achieved, Unemployment, Employment by Educational Attainment, Population Distribution by functional Age Group, Poverty Headcount and Intensity of Poverty. Aybedo and Dulf (2012) suggest that Human Development Indicators may consist of measures that influence the overall standard of living of individuals in a targeted population. Education and Unemployment indicators are direct influences on human capital. The measures that may affect human development are measures that require individual achievements. They further mention that determining Human Development Indicators should aim to identify improvements in the skills of the population, which emphasise the productivity levels of the target population. Therefore, this study will highlight these indicators, tabulated from the 2016 CS, thereby generating further

understanding into the Human Development of KZN. It will also give us an understanding of trends and patterns of human development within the KZN population.

3.8.1 Highest level of education achieved

The primary indicator within human improvement is the highest stage of schooling carried out. From this variable we may observe the stages of schooling, still bearing on age. This could provide reasonable information on the current status of the KZN population. Consistent with Onyeka (2013) the distinction between rural and urban settlements within this variable ought to be acknowledged. It would be understandable, should there be significant differences between the tiers of schooling from respondents in rural as opposed to urban settlements. The study will therefore be executed within the entire province of KZN. This variable suggests that the general educational stages of the population offers us an indication of the current instructional systems. It allows us to consider whether modern-day educational packages and techniques are improving the overall status of the population. This further indicates whether the population is shifting in the direction of an educated strategy.

3.8.2 Employment

Employment rates are described as a degree of the volume to which available labour assets (humans available to work) are getting used. Calculations within this element consist of the ratio of the employed to the working age population. Employment rate are determined largely due to the economic status of the country, therefore they are largely influenced by governmental initiative in education and market policy developments. These are guidelines that facilitate employment of women and disadvantaged organizations. employed individuals are those aged 15 or over who report that they have laboured in gainful employment for at least one hour in the previous week or had been absent from work at some stage in the reference week. The working age population refers to people aged 15 to 64. This indicator is seasonally adjusted, is measured in terms of 1 000 persons aged 15 and over and as a percentage of the working age population.

3.8.3 Employment by Education Attainment level

This indicator relates educations attainment to the level of employment, it is categorised into: no schooling, some primary, primary, some secondary, Grade 12 and tertiary. According to Reidpath (2012) employment rates are defined as the total of persons in employment as a percentage to the population of working ages. Employed persons are defined as people whom work at least one hour a week for a payment, or person whom attain employment but due to illness, leave or industrial action are force to stay at home. The overall description of this indicator portrays a percentage of employed 25-64 years olds persons in a population. This variable will provide an understanding into the relationship between employment and the levels of education. This is an important variable as we can determine if educational development is increasing the rate of employment within the province of KZN. In addition, the indicator is significant to observe the level of education required in order to obtain employment within the province (Small, 2009).

3.8.4 Population Distribution by Functional Age Group

Distribution within human development indicators outline the distribution of the population into age categories. According to Murray (2000) populations tend to have much more people within the working ages of society, which is healthy for a population. If otherwise, a population may differ from the norm and the outcome can reflect high dependency on the existing population, which will then require government to reallocate resources to an ageing population. Distribution of age groups also gives us a fair understanding of the levels of younger populations entering the working environment. This will inspire development, making plans for future populations entering the working environment. When the distribution moves deeper into district level, we can highlight economically challenged districts and account for them in development planning and allocation of resources. We must consider KZN and the prevalence of rural areas, which account for 35% of the province (Statistics South Africa, 2011).

3.8.5 Poverty: Head Count

Knowing a population's poverty line is critical to the general strategy, imbedded in the SDGs. However, the technique for measuring the poverty of any population is by means of determining the Poverty Head Count of the population, and the depth of poverty within that population. The Poverty Head Count signifies precise signs to determine the poverty line and the overall status of the population studied. The population headcount measures the percentage of the population that is poor. It is prominent as it is simple to comprehend and measure. However, it does not further indicate the level of poverty that the population confronts (Mascarenhas, 2012). This is an important indicator as it offers critical information at national level to achieve the SDGs, with fighting poverty being one of the central goals thereof.

3.8.6 Intensity of Poverty within KZN

The World Bank (2016) estimates that 1.44 billion people live in extreme poverty and subsist on an average of US \$1.25 or less a day. However, extreme poverty is more than a lack of money or material resources. By this definition, the Multidimensional Poverty Index estimates that 1.6 billion people are living in extreme poverty. The poverty gap index is a measure of the intensity of poverty. The poverty gap index is an improvement over the poverty measure headcount ratio, this is defined to be a calculation of people which live below the poverty line, and fall within the definition of poor within the country (Statistics South Africa, 2016). Fundamentally, the poverty gap index simply improves on the poverty head count and offers an understanding of the level of poverty within the population. This is a valuable indicator to determine the level of poverty experienced by a population, to resolve whether intervention is necessary.

3.9 Summary of Chapter

The research methodology for this study uses a quantitative approach by means of statistical data, obtained from data sets of the 2016 CS issued by Statistics South Africa (2016). The research design includes a descriptive design that utilises the available secondary data and produces an analysis in the form of rates of human development and demographic indicators

in KZN. This Chapter highlights the various human development and demographic indicators and describes the research related ratios within the research methodology.

4 CHAPTER FOUR: RESULTS AND ANALYSIS

4.1 Introduction

This Chapter presents selected development and human development indicators at the District Council (DC) level of the province of KZN using data from the 2016 CS. This information is vital in policy planning in order to identify areas of further improvement in the lives of South Africans. The calculations performed in this Chapter enhances the statistical data for KZN, the data set of which was computed to account only for respondents from KZN. The main aim of the Chapter is to analyse the data and display the selected indicators, calculated in relation to national figures for South Africa, to reveal current achievements or challenges of the province in comparison to the entire country. Four important elements were chosen within the analysis, namely, Demographic indicators, Mortality indicators, Human indicators and Economic indicators. These form the foundation of achieving the chief indicators of population and development.

4.2 Demographic indicators

Results show that in 2016, the estimated population of South Africa is approximately 55 908 865 people, with females outnumbering males by 1.2 million. The population size for KZN is estimated at 10.3 million amounting to 18.4% of the total population of South Africa. At district level, the population varies considerably with the highest share of the population residing in the metropolitan (Ethekwini), 3.4 million, and the lowest in Sisonke with a population of 461419.

Table 4. 1 Demographic indicators of KwaZulu-Natal, Community Surveys 2016

Sub geographic area	Population Size					
	Males	Females	Totals			
South Africa	27379728	28529137	55908865	96.0	16923309	3.3
KwaZulu-Natal	4878676	5388625	10267300	92.1	2875843	3.8
Ugu (6)	339161	383323	722484	91.6	180921	4.4
Umgungundlovu (7)	485920	531843	1017763	93.1	300953	3.7
Uthukela (5)	311183	357664	668848	89.6	161864	4.4
Umzinyathi (4)	229576	281262	510838	85.4	126071	4.4
Amajuba (3)	238712	261127	499839	91.5	117181	4.5
Zululand (5)	372200	431375	803575	88.6	178516	5
Umkhanyakude (5)	288646	337200	625846	88.7	151245	4.6
Uthungulu (6)	427397	480122	907519	89.9	225797	4.3
Ilembe (4)	289009	317801	606809	92.3	191369	3.4
Sisonke (5)	214466	246953	461419	88.5	122436	4.1
Ethekwini (Metropolitan)	1682406	1759955	3442361	96.3	1119492	3.3

Source: Census (2011); 2016 CS Data; Numbers in parentheses indicate the number of local municipalities within the District Council

A key measure that constitutes an assessment of sex composition is the SR. This ratio is signified by the number of males to every 100 females. If this ratio is higher than 100, then it is considered that there are more males than females in the population. The SRs at birth in most countries display a ratio of about 105 or 106, due to more males than females born, which is the norm. After birth the SRs vary due to different patterns of mortality and migration whereby males are prone to reduced mortality in relation to females (Okonofua, 2015).

The SR presented on Table 4.2 shows us that in South Africa, there are 96 males for every 100 females (SR=96). Additionally, KZN shows a much lower Ratio with 92 males for every 100 females (SR=92.1). Ethekewini poses the highest sex ratio at 96.3 largely due to Ethekewini being the economic hub of the province, followed by Umgungundlovu and Ilembe at 93.1 and 92.3 respectively. The lowest SR is observed in Umzinyathi at 85.4.

‘Household’ is defined as people that reside collectively in a space for four nights in a weekly cycle, they consume and distribute resources, in addition, it can be a person that reside alone in a household (CS, 2016). In knowing the number of people in a house and the number of households, the mean size of the household may be calculated (Godecke & Waibel, 2016). Table 4.2 explains that the average house size in South Africa is 3.3 persons per household, which is 0.5 persons per household lower than the household size of KZN, at 3.8 persons per household. Within the province, the highest average house size is in Zululand with 5 persons per household, the majority of other districts fall within the household size of 4.1 - 4.6 persons per household and in Umgungundlovu, to 3.7 persons per household. The lowest mean household size is in Ethekewini, which equals South Africa’s household size at 3.3 persons per household.

4.3 Age profile of KwaZulu-Natal for both sexes, by District Council

Table 4. 2 Age profile of KwaZulu-Natal for both sexes, by District Council, 2016 CS

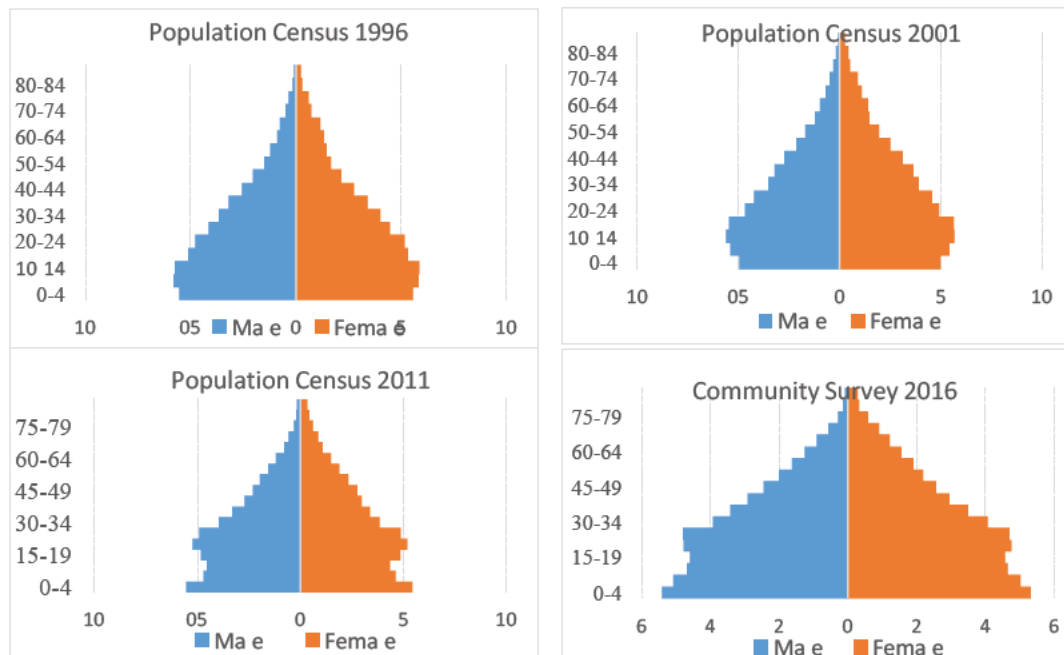
District/metropolitan municipality 2016	Mean	Median	Std. Deviation	Min, Max
KwaZulu-Natal	28.4	25	20.3	0, 116
Ugu	28.9	24	21.4	0, 114
Umgungundlovu	29.8	27	20.2	0, 116
Uthukela	26.6	21	20.5	0, 115
Umzinyathi	26.7	20	21.2	0, 110
Amajuba	26.7	22	19.9	0, 109
Zululand	25.7	20	20.6	0, 115
Umkhanyakude	26.1	21	20.4	0, 114
Uthungulu	27.3	23	20.4	0, 115
Ilembe	27.4	23	20.5	0, 103
Sisonke	27.2	22	21.0	0, 107
Ethekwini	31.1	29	19.3	0, 116

Source: 2016 CS data

Age is an important variable in demographic processes for example, mortality and fertility varies in age structures. A population's age structure is a function of its history of births, deaths and migration rates. Table 4.3 on age summary statistics for KZN, shows a mean age of 28.4. At district level, Ethekwini displays the highest mean age registering at 31.1 years, with most districts falling into the range of 26 to 28 years, Umgungundlovu at 29.8 years and Amajuba with 26.7 years. The lowest mean age is reflected in Zululand at 25.7 years. The median age is defined by the point at which the population is divided into younger and older. The median ages observed in KZN reported a very young population. These results call for government interventions in relation to education, infrastructure and employment, prioritising certain districts with low medians such as Uthukela, Umzinyathi, Zululand and Umkhanyakude, which show a low median of 20 to 21 years. Showing low median rates calls for a combination of human development factors such as increasing schools in the districts and improving social services due to high dependency levels.

4.4 Population Pyramids

Figure 4.1 Population pyramids of the province of KwaZulu-Natal, 1996, 2001, 2011, 2016



Source: Compiled from Statistics South Africa (1996 Census, 2001 Census, 2011 Census & 2016 CS)

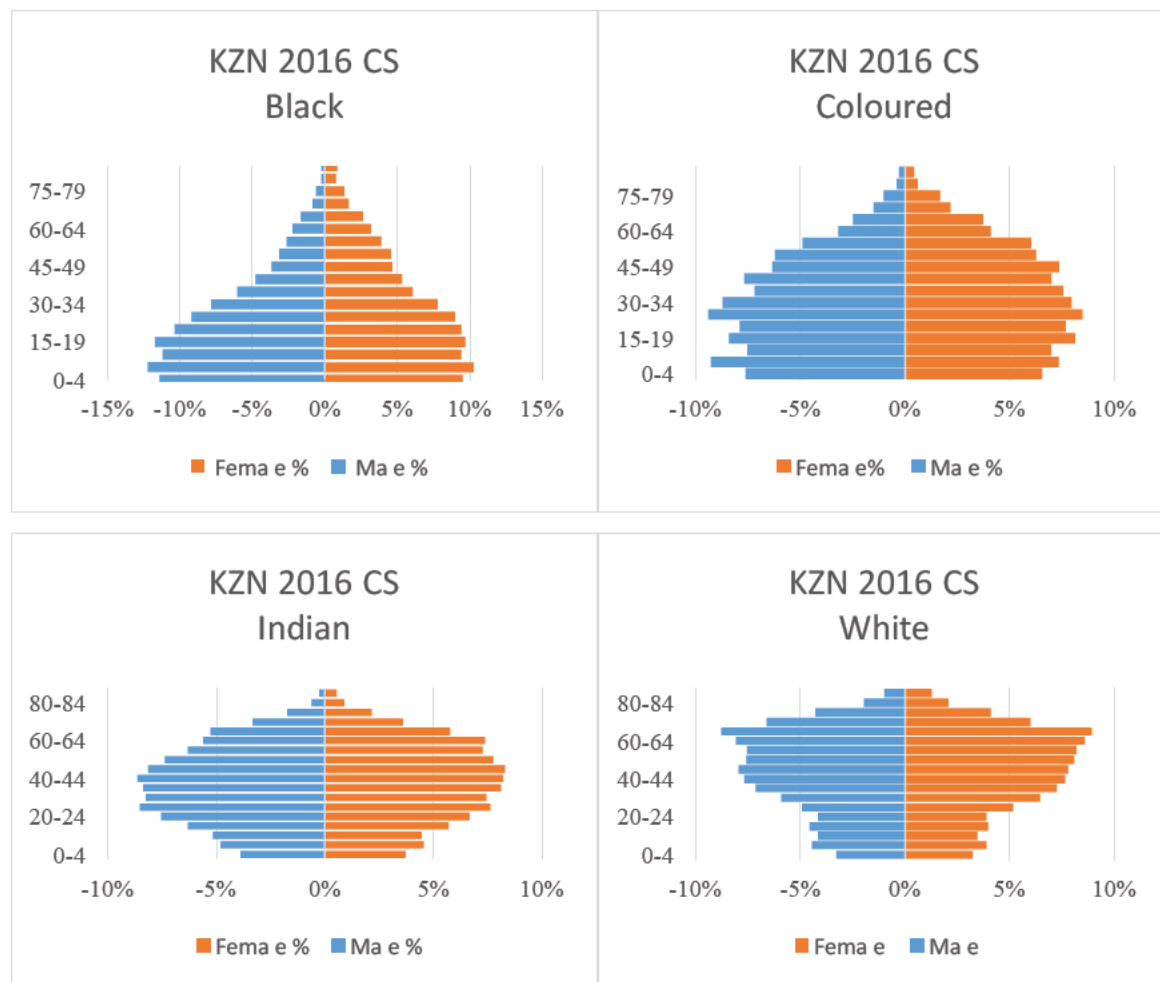
There is a considerable difference from 1996 to 2016 in the shape of the population age structure, where an increase in fertility and a much higher youth population is progressively observed. Figure 4.1 displays a population pyramid for KZN for 1996, 2001, 2011, and 2016. The horizontal bars represent the proportions of males and females in each age group. The bottom bars in KZN's pyramids illustrate the percentage of the population within the age group 0-4. Each year a new cohort, those born, appears at the bottom of the pyramid, while cohorts above, move further up. As the cohorts age, they inevitably lose members due to mortality and may gain or lose members as a result of migration. After age 45 the pyramid begins to decrease which tends to always be further reduced for males than females, showing a narrow peak at the top of the pyramid (Wilston, 2016). The population pyramid of KZN can explain much about the population. It is apparent, in most ages, that females form the majority of the age structure. This relates to men having a much higher mortality rate than women and the tendency of men to engage in a greater number of poor habits as opposed to women, leading to a higher mortality rate (Wilston, 2016).

The population structure of KZN as seen in figure 4.1 is a product of past fertility, mortality and migrant patterns. All populations of the world fall into three different categories, which is rapid growth (whereby large portions of the population fall into younger age categories), slow growth (in which smaller portions of the population fall within younger age categories) and zero growth (whereby all ages tend to reflect equal numbers) (Wilston, 2016). The population of KZN denotes expansive growth, common within developing countries, despite HIV/AIDS.

The impacts of the HIV/AIDS epidemic have substantial effects on the mortality levels of the middle aged adults and children in the population. These variations within mortality patterns causes impacts within the age categories, which has direct impact on household compositions and age structures (Heuveline, 2004). In addition, these impacts on age groups at economically and productive ages causes concerns on the economy of the country. The pandemic also affects the reproduction levels of the infected population, accompanied with high mortality rates, this restricts the growth rate of the infected population. These impacts on population growth changes the overall composition of the population.

4.5 Age and Sex Structure

Figure 4.2 Age and Sex Structure of KwaZulu-Natal for Population Groups CS, 2016



Source: Computed for CS, 2016

Figure 4.2 displays the age and sex structure of KZN, by population group, for 2016 CS. The Black population age structure's shape is similar to South Africa's age structure, common within most developing countries. Amongst Blacks in KZN, 31.8% were aged 0-14 years, 52.7% were aged 15-49 years, 10% were aged 50-64 years and 5.5% were aged 65 years or older. The broad base of the Black population demonstrates high fertility. The Black and Coloured populations had high fertility compared to the Indian and White population. Amongst the Coloured population, 22.5% were aged 0-14, 54.8% were aged 15-49, 15.4% were aged

50-64 and 7.2% were aged 65 and older. The Coloured population shows a wide bump in the middle ages of the population from ages 25-44, this is also evident in the Indian age structure. Amongst the Indian population 13.3% were aged 0-14, 53.8% were aged 15-49, 20.8% were aged 50-64 and 12.1% were aged 65 and above. The older ages of the Indian and White population have much higher percentages compared to the Black and Coloured population, caused by low fertility and an ageing population. Amongst the White population, 11.2% were aged 0-14, 42.2% were aged 15-49, 24% were aged 50-64 and 22.5% were 65 and above. There are considerable differences within population groups, the most evident in the White population, which consists of a large old age population and a small young population. This form of population structure reflects a shrinking and an ageing population (Wilson, 2016).

4.5.1 Age Dependency Ratios

Linked to functional age groups is the age dependency ratio, defined as the ratio of persons in the dependent ages (generally under age 15 and over age 64) to population of working ages or economically active population ages. We report the age dependency ratio as the 'total dependency ratio' in Table 4.4. The age dependency ratio is subdivided by the ages that are 65 and over, and the child dependency ratio is subdivided by ages 0-14 years. The age dependency ratio is often used as an indicator of economic burden, which the working population has to carry, when there is a lack of detailed data. It must be noted that even during dependent age, certain people remain economically active, and conversely, in the economically active ages, other people are dependent. It must be noted that countries with high fertility rates, align with high dependency rates, due to the large amount of children in the population, who are dependent.

4.6 Age dependency ratios

Table 4. 3 Age dependency ratios for KwaZulu-Natal by District Council, 2016 CS

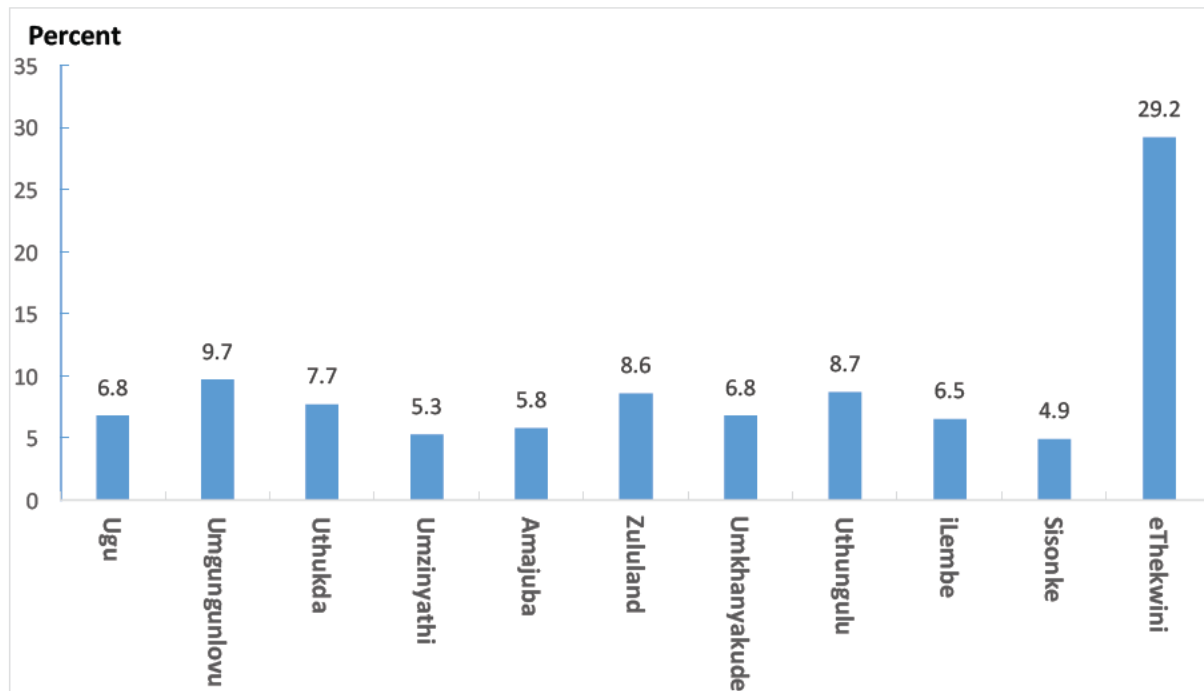
Sub-geographic area	Child dependency	Age dependency	Total dependency
KwaZulu-Natal	47.2	10.1	57.3
Ugu	52.2	13.2	65.4
Umgungundlovu	40.3	10.0	50.3
Uthukela	59.9	10.5	70.4
Umzinyathi	64.2	12.6	76.8
Amajuba	54.8	8.9	63.7
Zululand	66.5	10.7	77.2
Umkhanyakude	60.4	10.2	70.6
Uthungulu	53.7	10.3	64.0
Ilembe	54.0	10.5	64.5
Sisonke	59.3	11.5	70.8
Ethekwini	30.3	8.8	39.1

Source: 2016 CS Note that the sample size is similar to those reported in table 4.4

The total dependence ratio for KZN in Table 4.4 shows a value of 57.3. At DC level, the lowest total dependency is observed by Ethekewini with 39.1 and the highest is observed by Zululand with 77.2. This is consistent with the previous discussion pertaining to Ethekewini and Zululand, in which they displayed the highest and lowest mean ages in the province, respectively. With the age dependency ratio, Ugu presents the highest ratio at 13.2 and Amajuba has the lowest with 8.9, other districts fall roughly within Sisonke at 11.5 and Umgungundlovu at 10.0. In terms of child dependency, a trend is noted emanating from previous discussions, outlining Ethekewini with the lowest child dependency ratio at 30.3 and Zululand with the highest at 66.5.

4.7 Population Distribution of KwaZulu-Natal

Figure 4.3 Percentage of Population Distribution of KwaZulu-Natal by District Council, 2016 CS.



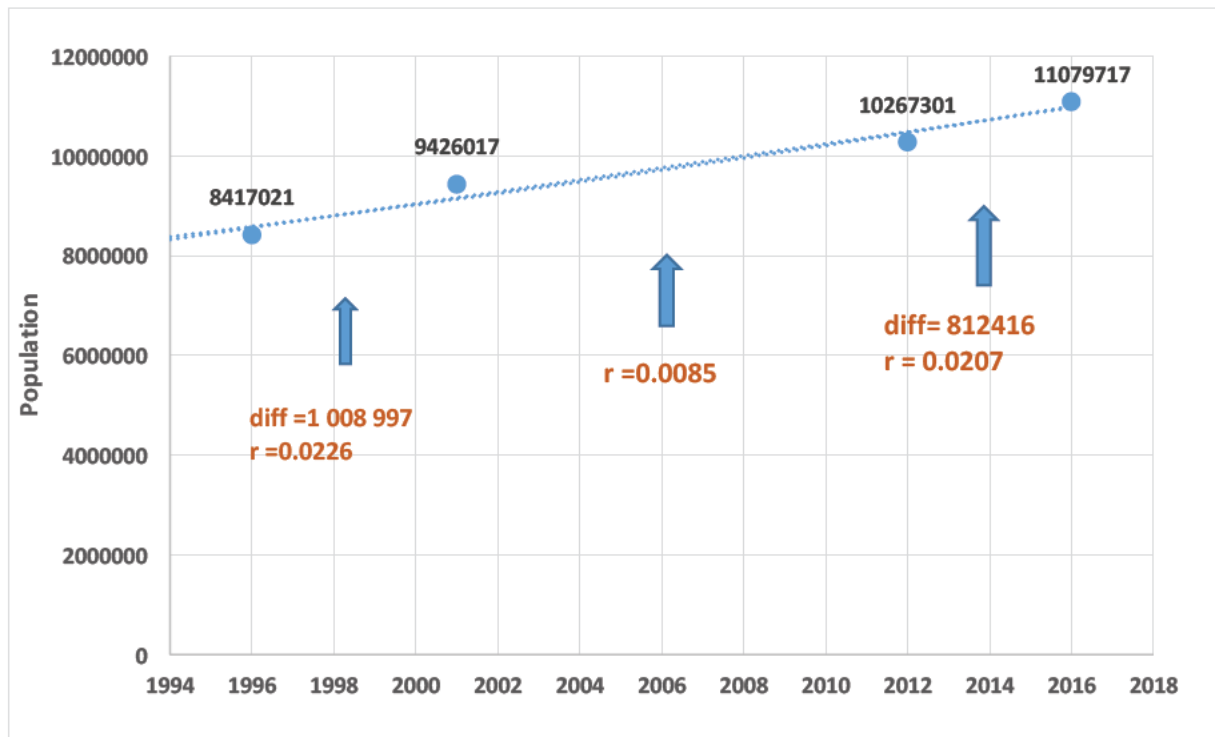
Source: Community Survey 2016

Population distribution within the province is an important indicator in development planning and is simply identified across the province, to enable resources to be shared accordingly (Linard, Gilbert, Snow, Noor and Tatem, 2012). Figure 4.3 shows the proportion of KZN population by District Council. Ethekewini has the highest proportion at 29.2%, followed by Umgungundlovu at 9.7%, thereafter Uthungulu and Zululand are at 8.7% and 8.6% respectively. Uthukela constitutes 7.7% of the population, while Umkhanyakude and Ugu reflect 6.8% each. Just beneath, iLembe constitutes 6.5% of the population total. The districts Umzinyathi and Amajuba contribute roughly around 5.5% each of the total distribution and the lowest district is Sisonke with 4.9% of the total population distribution. The central reason for the low level distribution in non-metropolitan areas is the lack of economic opportunity, with

the greatest economic activity commonly situated around metropolitans. A large distribution of population in EtheKwini is therefore observed.

4.8 Growth of KwaZulu-Natal

Figure 4.4 The Growth of KwaZulu-Natal Population, 2016



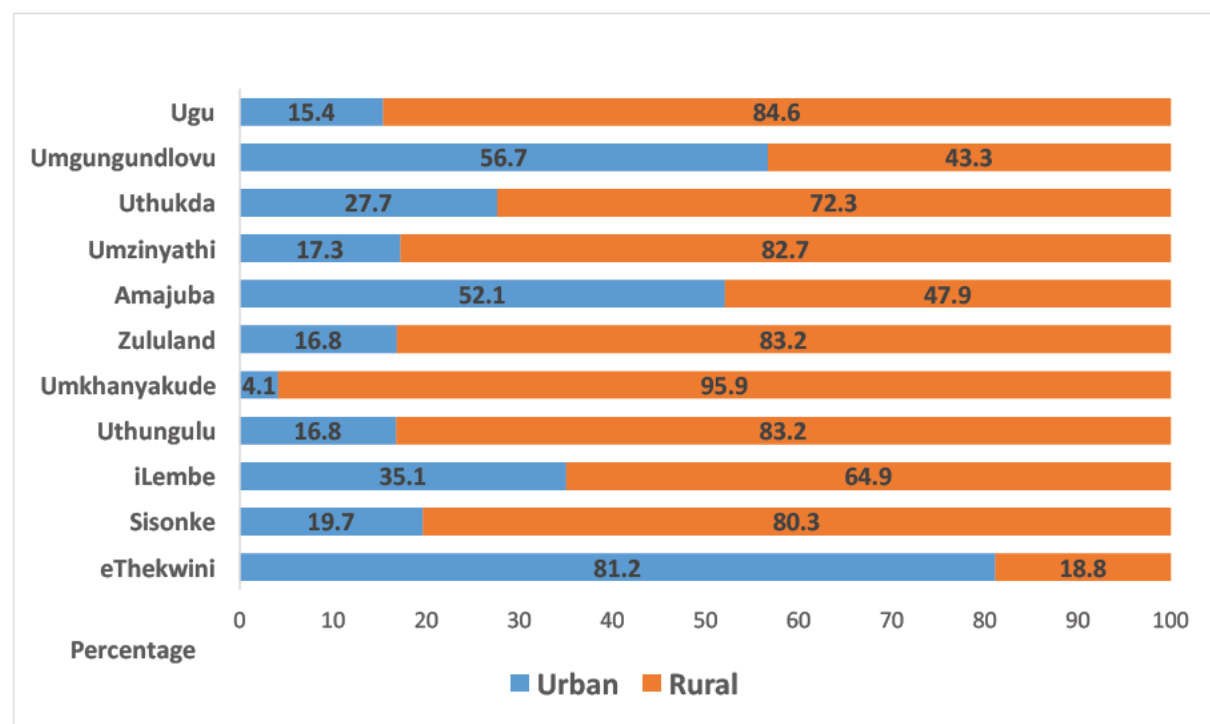
Source: Census 1996, 2001, 2011; CS 2007, Own Estimates from 2016 CS

Growth rates are significant indicators for government, as measures thereof contribute to planning for increases in population size as well as the development of strategies to reduce rapid growth (Enrlich & Holdren, 2005). High growth can lead to overcrowding and may require additional resources to provide basic services. As figure 4.4 shows that from 2012 to 2016 the population increased by 812 416 people accounting for 7.3% of the total population. However, within the four-year period the province displayed a 0.0207% rate of increase, which is considerably high for any population growth worldwide. The increasing growth is interesting in a fast-changing society within the country, whereby rural to urban migration is the ultimate cause for such rapid growth.

Rapid population growth is said to decrease within a country with an increase in urbanisation and modernisation, when people become further economically driven, leading to people having fewer children and moving their years of first child birth by 5 to 6 years (Enrlich & Holdren, 2005). This factor will therefore have a major influence on the growth rate of the population in the near future.

4.9 Rural for each district of KwaZulu-Natal

Figure 4.5: The percentage rural for each district of KwaZulu-Natal, 2016 CS



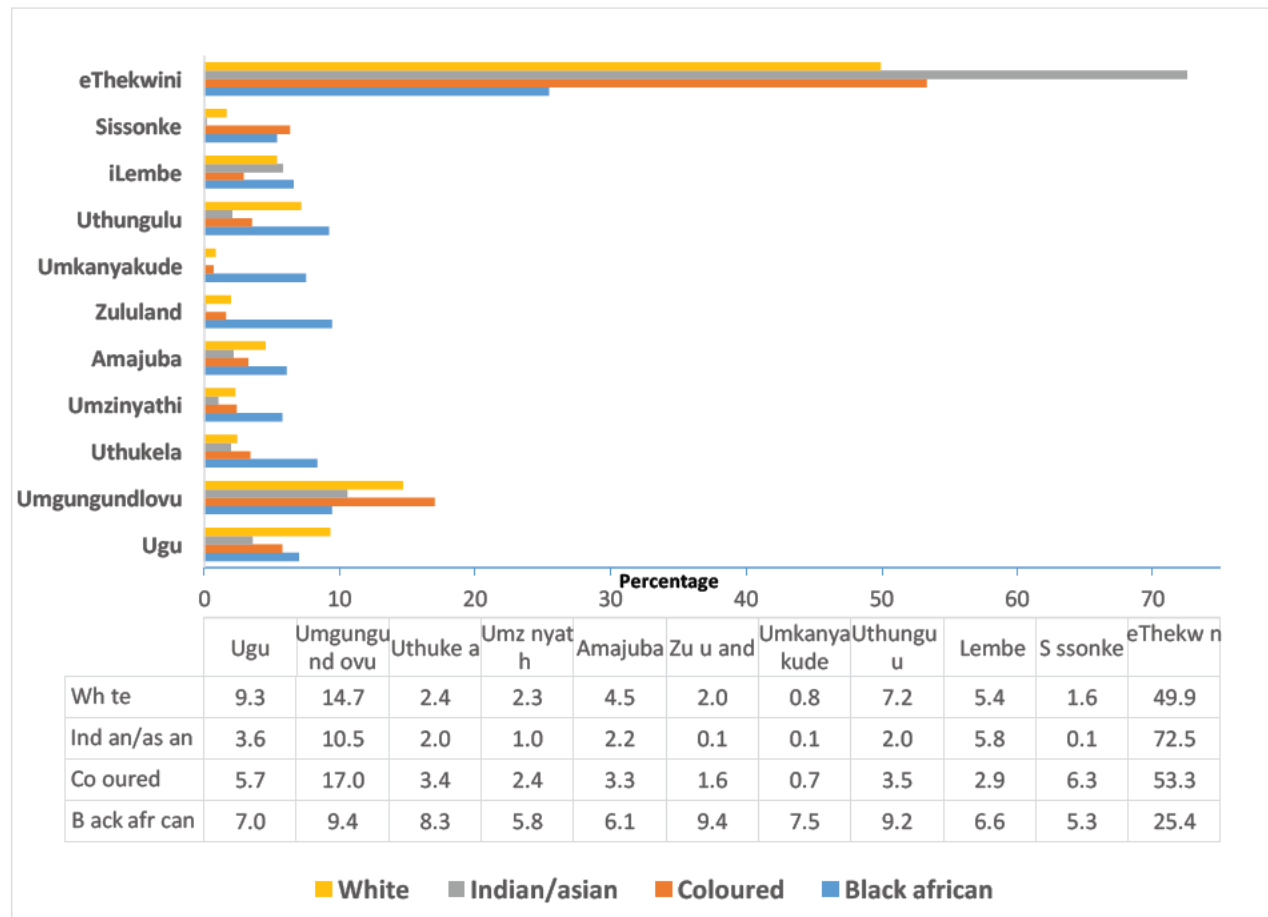
Computed from the 2016 CS

The Housing Advisory Committee report approved by the KZN Member of the Executive Council (MEC) for Human Settlements (2010) stated that, rural development could occur on various categories of land. It is possible that such development could take place on land owned by a tribe or on land acquired by a farmer. The report further asserts that rural development largely occurs on tribal land and farming areas in KZN (The Housing Advisory Committee report, 2010). Emanating therefrom, rural and urban areas within KZN are defined, being a combination of farming areas and tribal/traditional areas which are considered as rural areas. Figure 4.5 presents the distribution of the population into rural and urban areas of the province according to district level. The majority of districts, with the exception of Umgungundlovu, Amajuba and Ethekewini, indicate that most people reside within rural areas. The highest percentage of rural residence is Umkhanyakude with 95.9 % of the population residing in rural areas, Ugu portrays 84.6% rural and 15.4% urban within their district. Zululand and Uthungulu showed 83.2 % of people in the district live in rural settings. Umzinyathi showed 82.7% rural and 17.3% urban, Uthukela and Ilembe demonstrate 72.3% and 64.9% rural respectively. Three districts displayed the majority of the population within urban areas, being Umgungundlovu with 43.3% rural, Amajuba with 47.9% rural and Ethekewini which indicated a different trend to most districts, with just 18.8% of people living in rural areas. Figure 4.5 shows us that the majority of the population in KZN reside within the rural context apart from two districts and

the metropolitan. The overall percentage estimated is that 68.8% of people in KZN reside in rural areas and 31.2% of the population of KZN reside in urban areas.

4.10 Distribution of population by race group

Figure 4.6: Distribution of population by race group at District Council level, 2016 CS



Computed from the CS,2016

Figure 4.6 shows us the distribution of population by race group and this indicator will reveal the distribution of population groups within the province. At first glance, it appears that eThekweni has the highest percentage of population for all race groups. However, 72.5% of the total Indian population, more than half of the Coloured population and half of the White population reside in the metropolitan, with only 25.4% of the Black population residing in the metropolitan. It is evident that although the Black population is widespread across the province, most development and economic activity is located in the metropolitan. This encourages government to improve development in areas that are economically inactive in order to improve the lives of residents. It is apparent that where districts fall under the majority of a rural area, a fair distribution of population groups is observed, such as within Umgungundlovu in which the White population is at 14.7%, followed by the Coloured population at 17%, Indians at 10.5% and the Black population is at 9.4%. The metropolitan reflects similar patterns. Arising from previous discussions, Zululand was viewed as the most prevalent rural

area in the province and we therefore observe the smallest percentages from all race groups, except that of the Black population. It is evident that the minority of race groups prefer to reside in metropolitans and urban areas, while the Black population is more widespread across the province.

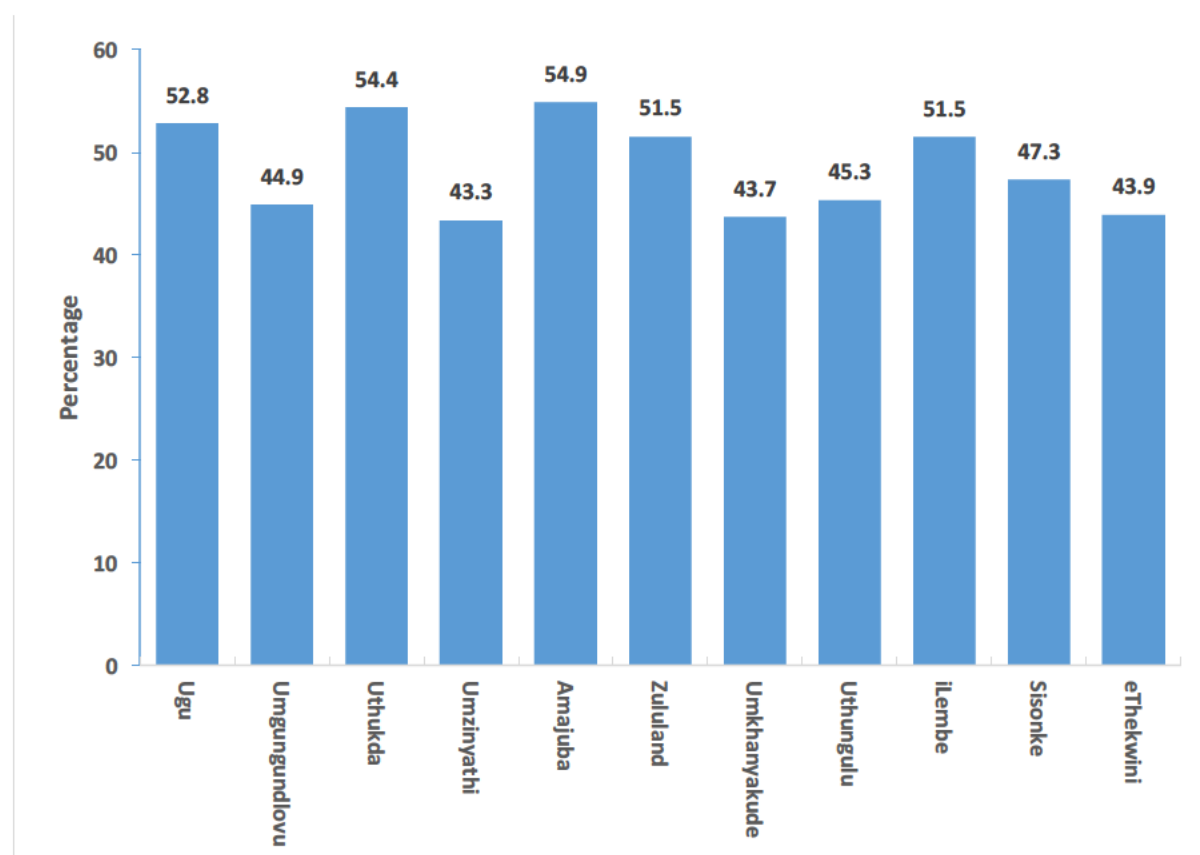
4.11 Fertility Measure

Fertility refers to the number of live births that women have. It is one of the key development indicators and one of the components of population change. It is directly determined by several factors such as level of marriage, abortion, contraceptive use and child spacing. These factors are by-products of larger social, cultural, economic, health and environment factors (Hauer, Baker & Brown, 2013). The importance of fertility indicators relates to the overall growth of the population. The population estimate revolves around the overall fertility, mortality and migration information.

Paramount to the fertility measure is the Total Fertility Rate (TFR), which is the most significant indicator in fertility. Several other measures of fertility have influential interpretations such as Percentage of those who have ever given birth, percentage who gave birth in the last year and maternal survival after giving birth. These measures are important indicators to determine the overall health status of a population as well as the related government performance in healthcare services. Tejada, Triaca and Da Costa (2017) state that the ultimate difference within fertility exists not simply because of contrary human behaviour, it is relative to alternate motivation to have children and also risk factors in producing a live birth. It is not uncommon to see variations within TRF across and within countries, with this information on fertility.

4.11.1 Ever given birth at district level

Figure 4.7 Percentage ever given birth at district level, Ages 15-34



Source: Own calculation from 2016 CS

CEB to women in an age group is the mean number of children born alive to women in that age group. The number of children ever born to a woman is a measure of her lifetime fertility experience up to the moment at which the data is collected (CS, 2016). This indicator has substantial influence in future planning, largely because it determines patterns of fertility within the population. Figure 4.7 depicts the percentage of women who have ever given birth in the age category 15-34. Amajuba District reflects the highest percentage at 54.9%, while Uthukela reflects almost the same at 54.4%, Zululand and Ilembe obtained the same percentage with 51.5%. A downward trend is observed within the other districts with Sisonke at 47.3% and Uthungulu at 45.3%. Three districts fall into the 43% category, with the lowest percentage arising from Umzinyathi at 43.3%.

4.11.2 Youth fertility indicators

Table 4. 4 Youth fertility indicators in KwaZulu-Natal, District Council, 2016 CS

Percentage who have ever given birth				
	15-19	20-24	25-29	30-34
Ugu	16.2	55.0	71.7	78.0
Umgungundlovu	12.6	41.5	59.1	67.0
Uthukela	15.4	57.9	75.2	80.1
Umzinyathi	11.9	46.9	62.3	70.5

Amajuba	13.9	57.9	78.4	84.4
Zululand	14.9	56.3	71.8	79.3
Umkhanyakude	12.2	45.0	61.1	68.1
Uthungulu	11.3	44.3	62.3	70.4
Ilembe	14.1	52.5	68.5	79.2
Sisonke	14.4	50.6	67.3	69.3
Ethekwini	10.7	39.4	55.5	64.6
Percentage who gave birth in the last year				
	15-19	20-24	25-29	30-34
Ugu	7.1	12.8	9.7	9.2
Umgungundlovu	5.9	7.3	7.7	6.5
Uthukela	7.1	12.2	11.6	9.3
Umzinyathi	5.5	11.0	9.9	8.6
Amajuba	5.5	12.4	9.9	8.3
Zululand	6.7	13.1	10.6	8.8
Umkhanyakude	5.5	10.3	9.0	7.1
Uthungulu	4.9	9.7	8.6	6.4
Ilembe	5.6	11.5	10.0	9.2
Sisonke	6.5	11.8	10.8	9.3
Ethekwini	4.2	7.6	6.6	6.2

Source: Own estimation from 2016 CS

Childbearing at very young ages often threaten the physical health and social well-being of both mothers and children. The greatest health risk is to women below the age of 17. The social and economic consequences of early childbearing negatively affect young mothers in the 15-19 age group. In exploring youth fertility as a proportion of total fertility, not only is the level of fertility observed but also the disproportionate burden of early childbearing at the district level. Fertility rates are measured by the number of live births and therefore does not include pregnancies, resulting in spontaneous or induced abortions. If adolescent fertility is high, this implies that several young women face an increased risk of maternal death and disability. Newborns and infants of adolescent mothers are also at higher risk of low birth weight and mortality. This indicator was selected to highlight the effectiveness of the healthcare sector within the province and will provide further insight into fertility patterns and trends within the province. As the data was extracted from the 2016 CS, negligible information was available on fertility measures, in order to calculate the TFR of the province. Furthermore, certain reports omitted the TFR at district level, highlighting rather the overall TFR for KZN. Evidence suggest that the metro within the province is faces a much faster demographic transition than of the other districts. A comprehensive understanding to the data is argued by Triaca and Da Costa (2017) as a country transition, children will not become human capital but instead become burdens. This means that having large amounts of children in the past was beneficial because agriculture required a high number of work force. As a population transition children are no longer human capital instead they require much more investment such as education, food and shelter in which

larger families may find it hard to cope. Therefore, people will opt to have less children. The table shows a common pattern than off developing countries and developed country whereby rural portraying developing countries and developed countries portraying urban districts.

Table 4.4 shows the percentage who have ever given birth for the youth population of KZN per DC. Ugu reflected the highest proportion of age group 15-19 at 16.2% with Ethekekwini showing the lowest proportion at 10.7%. This is an indication of high levels of teenage pregnancy with the province. In exploring the later ages of 30-34, Amajuba revealed the highest proportion at 84.4% and Ethekekwini showed the lowest at 64.6%. It is evident that Ethekekwini indicates the lowest proportion in all age groups, since it is the metropolitan. Stein and Ingawa (2015) outline the cost of living from rural to urban areas and conclude that the costs of having children in the cities are much higher than within rural areas; moreover, we tend to see lower fertility within urban areas, such as cities, compared to rural areas. The age groups 20-24 proposes Uthukela and Amajuba as the highest percentage with 57.9%, with Ugu following close at 55%. Other districts signify vital differences ranging from 50.6% in Sisonke to 41.5% in Umgungundlovu. The lowest percentage is in Ethekekwini at 39.4%.

The percentage who gave birth in the last year is a central indicator in determining the current level of fertility within age groups; this indicator can express whether a population has high teenage pregnancy rates, also showing the overall age group of women giving birth. This is important for health statistics and healthcare planning processes. Table 4.5 shows the percentage who gave birth in the last year and the indicator consequently reveals fertility patterns within age groups, emphasising the high fertility ages of the province. A common trend emerges, in which Ethekekwini shows the lowest percentages in comparison to other districts. In the 15-19 age group, Ugu has the highest percentage with 7.1% and Ethekekwini has the lowest at 4.2%; other districts range from 6.7% in Zululand to 5.5% in Umzinyathi, Umkhanyakude and Amajuba. The preferred age to have a child is evident from the results within the 20-24-year age group. Ugu shows the highest at 12.8%, with Ethekekwini showing the lowest at 7.6%, and the 25-29 age group is not far behind with the highest percentages prevailing in Uthukela with 11.6% and the lowest is Ethekekwini with 6.2%. The 30-34 age group shows Uthukela at the highest and Ethekekwini at the lowest with 6.3%.

The data shows high percentages in the 20-24 age group ranging from 9.7% to 13.1% with the metropolitan showing 7.6%. The 15-19-year age group shows figures ranging from 4.9% to 7.1%, being considerably high for these age groups, compared to the metropolitan, which has the lowest percentage at 4.2%. Ages 25-29 show Uthukela as the highest at 11.6% and the remaining districts in range of 9% to 10%, the metropolitan shows the lowest at 6.6%. Ages 30-34 shows the second lowest percentages for all districts; the percentage is 9.3% within Sisonke and Uthukela and Ilembe shows 9.2%, followed by Umgungundlovu at 6.5%, with the lowest percentage in Ethekekwini at 6.2%.

Total Fertility Rate Linkages

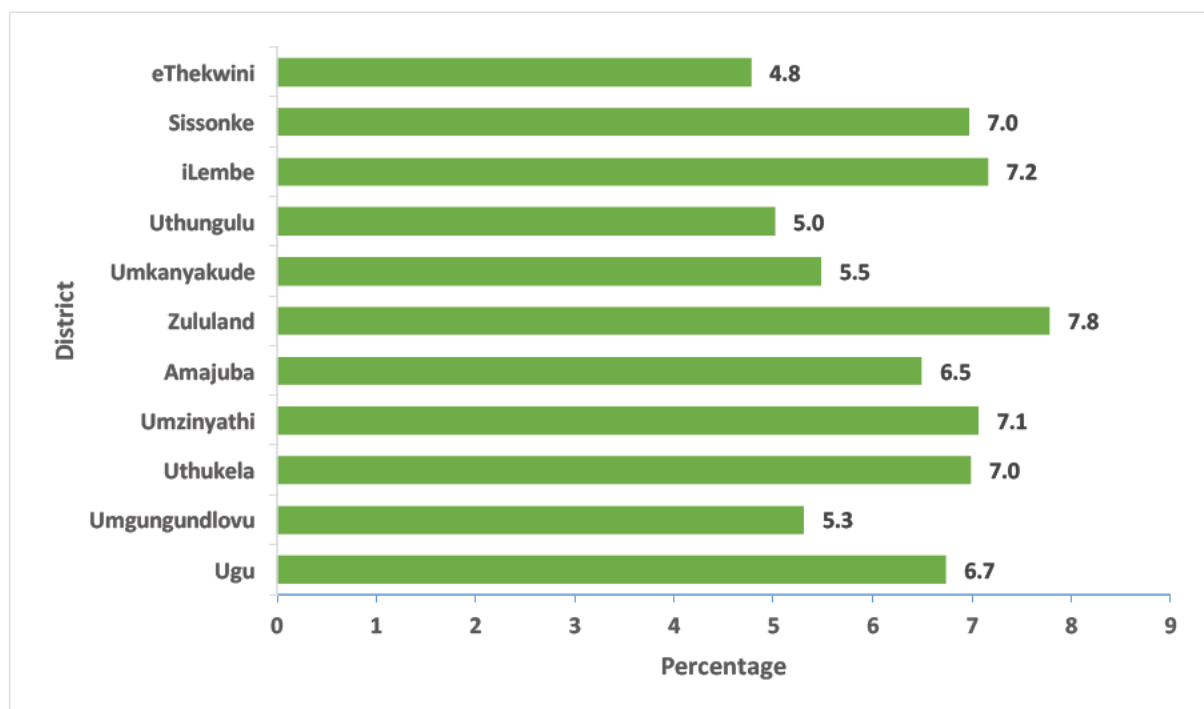
According to the Midyear population estimate (2014) KZN is projected to have a TFR of 2.98 which falls above the replacement value of 2.1. In addition, the TFR has dropped substantially in KZN from 3.26 in 2011. Evidence within Table 4.5 implies that half of the population in ages 20-24, commonly the high fertility ages in developing countries as mentioned by UNICEF (2014), are delaying fertility. Fertility in South Africa has been declining for a considerable number of years. This decline has been relentlessly downward, particularly among Black South Africans who persistently showed higher fertility in the recent past. The trend in the KZN TFR shows a decreasing TFR at around 0.25 at 5-year intervals, portrayed in the Mid-year population estimate (2014) indicating a 3.53 TFR 2001, 3.26 TFR in 2011 and 2.98 TFR in 2016. This consistent decline indicates positive effects of population stability and improved fertility preventive measures. There was insufficient information within the 2016 CS report to compute the TFR of KZN, however, alternate fertility measures such as CEB and 'percentage who gave birth in the last 12 months' were computed from the 2016 CS report. Limitations existed within the survey questionnaire, presenting inadequate questions on fertility within the 2016 CS.

4.12 Mortality

The Mortality rate, or death rate, is a measure of the number of deaths (in general, or due to a specific cause) in a population (Statistics South Africa, 2016). While we all eventually die, the probability of dying during a given time is linked to many factors, such as age, sex, race, occupation and social class. The incidence of death can reveal much about a population's standard of living and health care (Population Reference Bureau, 2014). Broadly speaking, statistics on death are very significant for demographic studies, public health administration and other forms of welfare administration. More specifically, in South Africa death statistics are important for several reasons (Hunt, Wiens and Law, 2017). First, the analysis of the past and current demographic status of South Africa's population and for specific sub-groups of the population. Of interest is an assessment, for example, of variation in death statistics by population groups. One might be interested in discovering whether more deaths are occurring amongst the Black population than the White population. However, this study found it difficult to calculate most mortality statistics, due to limited data on mortality within the data set. Consequently, only the proportion of dead children ever born, by district level was computed.

4.12.1 Proportion dead children ever born

Figure 4.8: Proportion dead children ever born by District Council level, 2016 CS



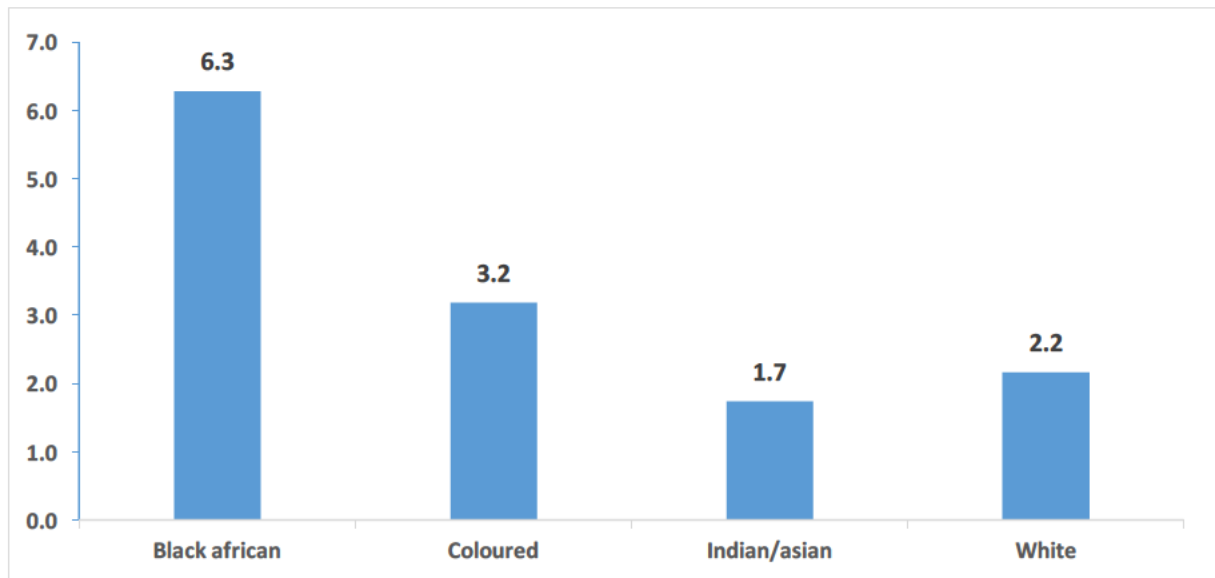
Source: Own estimates 2016 CS

Death of children ever born is an important indicator for the overall status of healthcare within the country. Figure 4.8 illustrates information on the death of children ever born within district levels of the province. The highest proportion shown is Zululand with 7.8%, followed by Ilembe at 7.2% and not far off is Umzinyathi at 7.1%, with Sisonke and Uthukela revealing the same proportions at 7%. Amajuba and Ugu show an average proportion of 6.6% while Uthungulu, Umkhanyakude and Umgungundlovu all show proportions within the 5.3% range.

The lowest prevalence is shown within Ethekekwini at 4.8%. Zululand and Ethekekwini demonstrate proportion extremes, largely due to the urban and rural differences within the two districts. It is evident that urban areas (cities) may reflect lower levels of mortality in children due to better access to healthcare facilities as opposed to rural areas in which healthcare is less easily accessible.

4.12.2 Proportion dead of children ever born

Figure 4.9: Proportion dead of children ever born by population group of KwaZulu-Natal, 2016 CS

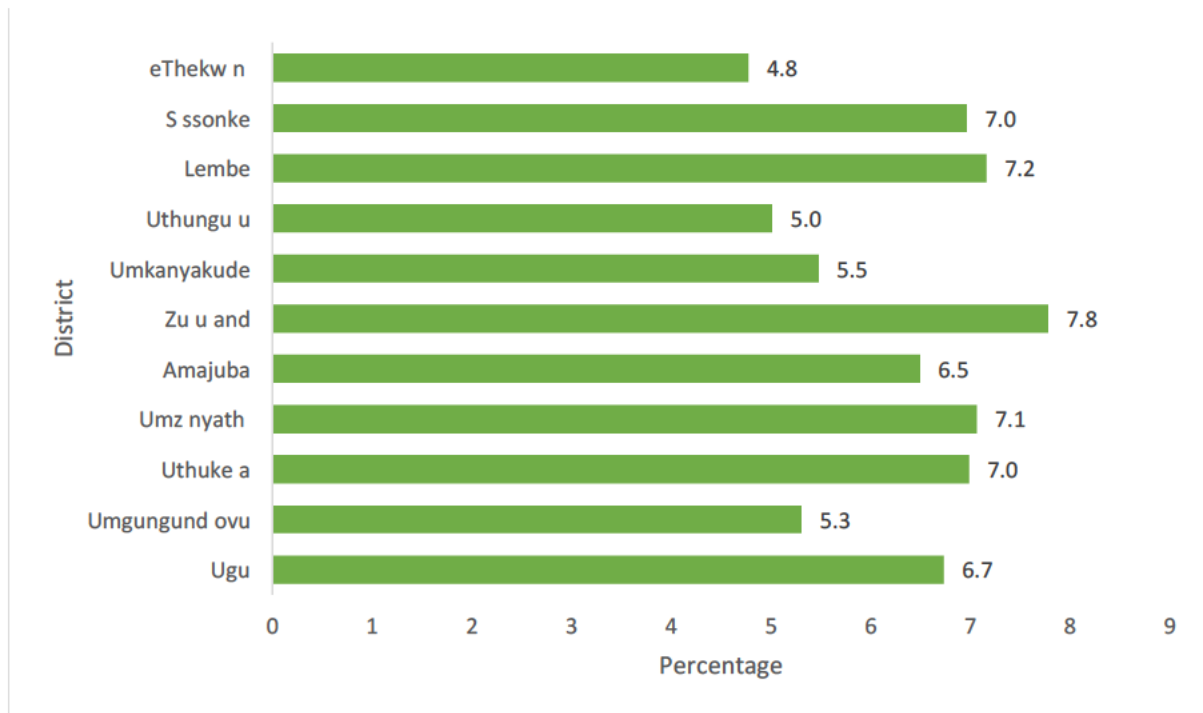


Source: Computed from CS 2017

Death of children ever born is vital primarily for the healthcare planning of the government. This indicator assists to determine the current state of the healthcare of the country; should proportions be high, it is generally related to weak healthcare systems and a lack of healthcare services within a country. A country is able to determine improvements in healthcare programmes by evaluating the mortality of children. In addition, this indicator was selected to determine the mortality of children within the province. Figure 4.9 portrays the proportion dead of children ever born by population group. The Black population had the highest proportion at 6.3%, nearly double that of the nearest population group. This is related to the vast spatial differences within population groups, whereby large proportions of the Black population reside in less developed towns compared to that of other population groups. The Coloured population poses the second highest percentage at 3.2%. The White population falls 1% below the Coloured population with 2.2% reflecting the second lowest proportion dead of children ever born, and the Indian/Asian population group reflected the lowest proportion at 1.7%. The Black population is widespread across the province whilst most of the other race groups reside in closer proximity to cities and urban areas, with greater access to services. Greater proportions are displayed for Blacks, essentially due to a considerable amount of Blacks residing in rural areas, which subsequently influences their ability to access healthcare services, leading to fatalities.

4.12.3 Proportion dead of children ever born by District Council

Figure 4.10: Proportion dead of children ever born by District Council level, 2016 CS



Computed from CS, 2016

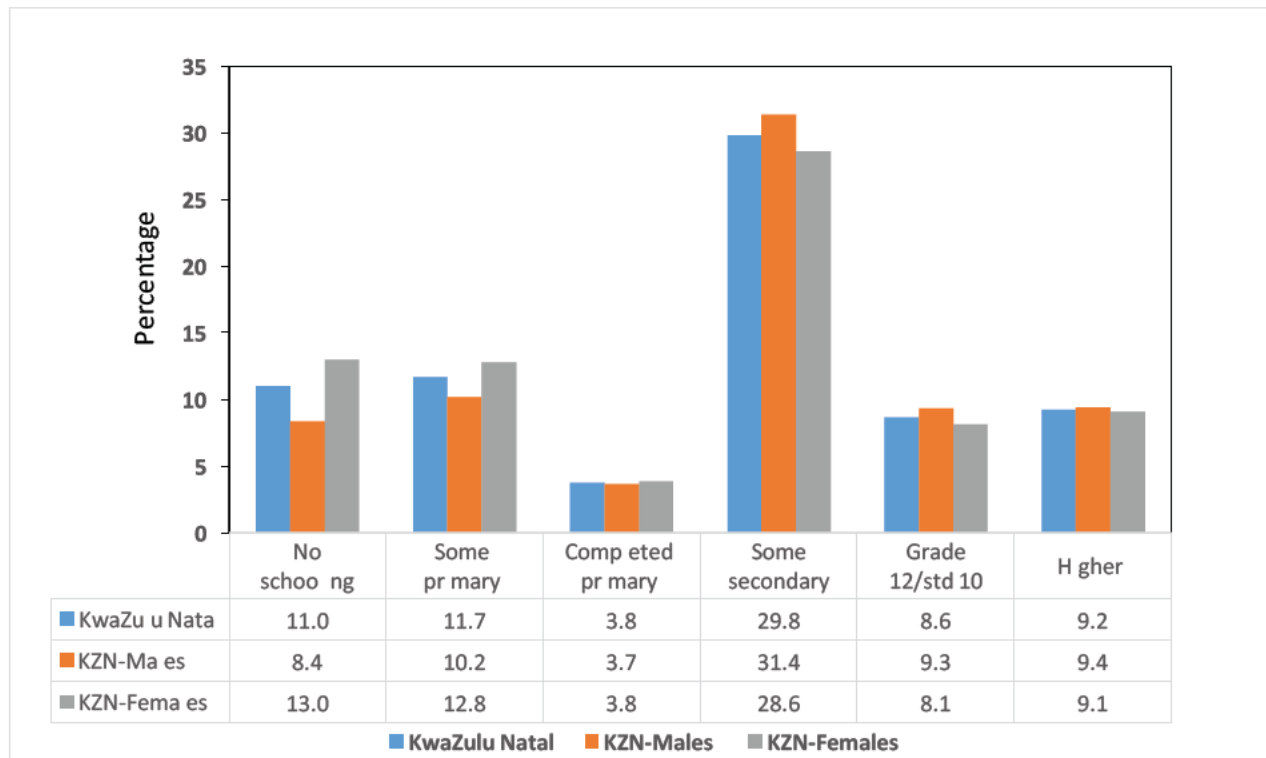
Figure 4.10 shows the proportion dead of children ever born per district level. The importance of computing this information is to determine underlying problematic areas within the province. It is noteworthy that Zululand, with the highest rural population also displays the highest proportion dead of children ever born at 7.8, Ilembe portrays a much lower rate at 7.2. Sisonke, Umzinyathi and Uthukela pose similar proportions around 7.0. Ugu and Amajuba present proportions of 6.7 and 6.5, respectively, while Umkhanyakude shows a rate of 5.5. The lowest proportion is that for Ethekeeni at 4.8. It must be considered that most KZN districts are situated within rural spaces, thus displaying high levels of death to children ever born. In addition, rural spaces are under-developed and lack proper infrastructure and services; moreover, spatial differences may pose the ultimate risk, as people are required to travel remote distances in order to obtain medical assistance, increasing preventative deaths.

4.13 Human Development Indicators

4.14 Educational Measures

4.14.1 Highest Education Level Attainment

Figure 4.11: Highest Education Level Attainment of persons aged 20 years and older for KwaZulu-Natal.



Source: own from 2016 CS

Educational attainment amongst ages 20 years and older are frequent indicators of skills constraints, confronting South Africa. If educational levels in 20-year ages and above are high, this is viewed as an indicator of employability, labour participation and development. The levels of education recorded within this analysis are based upon completed levels of education per individual, on the day of the CS data collection.

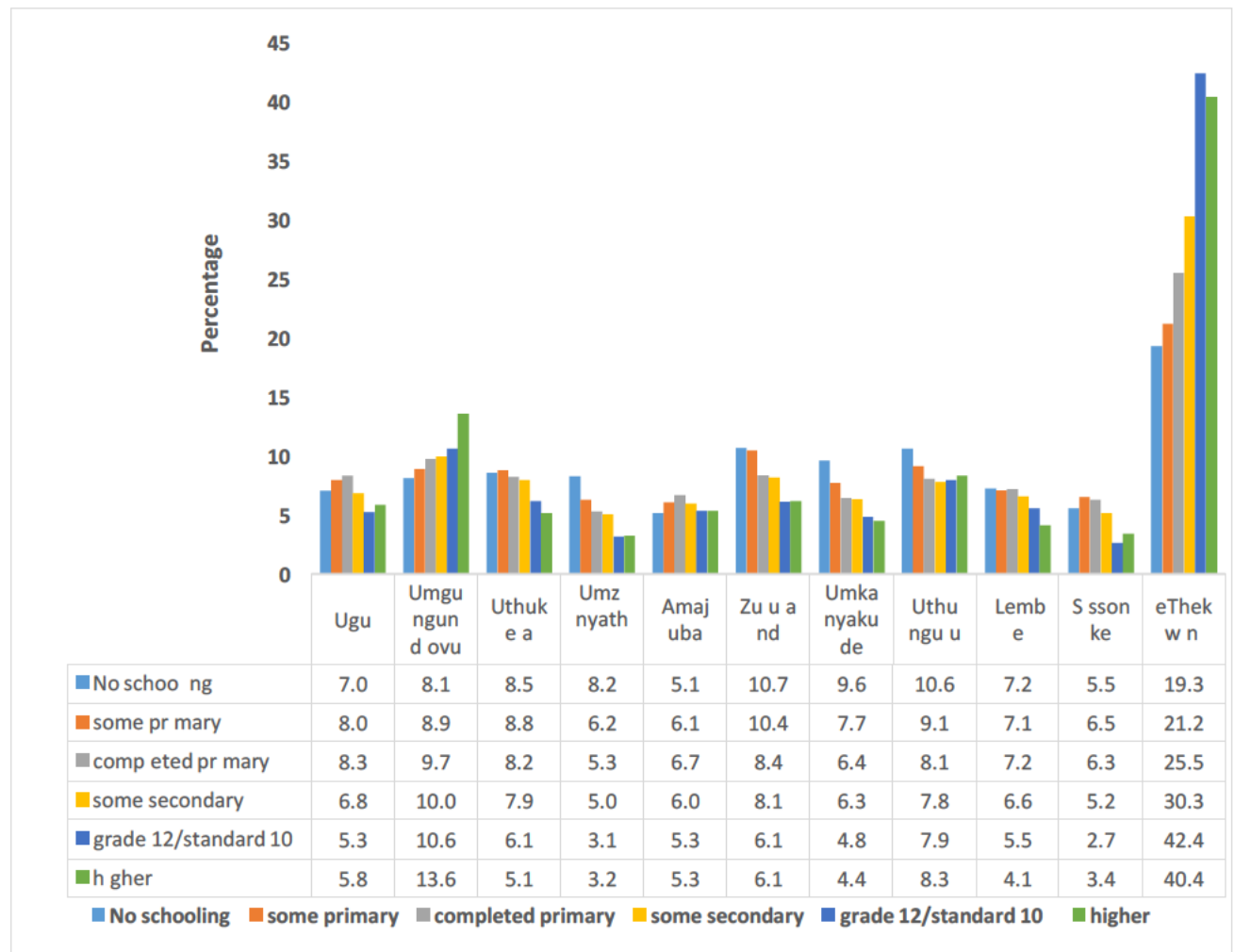
The structure of educational attainment for those aged 20 years and above is categorised into the following six groups:

- No schooling;
- some primary (Grade 1-6);
- completed primary (Grade 7);
- some secondary (which is inclusive of people that completed Grade 8 to Grade 11, and those who have attended Grade 12 but did not complete);
- Grade 12/Standard 10; and
- Higher education (which includes all tertiary education qualifications).

The data in Figure 4.11 reveals that 29.8% of individuals in KZN attended some secondary schooling; males reflect a higher percentage at 31.4% than females, with a slight difference at 28.6%. The results generally display that a greater number of males attain higher education than females, evident by the proportions of females who have no schooling (13%) compared to their male counterparts (8.4%).

4.14.2 Distribution by percentage of highest level attainment

Figure 4.12: Distribution by percentage of highest level attainment of KwaZulu-Natal by District Council

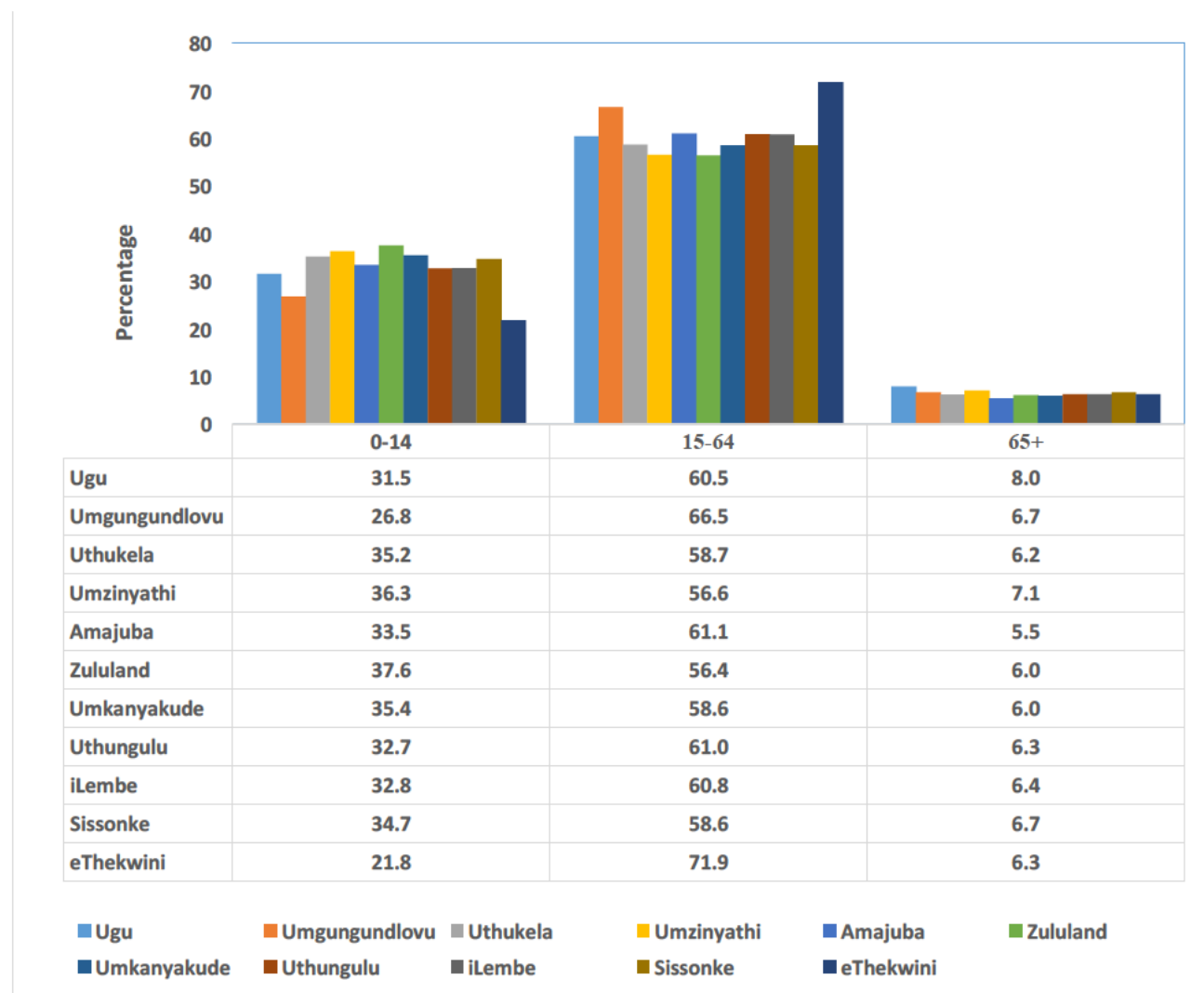


Source: Community Survey 2016

The results of educational attainment are presented at DC level in figure 4.12, providing perspectives on, amongst others, the highest proportion of no schooling being observed in Ethekewini (19.3%) followed by Zululand at 10.7% and Uthungulu at 10.6%. The highest proportion of individuals attaining some secondary education is observed in Ethekewini at 30.3% and Umgungundlovu presents 10% as the second highest proportion. These two districts also have the highest proportion attaining Grade 12/Std 10. Those with tertiary education are observed in Ethekewini at 40.4% and Umgungundlovu at 13.6%. The lowest proportions for most categories is presented by Umzinyathi except for ‘no schooling’ in which Amajuba has the lowest proportion.

4.14.3 Population distribution by functional age group

Figure 4.13: Population distribution by functional age group and District Council, 2016 CS



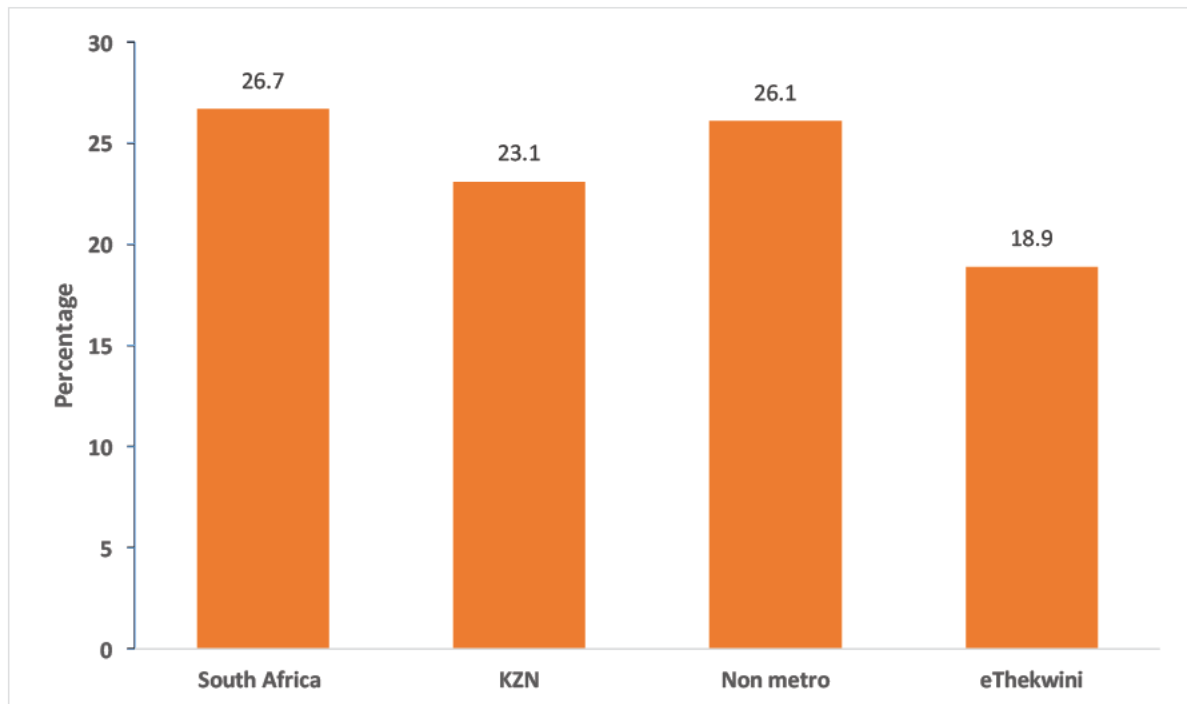
Source: Community Survey 2016.

Figure 4.13 presents information directed at the proportion of functional age groups for the province. This indicator determines the level of the potential workforce, vital for development planning. Results reveal that the proportion of people aged 15-64 years in KZN is about 63.6%; Ethekwini has the highest population distribution in the age group of 15-64 falling at 71.9%. This is common as most economic activities occur within Ethekwini, the metropolitan. Several of the other districts are roughly at the same proportion as Zululand, recording the lowest at 56.4%. It is noted that 30% of the province’s population fall into the young ages of the population. At district level, Zululand recorded the highest proportion with 37.6% and Ethekwini recorded the lowest proportion at 21.8%. Zululand and Ethekwini are aligned as much migration from districts to metropolitans is noted, increasing the levels of working class people in the metropolitans as opposed to districts. The proportion of elderly people in KZN is 6.4%. At district level, Ugu has the greatest proportion of elderly at 8% and most other districts range from 6% in Umkhanyakude to 6.7% within Umgungundlovu; the lowest proportion of elderly people is evident in Amajuba with 5.5%.

4.15 Unemployment rate

4.15.1 Unemployment rates for South Africa

Figure 4.14: Unemployment rates for South Africa, KwaZulu-Natal, Non-Metropolitan and Metropolitan, QLFS March 2016



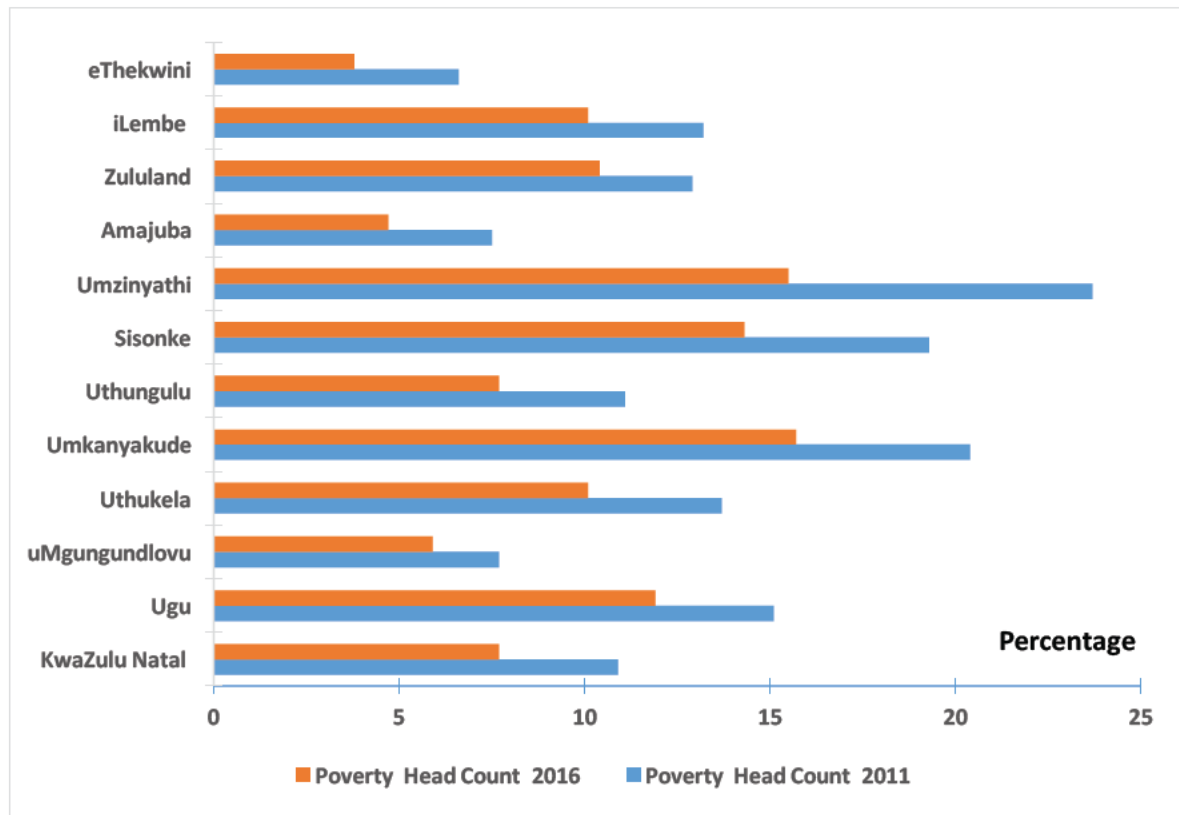
Source: Quarterly Labour Force Survey March 2015

The unemployment rate in KZN at 23.1% is lower than that reported at the national level (26.7%). Conversely, non-metropolitan districts have a much higher unemployment rate (26.1%) than that of the metropolitan in KZN (18.9%). As discussed, this relates to greater economic activities occurring within metropolitans compared to non-metropolitan districts (Heuveline, 2012). However, the high unemployment levels require intensive policies aimed at generating additional jobs for the working age population. Other prevalent matters observed, centre on population structure, whereby increased numbers of the young population exist, most of whom would not be absorbed by the labour market. The gap between Non metro districts the metro is 7.2% which is quite high compared to normal structures. This outline that rural districts are impacted the most by unemployment, this limit development due to people requiring much more social benefits, which strains the resources of the country the effect portrays a much high dependency on state benefits compared to metros.

4.16 Poverty

4.16.1 Poverty Head Count of KwaZulu-Natal population at District Council

Figure 4.15: Poverty Head Count of KwaZulu-Natal population at District Council level for 2011, 2016.

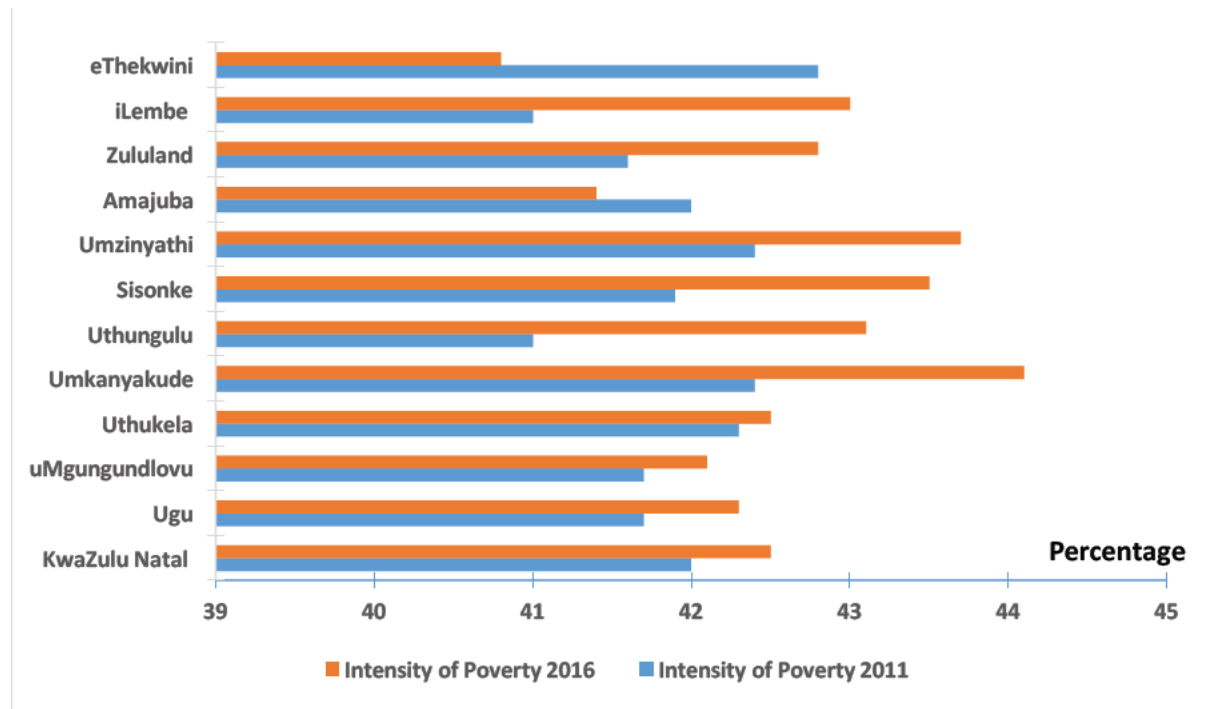


Source: Community Surveys, House glance 2016

The Poverty Head count is a reliable indicator used to determine the overall status of the poverty levels within the districts. This provides information on whether government policies developed to combat poverty are effective. If poverty levels within the country are high, there are several related implications, such as the lack of education, infrastructure, basic healthcare and food. Figure 4.15 displays poverty as declining in every district within the province. It is essential to note that in 2011, Umzinyathi had the highest poverty head count at 23.7%, with Umkhanyakude second highest with 20.4%. The lowest percentage of poverty was within the metropolitan at 6.6%. However, 2016 CS reveals a greatly altered representation, with poverty having considerably declined in all districts in the province. However, Umkhanyakude has the highest poverty head count with 15.7%, followed by Umzinyathi at 15.5%. Meanwhile, Ethekeweni continues to portray the lowest percentage at 3.8%, almost reducing the percentage by half since 2011 followed by Amajuba at 4.7%. We have to take into account that Ethekeweni has the lowest levels off poverty and the highest levels of poverty persist within the rural areas such as Umzinyathi, Sisonke and Umkhanyakude. It is important to highlight that poverty head count is an indicator that reflects the development of districts although levels have drop in all districts, a large amount off people in rural spaces are still in poverty.

4.16.2 Intensity of Poverty for KwaZulu-Natal for District Council Level

Figure 4.16: Intensity of Poverty for KwaZulu-Natal for District Council Level, 2011, 2016



Source: Community Survey, First glance data, 2016

Poverty measures are reliable indicators to determine if the country is progressing towards an improved future for its people. The larger the poverty gap, the greater is the intensity of poverty. KZN is noted as having high intensity levels of poverty, throughout the province, with most districts around the average of the province, 42.5 %. From 2011 to 2016, the intensity of poverty levels increased for all districts except Ethekewini. Ethekewini had the highest percentage in 2011 at 42.8% and the lowest was Uthungulu and Ilembe at 41%. However, Umkhanyakude in 2016 had the highest percentage with 44.1% and the lowest percentage is portrayed in Ethekewini with 40.8%. Most districts fell in the average range of 42.5% for 2016. Overall, it appears as though poverty is declining within the province. This indicator portrays a vast difference within the urban and rural areas. It gives us a picture on the contrasting effects within these two spaces. This is proven by the increase in only Ethekewini and not in other districts due to Ethekewini being the urban space of the province.

4.17 Summary of Chapter

This Chapter has highlighted various indicators of human development and demographics, many indicators of which, were selected to provide information on the population of the province. Most analyses and presentations were computed using STATA/SPSS, with Statistics South Africa providing the data set. Many significant statistics were computed to present an extensive analysis of KZN, according to the 2016 CS. The Chapter presents data and the findings of indicators chosen to highlight issues within KZN. The majority of the analysis was extracted from the 2016 CS; however, alternate sources of data were utilised such as the QLFS 2015, to compute indicators in which existing data was insufficient.

5 CHAPTER FIVE: DISCUSSION AND RECOMMENDATIONS

5.1 Summary of finding

This chapter will discuss the conclusion by drawing on the findings of the study. This includes addressing results from the tabulated analysis to assess the status of KZN in its transition stage and examining district levels within the province. The study also provides the close relation between human development and demographics and reflects on research into the diversity of KZN's geographical composition in which it shares different stages of development.

5.2 Findings: Demographic Indicators

The paper has analysed many different demographic indicators within KZN and these indicators provide clear insight into the structure of the population. It is evident that KZN has a unique demographic structure, when exploring further into district levels. A vast number of the population remain in rural to semi-urban districts, thus creating various unique patterns. As we see fertility is on the decline holistically within the country apart from rural areas, it portrays to show very definitive reproductive changes. The fertility rates within the metropolitan gives us a good indication that the province is conforming to a developed country. The transition theory shows that as fertility and mortality decline the population moves into the third stage of the demographic transition. Which is equivalent to many developed countries. The KZN province shows developed countries structures within the urban areas. However, rural areas show contrasting fertility rates. Rural districts in KZN show a significant decrease in mortality but shows a high fertility rate which falls much higher than replacement levels. This portrays the second stage of the demographic transition. It is evident that rural and urban space portray different levels of development, and shows different transition stages in the demographic transition.

A demographic analysis was completed for the KZN province and the findings suggest that the province is a growing population. Age structures, however, show the lowest mean ages within rural districts such as Umkhanyakude and Zululand. Rural areas show low levels of mean ages suggesting that high fertility accompanied with less development proves to be the main reasons for the discrepancy. Low mean ages show a young population in need of employment. However, high levels of poverty within these districts, show low mean ages with a high intensity of poverty. This suggests that high levels of youth unemployment and low levels of economic activities are shaping these districts.

Arising from age structures, it is evident that the province has a high frequency of youth ages. This has a huge impact on the economy of the country. Many youths are jobless, mainly because the economy cannot absorb the large numbers of new working-class people. Implications may consist of high dependency ratios on the small working-class groups, evident in Table 4.4, in which high dependency ratios existing within non-metropolitan districts, is evident. The highest dependency ratio is presented in Zululand; as related to the earlier discussions, it is apparent that non-metropolitan districts show greater irregularities in demographic indicators.

Age dependency shows much higher rates in rural areas compared to urban areas. The findings indicate that other districts, apart from the metropolitan, show further improvement. However, high dependency rates are generally linked to non-metropolitan districts, due to high levels of internal migration by the younger population to the metropolitan, primarily in search of better education and job opportunities. This is displayed when viewing the mean ages in rural districts; demographic results show that the mean ages are much lower within rural districts compared to urbanised districts. The implications point to one major factor, rural to urban migration. A study conducted by Mulcahy (2015) revealed that young people are migrating to metropolitans, thus leaving their children with family members (grandmothers) in the rural areas. This is one of the factors contributing to high dependency ratios within non-metropolitan districts. This pattern places pressure on local and provincial government to provide services for populations that are largely dependent on the state to survive.

Allowances can assist to provide some sustainability within households in rural areas. However, the unemployment rate remains high within the metropolitan at 18.9% (QLFS, 2015) thus, indicating that most people from rural areas also have a challenge to find consistent work within cities. This has an impact on the households within rural areas, as old age populations, dependent on the state must provide for larger houses with small amounts of resources. If we relate this to Zululand as discussed earlier, the household mean size depicts five persons per household and these households are mainly dependent on population groups, which sees this district as the most poverty intensive group of the province. There is a subsequent relationship between high household numbers and high intensity of poverty.

Population age structures differ within population groups, as the province is moving into a demographic transition, in which race groups demonstrate dramatic differences from each other. Figure 4.2 represents the different population groups as per the 2016 CS. While Coloured and Black populations show an age structure of developing countries, Indian and White populations reflect a much more definitive age structure, similar to that of a developed country. The impact of the apartheid era remains predominant within race groups, as the underlying problem is a result of educational barriers, which restricted the demographic transition growth of the Black population. This impact is not evident in the overall age structure as these groups form the minority population of the country. The large disparities within groups suggest that most other population groups are largely established within the economic hubs of the country, leaving the majority group relatively far from economic activity. It may be stated that the fundamental impact is a result of spatial differences.

Ethekwini reflects the largest distribution of the population as per 2016 CS data. It must be noted that the metropolitan also houses the largest distribution of non-Black population groups in the province, accounting for 72.5% of the Indian population, within the province, residing in the metropolitan, followed by 53.3% of the Coloured population and 49.9% of the White population. If these statistics are compared to the Black population distribution, it shows that only 25.4% of the Black population reside within the metropolitan, indicating that age structures differ more so for other population groups, mainly as metropolitans tend to display

dramatic changes in fertility and mortality, related to easily accessible services and economic activities. KZN district levels vary dramatically from the metropolitan of the province, in that metropolitans display much lower fertility patterns, moving below replacement levels, compared to other districts that present much higher fertility levels, higher than that of replacement levels.

The demographic transition theory highlights the changes in fertility and mortality in relation to economic improvements, evident within KZN. The metropolitan shows contrasting figures to most of the districts. This is largely due to the improvement of quality of life, people tend to delay fertility also restricting the number of children, as shown in Table 4.5, wherein Ethekewini demonstrated the lowest percentages with overall fertility and showed the lowest mortality of children ever born. Figure 4.6 highlights the lowest mortality rates in the province. This shows increasing variations in the rate of demographic transition. The Black population lack in relation to other population groups, apparent in the proportions that exist within the metropolitan. A lack of development tends to show a slow transition for the Black population of the province; other population groups, however, particularly Indian and White populations, are further advanced into their transition, evident within the age structure.

5.3 Findings: Human Development Indicators

Findings suggest that the growth rate of the province relates to high fertility within non-metropolitan districts, however, this is hampered by high levels of dependency due to migration. Figure 4.13 outlines the functional age groups, in which a large proportion of the population consisting of working class populations, is displayed. Furthermore, with the exclusion of Ethekewini, deep rural districts such as Zululand and Umzinyathi show considerable amounts of people of working ages. This population group is not migrating to the cities, deemed as unutilised human capital for development initiatives. With the considerably high working population in rural areas, much more effort should be on identifying resources within the districts and re-directing these resources into development. However, it is fair to deduce that there are limited opportunities within rural districts. Furthermore, people are forced to rely on state grants to provide basic needs. Much argument confronting local municipalities concerns the lack of basic services. In a report conducted by department of KZN in a development report (2015:89) one of the chief points suggested, “our people do not have the basic services such as running water and electricity, so how do we allocate resources into other facets of the district when basic needs are not met”.

The indication of Educational levels have is a significant aspect of development strategies. Repercussions of past inequalities prevail within the older age groups of the province; however, there has been great improvement within the younger population of the country. however, the overall determinant within rural- urban spaces which is identified within districts levels Education and unemployment indicators work in tandem and KZN displays a high unemployment rate coupled with low educational attainments. The fight continues for education, with vast amounts of the younger population being dependent on the state to provide services. As large proportions of the population reside within rural areas, an all-encompassing

solution, inclusive of infrastructure, is necessary, for the provision of education to the people of the province.

Human development indicators provide a much broader perspective of the social economic needs of the population. Although, improvements within the educational sphere are seen, further achievements in the higher educational sector is required. Ethekekwini displays the greatest numbers of educational attainment, almost twice the proportion of other districts. It may be said that with development, comes improvements in educational levels, evident within Ethekekwini. It is apparent that most younger people, searching for higher education migrate to metropolitans in search of a better quality of education; these large migration patterns do affect the overall demographics of predominantly rural districts within the province. Education is the single most significant Human Development Indicator within this study.

Although KZN reflects the lowest unemployment rates and the highest educational attainment proportion, the problem lies with the other districts of the province which falls within the rural spaces. Findings suggest that a considerable number of young people are not in school; these influence the development of the province and may have an impact on the resources of the districts. A sense of household overcrowding coupled with non-existing parenthood, due to internal migration, may provoke unsuccessful development strategies.

Relation to Human Development and Demographic Indicators.

Combining data to analysis the status of a population is a phenomenon world wide, however South Africa was curtailed during the apartheid era since the black population was settled in homelands by the White administration. The Black population were not allowed to move to the urban areas. The control of population dynamics and normalities was controlled, which caused one of the most unique population structures in the world. Even in today's research we still see the effects of social privilege and oppression on the South Africa population. However, one of growing trends in South Africa is the increase in movement of people due to historic and economic factors such as the abolishment of the movement acts, thus allowing movement (Posel and Casale, 2006: 230). In terms of geographical boundaries, South Africa seems to be showing very unique patterns demographical across all provinces and KwaZulu-Natal is one of them (Kok *et al.*, 2003). According to Statistics South Africa, 2011, referring to Provincial data in South Africa, KwaZulu Natal has the highest rate of HIV/AIDS in the country. A 2012 study by Human Sciences Research Council., looking at HIV/AIDS in KwaZulu-Natal using the 2011 census, concluded that seven of the ten districts with the highest rates in the country are all in KZN, Ugu with the highest, followed by eThekekwini. This, reflects within the demographic composition of the province. The product is high dependency level within the province accompanied with, forcing a large amount of resource into the healthcare sector.

The 2011 census done by Statistics South Africa, showed a transitioning population, however rural districts shows very little improvement, compared to the metropolitans. The rural KwaZulu-Natal context is no different. An Analysis of Demographic and Human Development in rural KwaZulu-Natal was also carried out by Statistics South Africa. Studies done using the statistic concluded that human capital and demographical advancements rates during 2007 and

2011 to be increasing over time (Statistic South Africa, 2013). The study, concludes, that the levels of illiteracy and dependency in rural KwaZulu-Natal are high. Rural areas showed a 19 per cent No-Schooling between 2007 and 2011. Human Development in this study was defined as Distribution by highest level attainment. The relation to Human Development and Demographic Indicators include rural-urban development (migration of people, improving female education which changes demographic compositions, improving standard of living which increases life expectancy).

Unemployment rates and distribution by highest level attainment was concluded to be an indication to human development. Both Indicators analyses indicated that rural districts have much higher rates that of urban districts (10 per cent and 30 per cent differences).

5.4 Recommendations

- Similarly, to the national level, the TFR in KZN tends towards the replacement level with possible consequences in the labour force supply. One of the manners in which people are expected to contribute to the economic development of a country is through participation in the labour force. Low TFRs may signal a potential low supply of the labour force. Nevertheless, Arssen (2005) argues that low TFRs in many less wealthy populations may be temporary and are expected to peak later. Policy makers should envisage the effects of low TFRs on development and ensure the promotion of safe health-seeking behaviours, particularly for people of reproductive ages. This can be implemented by promoting programmes aimed at curtailing the impact of HIV/AIDS, a serious health challenge in KZN.
- The Sex Ratio of KZN is estimated at 92 males per 100 females, an indication of the deficit of males over females. This could be attributed to high mortality among males or due to migration of young people to other provinces or countries in search of better employment opportunities. Earlier studies of Phillips et al (2003) have also documented similar low SRs for South Africa between 1970 and 1996 and attributed this to geographical mobility of young men and the possibility of their undercount. Low SRs are common worldwide among younger adults and other hard to count population groups such as undocumented immigrants.
- Education levels in KZN show that males outperform females, particularly for secondary schooling. There is a need to uplift the lives of females within the province by ensuring that additional opportunities are available for them to attain higher education. Policies that address the needs of women should be encouraged in order to improve their livelihoods, since education is one of the basic elements of a sustainable

development plan. This is inevitable considering that two out of every three people in KZN are categorised in the working age population, with a substantial proportion constituting the school going population. Coupled with high dependency levels within districts, investment in the working age population is crucial. When such investments are efficient and effective, significant improvements may be observed at the provincial level, such as a reduction in unemployment rates, estimated at 23.1% in 2016.

5.5 Conclusion

Enormous improvements within several areas of the province are observed, namely, fertility reduction and educational attainment. However, several challenges persist within KZN such as high unemployment, a lack of infrastructure within rural areas of the province and notably high HIV prevalence. Addressing these and other major problems calls for collaborative efforts between local, provincial and national government. Furthermore, there is a dire need for the public sector and the private sector to consolidate their efforts to reduce the burden faced by most households, which can ensure that the path to the next demographic transition proceeds smoothly and also benefits the average resident in KZN. Districts within KZN shows contrasting demographic and human development patterns. The urban areas are developing at much faster rate compared to rural districts within the provinces. In order to view the status of districts within the province we used secondary data, in which we tabulated all of the finding to show us the transition of rural areas compared to urban.

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