THE STATE OF MPUMALANGA POPULATION

Research Report

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Executive summary

Aim

The aim of this project is to compile a comprehensive State of the Population Report that will place emphasis on sustainable human development attained through integrating population issues into plans and programmes. Special emphasis is placed on the youth bulge, and the importance for the province to reap the benefits of the youth dividend.

Mpumalanga, like the rest of South Africa, is experiencing a youth bulge as a result of the demographic transition that is underway. Demographic transition is a result of a movement from high to low mortality and fertility rates in a society. Demographic transition has been experienced by most parts of the world and is currently being experienced in some parts of Asia and Africa. This phenomenon is a result of decline in fertility and mortality which results in the population experiencing a drastic change in its structure.

In societies that are experiencing a demographic transition, the proportion of older persons is low due to a historical high mortality. On the other hand the proportion of children is also low due to a decline in the rate of childbearing that happens during the transition. One of the paradoxical phenomena associated with demographic transition is that in spite of a decline in fertility, the population continues to grow. This can be explained by the change of the population structure. During this period, the bulk of the population is of reproductive age. Thus, in spite of the fact that the majority are not giving birth to many children, the population growth momentum has been built via the changes in the population structure, resulting in a sustained growth in population. The growth of the youth population in society during this period gives a window of opportunity for a demographic dividend. If the majority of these young people are employed, the economy benefits greatly as a large number of working people, who support a relatively low number of persons in the economically dependent young and old ages. At a national level, the state benefits from a large tax base as a result of the increase in the working population, thus laying solid grounds for accelerated investment in economic growth.

Similarly, households benefit as working adults are providing financial support to fewer children and fewer older persons.

This report examines the current state of the population in Mpumalanga and offers a synopsis of the progression of the population in relation to a demographic transition. More importantly, it makes a population projection which shows that the window of opportunity that is opened by the demographic dividend will continue for a number of years into the future. Based on this evidence, the study suggests concrete policies and programmes to ensure a realistic chance of a demographic dividend being realised in the province.

Scope of work

For the purposes of this research, the Human Sciences Research Council (HSRC) team undertook a study design and conducted a study on the state of the Mpumalanga population. This involved desktop research with a variety of data sources, including data banks, reports, historical data and trends. Primary research was done through focus groups with youth members of Mpumalanga and one-on-one interviews with key provincial government officials. All of this was done to cover all dimensions of the project's study. The research placed emphasis on quality of data with accuracy, reliability and validity considered as crucial to the study.

In terms of process, the HSRC research team worked closely with the project coordinator(s) of the Mpumalanga Department of Social Development to identify background documents and literature relevant to this study, to consider and approve the methodology.

Research methodology and conceptual framework

There are five related elements to the methodology for this research, namely: a) analytical framework; b) data collection approaches; c) consolidation of data analysed; d) sampling; and e) data analysis.

This research on the population of Mpumalanga has been anchored on the demographic transition principle: changing age distribution as a result of declining trends in fertility and mortality, and the consequent youth age bulge, with implications for the realisation of the demographic dividend. This is not simply another report on the provincial population characteristics; it is an action-oriented exposition of the dynamics of the provincial population, the associated social, demographic and economic factors, and implications for the young people who constitute the majority of any population that is experiencing a demographic transition. This study is opportune because the demographic transition is ongoing in Mpumalanga which has resulted in the expansion of the labour force. Thus, it is appropriate to use population information to support policy and programme efforts of all sectors in order to accelerate development in the province.

Background of the Mpumalanga province

Mpumalanga province is one of the nine provinces in the Republic of South Africa. In terms of the land area (79 490 km²), the province is small, occupying about 6.5% of the total land area in South Africa. By the year 2011, the size of the provincial population was estimated to be 4 039 939, representing 7.8% of the total population of South Africa, therefore making it the sixth largest in the country.

Population groups

The cultural diversity in Mpumalanga province is similar to that in other provinces in South Africa. Mpumalanga is predominantly African (92.4%) with a White population of 6.5% and almost an equal proportion of Coloureds and Asians (0.2%). In the province, 27.7% of the population in Mpumalanga have SiSwati as their home language, 24.1% isiZulu, 10.1% isiNdebele, 9.3% Northern Sotho (Sepedi),10.4% Xitsonga, 7.2% Afrikaans,3.1% English,1.3% IsiXhosa, 3.5% Sesotho,1.8% Setswana,0.2% Sign Language, 0.3% Tshivenda and 1% Other.

Socio-demographic features of Mpumalanga

Fertility

The Total Fertility Rates (TFRs) estimated for Mpumalanga over the years since reliable data became available show a downward trend. Although actual levels are different, a similar trend is observed across the remaining provinces in South Africa. This serves to confirm that Mpumalanga, in the context of South Africa's demographic prospects, has started to experience sustained decline in fertility. If accompanied by a similar downward trend in mortality, it would be safe to assume that the province is poised to achieve demographic transition in the next 20 years or so. Although slightly higher than the national average, the downward trend in fertility in Mpumalanga has been sustained since the 1990s .The trend suggests that the TFR may have declined from 2.7 in 2002 to 2.5 in 2010, and down to 2.34 in 2013. In essence, the province has already started on a path of demographic transition as shown by a shift from high to low levels of fertility.

Mortality

For the purpose of development programming, only the infant mortality rate, under-five mortality rate, life expectancy at birth and maternal mortality ratio indicators were used in this report. Based on estimates by Stats SA (2015), Mpumalanga province has experienced a steady decline in both infant mortality rate and under-five infant mortality rate since 2002 and an increase in the life expectancy at birth.

Factors contributing to the reduction in child mortality include:

- access to antenatal and postnatal care (including vaccination coverage);
- increased presence of health professionals during delivery;
- adequate nutrition and proper sanitation;
- urban living;
- increased levels of education; and
- access to maternal health care.

Regarding maternal mortality, the well-being of a pregnant woman during pregnancy, delivery and shortly thereafter depends on the quality of health care received. In addition

the socio-economic conditions of the woman impact on maternal mortality. The Report on Confidential Enquiries into Maternal Deaths (DOH, 2013) in South Africa shows that the number of maternal deaths for the triennium 2008-2010 in Mpumalanga was 394, which is an increase of 25.4% from the previous triennium (2005-2007).

Overall, about 7.7% of all reported deaths in the country occurred in Mpumalanga, which is marginally lower than its 7.9% share in the total national population. The report indicates that the leading underlying natural cause of death in both men and women is Tuberculosis, Influenza and pneumonia and cerebrovascular diseases.

Migration

Both internal and international migration streams are prominent in Mpumalanga province. Mpumalanga borders Mozambique and Swaziland. As a result, some linguistic groups found in Mpumalanga are also found either in Mozambique or in Swaziland. This results in high movements between the three countries. Secondly, proximity between Mpumalanga and Gauteng, the economic hub of South Africa, makes oscillatory movements between the two provinces common.

HIV and AIDS

The high incidence of sexually transmitted diseases, especially HIV and AIDS, and the projected socioeconomic impact of HIV and AIDS pose a serious challenge to socioeconomic development in Mpumalanga. Equally serious is the marked gender inequalities in development opportunities, including access to productive resources that reflect the low status of women. Largely because of poverty and high rates of mobility, Mpumalanga has one of the highest HIV and AIDS rates among the provinces in South Africa and recent trends show that prevalence rates are increasing.

Disability

The 2011 population census results indicate that, out of the provincial total population of 4.039 939 million in 2011, 7% are disabled in Mpumalanga. For persons aged five and above, Gert Sibande has the highest proportion of individuals who are disabled (8.9%) followed by Nkangala (7.1%) and Ehlanzeni (5.8%) The more prevalent type of disability

in Mpumalanga is sight, followed by hearing, communication, mobility, memory and self-care.

The youth dividend in Mpumalanga

Expected demographic trends

Based on current levels of development and the assumed trends in the vital rates, the DemDiv Model has been applied to estimate potential demographic dividend for Mpumalanga province between now and 2051. Under the combined scenarios the increasing labour force is likely to contribute significantly to the demographic dividend (through GDP growth) in the province over time. The labour force will reach a peak in the mid-2040s: from 65% in 2014 to 72% of the total population in 2046. Another noteworthy feature is the expected growth in the proportion of persons aged 65+: from 4% in 2014 to 13% in 2051.

Possible economic outcomes

The demographic transition could encourage the growth of savings, thereby improving the provincial prospects for investment and growth. The support ratio has become a standard tool used to consider the economic effects of changing population age structure, but it is defined in different ways. In some studies the support ratio, or age dependency ratio, is defined in strictly demographic terms counting each person in the 15-64 age range as one worker and each member of the population as one consumer. In other studies, support ratio is defined in economic terms. Thus, the effective number of workers, the numerator of the support ratio, incorporates age variation in labour force participation, hours worked, unemployment, and productivity or wages. In similar fashion, the effective number of consumers, the denominator of the support ratio, allows for age-specific variation in consumption to calculate how the effective number of consumers varies over time. Available data show that support ratio, whether defined in demographic or economic terms, will increase greatly in the near future.

Possible constraints to the realisation of the demographic dividend

In consonance with the basic formulation of the demographic dividend principle, it is important to place emphasis on the focused development of every group of individuals in the provincial population – the children, youth, adults in the labour force and the elderly – with a view to realising the dividend that emanates from demographic transition. Such planning leaves no one behind – every one matters. Planning starts with a comprehensive accounting system of all live births in the country, regardless of location (rural or urban), population group or family status. This is conventionally done through a country's vital registration system, which must be complete and continuous to be useful for planning.

All children require adequate health and protection coverage and as soon as the law permits, full participation in ECD programmes; enrolment and sustained participation in education at primary and secondary school levels. Thereafter, opportunities for further education and skills development should be open to all, while the state collaborates with the private sector to provide as much support as possible. In the circumstance, parents are themselves better enabled to support their families that have become smaller as a result of demographic transition. In addition parents experience reduced burden of childhood dependency, and all things being equal, will be able to save more of their income and be better open to future productive investment possibilities. It is to be expected that as family savings improve, aggregately national level of savings will increase.

The gender-sensitive character of development planning employed has its remarkable benefits: both boys and girls participate fully and effectively in the education system; they both enjoy health and protection offered by family, community and the state; they enter the labour force well educated and skilled and become very productive; a healthy and skilled labour force under close to full employment releases the energy necessary for sustained economic growth and development.

Underpinned by good governance, such an economy is bound to reap the first dividend that comes with effective participation of a rapidly increasing labour force in the economy.

Secondarily, the savings and productive investments in reference lead to further growth of the economy and the advent of the second dividend.

For the demographic dividend to materialise, there must be in place a conducive policy environment, including:

- an environment where high-quality health and education provision is possible to facilitate demographic transition;
- access to reproductive health services and facilities by all, especially the youth;
- sufficient flexibility in the labour market to allow its expansion through creation of adequate employment opportunities;
- macroeconomic policies that permit and encourage investment; and
- access to adequate saving mechanisms plus confidence in domestic financial markets.

One major factor that may limit the capacity to realise the demographic dividend in Mpumalanga and elsewhere, is the high level of unemployment, especially among the youth. It is argued that youth unemployment negatively impacts on future earnings potential, constraining the ability of prime working cohorts to generate sufficient future surpluses and limiting the scope for saving and making transfers to other cohorts.

Tools for the realisation of demographic transition: Youth development

Critical to the model is the focus of development planning – children, youth, the labour force, and the elderly – all segments of the population, with emphasis on their needs for survival and healthy development as and when needed. If a child misses out on early childhood development, the chances of catching up with the primary education are reduced. Worse still, if a child is poorly educated at primary level, the foundation of good education and skills development during adolescence and youth is severely weakened. If opportunities for sound secondary education are limited, a substantial proportion of secondary school graduates are poorly educated and largely unemployable. Vocational education comes as a remedial programme and often comes too late for many. All those education opportunities lost during the early years result in only a handful of the youth being prepared and qualified for tertiary education in many developing countries.

From policy to action in support of the dividend

The systematic integration of population factors into all policies, plans, programmes and strategies at all levels of government is both an objective as well as one of the strategies of the national Population Policy for South Africa (1998). This is also true for Mpumalanga as well as other provinces in the country. It is obvious from the list of strategies that integration of population issues into development policies and plans is a responsibility shared by all government departments and other institutions that promote development at national, provincial and local level. As indicated in the Population Policy for South Africa:

> *Population Units will support national and provincial line functions departments and facilitate inter agency collaboration in order to ensure the implementation of the population policy at all levels of government (South African Population Policy, 1998:61).*

Population Units are also responsible for monitoring and evaluating progress with the implementation of the population policy. This can only be done successfully if there is a provincially agreed upon plan for the implementation of the policy.

In order to make progress, the provincial Department of Social Development, through the population unit, should consider the formulation of an action plan in collaboration with other departments for population policy implementation. Towards this action, it will be necessary to understand the scope of population as a field of development; the range of actors in the field of population; the institutional locations for the major activities in the field; and resource requirements for population programme implementation. The action plan will incorporate the population policy and relevant aspects of the other existing social development policies, particularly the policies and plans on women, health, education and youth.

Once an action plan is in place, the major focus of the Mpumalanga DSD should be on facilitating its implementation. The basic strategy for implementation is the integration of policy concerns into the provincial development framework. Integration is a process, and

it should start with recognition of the relevance of population factors in relation to provincial and sector plans and programmes of development. It is a process that involves virtually all the sectors and calls for intervention by government, private sector and civil society organisations.

The need for a population policy in Mpumalanga

To appreciate the need for a population policy for Mpumalanga, it is important to understand the population issues and challenges being faced by the province and the need to address them within the context of the Provincial Growth and Development Strategy (PGDS). The PGDS of 2004-2014 has ended and the provincial government is working on the next strategic framework. It is therefore appropriate to focus on population and development issues because of the imperative of the demographic dividend and its implications for sustainable human development.

The vision for the provincial population policy, like the national one, should be to contribute towards the establishment of a society that provides a high and equitable quality of life for all citizens in which population trends are commensurate with sustainable socioeconomic and environmental development. Putting together the ideas behind the province's vision and mission, the goal of the Mpumalanga Provincial Population Policy should be to achieve sustainable human development and realise the demographic dividend.

The objectives of the national policy are to enhance the quality of life of the people through: a) the systematic integration of population factors into all policies, plans, programmes and strategies at all levels and within all sectors and institutions of government; b) developing and implementing a coordinated, multi-sectoral, interdisciplinary and integrated approach in designing and executing programmes and interventions that impact on major national population concerns; and c) making available reliable and up-to-date information on the population and human development situation in the country in order to inform policy making and programme design, implementation, monitoring and evaluation at all levels and in all sectors.

The national strategies for population policy implementation should be adopted in the province as well, including:

- Integration of Population and Development Planning;
- Advocacy: Information, education and communication;
- Poverty reduction;
- Environment: Population, consumption and sustainability;
- Health, mortality and fertility;
- Gender equity, youth and children;
- Education: Availability and affordability;
- Employment: Education and skills relevance; and
- Rural population, migration and urbanisation.

The range of intervention strategies suggests that the policy relates to the mandates of almost all sectors (education, health, labour, economic development, environment, law and justice, gender, youth, settlement, information, transport, etc.). Therefore, the programme for policy implementation should be designed and operated by a variety of government departments at national and provincial levels, including Mpumalanga.

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Last but not least, the team acknowledges the support of the HSRC research team who participated in data collection and the transcription of audio tapes.

List of abbreviations

<5MR	Under-five mortality rate
≤19	Less than or equal to 19 years old
≥40	Greater than or equal to 40 years old
ABET	Adult Basic Education and Training
AIDS	Acquired immune deficiency syndrome
BANC	Basic antenatal care
BU	Bushbuckridge
CAPS	Curriculum Assessment Policy Statements
CDP&D	Chief Directorate of Population and Development
CFR	Case fatality rate
DEAT	Department of Environmental Affairs and Tourism
DoH	Department of Health
DPME	Department of Performance Monitoring and Evaluation
DSD	Department of Social Development
DWCPD	Department of Women, Children and People with Disabilities
EC	Eastern Cape
ECD	Early childhood development
EH	Ehlanzeni
EM	Emalahleni
ESMOE	Essential steps in managing obstetrics emergencies
FET	Further Education and Training
FS	Free State
GDP	Gross domestic product
GGP	Gross geographic product
GHS	General household survey
GP	Gauteng province
HAART	Highly active antiretroviral therapy
HIV	Human immunodeficiency virus
HSRC	Human Sciences Research Council
ICPD	International Conference on Population and Development

ICPD PoA	International Conference on Population and Development Plan of Action
ID	Identity document
IRS	Indoor residual spray(ing)
IMR	Infant Mortality Rate
IT	Information Technology
KZN	KwaZulu-Natal
LP	Limpopo province
M&E units	Monitoring and evaluation units
MB	Mbombela
MCWYH	Maternal, child, women and youth health
MDGS	Millennium Development Goals
MDR-TB	Multi-drug resistant tuberculosis
MEC	Member of the Executive Council
MK	Mkhondo
MP	Mpumalanga province
MRC	Medical Research Council
MTSF	Medium-Term Strategic Framework
NC	Northern Cape
NDP	National Development Plan
NKO	Nkomazi
NSDP	National Social Development Programme
NSFAS	National Student Financial Aid Scheme
NW	North West
NYDA	National Youth Development Agency
OBE	Outcome based education
OECD	Organisation for Economic Co-operation and Development
OHS	Occupational Health and Safety
PGDS	Provincial Growth and Development Strategy
PIH	Pregnancy-induced hypertension
PPC	Provincial Population Committee
PPH	Postpartum haemorrhage

PPU	Public Participation Unit
PU	Population Unit
RH	Reproductive health
SADC	Southern African Development Community
SADHS	South African Demographic and Health Survey
SMME	Small, medium and micro enterprises
ST	Steve Tshwete
STIs	Sexually transmitted infections
Stats SA	Statistics South Africa
TB	Tuberculosis
TH	Thembisile Hani
TFR	Total fertility rate
TVET	Technical Vocational Education and Training
UFM	Under-five Mortality
UN	United Nations
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session
WC	Western Cape
WEGE	Women's Empowerment and Gender Equality
WHO	World Health Organisation
XDR-TB	Extensive drug resistant tuberculosis
YLL	Years of life lost

1. Introduction

1.1 Conceptual framework

This research on the population of Mpumalanga was anchored on the demographic transition principle: changing age distribution as a result of declining trends in fertility and mortality, and consequent youth age bulge, with implications for the realisation of the demographic dividend. This is not simply another report on the provincial population characteristics; it is an action-oriented exposition of the dynamics of the provincial population, the associated social, demographic and economic factors, and implications for the young people who predominate in human numbers. This study is opportune because the demographic transition is ongoing. The labour force is expanding now more than ever before, and it is appropriate to use population information to support policy and programme efforts by all sectors to address the development of the province in a holistic manner.

The research framework is based on the model of 'demographic dividend': progress in demographic transition, supported by enhanced reproductive health status of women and gender equality in education and access to productive resources, and declining mortality. This yields a large pool of new entrants into the labour force annually, and calls for answers to two questions:

- Are the young people properly educated and healthy to enter the labour force?
- Will there be adequate provision for employment for all who are available and willing to work?

This research explores the policy and programming terrains in Mpumalanga to determine its readiness to take advantage of the 'window' of opportunity offered by the demographic dividend. The report focuses on effective implementation of gender-sensitive sustainable provincial development programmes, comprising health for all, universal education including early childhood development (ECD), skills development,

effective labour absorption capacity of the economy through gainful employment of new entrants into the labour force, and a macroeconomic environment that promotes savings and investments in the economy.

What this model attempts to accomplish, in consonance with the basic formulation of the demographic dividend principle, is to place emphasis on the focused development of every group of individuals in the population – the children, youth, adults in the labour force and the elderly – with a view to realising the dividend that emanates from demographic transition. The difference is that such planning leaves no one behind – every one matters.

The gender-sensitive character of development planning employed has its remarkable benefits. Both males and females participate fully and effectively in the education system and enjoy health and protection offered by family, community and the state. They enter the labour force well educated and skilled and become very productive. A healthy and skilled labour force close to full employment releases the energy necessary for sustained economic growth and development.

Underpinned by good governance, such an economy is bound to reap the first dividend that comes with effective participation of a rapidly increasing labour force in the economy. Secondarily, the savings and productive investments in reference lead to further growth of the economy and the advent of the second dividend.

For the demographic dividend to materialise in Mpumalanga, a conducive policy environment must be in place, including:

a) an environment where high-quality health and education provision is possible to facilitate demographic transition;
b) access to reproductive health services and facilities by all, especially the youth;

c) sufficient flexibility in the labour market to allow its expansion through creation of adequate employment opportunities;
d) macroeconomic policies that permit and encourage investment; and
e) access to adequate saving mechanisms plus confidence in domestic financial markets.

Beyond policy, this report also explores the transition into action. What is the use of a policy that is not implemented? To address possible inaction, this report provides a cautious guide to the Mpumalanga DSD in articulating an action plan in collaboration with all the sectors and departments, in order to translate the vision of demographic dividend into reality.

1.2 Background

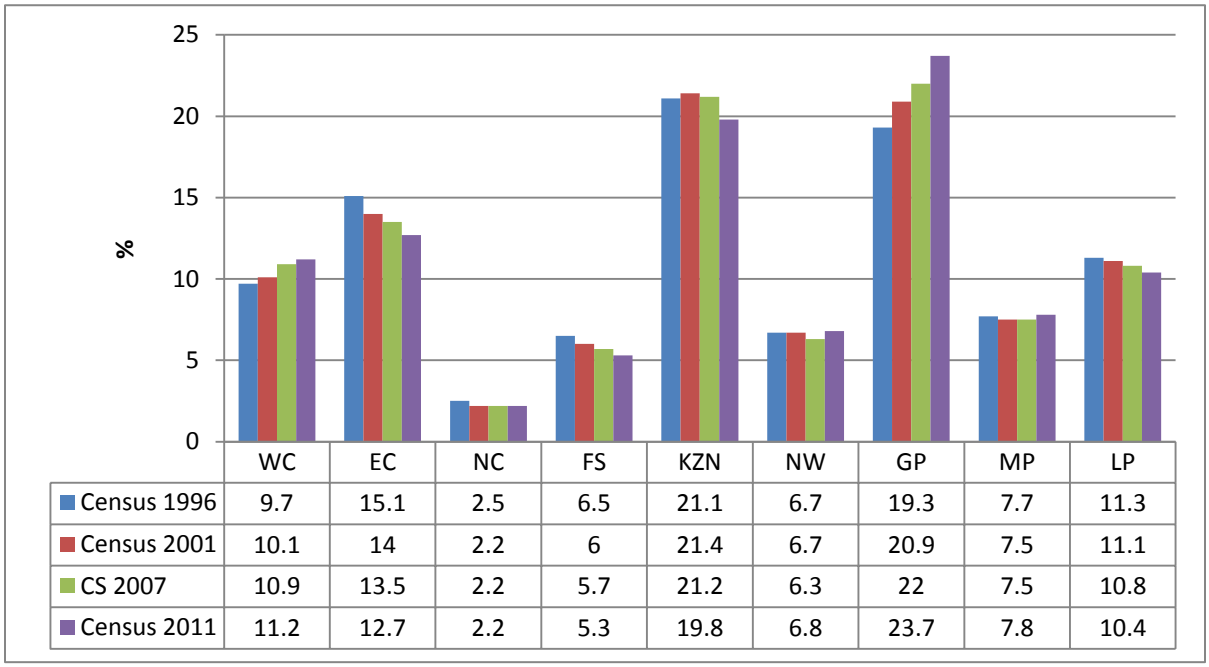
1.2.1 Population

Mpumalanga province is one of the nine provinces in the Republic of South Africa. In terms of the land area (79 490 km²), the province is small, occupying about 6.5% of the total land area in South Africa (see Map 1.1). However, in terms of the size of the population (4 039 939 people live in the province, representing 7.8% of the total population), it is the sixth largest of the nine provinces in the country (see Table 1.1)

Map 1.1: Map of Mpumalanga showing district boundaries

Source: Mpumalanga Department of Social Development, 2012

Figure 1.1: Percentage distribution of population by province, 1996–2011



	WC	EC	NC	FS	KZN	NW	GP	MP	LP
Census 1996	9.7	15.1	2.5	6.5	21.1	6.7	19.3	7.7	11.3
Census 2001	10.1	14	2.2	6	21.4	6.7	20.9	7.5	11.1
CS 2007	10.9	13.5	2.2	5.7	21.2	6.3	22	7.5	10.8
Census 2011	11.2	12.7	2.2	5.3	19.8	6.8	23.7	7.8	10.4

Source: Stats SA. Census 2011; Statistical release (Revised)

The share of Mpumalanga province in the total population of South Africa has remained remarkably stable since 1996, although there were slight variations from 7.7% in 1996 to 7.5% in 2001 and 2007, to 7.8% in 2011 (see figure 1.1).

Table 1.1: South Africa: Total population by province, Censuses 1996, 2001 and 2011**

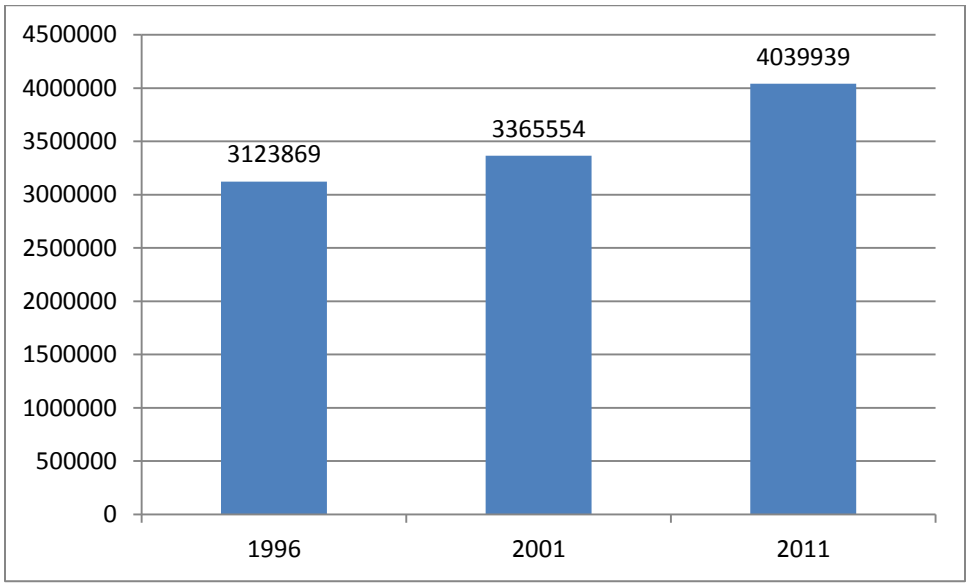
Province	Census 1996	Census 2001	Census 2011
Western Cape	3 956 875	4 524 335	5 822 734
Eastern Cape	6 147 244	6 278 651	6 562 053
Northern Cape	1 011 864	991 919	1 145 861
Free State	2 633 504	2 706 775	2 745 590
KwaZulu-Natal	8 572 302	9 584 129	10 267 300
North West	2 727 223	2 984 098	3 509 953
Gauteng	7 834 125	9 388 854	12 272 263
Mpumalanga	3 123 869	3 365 554	4 039 939
Limpopo	4 576 566	4 995 462	5 404 868
South Africa	**40 583 573**	**44 819 778**	**51 770 560**

**Censuses 1996 and 2001 have been aligned to 2011 municipal boundaries

Source: Stats SA, Census 2011

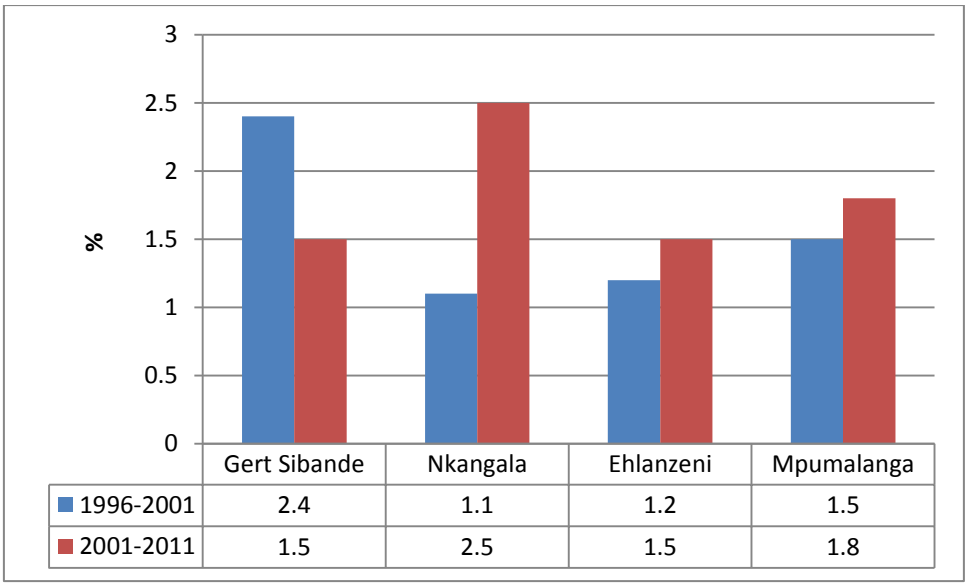
Mpumalanga province has experienced a steady increase in total population since 1996, from 3.1m to 3.4m in 2001 and 4.0m in 2011 (see Figure 1.2).

Figure 1.2: Mpumalanga population growth, 1996-2011



Source: Stats SA, Census 2011

Figure 1.3: Population growth rates by district municipality – 1996, 2001 and 2011



Source: Stats SA, Census 2011, Municipal report Mpumalanga

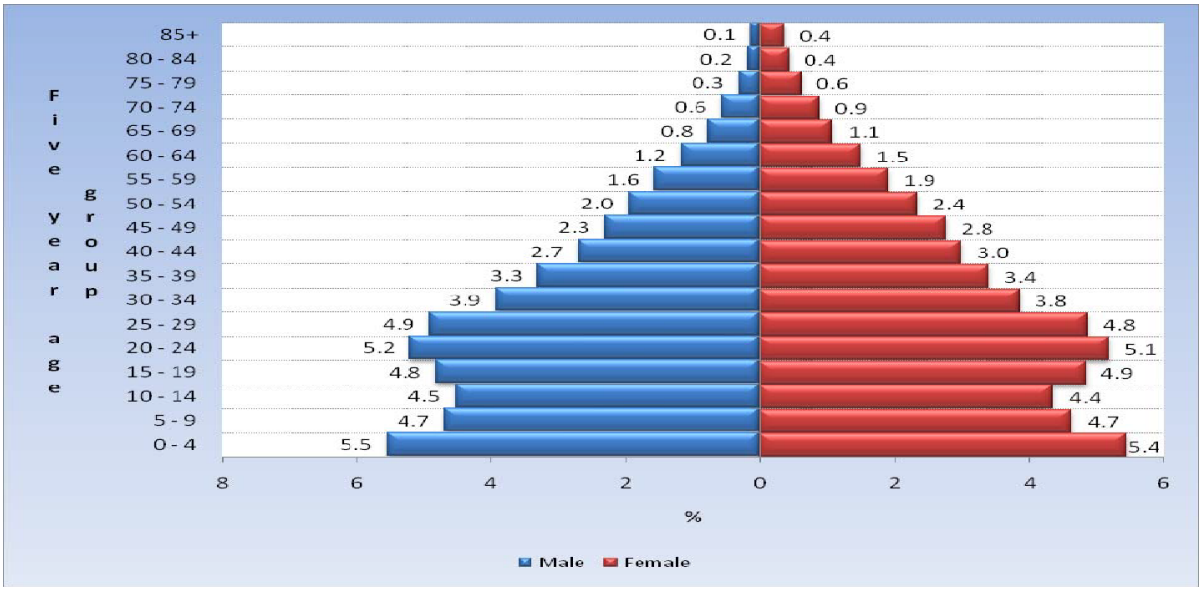
Figure 1.3 looks at the population growth rates by district. Gert Sibande has seen a significant decrease in population growth rate from the period of 1996-2001 to 2001-2011. This is influenced by the population moving to other districts where there are

more economic opportunities. Nkangala has seen an increase in population growth and Ehlanzeni has also seen a small growth rate. Overall the province has experienced a population growth from 1996 up until 2011.

1.2.2 Age distribution

Age and sex distribution of the population of Mpumalanga province bears a close semblance to the national age/sex composition in 2011 (see Figure 1.4 for national age/sex structure).

Figure 1.4: Distribution of the total population of South Africa by age group and sex

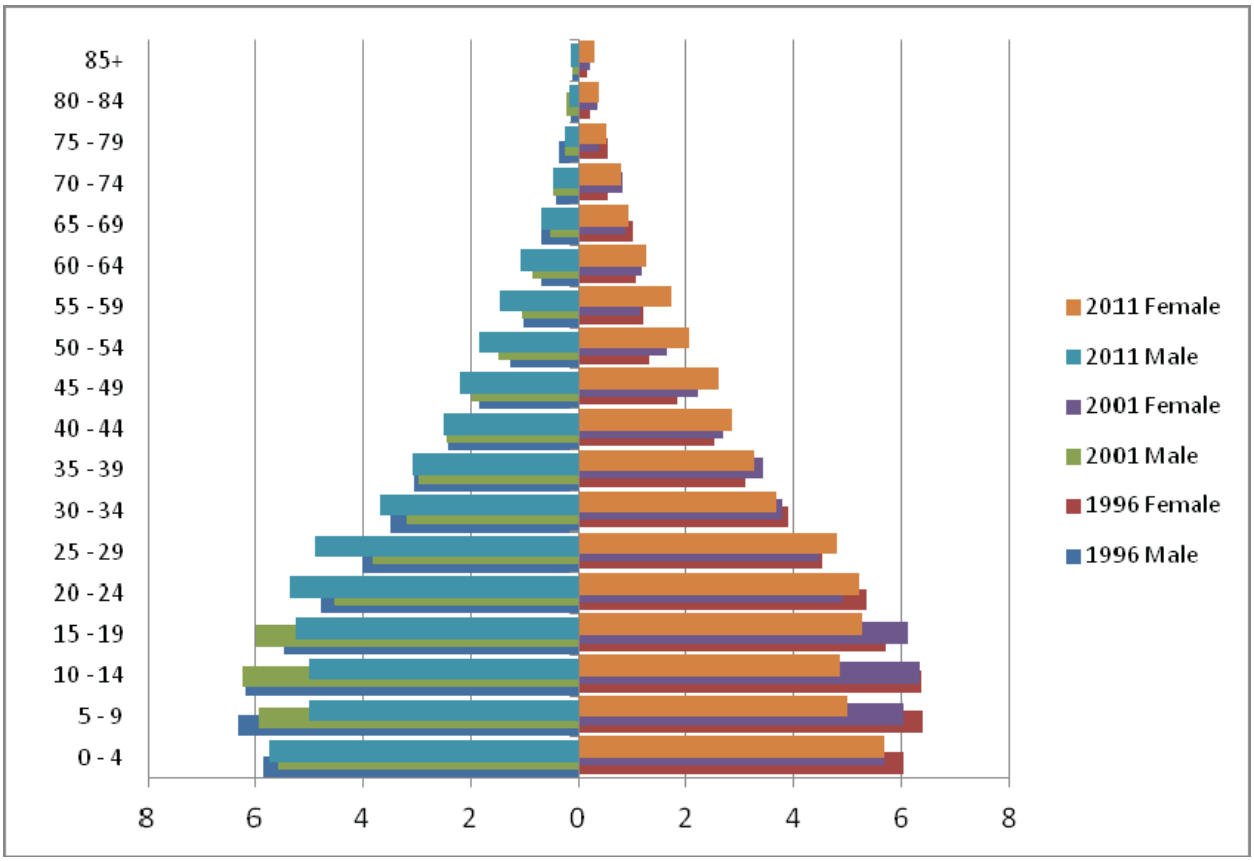


Source: Stats SA, Census 2011

Almost one in three or 29.6% of the population of South Africa is aged between 0-14 years and a further 28.9% is aged between 15-34 years, according to the 2011 census. In essence, South Africa's population is youthful, with young persons below 35 years making up 58.5% of the total population.

The age/sex structure of the provincial population is illustrated in Figure 1.5.

Figure 1.5 Distribution of population by age and sex, Mpumalanga – 1996, 2001 and 2011



Source: Stats SA, Census 2011 Municipal report Mpumalanga, (Report No. 03-01-56) Figure 8.1.1.1

Of the total population of 4 039 939 in 2011, young persons (0-34 years) numbered 2 803 155 or 69.4%, indicating a predominantly young population.

The youth population (defined officially as those aged 15-34) accounts for 1 542 478 or 38.2% of the total population. In terms of the labour force, which amounts to 2 589 547 according to the 2011 census, the youth constitutes 59.6%.

1.2.3 Sex distribution

The sex ratio at birth is defined as the number of boys born alive per 100 girls born alive[1]. The biological level of the sex ratio at birth is around 105 male births per 100 female births. In other words, male births account on average for slightly more than 51 per cent of all births, a gap between male and female births that can be explained as the long-term effect of natural selection processes among human societies (UNFPA, 2012). However the overall sex ratio of the population is generally low with variations among population groups. In the case of South Africa, the census data series indicate a stable but increasing pattern of overall sex ratios ranging from 92 in 1996 to 94 in 2011 for the Black African population group; the Coloured population group sex ratios fluctuated between 93 and 94, while sex ratios for the Indian population show considerable increase from 96 in 1996 to 101 in 2011 (Stats SA, 2011).

Two major factors impact on variations in sex ratio by age, namely mortality and migration. The impact of mortality tends to favour women over men and causes sex ratios to decline with age, dropping below the 100 line during adulthood or earlier. Among the elderly, sex differentials in survivorship are even more pronounced and it is not uncommon for sex ratios to plunge to levels below 60 men per 100 women. Migration also affects sex ratios in areas where, and from where, men or women migrate disproportionally (UNFPA, 2012).

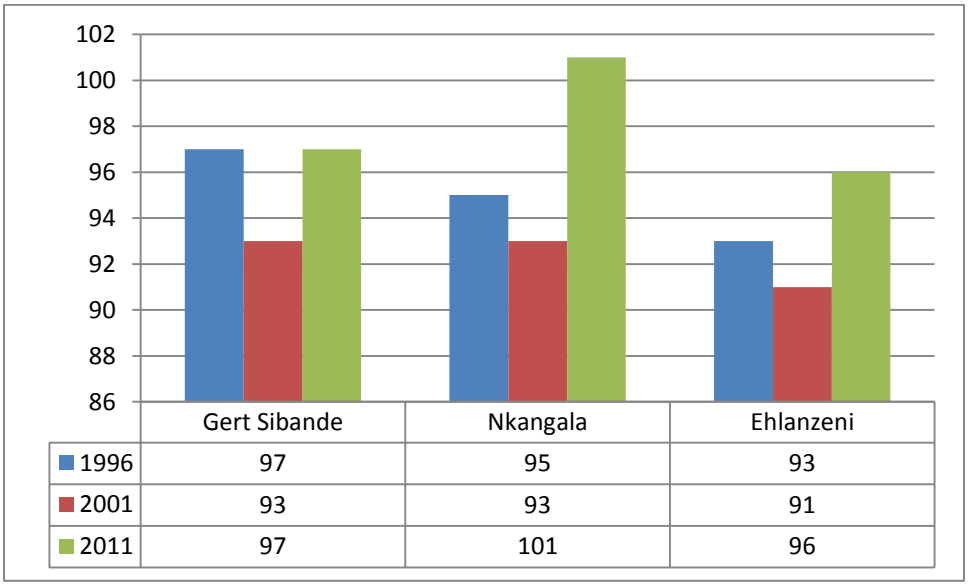
In South Africa, the overall sex ratio increased from 92 in 1996 to 95 in 2011. Variations in sex ratio by age group have been recorded, particularly among the youth in the 25-29 and 30-34 categories with sex ratios of 93 and 91 respectively in 2001 that increased markedly to 101 and 102 in 2007 and remained unchanged in 2011. Among the provinces, the census records indicate that Gauteng and North West had the highest sex ratios of over 100 in 2011; but North West had a sex ratio of 98 in 1996 that increased to 103 in 2011. Limpopo and the Eastern Cape on the other hand had sex

[1] UN. 1991. Handbook of Vital Statistics Systems and Methods, Volume 1.

ratios lower than 90 from 1996 to 2011 – the two provinces reported to be most affected by inter-provincial out-migration (Stats SA, Census 2011).

The successive census results since 1996 indicate that overall Mpumalanga has a low sex ratio. Women outnumbered men in 1996 and more so in 2001, but the sex ratio increased to 96 in 2011 in Ehlanzeni (see Figure 1.6). This is due to the increase in the number of women who migrate to other provinces.

Figure 1.6: Sex ratios by district municipality – 1996, 2001 and 2011



	Gert Sibande	Nkangala	Ehlanzeni
1996	97	95	93
2001	93	93	91
2011	97	101	96

Source: Stats SA, Census 2011 Municipal report Mpumalanga

1.2.4 Population groups

The cultural diversity is similar to that in other provinces in South Africa but Mpumalanga is predominantly African (92.4%) with a White population of 6.5% and almost an equal proportion of Coloureds and Asians (0.2%). In the province, 27.7% of the African population in Mpumalanga have SiSwati as their home language, 24.1% isiZulu, 10.1% isiNdebele, 9.3% Northern Sotho (Sepedi),10.4% Xitsonga, 7.2% Afrikaans,3.1% English,1.3% IsiXhosa, 3.5% Sesotho,1.8% Setswana,0.2% Sign Language, 0.3% Tshivenda and 1% Other (Stats SA, Census 2011).

In terms of population distribution by group, 92.4% of the Mpumalanga population is Black African, with the Ehlanzeni district having the highest concentration of Black Africans compared to the other districts. Ehlanzeni has the lowest concentration of White population compared to the rest of the province (4.7%). A marginal increase has been seen in the proportion of the Indian/Asian population in the province (Stats SA, Census 2011).

1.3 Study design

1.3.1 Aim

The aim of the project is to compile a comprehensive State of the Population Report that will place emphasis on sustainable human development attained through integrating population issues into plans and programmes.

1.3.2 Objectives

a) To highlight population issues that need to be considered to attain sustainable human development; and
b) To formulate recommendations about population and human development related issues.

1.3.3 Scope of work

For the purpose of this research, the Human Sciences Research Council (HSRC) team conducted a study about the state of Mpumalanga population. This involved desktop research with a variety of data sources, including data banks, research reports, historical data and trends to cover all dimensions of the project's study. Primary research was done through focus groups with the youth of Mpumalanga as well as interviews with various department officials of the province. The research placed emphasis on quality of data with accuracy, reliability and validity considered as crucial to the study.

In terms of process, the HSRC research team worked closely with the project coordinator(s) of the Department of Social Development to identify background documents and literature relevant to this study, to consider and approve the methodology, including the determination of groups to be interviewed, to prepare research instruments, a data tabulation plan, and to compile draft and final research reports.

1.4 Research methodology

1.4.1 Methodology

The methodology for this research is presented in Annexure A of this report. A summary of the methodology is presented below.

There are five related elements to the methodology for this research: a) analytical framework; b) data collection approaches; c) consolidation of data analysed; d) sampling; and e) data analysis.

a) Analytical framework

The analytical framework for the presentation of research results was based on a conceptual model developed by the UNFPA, underpinned by the population-environment-development relationships articulated by the ICPD PoA of 1994. This analytical framework is in line with empirical evidence and consensus about population, development and environment interrelationships. Concerning the interrelationships between population, sustained economic growth and sustainable development, it has been generally recognized that there are three areas of development planning focus: i) integrating population and development strategies; ii) population, sustained economic growth and poverty; and iii) population and environment (ICPD PoA, 1994).

b) Data collection approaches

Two data sources were explored by this study: data from secondary and primary sources. Overall, in addressing each of the themes of this study, comprehensive and analytical reviews of provincial background documents and empirical literature relevant to a respective theme were undertaken. Thereafter, and to the extent possible, quantitative outcome indicators were analysed using nationally comparable data. Where this was not possible, the analysis was focused on a thematic review of progress, with reference to policy and programme interventions.

Where deemed necessary to complement the findings of the desk-top assessment, interviews, using approved instruments, with the relevant key informants were conducted, including DSD officials and programme managers of Planning/M&E Units in the province from the relevant provincial departments: Department of Environmental Affairs, the Department of Basic Education and the Department of Health. Focus group discussions were held with the youth of Mpumalanga in the various districts.

c) Consolidation of data

In order to consolidate data from all sources, the analysis derives appropriate demographic, social, economic and environmental indicators in respect of policy and strategy directions being implemented and the effect on the provincial population at individual, family and community levels.

d) Sampling

Purposive sampling was conducted when selecting the key individuals in the various departments. Interviews with key relevant individuals in the various departments were selected with the support of the DSD team based on clusters around specific social, economic and population issues that affect the province. A convenient sample was used in conducting focus group discussions with the youth of Mpumalanga. This provided information that deepened the interpretation of population trends and characteristics, and served as an information source for making assumptions that are necessary for

making population projections. Assistance and advice from the DSD were sought to form opinions on certain aspects of the population policy. There is no intention to generalise from qualitative data analyses; the aim is to have a gauge on population issues.

e) Data analysis

Analysis and synthesis of data were done using appropriate models, including population projections and the application of statistical techniques in the analysis of data from primary sources.

The most commonly used models are consolidated by SPECTRUM, a Windows-based system of integrated policy models. This study employed Demography DemProj for making population projections. This is a program for making population projections based on i) current population, and ii) fertility, mortality, and migration rates for a country or region.

Data analysis using primary sources (from the Census 2011) was based on an agreed tabulation plan, which served as a basis for producing a series of frequency and cross-tabulated tables. Since this type of research involves multiple dependent and independent variables, it is necessary to show a general distribution of sample by each variable, relationships among variables, means and proportions and their variance distributions, and to test for significance as well as demonstrate relationships in testing hypotheses. In order to achieve this, the following sequence of statistical applications was used: patterns and strength of association; measures of central tendency – mean, mode and median values; measures of dispersion – variances and standard deviations; and significance tests of means, proportions and correlations.

1.4.2 Time frame

The project activities covered a nine month period from the commencement of the research.

1.5. Conclusion

This report highlights the demographic transition that is underway in Mpumalanga. The presence of a youth bulge is the main feature of the demographic transition. Thus, Mpumalanga province, that will be experiencing a youth bulge, could be vastly different with the realistic possibility of unprecedented economic growth. One of the corollaries of the increase of the proportion of young people is the increase in population mobility. The issue presented is that there is a need to be aware of the transition, and to make plans to reap the greatest benefit from it. The main point presented in the report is that in order to attain a demographic dividend, Mpumalanga must, in addition to the development of a skilled, healthy cohort of young people, also develop job opportunities that will absorb the growing number of young people.

2. Demographic factors influencing population trends

2.1 Introduction

This section analyses and presents the population dynamics in Mpumalanga as a basis for the subsequent narrative on the demographic dividend. As explained below, it is the changing characteristics of the population, particularly in the age distribution of the population that presents the evidence for a youth bulge and the implied window of opportunity to reap the dividend. Hence, this section defines the term 'population dynamics' and analyses the available data on the demographic factors associated with population change in the province over time.

The term population dynamics simply means population change. For any human population group (region, country, etc.), there are three possible directions of change in the population over time: growth, stability or decline. Population change is influenced by three demographic factors: fertility (or birth) rate, mortality (or death) rate, and net migration (i.e. balance of immigration and emigration at the country level, or balance of in-migration and out-migration at the regional level within a country). These relationships are expressed for a country as the balancing equation in demography, as follows:

Pt = (Po + B - D + Im – Em), where,

Pt is the population size in future, time t
Po is the initial population,
B is the number of births,
D is the number of deaths,
Im is the number of immigrants,
Em is the number of emigrants.

Natural increase (NI) is the balance (surplus or deficit) of births over deaths in a population over a defined period of time. Overall growth (or decline) of the population

takes into account the net effect of migration. If, at the end of the interval, Pt is greater than Po (Pt>Po), then the population has experienced growth; if Pt<Po, the population has declined; and if Pt = Po, the population has remained stable. While stability and decline were experienced in varying degrees in the course of the historical evolution of some regional populations, the dominant feature of the world population and its regional components in modern times has been growth[2].

In the preceding sections, aspects of population dynamics in the province have been considered. Population estimates and projections are discussed in this section under demographic dividend which is the major thrust of this report.

As defined above, three demographic factors affect population dynamics: fertility rate; mortality rate; and migration. Consideration is given to the social, economic and demographic factors as they impact on the dynamics of the Mpumalanga population. As society develops, there is the tendency for mortality and fertility levels to decline leading to what is known as demographic transition. Demographic transition in turn causes changing age distribution and consequent youth age bulge, with implications for the realisation of the demographic dividend.

2.2 Fertility

Factors associated with variations in fertility in a population are biological and behavioural. Biological factors that affect fertility are exposure to sexual intercourse; fecundity or sterility status of a couple. Behavioural factors that affect variations in fertility include social factors (education, marriage, value of children); economic (occupation, income); psychological (religion, uncertainty of child survival, psychosomatic); and policies (family planning, access to reproductive health services and facilities).

[2] Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2013). World Population Prospects: The 2012 Revision. New York: United Nations.

2.2.1 Fertility patterns

Evidence from the 1998 South African Demographic and Health Surveys (SADHS), which confirms established empirical findings globally, has been cited to explain the pattern of variations in fertility in South Africa, which is similar to that of Mpumalanga. Factors identified include education, effectiveness of reproductive health programme, rural-urban residence and migration status (SADHS, 2003).

At national level, the effect of education on the total fertility rate (TFR) is reported to be most profound: women with no education show a TFR value of 4.5 compared with 2.2 for women with a Grade 12 education (previously known as Standard 10) and 1.9 for those with a higher education (SADHS 1998, see Table 3.1).

Urban women reported a TFR of 2.8 compared to 3.9 by non-urban women and this pattern is confirmed at district level. Fertility is low in metropolitan areas and districts that contain major cities, but high in districts that encompass rural municipalities. In addition, the fertility of migrants (i.e. immigrants and internal migrants) is lower than that of non-migrants.

In addition, fertility levels have also been reported to vary by race and poverty indicators. Black Africans and Coloureds have comparatively higher fertility levels than their White and Indian/Asian counterparts. While provincial poverty status has a direct bearing on TFR, the relatively poor provinces of Limpopo and Eastern Cape exhibit higher TFRs than other provinces (Stats SA, 2010).

Age at first birth has been established as an important sociodemographic factor influencing fertility. The SADHS 1998 report indicates that the median age at first birth is higher for women in urban areas than for women in rural areas and increases with higher education in South Africa.

The pattern of regional variation shows that age at first birth is lowest in Mpumalanga (19.5 years) and highest in the Western Cape (21.8 years). In terms of population groups, age at first birth is highest (23.8) among Whites, followed by Asians (22.3) and Coloureds (21.2), while African women recorded the lowest age at first birth (20.3 years). Without effective contraception, early age of entry into sexual intercourse results in a high incidence of teenage pregnancies and high overall fertility.

Across South Africa, the reproductive health status of women has been identified with variations in fertility rate. The use of modern family planning methods, in particular, is associated with fertility reduction among all age groups of women. The development of favourable attitudes towards the use of modern family planning methods is best promoted by universal and higher education with a component of population education. For now, little is known about the effectiveness of contraceptive efforts in Mpumalanga. Contraceptive efforts are measured in terms of indicators of policy and stage-setting activities, service and service-related activities, record keeping and evaluation, accessibility of fertility control methods, and associated factors (Laphan and Simmons, 1987).

The pattern of variations in the socioeconomic conditions of the people is highly correlated with reproductive health indicators such as knowledge and ever-use, and current use, of modern contraceptive methods. The SADHS (2003) report shows that over 80% of currently married women between the ages of 20 and 44 have used a method of contraception. Among the youngest age group (15-19) only 66% have ever used a contraceptive method compared to 75% in the oldest age group (45-49). Effective and widespread adoption of the modern methods of contraception (particularly condoms) will not only contain the spread of HIV and AIDS and sexually transmitted infections (STIs), it will also reduce the level of fertility and lead to improved health status of mothers and children in general.

In South Africa, factors influencing contraceptive use (from which Mpumalanga can draw important lessons) have been identified as follows:

- Poor socioeconomic conditions and rural residence are linked to poor knowledge of contraception, limited access to contraceptive services, and lower contraceptive use;
- Knowledge of how conception occurs and use of contraceptives vary with education levels. Improved education levels are associated with increased contraceptive knowledge and use, while higher levels of education and retention of girls in school are also related to lower levels of teenage pregnancy and HIV and AIDS prevalence;
- Peer group and community pressures lead to poor negotiations around contraceptive and condom use among girls and young women, thus predisposing them to early childbearing; and
- The quality of reproductive health services, including information and counselling on family planning, influences the demand[3].

The use of contraceptive methods, though increasing, is still generally low among the youth. In 2007 the prevalence of contraceptive use by young people aged 15-24 years in South Africa was estimated at 52.2% (MacPhail, et al, 2007). In a survey of young South Africans conducted among women (3 123 subjects aged 18-24 years) in KwaZulu-Natal, Mpumalanga, the Eastern Cape and Gauteng, factors such as not having been pregnant, higher education, better accessibility of condoms, being HIV and AIDS negative, not having had an STI in the past 12 months and not having had early sex (below 15 years of age) were associated with current contraceptive use, while programme exposure was not associated with contraceptive use (Seutlwadi, et al, 2012).

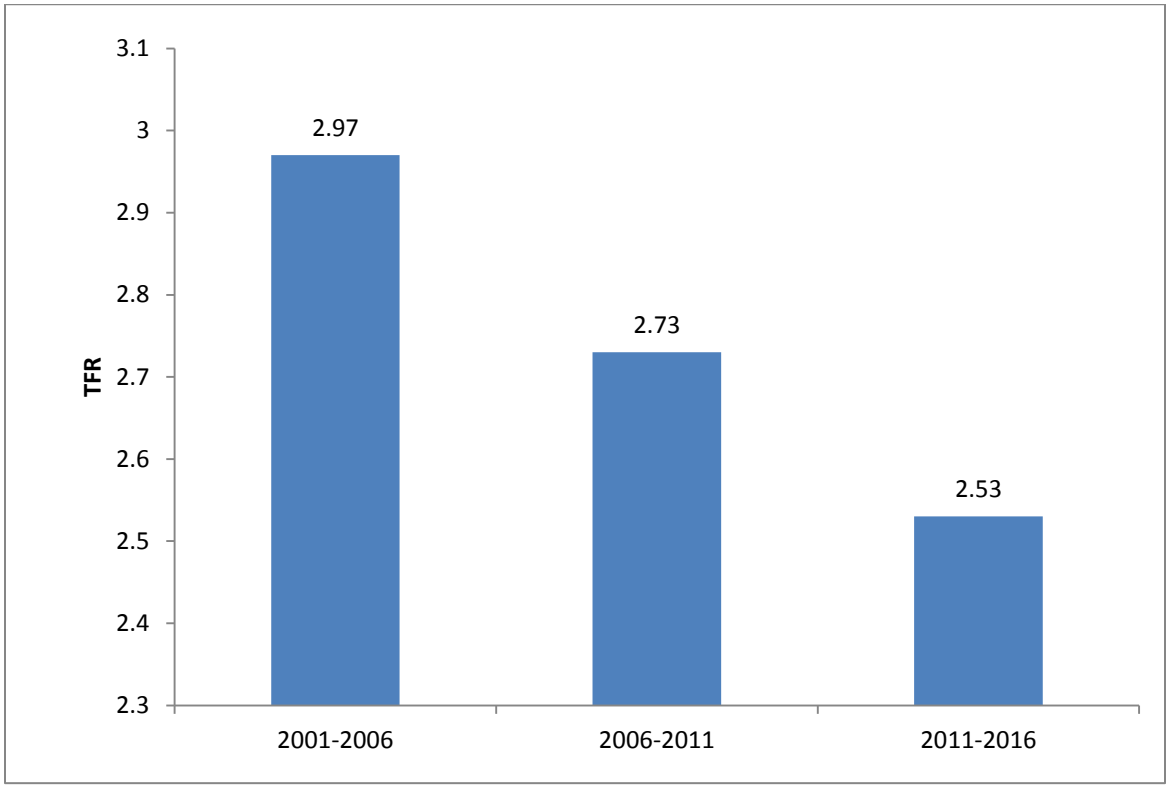
[3] Department of Health. 2012. National Contraception and Fertility Planning Policy and Service Delivery Guidelines (see p15).

2.2.2 Fertility trends

It is well recognised that the TFR series does not provide a complete picture of the trend in women's reproductive choices and behaviour, but the total fertility estimates can be used, among others, as inputs in population projections. They could also be employed by the national, provincial and local government structures, in partnership with private agencies, to project the needs of children (and women) for childcare centres, schools, hospitals, amusement parks, etc. (Stats SA, 2010).

This research has relied on the available TFR series as a basis for making fertility input assumptions in the *DemProj* model employed for estimating and projecting the population of Mpumalanga and related projections on the demographic dividend. The provinces of Limpopo, Eastern Cape and Mpumalanga have been found to have higher fertility levels in South Africa. For example, using the 1996 population census it was estimated that the three provinces, respectively, had TFRs of 4.5, 4.3 and 4.0 per woman in 1985 (Dorrington et al, 2004). These rates are higher than the TFRs of 2.9 and 3.1 for Gauteng and the Western Cape in the same year. Estimates from the 1998 Occupational Health and Safety (OHS) show that fertility was still the highest in the Limpopo province in 1998 (with a TFR of 4.1) and the lowest in the provinces of Gauteng and the Western Cape where women were estimated to bear an average of 2.7 children in their lifetime (Udjo 2005). The South African Department of Health obtained similar results using the 2003 South African Demographic and Health Survey (SADHS).

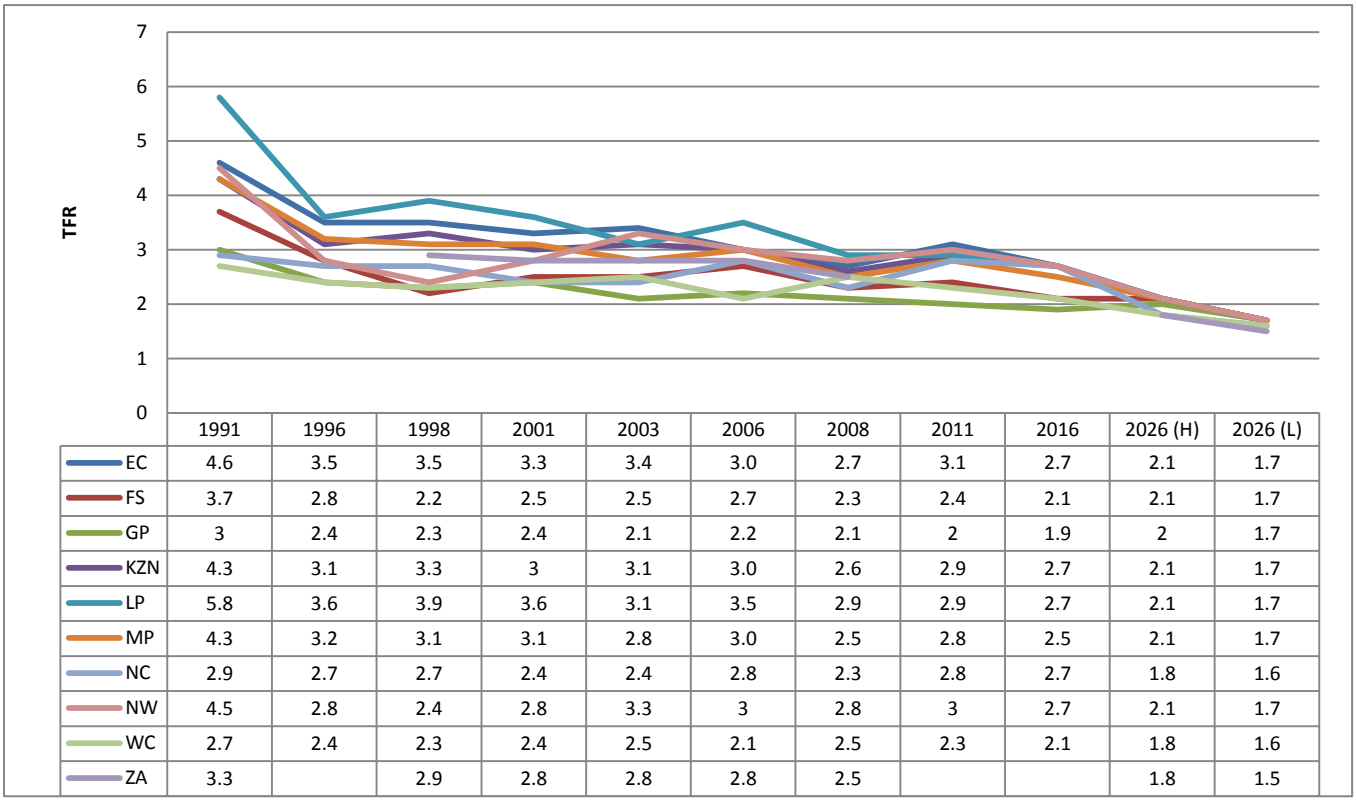
Figure 2.1: Mpumalanga average total fertility rates for the periods 2001–2006, 2006–2011 and 2011–2016



Source: Stats SA, 2015. Mid-Year population Estimates 2015.

The TFRs estimated for Mpumalanga over the years since reliable data became available show a downward trend in fertility in the province as seen in figure 2.1. This serves to confirm that Mpumalanga, in the context of South Africa's demographic prospects, has started to experience sustained decline in fertility. If accompanied by a similar downward trend in mortality, it would be safe to assume that the province is poised to achieve demographic transition in the next 20 years or so.

Figure 2.2: South Africa: Trends in TFR, national and provincial, 1991-2026



	1991	1996	1998	2001	2003	2006	2008	2011	2016	2026 (H)	2026 (L)
EC	4.6	3.5	3.5	3.3	3.4	3.0	2.7	3.1	2.7	2.1	1.7
FS	3.7	2.8	2.2	2.5	2.5	2.7	2.3	2.4	2.1	2.1	1.7
GP	3	2.4	2.3	2.4	2.1	2.2	2.1	2	1.9	2	1.7
KZN	4.3	3.1	3.3	3	3.1	3.0	2.6	2.9	2.7	2.1	1.7
LP	5.8	3.6	3.9	3.6	3.1	3.5	2.9	2.9	2.7	2.1	1.7
MP	4.3	3.2	3.1	3.1	2.8	3.0	2.5	2.8	2.5	2.1	1.7
NC	2.9	2.7	2.7	2.4	2.4	2.8	2.3	2.8	2.7	1.8	1.6
NW	4.5	2.8	2.4	2.8	3.3	3	2.8	3	2.7	2.1	1.7
WC	2.7	2.4	2.3	2.4	2.5	2.1	2.5	2.3	2.1	1.8	1.6
ZA	3.3		2.9	2.8	2.8	2.8	2.5			1.8	1.5

(H) High estimate; (L) Low estimate

Source: TFR Projections 1999: Haldenwang BB. High, Medium and Low Projections of the South African Population, 1996-2031. Cape Town: Institute for Futures Research; 1999[4].

Although slightly higher than the national average, the downward trend in fertility in Mpumalanga has been sustained since the 1990s (see Figure 2.2). As seen in the figure, the fertility rate nationally has decreased since the 1990s. Mpumalanga will

[4] http://www.ifr.sun.ac.za/ High population projections: The demographic impact of HIV/AIDS/AIDS is not incorporated, therefore life expectancy at birth increases throughout the projection period; fertility rates decline steadily; and a high degree of in-migration (200 000 per annum) is assumed. Medium population projections: The impact of the HIV/AIDS/AIDS epidemic is incorporated from 2011 onwards; fertility rates in black/African and Coloured women decline more rapidly than in the high projections; and a medium degree of in-migration (150 000 per annum) is assumed. Low population projections: The impact of the HIV/AIDS/AIDS epidemic is incorporated from 1996 onwards; fertility rates are similar to those of the medium projections; and a low degree of in-migration (100 000 per annum) is assumed. - See more at: http://indicators.hst.org.za/healthstats/5/data#sthash.e1yspolg.dpuf. Sources: Department of Health, Medical Research Council & Measure DHS+, South Africa Demographic and Health Survey 1998, Pretoria: National Department of Health; 2002 – Accessed at: http://indicators.hst.org.za/healthstats/5/data; Ref. URLhttp://www.doh.gov.za/facts/1998/sadhs98/; Also see: http://indicators.hst.org.za/healthstats/5/data#sthash.QErTWXys.dpuf

continue to see a decreasing trend in fertility which by estimates will continue up until 2026.

Previously, in the May 2013 release, Stats SA estimated the TFR for Mpumalanga, among other provinces, as follows: 2001-2006(2.98); 2006-2011 (2.77); and 2011-2016 (2.51). The TFRs have been adjusted upwards in the five year averages computed from 2001-2006 to 2011-2016. The basis for the upward adjustment, which applies to the whole country and provinces, is that between 2002 and 2014, fertility has declined at national levels from an average of 2.79 children per woman to 2.57 children per woman (Stats SA, 2014). It is noted that the TFR of 3.0 estimated for the period of 2006-2011 conform to an earlier estimate based on the 2007 TFR estimates derived from the National Community Survey (Stats SA, 2010).

2.3 Mortality

Factors influencing mortality are: biological (sex, age and conditions associated with child delivery); behavioural (diet, feeding habit, nutrition, smoking and sexual behaviours); and environmental (sanitation and exposure). There are underlying factors as well, such as health policy, poverty, access to health services and facilities, access to good water for drinking, affordability and quality of health services and facilities.

There are several measures of mortality indicating the health situation in a population. For the purpose of development programming to meet the health needs of the people of Mpumalanga, only the most sensitive of such indicators are chosen for illustration: infant mortality rate, under-five mortality rate, life expectancy at birth, and maternal mortality ratio.

2.3.1 Infant and under-five mortality

Measures of early childhood mortality, particularly the under-five mortality rate and infant mortality rate, are reliable indicators of the health of the population. As the health

of a population improves, childhood mortality rates decline and consequently overall life expectancy at birth increases.

The survival chances of under-five children in general are directly related to the social and economic characteristics of their mothers. Factors contributing to reduction in child mortality include increasing access of pregnant women to antenatal and postnatal care (including vaccination coverage), access to health professionals during delivery, adequate nutrition and proper sanitation. Urban living, increasing levels of education and access to maternal healthcare are significant factors associated with lower child mortality in Mpumalanga.

Infant mortality defines the probability of dying between birth and the first birthday. It is essentially a component of under-five or childhood mortality and a significant component, particularly in developing countries. Research works focusing on mortality in Mpumalanga are scarce. However, experience from country-wide research reports could be useful in understanding the pattern of variations in mortality reported for the province.

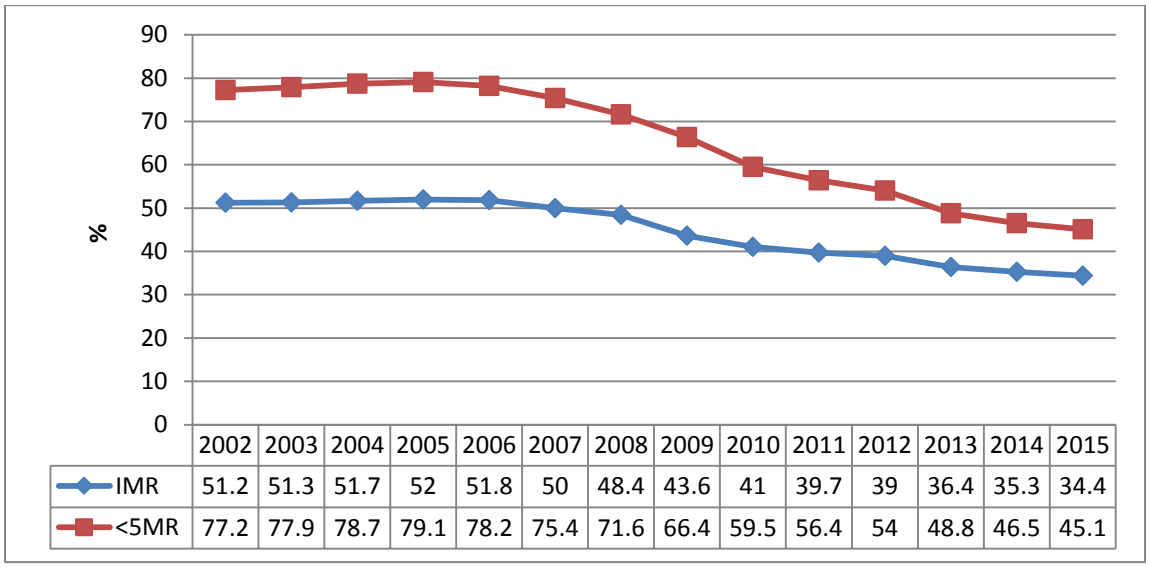
Research reports at district level incorporating analyses of correlates of infant mortality in South Africa have revealed that increasing maternal mortality, antenatal HIV and AIDS prevalence, previous sibling mortality and male infant gender remained significantly associated with increased infant mortality risk. Of these, antenatal HIV and AIDS zero-prevalence, previous sibling mortality and maternal mortality were found to be the most attributable respectively (Sartorius, et al, 2011).

Therefore, it has been suggested that interventions to reduce infant mortality in the country requires a range of investments that include increased health sector spending, improving health systems functioning, and ‘through socioeconomic progress to improve nutrition, housing, hygiene, education, gender equality, and human rights’ (Schell, et al, 2007).

In South Africa, the incidence of infant mortality differs widely across race groups and provinces. The differential infant mortality rate is also reflected in unequal socioeconomic status and access to services and facilities that vary widely across the nine provinces (Hargreaves, et al, 2007).

Based on estimates by Stats SA (2015), South Africa has experienced a steady decline in both infant mortality rate and under-five mortality rate since 2002. The trends for both measures are illustrated in Figure 2.3

Figure 2.3 Infant mortality rate (IMR) and under-five mortality rate (<5 MR) of South Africa



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
IMR	51.2	51.3	51.7	52	51.8	50	48.4	43.6	41	39.7	39	36.4	35.3	34.4
<5MR	77.2	77.9	78.7	79.1	78.2	75.4	71.6	66.4	59.5	56.4	54	48.8	46.5	45.1

Source: Stats SA, 2015. Mid-Year population Estimates 2015.

Based on death registration records, Stats SA computed the distribution of deaths in South Africa in 2014. The tabulated results by province of occurrence and province of usual residence are given in Table 2.1. It must be stated, however, that mortality analysis is not conventionally based on total number of deaths. Estimates are best presented as rates with reference to the base population by age and sex. Nevertheless the numbers reported by Stats SA at least offer a glimpse into proportional

representation of deaths and these can be compared to the provincial share in the total population.

The reported distribution of deaths by province of death occurrence and province of usual residence of the deceased in 2014 shows that 7.7% of all reported deaths in the country occurred in Mpumalanga, which is the third lowest of all the provinces. The table also shows that the number of deaths that occurred by province of usual residence is 7.9% which again is the third lowest of all the provinces.

Table 2.1: Distribution of deaths by province of death occurrence and province of usual residence of the deceased, 2014

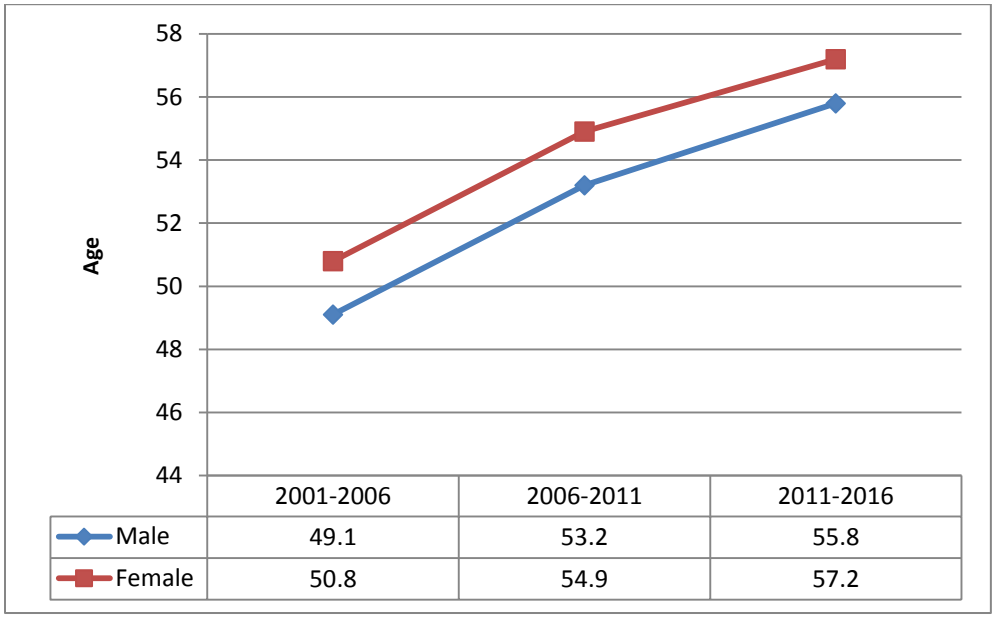
Province	**Province of death occurrence**		**Province of usual residence deceased**	
	Number	**Percentage**	**Number**	**Percentage**
Western Cape	44 020	9.7	43 842	9.7
Eastern Cape	66 553	14.7	66 800	14.7
Northern Cape	14 056	3.1	14 026	3.1
Free State	33 045	7.3	32 947	7.3
KwaZulu-Natal	79 138	17.5	76 764	16.9
North West	34 933	7.7	35 793	7.9
Gauteng	96 736	21.3	92 618	20.4
Mpumalanga	35 002	7.7	35 611	7.9
Limpopo	47 849	10.6	48 221	10.6
Foreign	713	0.2	1342	0.3
Unspecified	1315	0.3	5396	1.2
Total	**453 360**	**100**	**453 360**	**100**

Source: Stats SA, 2014, Mortality and causes of death in South Africa: Findings from death notification

As a result of social and economic development in the province, mortality levels have declined in all the young and adult age groups, leading to rising life expectancy among the different age groups. Figure 2.4 shows that the projected average life expectancy at birth for both males and females from 2001-2016 in Mpumalanga. The life expectancy

rate of males has increased from 2001-2006 (49.1); 2006-2011 (53.2) and 2011-2016 (55.8). Females life expectancy rate has also increased from 2001-2006 (50.8); 2006-2011 (54.9) and 2011-2016 (57.2). Overall the province is experiencing an increase in life expectancy.

Figure 2.4: Mpumalanga Average Life Expectancy at Birth, 2001-2006, 2006-2011 and 2011-2016



	2001-2006	2006-2011	2011-2016
Male	49.1	53.2	55.8
Female	50.8	54.9	57.2

Source: Stats SA, 2015 Mid-Year Population Estimates 2015

2.3.2 Maternal mortality

The well-being of a pregnant woman during pregnancy, delivery and shortly thereafter, depends on the quality of health care received, as well as the socio-economic conditions of the woman, all of which impact upon maternal mortality.

In South Africa, the *Saving Mothers* report on confidential enquiries into maternal deaths indicates that 4 867 maternal deaths were entered on the database for 2008-

2010 by 15th April 2011[5]. The reported institutional maternal mortality ratio increased overall and in every level of care when compared with 2005-2007; and non-pregnancy-related infections (mainly deaths in HIV and AIDS infected pregnant women complicated by tuberculosis and pneumonia) accounted for 40.5% of maternal deaths. In terms of causes of maternal deaths, obstetric haemorrhage and hypertension accounted for 28% of deaths (14% each), while the top three causes of maternal death (non-pregnancy-related infections, obstetric haemorrhage and hypertension) accounted for almost 70% of all maternal deaths. Maternal deaths due to obstetric haemorrhage and hypertension were thought to be possibly and probably preventable in 81% and 61% of cases respectively. The report notes that maternal deaths due to non-pregnancy-related infections, obstetric haemorrhage and hypertension were the three biggest contributors to preventable maternal deaths, accounting for two-thirds of avoidable deaths.

For Mpumalanga, the report shows that the number of maternal deaths for the triennium (2008-2010) was 394, which is an increase of 25.4% from the previous 3 year period (2005-2007). Maternal deaths in the age 30-34 category decreased by 3.8% and the number of primi gravidae (women that are pregnant for the first time) decreased by 14.9%. However, in the 25-29 age group it increased by 3.4%, and by 3.8% among women aged 30-34 years, possibly due to the relative increase in the number of deliveries.

The most common direct cause of maternal deaths is obstetric haemorrhage and this number has increased by 5.1% from 2005-2007, the same in magnitude to the increase in maternal deaths due to hypertension (5.1%). HIV and AIDS accounted for 32.8% of maternal deaths in the province (16.5% on Highly Active Antiretroviral Therapy (HAART) and 16.3% not on HAART).

[5] Saving Mothers 2008-2010: Fifth Comprehensive Report on Confidential Enquiries into Maternal Deaths in South Africa (P266-272); Accessed at: http://www.sanac.org.za/resources/cat_view/7-publications/9-reports

Given the observed patterns and trends in maternal deaths in the province, the report recommends the following:

- Establishment of mother, child, woman and youth health (MCWYH) outreach teams;
- Training of trainers of champions on management of postpartum haemorrhage (PPH) and pregnancy-induced hypertension (PIH), to cascade training to their respective sub-districts;
- Strengthen essential steps in managing obstetrics emergencies (ESMOE) training to improve knowledge and skills in the management of obstetrics emergencies by doctors and midwives;
- Strengthen and support the implementation of basic antenatal care (BANC), postnatal care, contraception and termination of pregnancy;
- Improve knowledge and skills in administering safe anaesthesia with particular emphasis paid to district health facilities;
- Improve the management of HIV and AIDS positive pregnant women; and
- Promote advanced midwives meetings to revive and strengthen their morale.

A study conducted in a demographic health site, based on a retrospective cohort design using secondary data, was collected as part of the Agincourt health and sociodemographic surveillance. This study demonstrated that there was an increasing risk of maternal death with increasing maternal age and parity. This implies that increasing age of women is associated with greater number of children ever born, and older parity women often face greater risk of death. The increased risk of death during pregnancy and the puerperium for older women and for those with higher parity are not new findings. The Agincourt finding confirms the earlier findings from the 1998 SADHS that showed that women of 30 years and older or of a parity of 5 or more were at a greater risk of death during pregnancy and the puerperium, which is defined as the time from the delivery of the placenta through the first few weeks after the delivery. This period is usually considered to be 6 weeks in duration.

Table 2.2 shows the observed trends in maternal mortality in this study. HIV and AIDS, respiratory tuberculosis and other ill-defined conditions were reported to be the major causes of death across the age groups, with over 70% of all deaths of women of reproductive age related to HIV and AIDS and TB. The major risk factors associated with maternal mortality are reported to be increasing maternal age, complications during delivery, lack of antenatal care visits and the mother's socioeconomic status (Nagai, 2012).

Table 2.2: Estimated trends in maternal mortality ratio in Agincourt, 1993-2006

Period	***Maternal mortality ratio***
1993-1994	183.2
1995-1996	59.8
1997-1998	116.8
1999-2000	246.0
2001-2002	218.7
2003-2004	475.1
2005-2006	692.2

Source: Nagai, RA. 2012. Levels and factors associated with maternal death in Agincourt, a rural sub-district of Mpumalanga Province, South Africa, based on Table 2

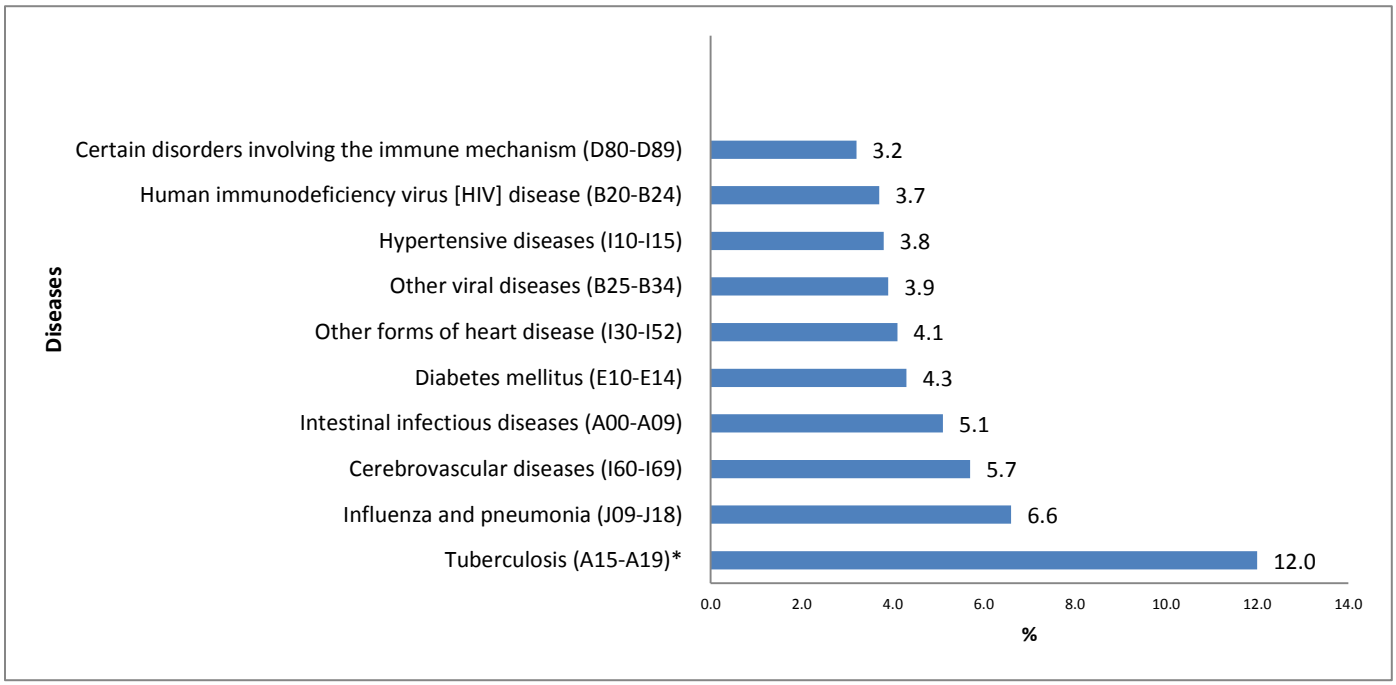
2.3.3 Causes of death

The age structure of the population of Mpumalanga as reported in the 2011 census is remarkably similar to the national age structure for South Africa, and this largely explains the resemblance of the provincial broad age distribution of deaths to the national age pattern of deaths.

As seen in figure 2.5 the three main underlying natural causes of death affecting both sexes in the province in 2014 was Tuberculosis at 12%. Influenza and pneumonia is 6.6% cause of natural deaths in the province and thirdly cerebrovascular diseases are 5.7% cause of deaths in the province. When differentiating the diseases affecting each of the sexes (figure 2.6 and figure 2.7), Tuberculosis is 13.4% of natural causes of

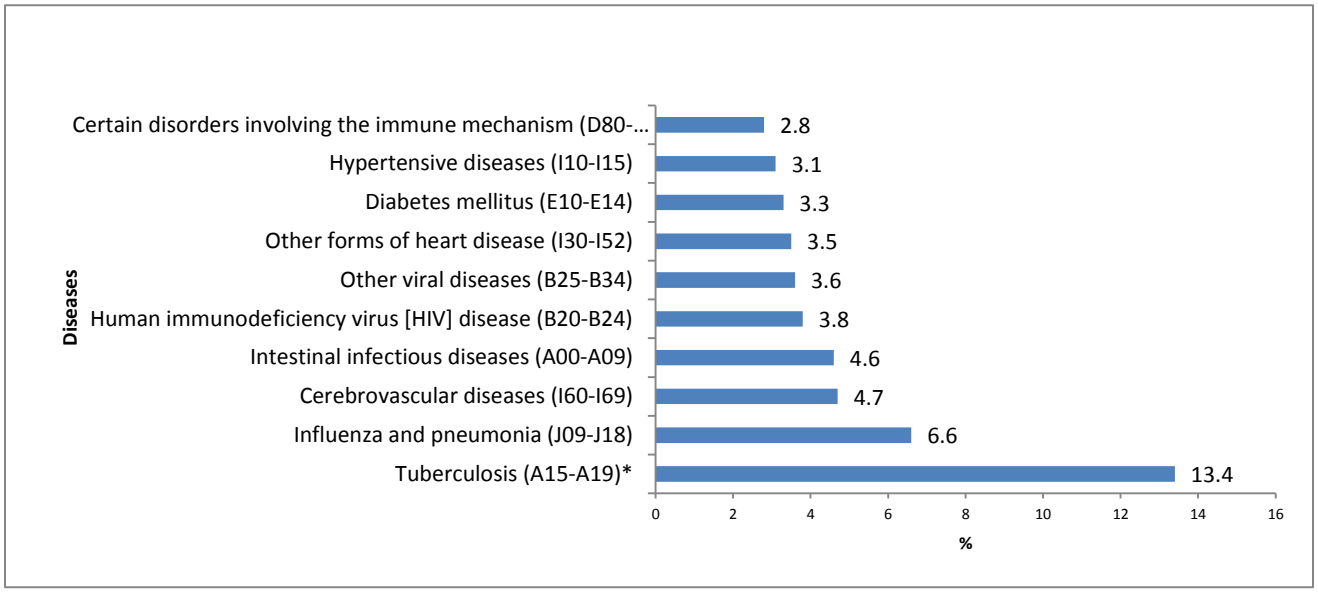
deaths with males as compared to 10.6% of females. HIV and AIDS is 3.8% of natural causes of deaths with males as compared to females who have 3.6% of HIV and AIDS related deaths. Influenza and pneumonia is 6.6% of natural causes affecting men while cerebrovascular diseases are 6.9% of diseases affecting females.

Figure 2.5: Leading underlying natural causes of death of both sexes, all ages, in Mpumalanga, 2014



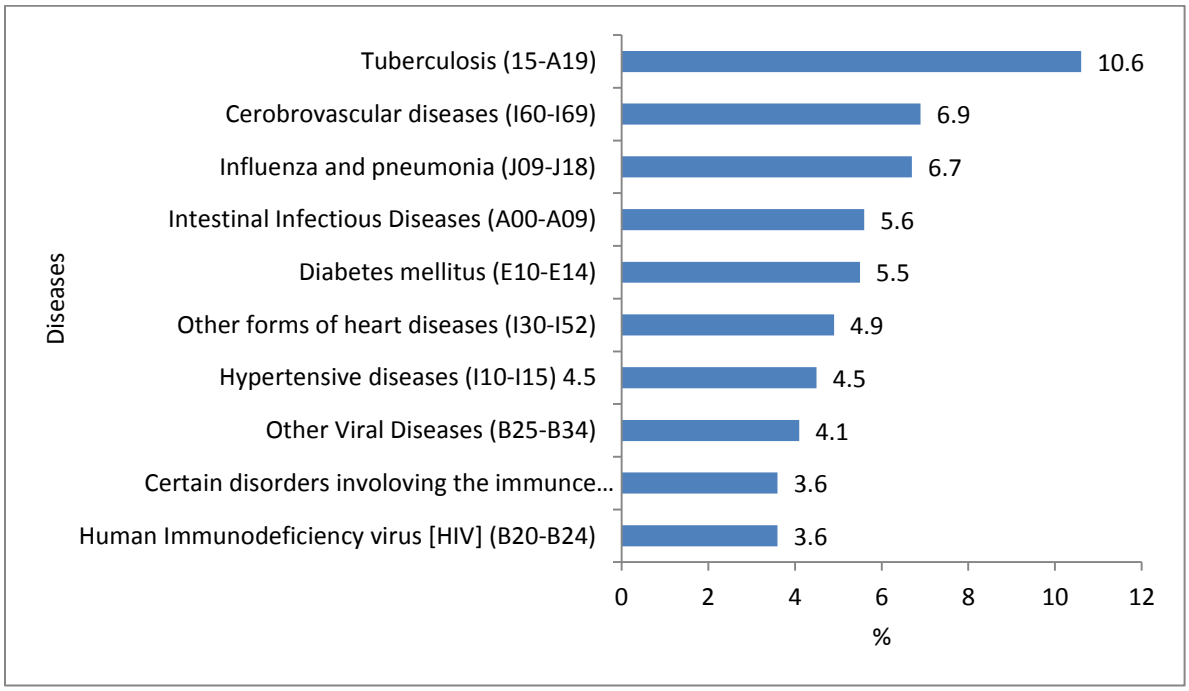
*Including deaths due to MDR-TB and XDR-TB
Source: Stats SA, 2014 Mortality and causes of death in South Africa: Findings from death notification.

Figure 2.6: Leading underlying natural causes of death, males, all ages, in Mpumalanga, 2014



*Including deaths due to MDR-TB and XDR-TB.
Source: Stats SA 2014 Mortality and causes of death in South Africa, 2014: Findings from death notification.

Figure 2.7: Mpumalanga: Leading underlying natural causes of death, females, all ages, in Mpumalanga, 2014



*Including deaths due to MDR-TB and XDR-TB
Source: Stats SA, 2014 Mortality and causes of death in South Africa, 2014: Findings from death notification.

The ten leading underlying natural causes of death vary notably by district in Mpumalanga. However, common to the three districts are tuberculosis, HIV and Aids and Influenza and pneumonia as leading causes of death. The overall pattern is shown in the table 2.3.

Table 2.3: The ten leading underlying natural causes of death by district municipality of death occurrence, Mpumalanga 2014*

Ehlanzeni	**%**	**Gert Sibande**	**%**	**Nkangala**	**%**
Tuberculosis (A15-A19)**	12.2	Tuberculosis (A15-A19)**	8.8	Tuberculosis (A15-A19)**	8.1
Human immunodeficiency virus [HIV] disease (B20-B24)	7.5	Human immunodeficiency virus [HIV] disease (B20-B24)	6.4	Influenza and pneumonia (J09-J18)	7.5
Cerebrovascular diseases (I60-I69)	5.8	Influenza and pneumonia (J09-J18)	6.0	Hypertensive diseases (I10-I15)	6.3
Intestinal infectious diseases (A00-A09)	4.5	Other viral diseases (B25-B34)	5.6	Cerebrovascular diseases (I60-I69)	5.2
Diabetes mellitus (E10-E14)	4.5	Intestinal infectious diseases (A00-A09)	5.2	Diabetes mellitus (E10-E14)	5.1
Other viral diseases (B25-B34)	4.4	Diabetes mellitus (E10-E14)	4.8	Other forms of heart disease (I30-I52)	4.5
Other forms of heart disease (I30-I52)	4.0	Cerebrovascular diseases (I60-I69)	4.4	Human immunodeficiency virus [HIV] disease (B20-B24)	4.3
Influenza and pneumonia (J09-J18)	3.8	Hypertensive diseases (I10-I15)	4.4	Other viral diseases (B25-B34)	3.8
Certain disorders involving the immune mechanism (D80-D89)	2.2	Other forms of heart disease (I30-I52)	4.2	Intestinal infectious diseases (A00-A09)	3.3
Hypertensive diseases (I10-I15)	3.0	Certain disorders involving the immune mechanism (D80-D89)	3.9	Other acute lower respiratory infections (J20-J22)	3.3

*Excluding cases with unspecified district municipality. **Including deaths due to MDR-TB and XDR-TB.
Source: Stats SA, 2014 Mortality and causes of death in South Africa, 2014: Findings from death notification.

2.3.4 Mortality distribution across different population groups

In terms of natural causes of death nationally, in 2014 communicable diseases (including tuberculosis, influenza and pneumonia, human immunodeficiency virus (HIV and AIDS) disease, other viral diseases, intestinal infectious diseases and certain disorders involving the immune system) were generally more common among the Black African population. Together the six causes accounted for 36.5% of deaths in the Black African population.

Tuberculosis was the leading cause of death among both the Black African (10.1%) and Coloured population (6.9%), while among the White and Indian/Asian population groups the leading cause was diabetes and mellitus ischemic heart diseases contributing 11% and 14.8% respectively.

The second leading underlying natural cause of death for the Black African population was HIV and AIDS (6%), whilst for the Coloured population tuberculosis was ranked second, responsible for 6.9% of total deaths within this group. The second ranked cause for the White population group was other forms of heart disease, accounting for 6.9% of deaths in this group.

2.3.5 Premature mortality

Premature mortality measures the years of life lost (YLL) or the number of years a person died before the end of his or her expected lifespan (as given in the standard life-expectancy table). Based on YLLs per 100 000 population, the premature mortality in KwaZulu-Natal is double that in the Western Cape, the province with the lowest premature mortality. Among the ten leading causes of premature mortality in Mpumalanga, HIV and AIDS ranks the highest at 47.5%; followed by diarrhoeal diseases at 5.2% (see details in Table 2.4).

Table 2.4: Leading ten causes of premature death in Mpumalanga 2014

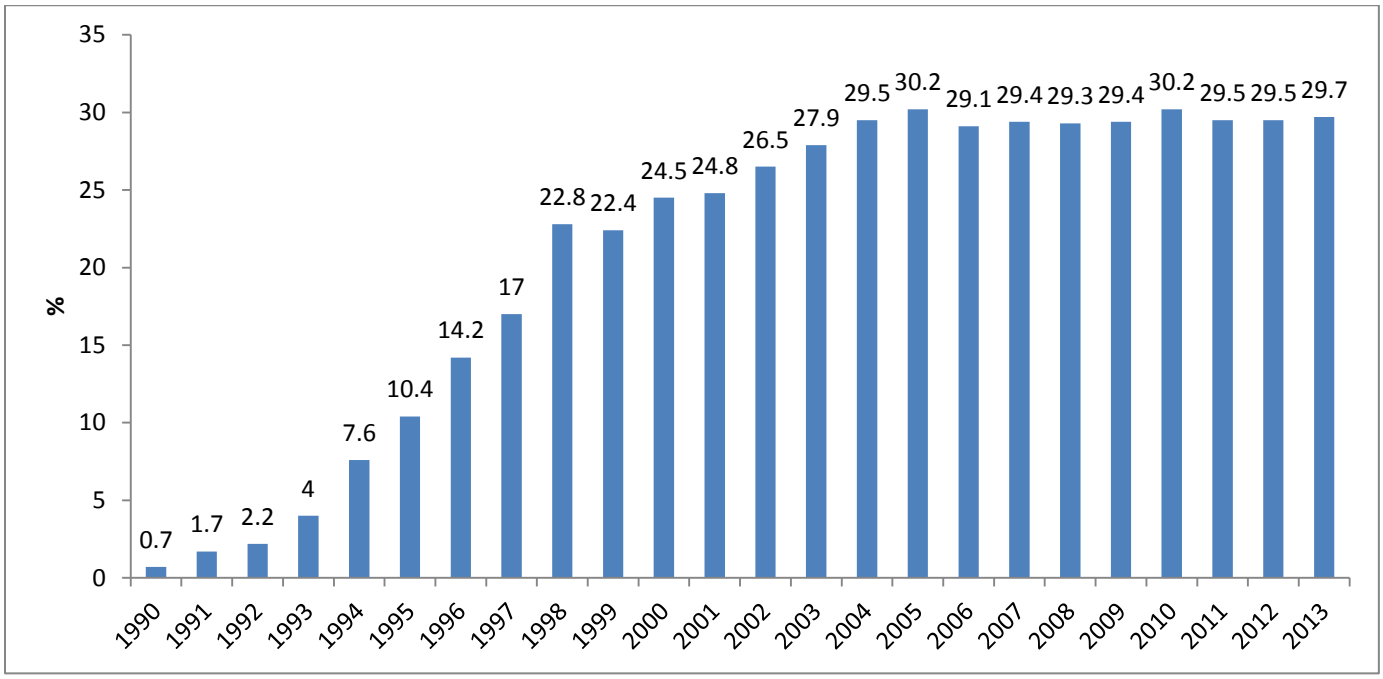
Rank	Description	Percent (%)
1	HIV and AIDS	47.5
2	Diarrhoeal diseases	5.2
3	Road Injuries	5.
4	Lower respiratory infection	4.8
5	Cerebrovascular disease	4.1
6	Tuberculosis	3
7	Hypertensive heart disease	2.3
8	Diabetes milletus	2.1
9	Ischaemic heart disease	2.2
10	Hypertensive heart disease	2.1

Source: Massyn et al, 2015

2.3.6 HIV and AIDS

The national prevalence of HIV and AIDS in South Africa is 29.7% (Department of Health, 2014). The 2013 National Antenatal Sentinel HIV Prevalence Survey South Africa, estimates that 29.5% of pregnant women in South Africa (aged 15-49) were living with HIV and AIDS (Department of Health, 2014). Until 1998 South Africa had one of the fastest expanding epidemics in the world, but since 2006 HIV and AIDS prevalence among pregnant women has remained relatively stable. Figure 2.8 looks at the prevalence of HIV and AIDS amongst antenatal women in South Africa from 1990-2013. The estimate shows that over the years there has been an HIV prevalence increase amongst antenatal women across the country.

Figure 2.8: HIV prevalence estimates trend among antenatal women, SA, 1990 - 2013.

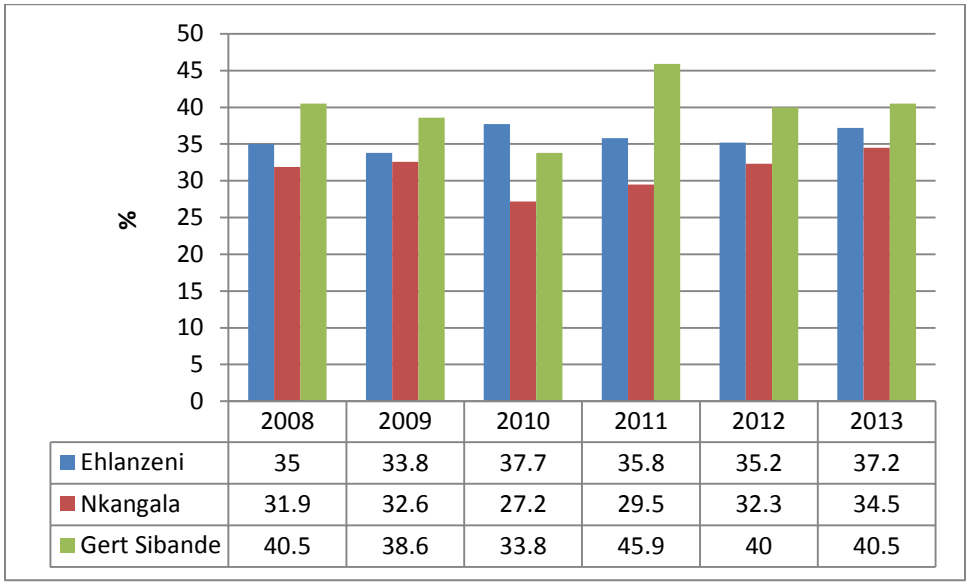


Source: Department of Health, 2014

Provinces that recorded high HIV and AIDS prevalence were KwaZulu-Natal (40.1%), Mpumalanga (37.5 %), Eastern Cape (31.4%), Free State (29.8%), Gauteng (28.6%), Limpopo (20.3%) and North West (28.2%). The Western Cape and Northern Cape recorded the low prevalence at 18.7% and 17.5% respectively (Department of Health, 2014).

The prevalence of HIV and AIDS amongst antenatal women over the years has changed in the province. Figure 2.9 looks at how the districts in Mpumalanga have been affected by the disease from 2008-2013. Based on the survey, Gert Sibande has the highest prevalence of HIV and AIDS amongst antenatal women (40.5%) followed by Ehlanzeni (37.2%) and Nkangala (34.5%). Over the six year period, Gert Sibande has had the highest prevalence of HIV and AIDS amongst antenatal women in the province. Overall there has been 7% increase of infections among antenatal women during this time period (Department of Health, 2014).

Figure 2.9: Mpumalanga HIV and AIDS prevalence among antenatal women by district from 2008-2013

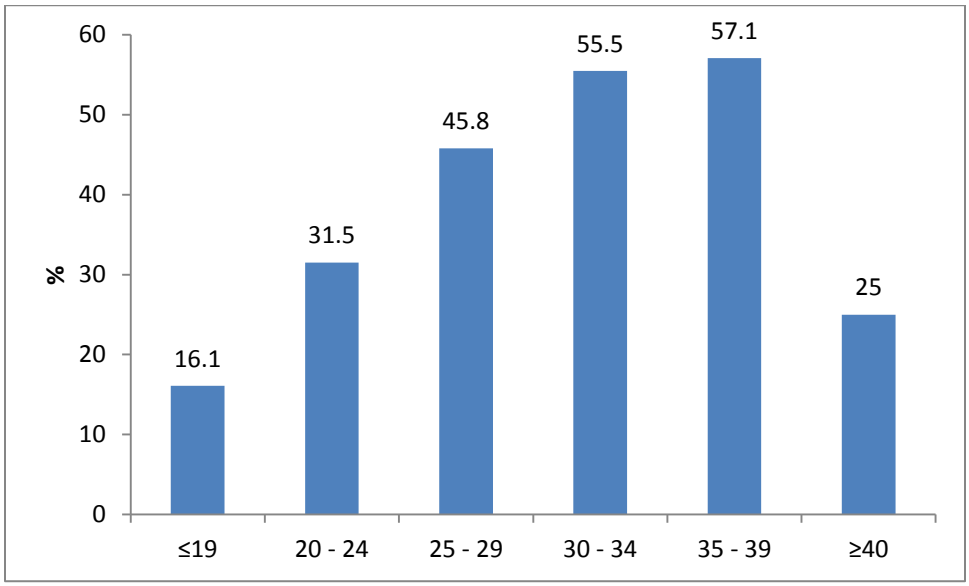


	2008	2009	2010	2011	2012	2013
Ehlanzeni	35	33.8	37.7	35.8	35.2	37.2
Nkangala	31.9	32.6	27.2	29.5	32.3	34.5
Gert Sibande	40.5	38.6	33.8	45.9	40	40.5

Source: Department of Health, 2014

Figure 2.10 looks at the prevalence of HIV and AIDS in Mpumalanga in the various age groups amongst antenatal women. The age group of 35-39 recorded the highest prevalence rate (57.1%), followed by the age group of 30-34 (55.5%). Estimates show that HIV prevalence amongst people of reproductive age is over 30% (Department of Health, 2014).

Figure 2.10: HIV and AIDS prevalence among antenatal women by age in Mpumalanga



Source: Department of Health, 2014

The national patterns of estimated adult (15-49 age group) HIV prevalence rates for 2012 show a resemblance to those reported for antenatal clinic attendees in 2011. The prevalence rates range from 7.8% in the Western Cape to 27.9 in KwaZulu-Natal. Mpumalanga (21.8%) has the second highest prevalence rates after KwaZulu-Natal.

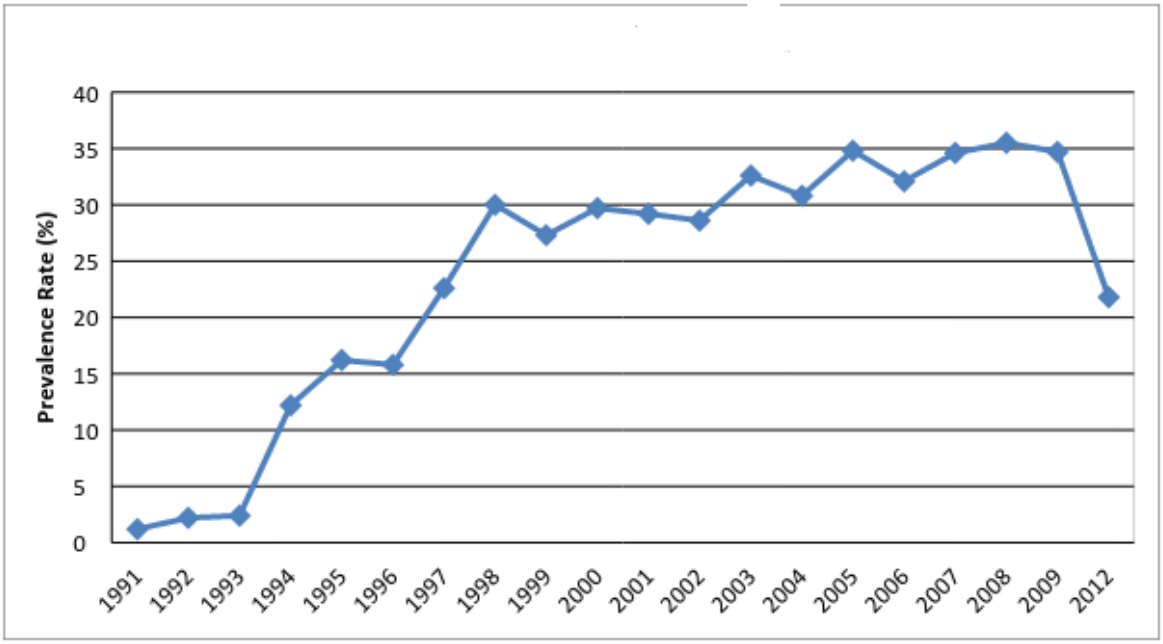
Table 2.5: HIV prevalence among adults in the 15–49 age group by province, South Africa 2012

Province	Prevalence (%)
KwaZulu-Natal	27.9
Mpumalanga	21.8
Free State	20.4
Gauteng	17.8
North West	20.3
Eastern Cape	19.3
Limpopo	13.9
Northern Cape	11.9
Western Cape	7.8
National	18.8

Source: Shisana, et al. (2014) South African National HIV Prevalence, Incidence and Behaviour Survey, 2012. Cape Town, HSRC Press. Based on Table 3.13.

HIV prevalence among people of reproductive age is highest in KwaZulu-Natal (27.9%), 3.6 times higher than in the Western Cape, the province with the lowest prevalence, followed by Mpumalanga with a prevalence rate of 21.8% in 2012 (Shisana, et al, 2014).

Figure 2.11: HIV prevalence of age group 15-49 in Mpumalanga, 1991-2012



Source: Mpumalanga Delivery Agreement for Outcome 2, Shisana, et al (2014)

In terms of trends, Figure 2.11 shows that HIV prevalence among adults in the province (15-49 age group) has been rising rapidly since 1991, reaching a peak in 1998, followed by a fluctuating upward trend reaching another peak of 35.5% and thereafter dropping sharply in the 2012 HSRC estimate to 21.8%.

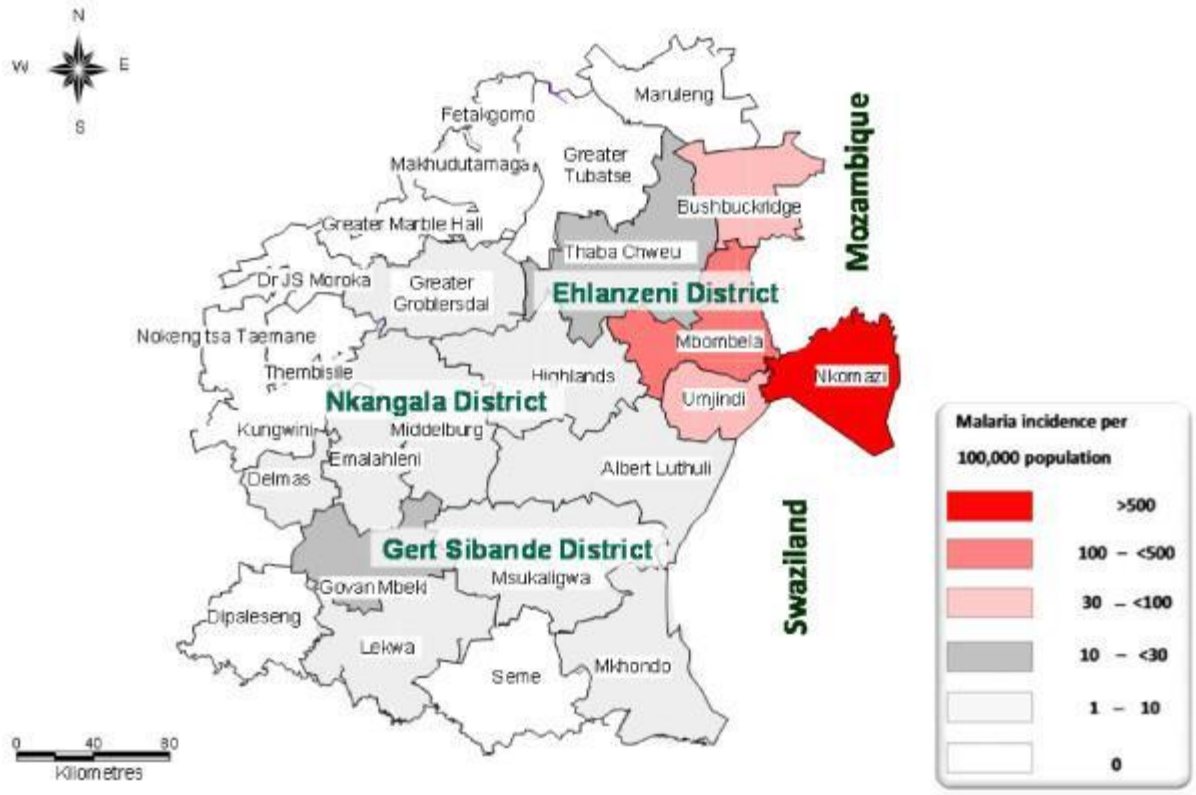
2.3.7 Malaria

Malaria is not a common cause of death in South Africa, but it remains a serious epidemic threat in Mpumalanga province. Based on a retrospective study covering the period from 2001 to 2012, Ngomane and De Jager (2012) have shown that within the study period a total of 35 191 cases and 164 deaths due to malaria were notified in Mpumalanga province. There was a significant decrease in the incidence of malaria from 385 in 2001/02 to 50 cases per 100 000 population in 2008/09. The incidence and case fatality rates (CFR) for the study period were 134 cases per 100 000 and 0.54%, respectively. Mortality due to malaria was lower in infants and children and higher in those under 65 years, with a mean CFR of 2.1% compared to the national target of

0.5%. A distinct seasonal transmission pattern was found to be significantly related to changes in rainfall patterns; but a notable decline in malaria case notification was observed following apparent scale-up of indoor residual spraying (IRS) coverage from 2006/07 to 2008/09 malaria seasons. Figure 2.12 looks at the incidences of malaria in the province. Bushbuckridge, Mbombela and Umjindi have reported incidences of malaria, but the highest area in the province is Nkomazi with more than 500 cases per 100 000 of the population of the province.

While the goal of reducing malaria morbidity and mortality by over 70% has been achieved, largely due to the scale-up of IRS intervention, the goal to eliminate malaria as a public health problem will require increased programme efforts directed at: a) the control of imported malaria; b) interruption of local transmission; and c) sustained surveillance and reporting system.

Figure 2.12: Spatial distribution of the incidence of malaria by district and municipal area (2001-2009)



Source: Ngomane & De Jager. 2012. *Malaria Journal*. 11:19

2.4 Migration

As stated in the introduction, the main feature of a demographic transition is the increase of the proportion of young people in society. Young people are generally the most mobile section of the population. As a result, population mobility is more likely to be higher in future. Another feature is that migration is a factor in the pace of increase of the youth bulge. Population donor societies usually have a delayed youth dividend as they are more likely to lose young people. On the other hand, areas which receive migrants generally have a faster increase of young people.

The term ’migration’ was historically defined as a permanent movement from one area to another. However, within the South African context the use of the term does not imply

permanency. While some researchers have tried to distinguish between migration 'proper' and circular migration (Kalule-Sabiti & Kahimbara, 1996), in many cases the distinction is not clear cut. Migration between two places can be complicated, as it is common in the region for people who have moved to straddle between the areas of origin and the areas they have moved to. Some movements which have become permanent have been circulatory for a long time. Thus, in this study permanency status has not been taken as a defining criterion for migration. Two main categories of migration are international and internal migration, both of which are prominent in Mpumalanga.

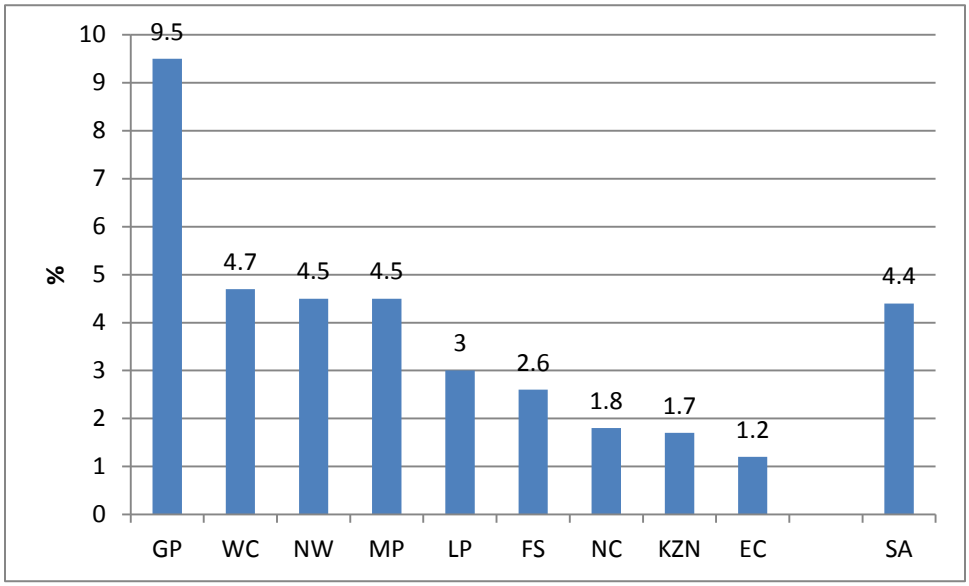
International migration refers to the movement of people across national borders, that is, immigration or emigration. In contrast, *internal migration* involves movement within a particular country; in other words 'both the origin and destination of a specific migratory move are in the same country (Kok, et al, 2003, p. 11).

Internal migration is usually defined by the direction. The typology is in most cases defined in terms of rural to urban, rural to rural, urban to rural and urban to urban. Both internal and international migration streams are prominent in Mpumalanga province. The fact that Mpumalanga borders Mozambique and Swaziland; and some linguistic groups are found across the three countries; results in high mobility in the region. Secondly, due to the proximity of Mpumalanga to Gauteng, which is an economic hub of South Africa, there is a high mobility between the two provinces.

2.4.1 Proportion staying in place of birth

The proportion of the people in a province who were not born elsewhere is an indicator of the number of persons who migrated into the province from other provinces or from outside the country. As seen in figure 2.13, 4.5% of the population of Mpumalanga are migrants from other countries as they were not born in South Africa.

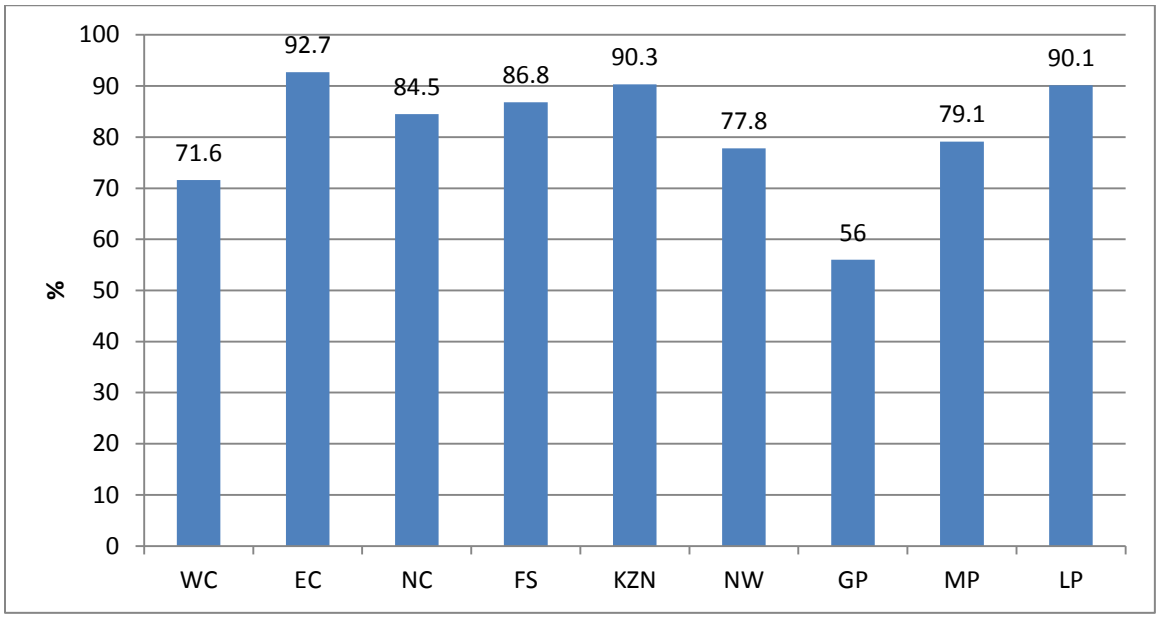
Figure 2.13: Percentage of the population in each province who were not born in South Africa



Source: Stats SA. Census 2011

Generally, the metropolitan provinces, Gauteng and the Western Cape, have a higher proportion of the population not born in those provinces compared to provinces which are largely rural as shown in figure 2.13. This is an indication that most people who are migrating to these provinces are not return migrants, but are migrants from poorer provinces or are international immigrants. Compared to most rural provinces, Mpumalanga has a high number of persons who were not born in the province. Secondly as seen in figure 2.14 a large proportion (79.1%) of individuals in Mpumalanga province who reside in the Mpumalanga were also born in the province Thus, in addition to return migrants, there is a large influx of persons who move to Mpumalanga from other areas.

Figure 2.14: Percentage of people who live in the province of birth

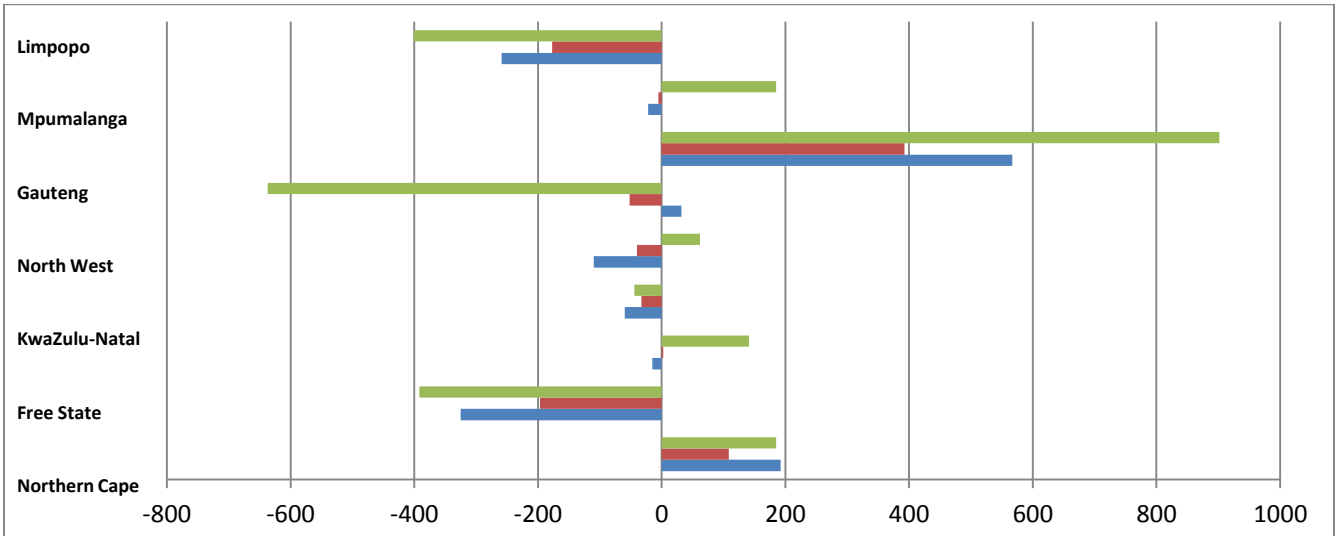


Source: Stats SA, Census 2011

The share of the population in Mpumalanga to that of South Africa has remained stable from 1996 to 2011. Again this is in contrast to the general trend of provinces which are largely rural, which have experienced a significant decline in the share population over this period.

Figure 2.15 shows the level of net migration between the period 2001 and 2011 in different provinces. As a general rule, poorer provinces experience a net out-migration whereas richer provinces have experienced a net in-migration. Thus, during the period, Limpopo and the Eastern Cape, which are the poorest provinces in South Africa, experienced a massive out-migration. On the other hand, Gauteng and the Western Cape experienced a massive in-migration. The migration patterns in Mpumalanga are in-between these extremes.

Figure 2.15: Net migration (in thousands) of different provinces- 2001, 2007, 2011



Eastern Cape …	Western Cape	Eastern Cape	Northern Cape	Free State	KwaZulu-Natal	North West	Gauteng	Mpumalanga	Limpopo
2001	185	-392	141	-44.2	61.9	-637.2	901.6	185.3	-401.3
2007	108.5	-196.7	2.4	-32.6	-39.8	-51.7	392.4	-5.3	-177.2
2011	192.4	-325.1	-15.2	-59.8	-109.9	31.7	566.8	-21.7	-259.1

Source: Stats SA, Census 2011

Mpumalanga is experiencing high level of both international and internal migration. International migration is mainly due to the fact that it borders two countries, Mozambique and Swaziland. In addition to proximity to these countries, extended families and linguistic groups straddle all three countries. In addition, Mpumalanga experiences high level of internal migration which is mostly circular in nature. This can be deduced from the fact that the majority of people in Mpumalanga were born in the province.

2.5 Conclusion

Mpumalanga is experiencing a low fertility rate and mortality rate. There is also a high level of migration in the area. All of these factors contribute to a demographic dividend occurring which could result in economic growth and sustainable development for the province.

3. Demographic transition and the dividend for Mpumalanga

3.1 Introduction

The conceptual framework for this report presents demographic transition as the catalyst for the demographic dividend. It is the transition process that causes changing age distribution resulting in a youth age bulge, thereby opening a 'window' of opportunity for the dividend to be realised through implementation of appropriate social and economic policies.

3.2 Demographic transition

Demographic transition is experienced as a population passes through the stages of declining fertility and mortality resulting from social and economic development. The demographic dividend occurs when a falling birth rate changes the age distribution so that fewer investments are needed to meet the needs of the youngest age groups and resources are released for investment in economic development and family welfare (Ross, 2004). It is generally acknowledged that at an early stage of demographic transition fertility rates fall, leading to fewer young mouths to feed.

The body of available demographic data presented in the previous section suggests that Mpumalanga has assumed a sustained decline in fertility and mortality only since about 2000 and thus the province is in the middle of the transition process. Both the CFR and TFR data show a downward trend from 2002. So also are the measures of mortality, indicated by infant mortality and under-five mortality rates, both of which also show a consistently declining trend since 2002. Taken together, the province is poised to achieve demographic transition to low levels of vital rates (fertility and mortality) in the next 20 years or so, based on the expected decline in TFR and decline in infant mortality rate per annum.

Analysis of the demographic transition possibilities in Sub-Saharan African countries shows that in a majority of countries in the region, fertility decline is too slow to have a

substantially rapid change in the age structure that is economically meaningful for the demographic dividend in the near future. However, in a smaller number of countries, the transition may already have entered the advance-investment window (investment in a child's education in the hope that he/she would be a profitable social investment, that is advance-investment; the window is the opportunity that is opened), through policy interventions in health, education, and economic sector to reduce the desired family size as well as family planning policies to reduce existing unmet check needs is desired to accelerate and sustain fertility decline[6].

One African country that has achieved demographic transition is Mauritius. It took Mauritius 20 years to reduce the TFR from 2.4 (1985) to 1.9 (2005), while infant mortality rate already low, declined from 19.8 per 1 000 live births in 1995 to 13.8 in 2010 (SADC Statistics Yearbook 2012). The TFR of 2.4 for Mpumalanga in 2011 represents the rate for Mauritius in 1985, and under that country's comprehensive Reproductive Health (RH) and fertility programme it took 20 years to move the TFR from 2.4 to 1.9[7]. Even if the TFR could be moved so quickly to the level of Mauritius over the same period, the same can hardly be said about infant mortality rate which now stands at 41.7 per 1 000 live births, double the rate for Mauritius (19.8) in 1995.

The population characteristics in Mpumalanga are closer to Sub-Saharan Africa than to the national average indicators and thus the province can only improve the prospect of demographic transition through accelerated fertility decline. It is in the process of demographic transition that the rapid growth of the labour force yields the first demographic dividend.

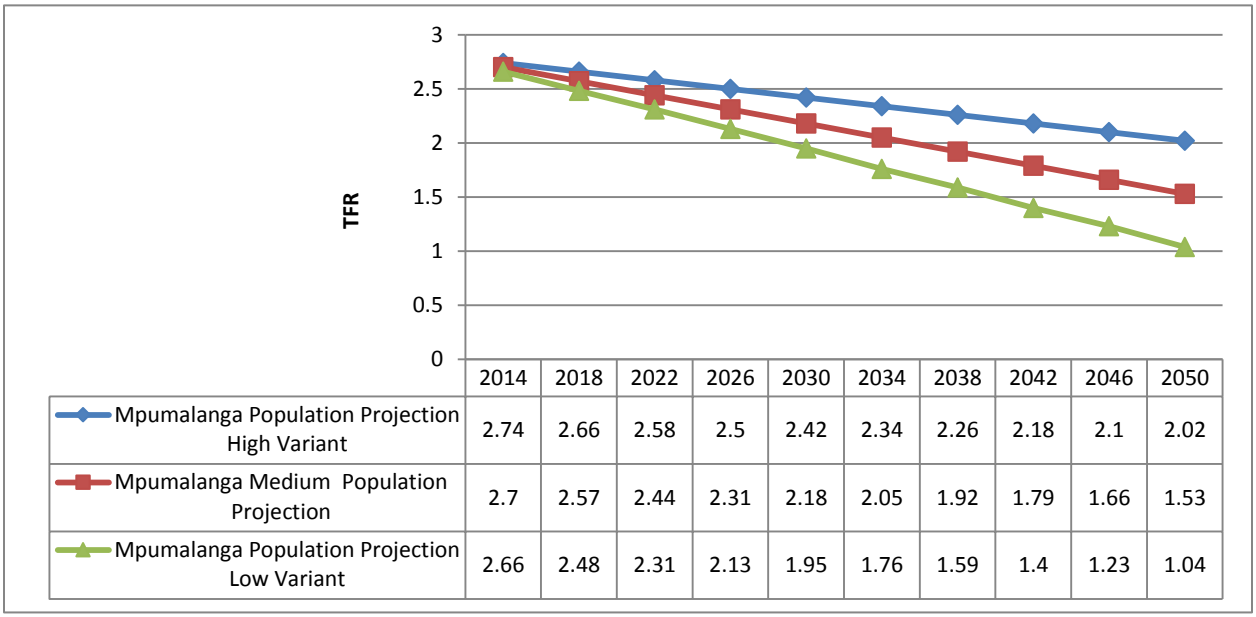
[6] Yoonjoung Choi. 2013. 'Demographic transition in sub-Saharan Africa: implications for demographic dividend'; Office of Population and Reproductive Health, Bureau for Global Health, US Agency for International Development.
[7] Republic of Mauritius. 2012. Country Report for International Conference on population and Development Beyond 2014.

3.3. Demographic dividend

3.3.1 Projected trends in fertility and mortality for Mpumalanga

Based on the available evidence the research team has made projections of the population of Mpumalanga for 40 years from 2011 to 2051 (see summary of demographic indicators in the Annexure A to this report). As illustrated in Figures 3.1, 3.2 and 3.3, the decline in fertility and mortality under the three variants of the assumptions will be slow but will become appreciable from about 2030.

Figure 3.1: Mpumalanga fertility transition rate (Variant projections, 2011-2050)



	2014	2018	2022	2026	2030	2034	2038	2042	2046	2050
Mpumalanga Population Projection High Variant	2.74	2.66	2.58	2.5	2.42	2.34	2.26	2.18	2.1	2.02
Mpumalanga Medium Population Projection	2.7	2.57	2.44	2.31	2.18	2.05	1.92	1.79	1.66	1.53
Mpumalanga Population Projection Low Variant	2.66	2.48	2.31	2.13	1.95	1.76	1.59	1.4	1.23	1.04

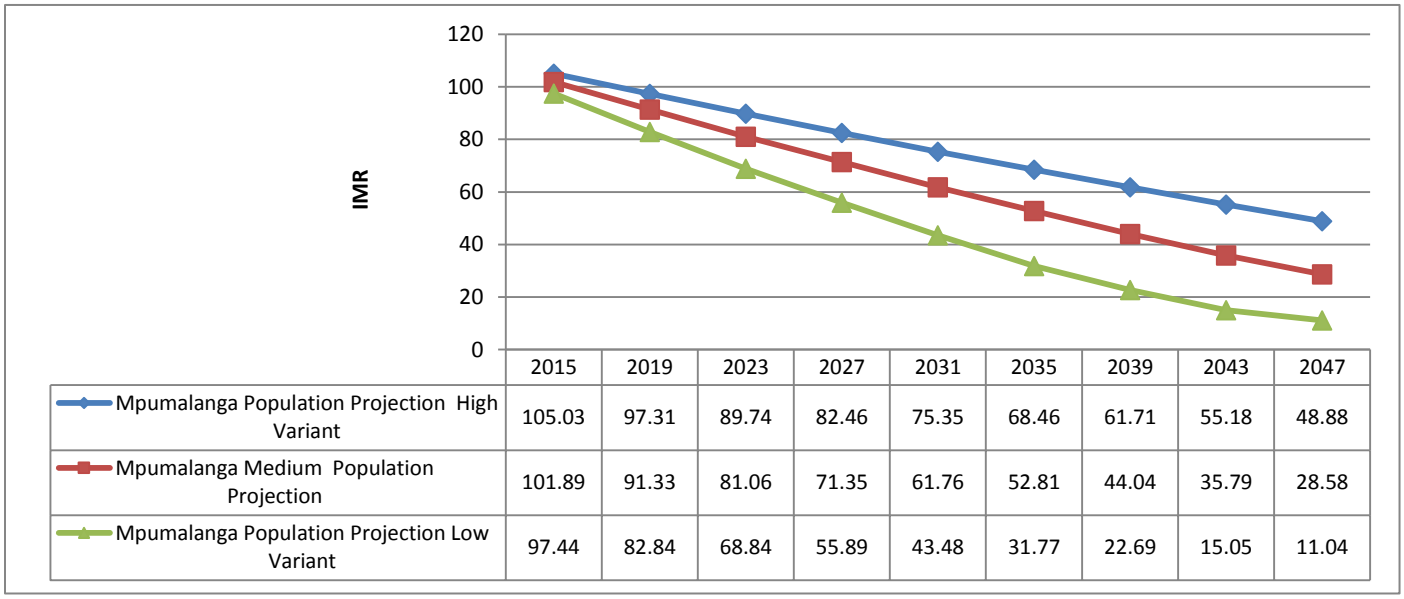
Source: Authors, 2015

Future trends in fertility in Mpumalanga will depend on the interplay of social and economic factors that affect human fertility, particularly reproductive health factors, including the use of family planning among women exposed to the risk of pregnancy.

The factors influencing contraceptive use in the country, and from which Mpumalanga can draw important lessons, have been identified (DoH, 2012) as follows:

- Poor socioeconomic conditions and rural residence are linked to poor knowledge of contraception, limited access to contraceptive services, and lower contraceptive use;
- Knowledge of how conception occurs and use of contraceptives vary with education levels. Improved education levels are associated with increased contraceptive knowledge and use, while higher levels of education and retention of girls in school are also related to lower levels of teenage pregnancy and HIV and AIDS prevalence;
- Peer group and community pressures lead to poor negotiations around contraceptive and condom use among girls and young women, thus predisposing them to early childbearing; and
- The quality of reproductive health services, including information and counselling on family planning, influences the demand[8].

Figure 3.2: Mpumalanga Infant mortality transition rate per 1,000 live births (Variant projections, 2015-2047)



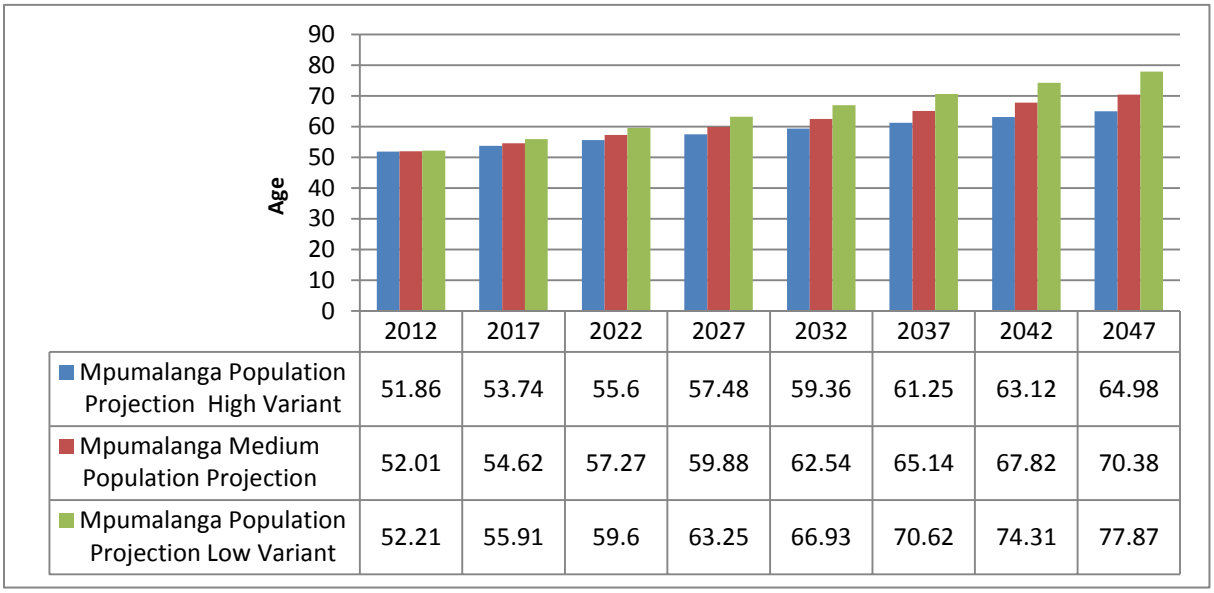
	2015	2019	2023	2027	2031	2035	2039	2043	2047
Mpumalanga Population Projection High Variant	105.03	97.31	89.74	82.46	75.35	68.46	61.71	55.18	48.88
Mpumalanga Medium Population Projection	101.89	91.33	81.06	71.35	61.76	52.81	44.04	35.79	28.58
Mpumalanga Population Projection Low Variant	97.44	82.84	68.84	55.89	43.48	31.77	22.69	15.05	11.04

Source: Authors, 2015

[8] Department of Health. 2012. National Contraception and Fertility Planning Policy and Service Delivery Guidelines (see p15).

Regarding mortality transition, indicated by infant mortality rate and life expectancy, it is expected that the combined effect of the provincial programmes of social and economic development will continue to drive down the level of overall mortality and significantly among children, and thereby raise the average life expectancy for both sexes over the years.

Figure 3.3: Projected life expectancy at birth for both sexes of Mpumalanga, 2012-2047



	2012	2017	2022	2027	2032	2037	2042	2047
Mpumalanga Population Projection High Variant	51.86	53.74	55.6	57.48	59.36	61.25	63.12	64.98
Mpumalanga Medium Population Projection	52.01	54.62	57.27	59.88	62.54	65.14	67.82	70.38
Mpumalanga Population Projection Low Variant	52.21	55.91	59.6	63.25	66.93	70.62	74.31	77.87

Source: Authors, 2015

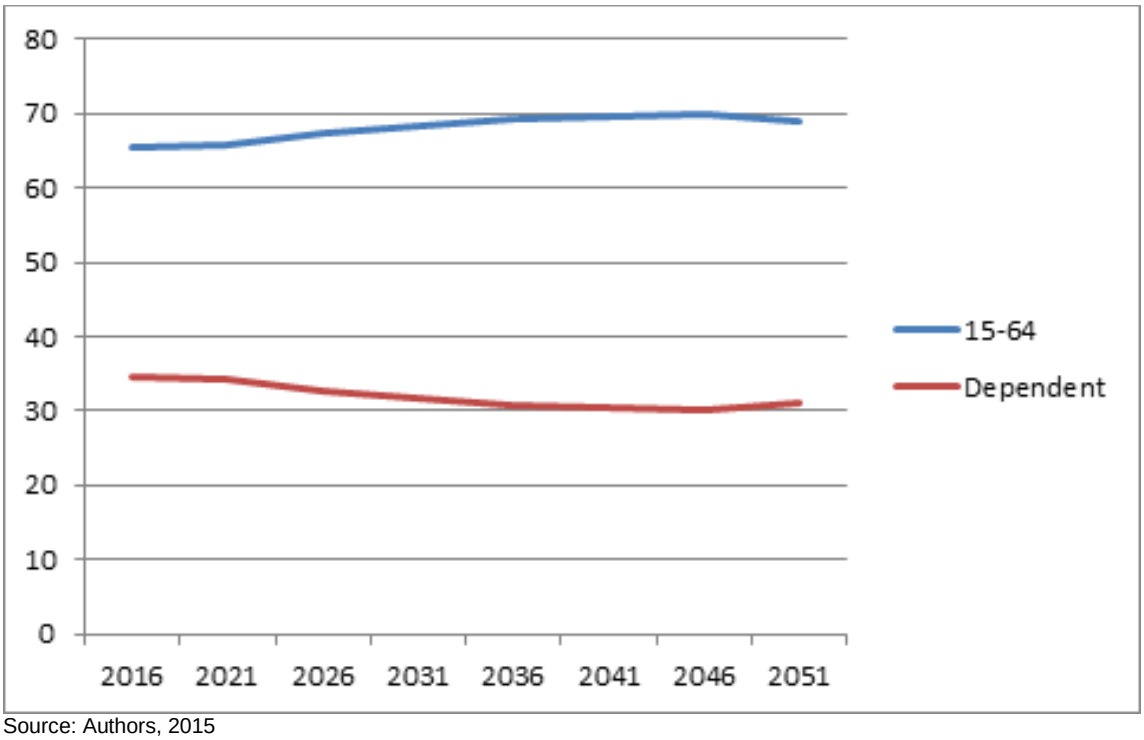
Increasing use of family planning methods will also contribute to child mortality reduction by reducing the frequency of 'high risk' pregnancy among young women and better spacing of children born.

Needless to emphasize, apart from the high variant assumptions of little or no change in the current level of vital rates (fertility and mortality) in the next 50 years or so, the other variants require varying degrees of reproductive health (RH) programme efforts by the government and the private sector. Accelerated demographic transition in the province will call for comprehensive and intense RH investments, including family planning.

3.3.2 The timing of the youth bulge in Mpumalanga

South Africa is currently experiencing a youth bulge as a result of the demographic transition that is underway. While, as stated previously, demographic transition has been experienced in many parts of the world, there is emerging evidence that demographic transition in South Africa and more specifically in Mpumalanga will not necessarily follow the exact pattern that it took in other parts of the world. It should be noted that the youth bulge in Mpumalanga is timed behind that of South Africa, and will continue after it has abated in the overall population of South Africa.

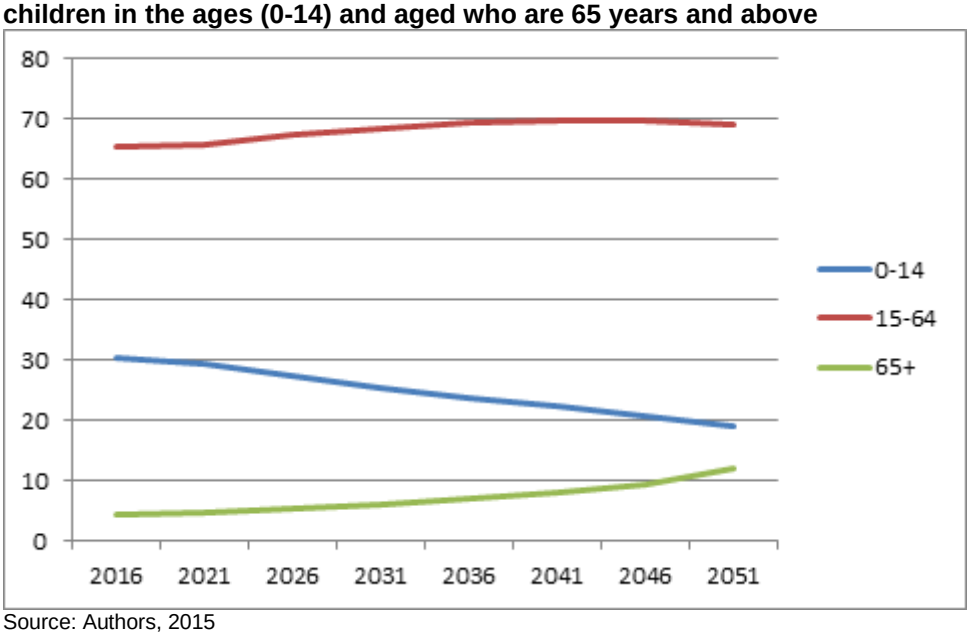
Figure 3.4: The projected proportion (%) of people in the working age (15-64) compared to those in dependency ages (0-14) and over 65 years



Source: Authors, 2015

The above figure (figure 3.4) shows that the population in working ages will continue to grow until the mid-twenty to forties when it will start to decline slightly. By the same token the population at the dependency ages will decline for the period up to the mid 2040's when it will steadily decline. As a result of these trends, it means the increase in the labour supply in the province will continue to rise until the mid-2040s.

Figure 3.5: The projected proportion (%) of people within the working ages (15-64) and those of children in the ages (0-14) and aged who are 65 years and above



Source: Authors, 2015

In figure 3.5, the proportion of children aged 0-14 and people who are 65 years and above have been disaggregated. The figure shows that the proportion of children will continue to decline throughout the projected years, due to the decline in fertility. On the other hand, the proportion of the aged will rise throughout the period. The rise will accelerate after the mid 2040s.

The projections that are displayed by the two figures above show three main trends, namely a continued rise in the labour supply as the proportion of the population in working ages rise, the continued decline in the proportion of children and, at the same time, an accelerated increase in the proportion of older persons. There will thus be a need for more services to provide for the growing number of older people over a number of decades.

3.4 Conclusion

There are two main implications of the growth of the proportion of the working population that have been observed. The main one, which has been observed in a number of regions of the world, is a rapid growth in the economy of the region, with

governments benefitting from a large tax base thanks to a bigger workforce, the result of the majority of the increasing job seekers being able to find jobs and contributing to the tax base. Secondly, households benefit as a large workforce is supporting a declining number of children and relatively lower number of ageing population. Due to these demographic dynamics, the savings levels in the region rises, giving a further impetus for economic growth. High employment rates when labour supply is growing, are possible in a skilled work force. Investment in universal high quality education benefits societies undergoing demographic transition.

It should be noted though that not every society has benefited from the growth of the demographic transition. This is the case if a society is unable to find employment for the growing number of work seekers. In such instances, demographic transition is associated with civil strife, as a growing number of job seekers become restless and, take part in civil unrest or crime.

4. Development implications of the demographic dividend

4.1 Introduction

The projected provincial trends clearly show that the population has started to experience increasing growth in the labour force and the potential will be there until 2051. It is how the province harnesses this work force in terms of skills and provision of adequate employment opportunities that will determine the extent of dividend realised. This section looks at the dividend but also other socioeconomic issues that are affecting the province. These issues must be considered when looking at the demographic dividend in order to realise the window of opportunity.

4.2 Youth and the demographic dividend

4.2.1 What is the demographic dividend?

The demographic dividend most often occurs in countries late in the demographic transition, when birth rates are falling. Resources shift from dependent children and elders to the youth, the age group that comprises the bulk of the productive labour force. While the large number of youth can put pressure on schools, labour markets and services, it has been noted that the declining dependency ratios of the demographic dividend also allow for increased investment in education and family welfare (Lundberg & Lam, 2007).

A research report (Ross, 2004) shows that in terms of demographic dividend the three major developed regions of the world have already peaked (in 2000), while Asia and Latin America have until 2020 to enjoy a rising percentage of the population in the labour force. Sub-Saharan Africa is the extreme case and if fertility continues to fall it will experience gains well past 2040. Beginning in 1950, East Asian countries moved quickly through falling fertility rates that resulted in a change in the percentage of their populations in the working age group. Their dividend opportunity rose quickly during the next fifty years. It is peaking now and will fade steadily as their populations age, in other

words, their window of opportunity is beginning to close. Sub-Saharan Africa, on the other hand, is only starting to enter its window, under the assumption of declining fertility rates over the next several decades. If those declines come to pass, and if the governments involved take the necessary actions (effective education and skills development programmes, flexible labour market and gender-sensitive planning) to the same extent as East Asia, the dividends may become real rather than potential.

Applying the DemDiv Model to the population of Kenya from 2010 to 2050 has revealed that three factors are critical to the country in successfully achieving the demographic dividend: a) minimising the employment gap; b) education improvements; and c) investing in family planning to accelerate fertility decline. According to the report, investing solely in economic policies produces a dramatic sevenfold increase in GDP per capita, while integrating education improvements boosts incomes nearly ten times over. Intensifying family planning efforts creates a demographic dividend of over US$2 500 per person through higher levels of investment and the effect of a smaller population[9].

A similar exercise carried out in Uganda (2014) reached the same conclusion. Successful achievement of the demographic dividend in Uganda depends on investments and reforms in three sectors: family planning, education, and economic policy.

4.2.2 The demographic dividend for Mpumalanga

Mpumalanga province, like the rest of the country, is currently experiencing a youth bulge as a result of the demographic transition that is underway. Under the three scenarios for the projection of the population of Mpumalanga, the results illustrated in Figures 4.1a-c show that accelerated fertility and mortality decline will produce the largest youth bulge, while the 'medium variant' based on a less ambitious speed of

[9] National Council for Population and Development and Health Policy Project. 2014. Demographic Dividend Opportunities for Kenya; NCPD, Kenya.

demographic transition will produce a youth bulge considered commensurate with the current capacity of the provincial government to manage.

The demographic dividend is delivered through a number of mechanisms. The three most important are labour supply, savings and human capital.

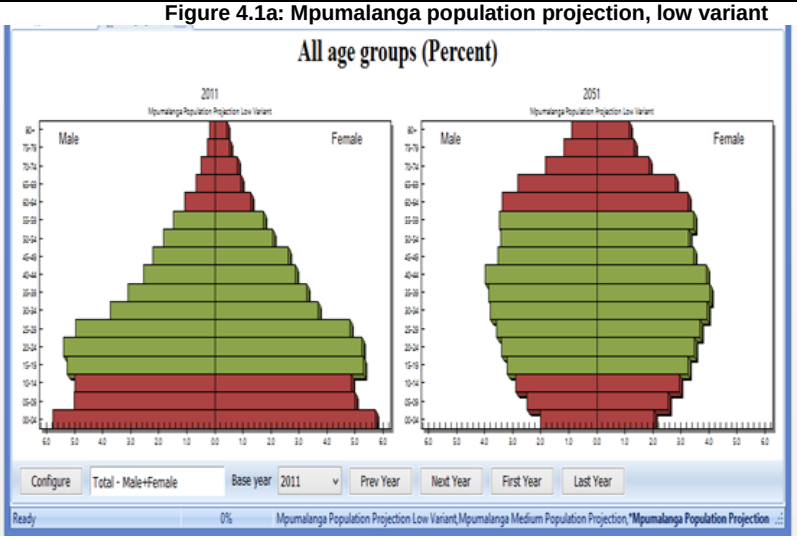
a) Labour supply

If accelerated programmes of investment in education, economic development and reproductive health services (including family planning) are envisaged in years ahead, the province could expect a larger youth age bulge and much larger potential demographic dividend.

MPUMALANGA
Population age 0-14 (millions)

	Low	Med	High
2011	1.26	1.26	1.26
2021	1.30	1.31	1.33
2031	1.18	1.24	1.30
2041	1.03	1.16	1.28
2051	0.80	1.04	1.26

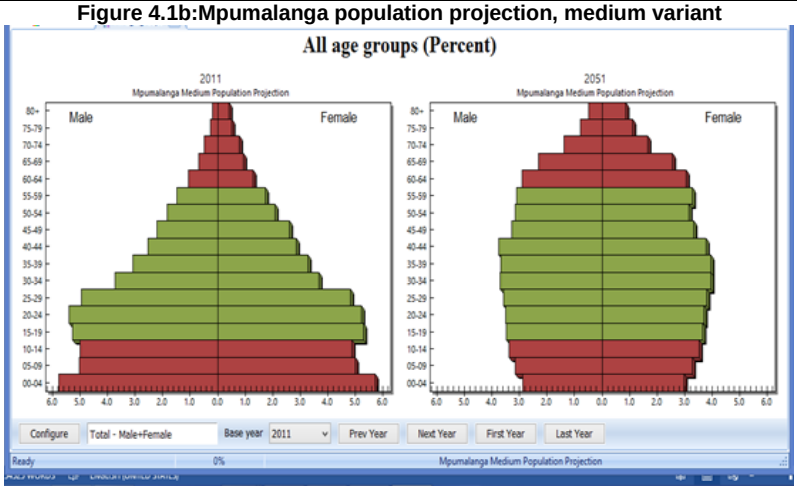
Figure 4.1a: Mpumalanga population projection, low variant



Population age 15-64 (millions)

	Low	Med	High
2011	2.59	2.59	2.59
2021	2.97	2.96	2.95
2031	3.39	3.35	3.33
2041	3.71	3.65	3.62
2051	3.80	3.77	3.70

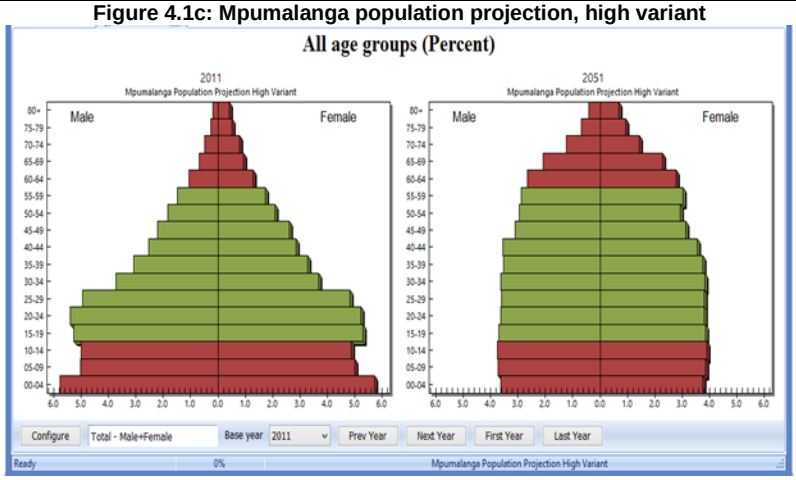
Figure 4.1b:Mpumalanga population projection, medium variant



Population age 65+ (Millions)

	Low	Med	High
2011	0.17	0.18	0.18
2021	0.22	0.21	0.22
2031	0.31	0.30	0.29
2041	0.44	0.40	0.38
2051	0.74	0.60	0.54

Figure 4.1c: Mpumalanga population projection, high variant



Source: Authors, 2015

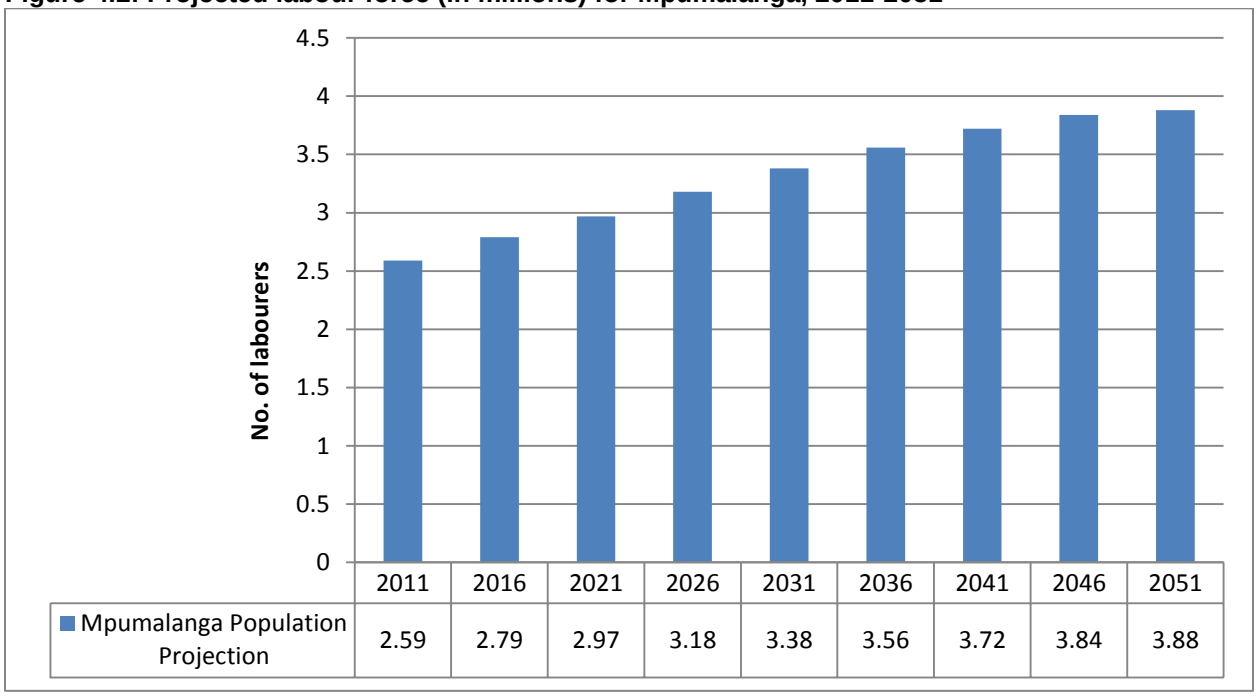
According to the results of the 'medium variant' of the projections of the population of Mpumalanga carried out under this research, the population in working ages will continue to grow until the mid-2040's when it will start to decline slightly.

By the same token, the population at the dependency ages will decline for the period up to the mid-2040s and it will decline thereafter. Given these trends, the challenge facing Mpumalanga is to minimise the employment gap during the period of rapidly increasing supply of new entrants until the mid-2040s.

As illustrated in Figure 3.5, the proportion of children will continue to decline throughout the projected years due to the decline in fertility. On the other hand, the proportion of the aged will rise throughout the period and the rising trend will accelerate after the mid-2040s.

The projections displayed in the figures 3.5 and figure 4.1a-c above show three main trends: a continued rise in the labour supply as the proportion of the population in working ages rise; the continued decline in the proportion of children; and, at the same time, an accelerated increase in the proportion of older persons. Figure 4.2 illustrates the growth of the working age population over the projection cycle, derived from the 'medium variant'.

Figure 4.2: Projected labour force (in millions) for Mpumalanga, 2011-2051



	2011	2016	2021	2026	2031	2036	2041	2046	2051
Mpumalanga Population Projection	2.59	2.79	2.97	3.18	3.38	3.56	3.72	3.84	3.88

Source: Authors, 2015

The obvious policy challenge is for Mpumalanga to translate the window of opportunity offered by the impending demographic transition into a real dividend through

employment creation. This point has been underscored for the whole country by government:

> The challenge is to convert this into a demographic dividend. This will only be possible if the number of working-age-individuals can be employed in productive activities, with a consequent rise in the level of average income per capita. If South Africa fails to do this, its large youth cohort could pose a serious threat to social, political and economic stability. (NDP - 2030)[10]

Mpumalanga has a high rate of poverty, unemployment and inequality. In 2012 the male unemployment rate was 21.2%, female unemployment stood at 33.4% and the youth (15-34 age group) had an unemployment rate of 36.9%. Youth unemployment remains a major challenge in the province, as it is nationally. The wealth endowment of the province and the poverty status of a large section of the population thus appear to have an uneasy co-existence.

b) The potential of savings

The demographic transition could also encourage the growth of savings, thereby improving the provincial prospects for investment and growth. The support ratio has become a standard tool used to consider the economic effects of changing population age structure, but it is defined in different ways (UN, 2013). In some studies the support ratio, or age dependency ratio, is defined in strictly demographic terms counting each person in the 15-64 age range as one worker and each member of the population as one consumer. The effective number of workers, the numerator of the support ratio, incorporates age variation in labour force participation, hours worked, unemployment, and productivity or wages. In similar fashion, the effective number of consumers, the denominator of the support ratio, allows for age-specific variation in consumption to calculate how the effective number of workers varies over time (Ibid).

[10] National Planning Commission. 2011. National development Plan – Vision for 2030, November 2011, Pretoria, South Africa.

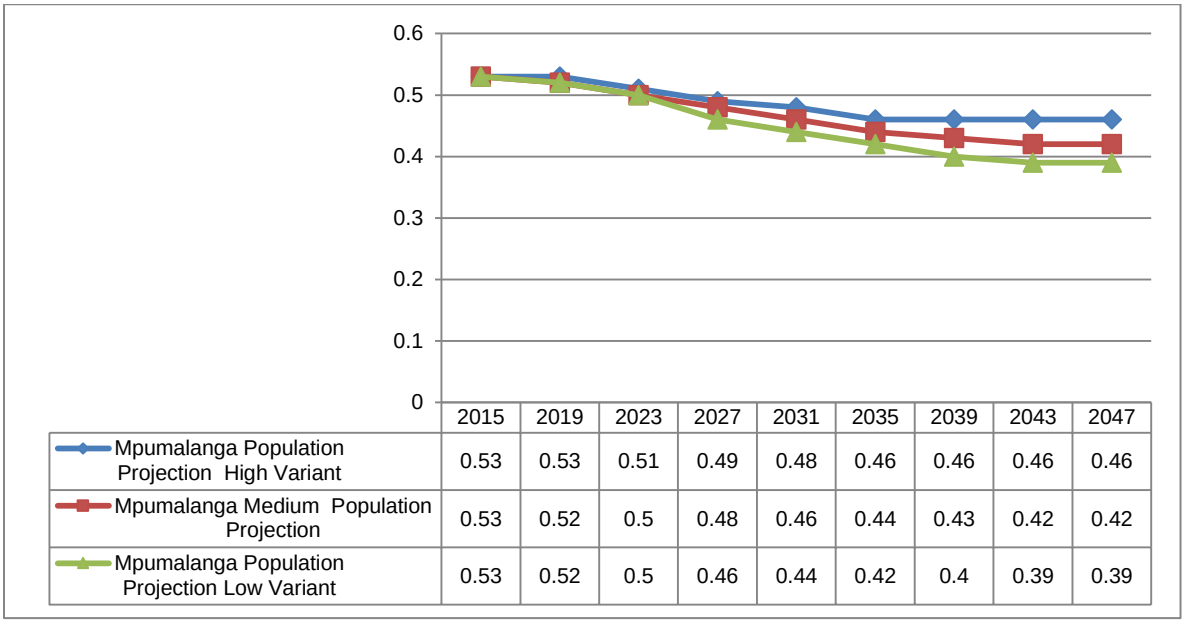
It is well known that, in general, the young and the old tend to consume more than they produce, whereas working-age people tend to have a higher level of economic output as well as a higher level of savings. Furthermore, people tend to save more between the ages of 40 and 65, when they are less likely to be investing in their children and the need to prepare for their retirement is becoming more pressing. When large numbers of baby boomers (those born during the period of high fertility, the pre-transition stage) start hitting their 40s, national savings tend to rise. Incentives to make certain choices can reinforce this tendency to save among the new young baby boomers. Improved health and longevity make saving easier and more attractive.

A healthy population must plan far in advance if it is to maintain its standard of living through decades of retirement. The dividend can thus be summed up as follows:

- Working-age adults tend to earn more and can save more money than the very young. The shift away from a very young age distribution favours greater personal and national savings;
- The ability to save money is even greater when individuals born during periods of high fertility move into their 40s, when their own children are mainly on their own and require less support; and
- Personal savings grow and serve as a partial resource for industrial investments that fuel economic growth (Ross, 2004).

Figure 4.3 shows the variations in trend of dependency ratio for the population of Mpumalanga province from 2015 to 2047. It is clear that while a downward trend is discernible, the ‘low variant’ of the projections brings out the effect of a rapidly declining fertility and mortality on reductions in dependency burden.

Figure 4.3: Projected trends in dependency ratio for Mpumalanga, 2015-2047



	2015	2019	2023	2027	2031	2035	2039	2043	2047
Mpumalanga Population Projection High Variant	0.53	0.53	0.51	0.49	0.48	0.46	0.46	0.46	0.46
Mpumalanga Medium Population Projection	0.53	0.52	0.5	0.48	0.46	0.44	0.43	0.42	0.42
Mpumalanga Population Projection Low Variant	0.53	0.52	0.5	0.46	0.44	0.42	0.4	0.39	0.39

Source: Authors, 2015

This is why investments in capital formation must be done in conjunction with employment creation in a growing economy.

c) Human capital

Research works have demonstrated that the demographic transition has significant effects on investments in human capital, effects which are the least tangible, but may be the most significant and far-reaching. Such investments include in health and education.

Typically the demographic transition begins with reductions in mortality rates, resulting in a healthier population and consequent increased longevity. A longer life expectancy causes fundamental changes in the way people live. As life expectancy increases, parents are likely to choose to educate their children to more advanced levels. Healthier children, in turn, tend to experience greater cognitive development per year of schooling than their less healthy counterparts. The result of this educational investment is that the labour force as a whole becomes more productive, promoting higher wages and a better

standard of living. Women and men therefore tend to enter the workforce later, partly because they are being educated for longer, but they are likely to be more productive once they start working (Bloom et al, 2003).

In terms of human capital formation, Ross (2004) argues that having fewer children (the fertility transition experience) enhances the health of women. In turn their participation in the labour force enhances their social status and personal independence. They tend to have more energy to contribute to both their families and to the society. Parents are under less strain to provide for many children and the youth age dependency ratio falls, as illustrated with the projections of the population of Mpumalanga in Figure 4.1a-c.

The UN analysis using the National Transfer Accounts methodology has also reached the conclusion that in the generational economy, on the one hand, the nature of human capital spending is critical, particularly, investment in the health and education of children; and on the other, because responses to population aging can heavily indebt future generations and waste the economic potential of older people. Capital spending is also critical because responses to population ageing may affect savings, the accumulation of capital and the productivity of the work force (UN, 2013).

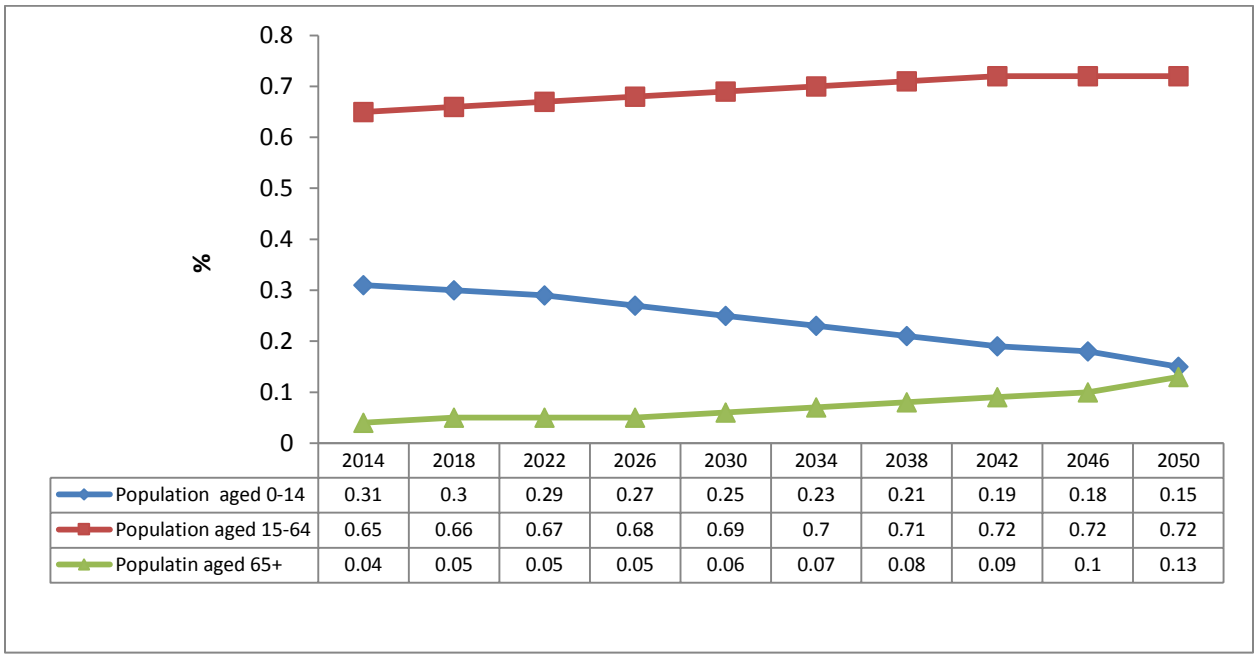
4.2.3 Potential demographic dividend

On the basis of current levels of development and the assumed trends in the vital rates, the DemDiv Model has been applied to estimate potential demographic dividend for Mpumalanga province between now and 2050. While progress in social and economic development will be made through the government's development investments, the model draws attention to the need to re-focus on reproductive health programming for the majority rural population in the province.

As illustrated in Figure 4.4, under the combined scenarios the changing labour force will contribute significantly to the demographic dividend (through GDP growth) in the province over time. The labour force will reach its peak in the mid-2040s: from 65% in

2014 to 72% in 2046. Of significance is the relative contribution of older persons aged 65+, increasing from 4% in 2014 to 13% in 2050.

Figure 4.4: Estimated demographic dividend percentages for Mpumalanga (2011-2050)



	2014	2018	2022	2026	2030	2034	2038	2042	2046	2050
Population aged 0-14	0.31	0.3	0.29	0.27	0.25	0.23	0.21	0.19	0.18	0.15
Population aged 15-64	0.65	0.66	0.67	0.68	0.69	0.7	0.71	0.72	0.72	0.72
Populatin aged 65+	0.04	0.05	0.05	0.05	0.06	0.07	0.08	0.09	0.1	0.13

Source: Authors, 2015

As expected the contribution of children below the age of 15 follows a declining trend throughout the estimation cycle, given the increasing years of schooling and declining involvement of children in all forms of economic activity.

One major factor that may limit the capacity to realise demographic dividend in Mpumalanga and elsewhere, is the high level of unemployment, especially among the youth. It is argued that youth unemployment negatively impacts future earnings potential, constraining the ability of prime working cohorts to generate sufficient future surpluses and limiting the scope for saving and making transfers to other cohorts.

For the demographic dividend to materialise, a conducive policy environment which includes the following must be in place: sufficient flexibility in the labour market to allow its expansion through creation of adequate employment opportunities; macroeconomic

policies that permit and encourage investment; access to adequate saving mechanisms and confidence in domestic financial markets; access to reproductive health services and facilities; and an environment where high-quality health and education provision is accessible for the promotion of health and reproductive health. The policy response to the challenge of the demographic dividend for Mpumalanga province is discussed in more detail in Chapter 5 of this report.

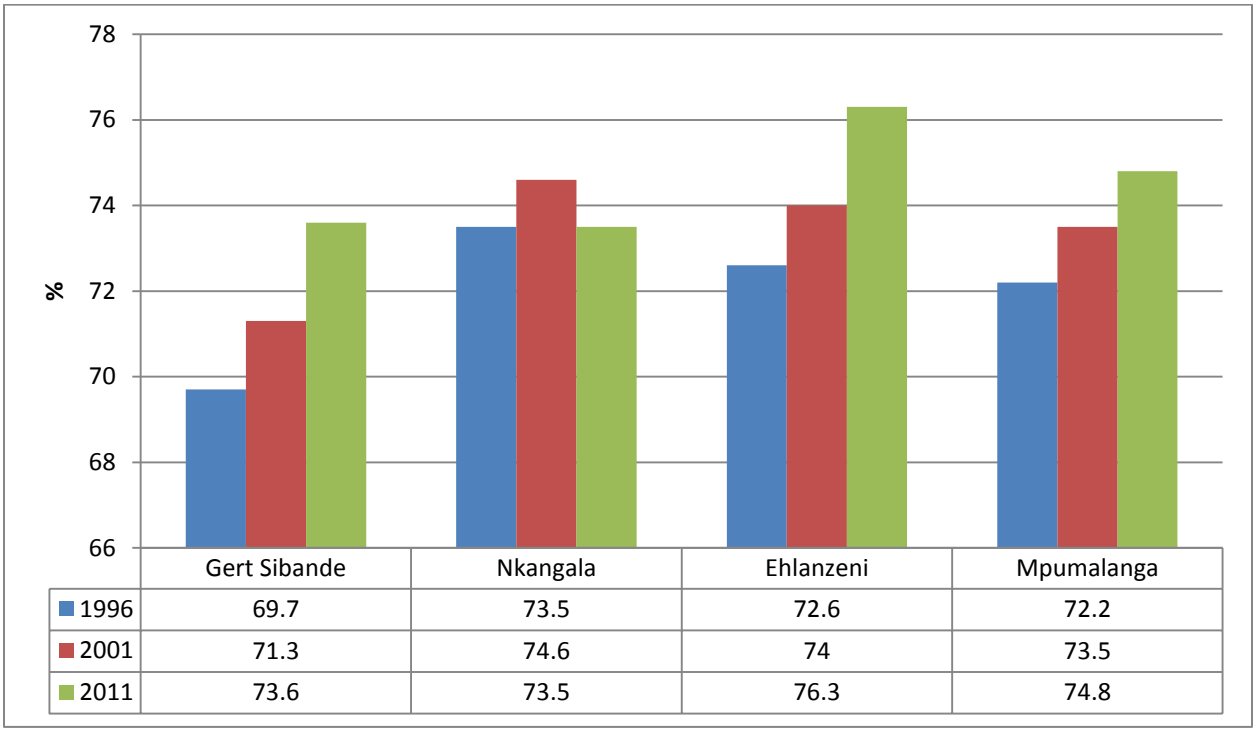
4.3 Education

4.3.1 Internal efficiency (completeness of enrolment and quality)

Internal efficiency looks at how well the education system is working. This would primarily be looking at learner enrolment, school attendance, infrastructure and capacity. One is primarily trying to see if the system (education) is able to produce youth that are economically competitive in the labour market. Several mechanisms have been put in place to ensure that learners have access to education in the province. These include the provision of free education, school nutrition, state of the art infrastructure, scholar transport, and motivation programmes to many schools, especially quintile 1-4 schools. Facilities are still lacking in some schools, but there are programmes for addressing this challenge, such as the provision of mobile libraries where necessary (Department of Education of Mpumalanga Annual Report, 2014). These efforts are bearing fruits as there has, for instance, been an increase in the matric pass rate from 70% in 2012 to 79% in 2014 and 78.6% in 2015 (Quintal, 2016).

4.3.2 School attendance

Figure 4.5: Distribution of the Mpumalanga population aged between 5 and 24 years by attendance and district municipality – 1996, 2001 and 2011

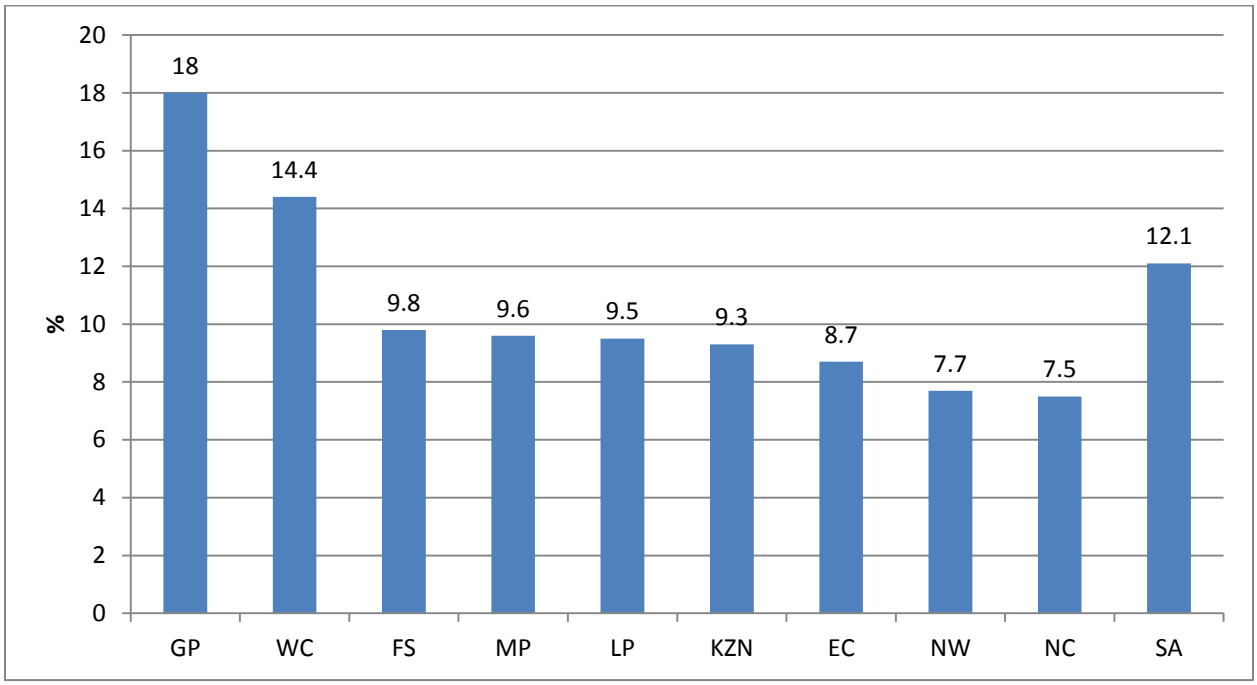


	Gert Sibande	Nkangala	Ehlanzeni	Mpumalanga
1996	69.7	73.5	72.6	72.2
2001	71.3	74.6	74	73.5
2011	73.6	73.5	76.3	74.8

Source: Stats SA, Census 2011

Figure 4.5 depicts that in all the districts, school attendance has either increased or stayed the same from 1996-2011. Gert Sibande school attendance has increased from 69.7% in 1996 to 73.6% in 2011. In Nkangala, school attendance has been fairly consistent as in 1996 and 2011 it was 73.5% and 74.6% in 2001. Ehlanzeni's school attendance rate increased from 72.6% in 1996 to 76.3% in 2011. By and large, from 1996 to 2011, the school attendance rate in the province has increased.

Figure 4.6: Percentage of the population aged 20 years and above in each province with post grade 12 qualifications



Source: Stats SA, Census 2011

Tertiary education qualifications are crucial in ensuring that the youth is competitive in the labour market. In looking at figure 4.6 one can see that only 9.6% of the Mpumalanga population aged 20 years and above have post grade 12 qualifications. This number is lower than the average for South Africa which is 12.1%. This could be attributed to, among others, the fact that there had been limited university access in Mpumalanga until 2014 when the University of Mpumalanga was established. The general increase in Mpumalanga matric pass rates suggests that more students will enrol locally for their tertiary education as opposed to going outside the province to receive the education and this could have been a deterrent for some.

4.3.3 External efficiency (education and employment opportunities)

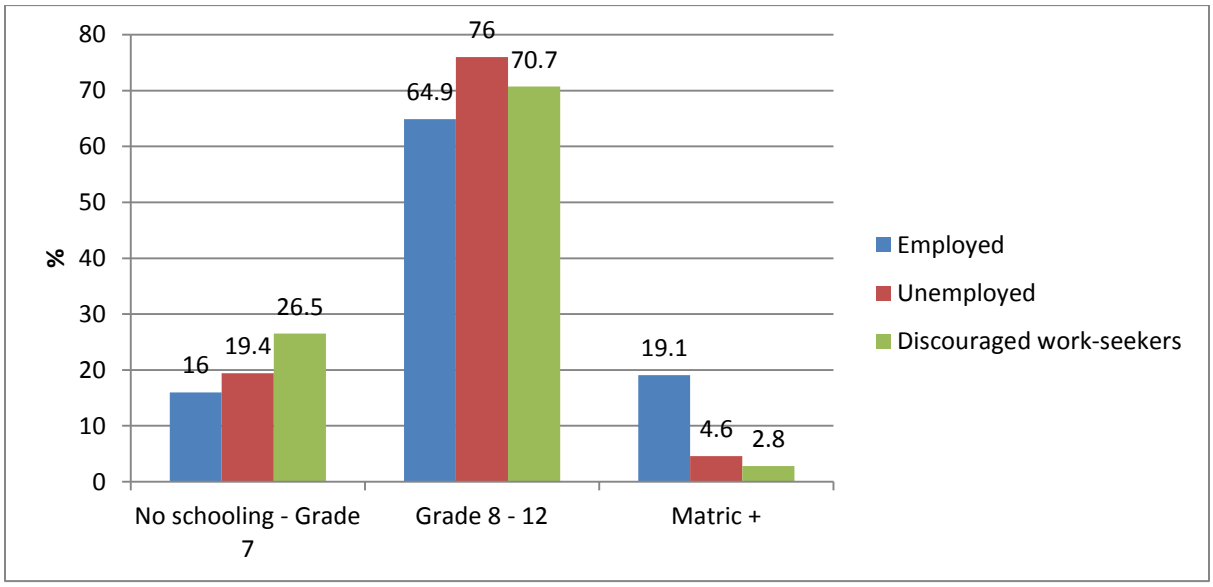
The human capital theory, on which the South African education model is significantly premised, emphasises employment-focused education and thereby education for socioeconomic development. This theory echoes the external efficiency lenses for looking at the role of education with respect to labour market participation. The human

capital concept underscores the economic value of education, suggesting that the skills humans acquire will generate income in the future for personal and social gains. Hence, according to human capital theory, the purpose of education is to prepare people for productive participation in the labour market (Organisation for Economic Co-operation and Development [OECD] 2010, Ehrenberg & Smith 2009, Bowles & Gintis 1976).

The human capital theory also maintains that the workers' possession of knowledge and skills as a result of education and training translates to increased labour productivity and quality. Rumberger (1994) explains that the theory is based on three main propositions:

a) The primary role of formal schooling is to develop human capital, or the knowledge and skills of future workers;
b) The labour market efficiently allocates educated workers to firms and jobs where they are required; and
c) The human capital of workers increases their productivity at the workplace which is then rewarded with higher earnings.

Figure 4.7: Employment status by education level

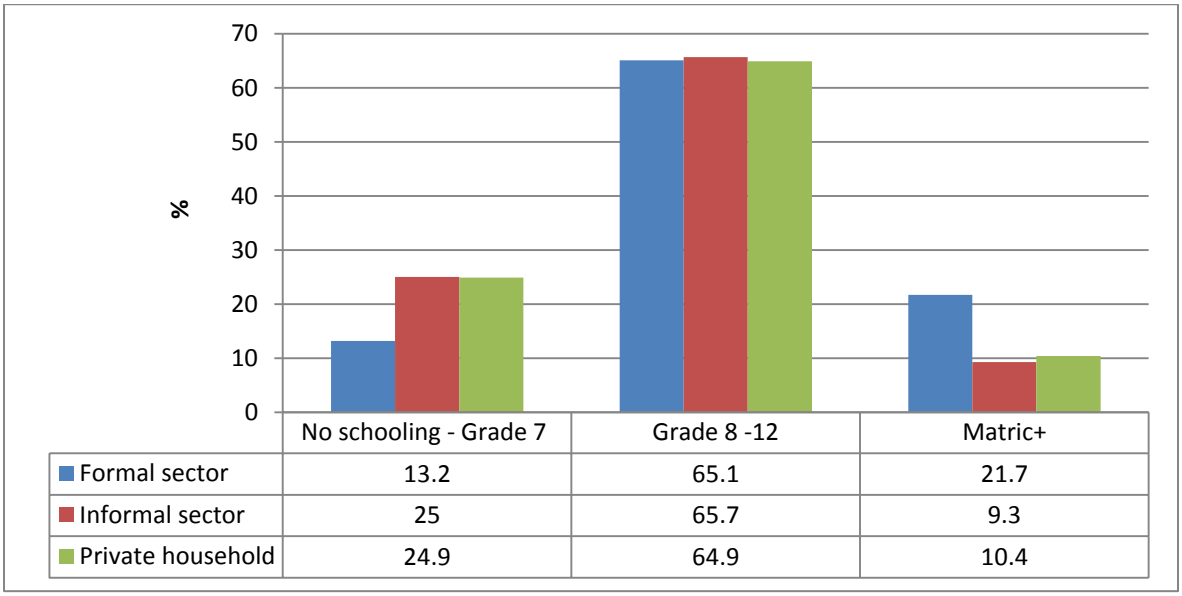


Source: Stats SA, Census 2011

In figure 4.7, individuals whose highest level of education is grade 8-12 seem to be the most in the labour market at 64.9%, followed by those with 'Matric+' at 19.1%, and lastly those with 'No schooling - grade 7' at 16%. Ironically, most of the unemployed are those with grade 8-12 at 76% followed by those with 'No schooling - grade 7' at 19.4% and lastly those with 'Matric+' at 4.6%. It is important to understand the Mpumalanga labour market dynamics such as the nature of jobs done by those with grade 8-12 since they are the biggest cohort in the labour market and they are also the biggest cohort of the unemployed.

The fact that the Matric+ cohort has the lowest number of unemployed confirms the correlation between education level and employment opportunities, that is, people with higher education levels are more likely to find employment. However, this is challenged by the 4.6% people in this cohort who are unemployed despite their qualifications. It then suggests that while schooling may be a considerable determinant of employment, there are others as well which would need to be properly investigated. In literature, several explanations for this phenomenon exist and they include skills mismatch (Allen & De Weert, 2007, Bhorat, 2004) and racism as stated by Jimmy Manyi, the Former Black Management Forum (BMF) President (Breier, 2009: 9).

Figure 4.8: Type of sector by highest level of education

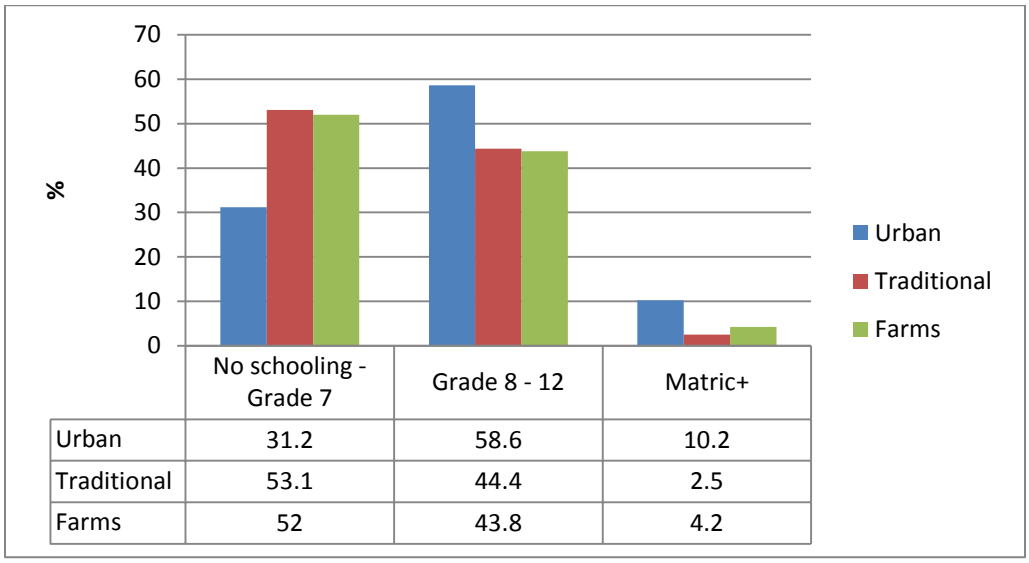


	No schooling - Grade 7	Grade 8 -12	Matric+
Formal sector	13.2	65.1	21.7
Informal sector	25	65.7	9.3
Private household	24.9	64.9	10.4

Source: Stats SA, Census 2011

Figure 4.8 shows that most (65.1%) of the workers in the formal sector are in the ‘Grade 8-12’ category. They are followed by those with Matric+ at 21.7% and lastly those with 'No schooling - grade 7' at 13.2%. The informal sector is also dominated by the ‘Grade 8-12’ cohort (65.7%), followed by the 'No schooling - grade 7' cohort at 25% and ‘Matric+’ at (9.3%). Similarly, private households are also dominated by the ‘Grade 8-12’ cohort at 64.9%, followed by the 'No schooling - grade 7' cohort at 24.9% and ‘Matric+’ at 10.4%. This suggests that most of those in the ‘Matric+’ cohort are absorbed by the formal sector and those without matric are more likely to be in the informal sector as home-based workers, street vendors, subsistence farmers, crafters, and small-scale manufactures, miners, or construction workers.

Figure 4.9: Geo-type by education level

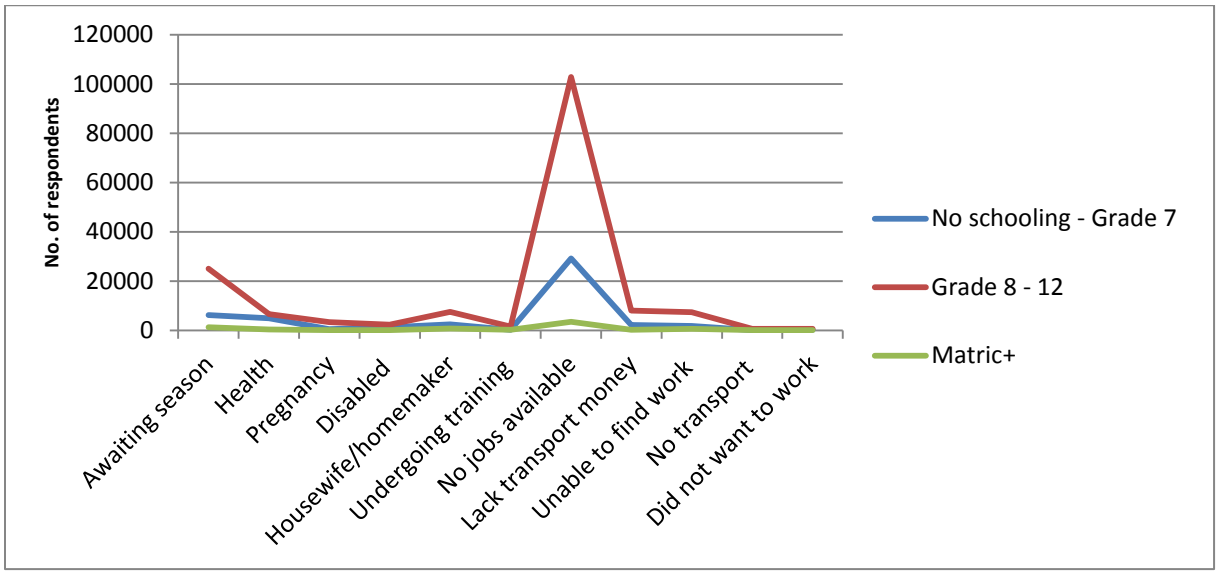


	No schooling - Grade 7	Grade 8 - 12	Matric+
Urban	31.2	58.6	10.2
Traditional	53.1	44.4	2.5
Farms	52	43.8	4.2

Source: Stats SA. Census 2011

Most (58.6%) of the Mpumalanga urban population have grade 8-12, followed by the 'No schooling – grade 7' cohort at 31.2% and Matric+ cohort at 10.2% as seen in figure 4.9. In traditional areas, those with 'No schooling – grade 7' dominate as they are 53.1% of the population, followed by the 'Grade 8-12' cohort who are 44.4% of the population and the 'Matric+' cohort are only 2.5%. Similarly, the farms are dominated by the 'No schooling – grade 7' cohort as they are 52% of the population, followed by the 'Grade 8-12' cohort who are 43.8% of the population and 'Matric+' cohort who are only 4.2% of the population. This could be because employment opportunities that are appropriate with the skill level of the Matric+ cohort are limited in mostly farming dominated areas. This also suggests that the acquisition of formal education is one of the determinants of rural-urban migration, with the rural areas being depopulated and the urban areas becoming overpopulated.

Figure 4.10: Reasons for not working by education level



Source: Stats SA, Census 2011

Figure 4.10 reflects that most (61.2%) of the unemployed in Mpumalanga attribute this to the lack of jobs in their respective areas. Very few (4.7%) attribute this to lack of transport and a small number (0.4%) did not want to work. The 'Grade 8-12' cohort seems to be the dominant population in all the categories for being unemployed. It is followed by the 'No schooling – grade 7' cohort and lastly the 'Matric+' cohort. Most of them are unemployed because they are still waiting for seasonal work, have health problems, are pregnant, are housewives or homemakers, are undergoing training for work, think there are no jobs available, lack money for transport, are unable to find work, struggle to get transport to get to work and some do not want to work.

4.3.4 What the youth say about education

The Mpumalanga youth views about education were sought through interviews and focus group discussions and their opinions varied significantly. Some of the respondents felt that the education system particularly in the schools is working well and effective while others disagreed. Some respondents observed that 'children go to school, but there are not enough teachers to teach the different classes. Hence, they leave school at 11:00am to roam the streets'.

Some of the respondents' concerns were with respect to what they viewed as compromised labour market participation due to the type of education received. The increased offering of Mathematical Literacy when employers require Mathematics and Science qualifications was given as an example in this regard. Moreover, while the dominant sectors in Mpumalanga are agriculture, forestry, mining and tourism, most further education and training (FET) colleges are offering courses for white collar jobs such as office management, administration, marketing, etc. Many of the respondents noted the mismatch between the courses offered and required skills in the local labour market. The extent to which the FET colleges respond to local demands in terms of their course offerings is unclear and complicated. Although there is a strong criticism of irrelevant courses being offered, some of the local youth are not prepared to work in the agriculture, forestry and mining industries as they prefer white collar jobs. These attitudes and 'irrelevant courses' negatively affects the training of people in the areas where more workers are still required, hence the skills shortages phenomenon in some sectors.

The negative attitude towards blue collar jobs is understandable in light of the experiences of workers in these sectors. Some of the experiences stem from the apartheid era and are still being practiced, causing some people to shun the affected sectors. These experiences include the nature of the work which is physical and performed under harsh conditions. This is aptly expressed in the statement attributed to the white farmers and white managers at the forests where they regularly say: *Angifuni khehla lana ngizenzela elami* (I don't want old people here, I produce my own). This depicts the hard labour conditions at the forests and farms, hence many people prefer office jobs. The fact that the forests and farms are predominantly still white-owned, aggravates the negative attitude towards blue collar employment. The black youth is not prepared to pay such a heavy price for something they do not even own. Moreover, there is a notion that there are very few role models in the artisan industry to demonstrate that one can earn a good salary as an artisan. Role models are predominantly tenderpreneurs, entrepreneurs and civil servants.

In addition to the existing challenges, such as the lack of jobs, white dominated economy, and weak education-labour market articulation, there is an entrenched culture of expecting the government to do everything for the people as opposed to people taking responsibility for their lives and taking initiatives. This is aptly captured by the remarks of a respondent who observed that 'as young people, we are constantly asking the government to give us everything. We never think of doing things ourselves. We just want to open our hands and receive'. The concerned youth noted that the 'hand-out mentality is destroying South Africa and the government's reluctance to stop it is linked to the fear of losing votes'. They also noted that 'the government has destroyed the quest for self-improvement as instead of offering jobs to people, it is dishing out social services as a permanent solution to poverty and joblessness'. As a result, 'people expect the government to build them houses, fix their broken windows and cut the grass because they are employed'.

The sense of entitlement some citizens have is partly attributed to the social services that have no exit strategy, which encourages the people to be dependent on the government indefinitely. There was also a strong view from the respondents that this situation is worsened by the 'state-enhanced lawlessness' as there are hardly any consequences when people burn tyres on the road during service delivery protests, yet the same people will later complain about potholes in the road that could have been caused by the burning tyres'.

In terms of education, Mpumalanga is investing finance into primary, secondary and tertiary education, but youth unemployment still remains an issue as opportunities are few in the province. This will affect the dividend as problems of skills mismatch, racism and unemployment are not addressed properly

4.4 Employment, poverty and inequality

As is the case in most rural areas of South Africa, Mpumalanga has a high rate of poverty, unemployment and inequality. The male unemployment rate stands at 21.2%, the female unemployment is 33.4% and the youth (15-34 age group) unemployment

rate is 36.9% (Department of Finance: Mpumalanga Provincial Government, 2013). Youth unemployment remains a major challenge in the province, as well as nationally. The wealth endowment of the province and the poverty status of a large section of the population appear to lead an uneasy co-existence. In South Africa poverty is especially high in former homelands. Several former homelands fall within Mpumalanga's boundaries and include parts of Lebowa, KwaNdebele and KaNgwane Gazankulu. In 2012 Mpumalanga's poverty rate was 36.9%, estimated to be 1.52 million citizens (Department of Finance: Mpumalanga Provincial Government, 2013).

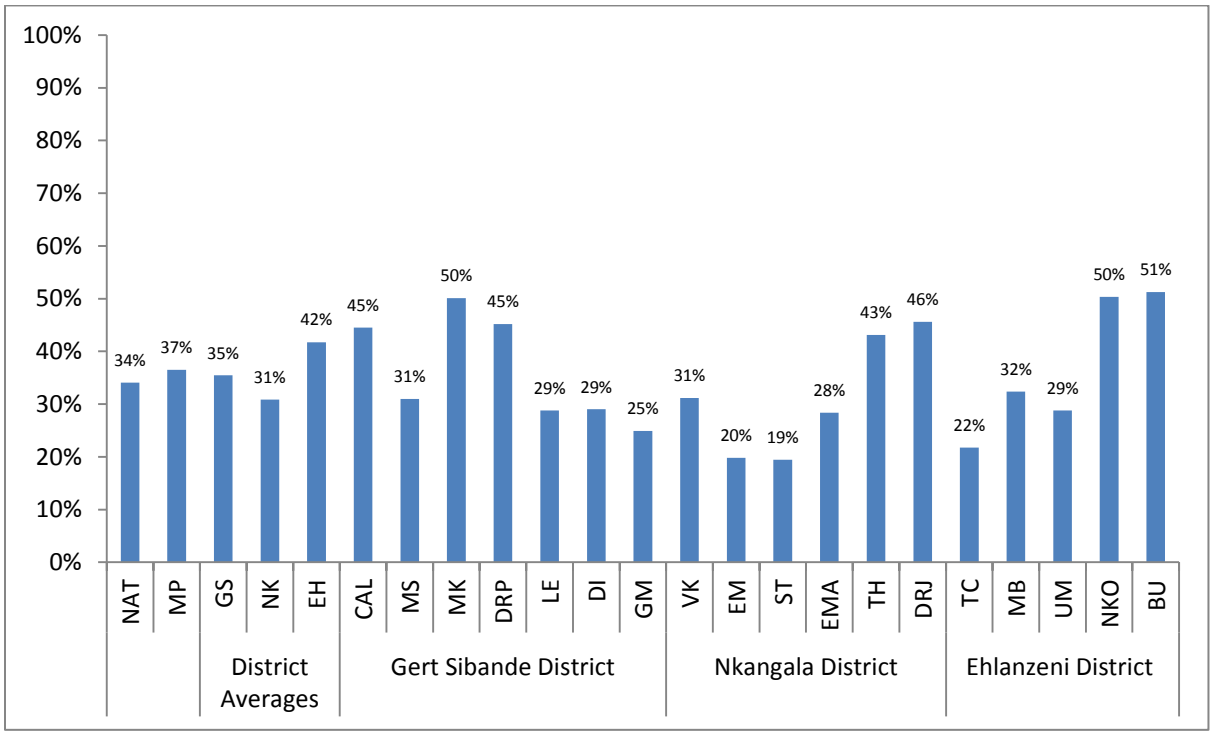
The gender dimension of youth unemployment is directly related to the demographic dividend. There are three main gender related aspects that might reduce chances of realisation of the youth dividend. The first is related to the fact that the labour participation rates of women is lower than that of men, and secondly the female unemployment is higher, and thirdly is the fact that female salaries are lower than that of men. Thus, realisation of a demographic dividend is also contingent on the narrowing of the gender gap in society.

In terms of development indicators, recent studies suggest that while the population trends have resulted in a range of development challenges such as the growth of informal settlements, Mpumalanga is one of the provinces that has consistently addressed the issue, also with more success than other provinces. There has also been a steady growth in the proportion of the population with access to subsidised housing. Challenges do, however, abound with regard to greater access to water and sanitation with cholera outbreaks in 2009 underlining the latter

Sectoral data might provide insights into issues such as the distribution of clinics, access to education, health and vital registration services. Such data does not, however, provide an in-depth conceptualisation of the population dynamics, trends and implications for the changing population characteristics within the province and policy implications of such trends.

The provincial government produces a number of publications that give detailed profiles of the socioeconomic conditions at both provincial, district and local municipality levels (Mpumalanga Provincial Government, 2012, Mpumalanga Provincial Government, 2013a, Mpumalanga Provincial Government, 2013e). The suite of socioeconomic profiles for the three districts covers a comprehensive set of indicators (Mpumalanga Provincial Government, 2013b, Mpumalanga Provincial Government, 2013c, Mpumalanga Provincial Government, 2013d). These publications cover indicators on employment, household income, inequality and poverty, amongst others. In order to avoid duplication this section introduces a more analytical exposition that complements the outputs of the provincial government. The first part of this section explores the poverty dynamics in Mpumalanga through a binary outcome logistic model. Although the presentation of trends on poverty provides a global picture of the distribution of the socioeconomic challenge, they do not offer assess to the socio-economic characteristics of those below the poverty line. For example, Figure 4.11 indicates that relative to national, the province of Mpumalanga has a slightly higher percentage of people below the lower bound poverty line. This provincial average is being driven largely by Ehlanzeni's (EH) rate of poverty which, at 42%, has the highest headcount rate of the three districts. At the sub-district level three local municipalities have poverty rates of around 50% (Mkhondo (MK), Nkomazi (NKO) and Bushbuckridge (BU)), whilst Emalahleni (EM) and Steve Tshwete (ST) have the lowest.

Figure 4.11: Share of population below the lower bound poverty line (Stats SA defined), 2013



NAT = National Total; MP = Mpumalanga; GS = Gert Sibande DM; NK = Nkangala DM; EH = Ehlanzeni DM; CAL = Chief Albert Luthuli; MS = Msukaligwa; MK = Mkhondo; DRP = Dr Pixley Ka Isaka Seme; LE = Lekwa; DI = Dipaleseng; GM = Govan Mbeki; VK = Victor Khanye; EM = Emalahleni; ST = Steve Tshwete; EMA = Emakhazeni; TH = Thembisile Hani; DRJ = Dr JS Moroka; TC = Thaba Chweu; MB = Mbombela; UM = Umjindi; NKO = Nkomazi; BU = Bushbuckridge

Source: IHS Global Insight – ReX, February 2014

The analysis around poverty allows us to identify the key characteristics of those who are in poverty in the province as a basis for the formulation of firmer policy recommendations. The analysis was done using Census 2011 data with the Stats SA food poverty line of R443 per month. The advantage of the census data is that it allows for the full decomposition of the data to lower local levels. A number of variables were chosen for the analysis as listed below:

District

- Gert Sibande
- Nkangala
- Ehlanzeni

Geo-type

- urban
- traditional
- farms

Population group

- Black
- Coloured
- Indian
- White
- Other

Marital status

- married
- never married
- widow
- separated
- divorced

Gender

- male
- female

Employment status

- employed
- unemployed
- discouraged
- not economically active

Education

- no schooling
- primary1
- primary2
- secondary

- matric
- higher
- other

Age

Household size

The poverty analysis conducted allows for the simultaneous testing of the association of the poor with the variables listed above. The rationale for this type of analysis is that socioeconomic status as measured by an individual's position from the poverty line, is a function of geographic and demographic factors such as population group and gender and a number of socioeconomic variables; employment status and educational level. We would expect certain socioeconomic factors, such as marital status and average household size, to act as key determinants of poverty.

The results of the analysis can be found in Table 4.1. The first column has the variable of interest and column 2 shows the likelihood, in percentages, of being above or below the poverty line. Column 3 shows the level of significance of each estimate, with the three asterisks indicating that results are significant at the 1% level. A positive value means that the variable in question is more likely to be below the poverty line, whilst a negative value indicates that the variable is less likely to be below the poverty line. These probabilities are calculated against a reference sub-category of its group. All reference variables are in italics.

The results are interpreted as follows, taking marital status as an example. The reference marital category is for individuals who are married/living together. Since all the percentages are positive, it means that all other marital status are more likely to be below the poverty line, relative to those who are married. Specifically, those who have never been married are 4% more likely to be below the poverty line relative to those who are married/living together, whilst those who are separated are 6% more likely to be below the poverty line. Given that all single categories are more likely to be below

the poverty line, these results suggest that marriage confers some benefits that might arise from the pooling of income and assets. The likelihood of being below the poverty line appears marginally higher for those who are separated and divorced than those who have never been married, with both of the former being approximately 6% times more likely to be below the poverty line.

Table 4.1: Likelihood of being poor: Mpumalanga

	Likelihood of being poor %	***Level of significance***
District		
Ehlanzeni (Reference variable)		
Gert Sibande	5%	0.000***
Nkangala	-2%	0.000***
Geo-type		
Urban (Reference variable)		
Traditional	14%	0.000***
Farms	4%	0.000***
Population Group		
Black (Reference variable)		
Coloured	-13%	0.000***
Indian or Asian	-22%	0.000***
White	-24%	0.000***
Other	-4%	0.064**
Marital Status		
Married/Living Together (Reference variable)		
Never married	4%	0.000***
Widow/Widower	4%	0.000***
Separated	6%	0.000***
Divorced	5%	0.000***
Gender		
Male (Reference variable)		
Female	0.5%	0.002***
Employment Status		
Employed (Reference variable)		
Unemployed	36%	0.000***
Discouraged work-seeker	37%	0.000***
Other not economically active	27%	0.000***
Education		
Higher Education (Reference variable)		
No schooling	28%	0.000***
Some primary	27%	0.000***
Completed primary	25%	0.000***

Some secondary	23%	0.000***
Grade 12/Std10	18%	0.000***
Other	15%	0.000***
Pre-school	28%	0.000***
Age		
15 – 34 years (Reference variable)		
1 - 14	-7%	0.000***
35 - 65	1%	0.027**
66 +	-21%	0.000***
Household size(no. of people in household)	1.4%	0.000***
Sample Size = 330 290		
Wald chi2(27) = 42466.01		

Source: Authors, 2015

With respect to the spatial variables, district and geographic type, an individual in Gert Sibande is 5% more likely to be above the poverty line, whereas someone from Nkangala is 2% less likely to be above the poverty line compared to someone from Ehlanzeni. The results of the spatial variables confirm what is known about the distribution of poverty in South Africa, with those in rural areas being 14% more likely to be below the poverty line than those in the urban areas of Mpumalanga.

Looking at population groups, the results indicate that all other racial groups are less likely to be below the poverty line compared to their Black counterparts. Specifically, Whites are 24% less likely to be below the poverty line than Blacks. This result continues to highlight the racial face of poverty within a post-apartheid context.

Although the gender variable has the expected sign and is statistically significant, the results show that women are 0.5% times more likely to be above the poverty line than men. This is because women are proportionally more likely to be unemployed as compared to men. The results for the province also show a storyline that is consistent with recent findings from Stats SA (2014) that employment status is one of the single largest contributors to poverty in South Africa. Compared to those who are employed,

both discouraged workers (those who have stopped looking for work) and the unemployed are almost 37% more likely to be below the poverty line. This means that if the province is to reduce the level of poverty, employment creating interventions should be priorities.

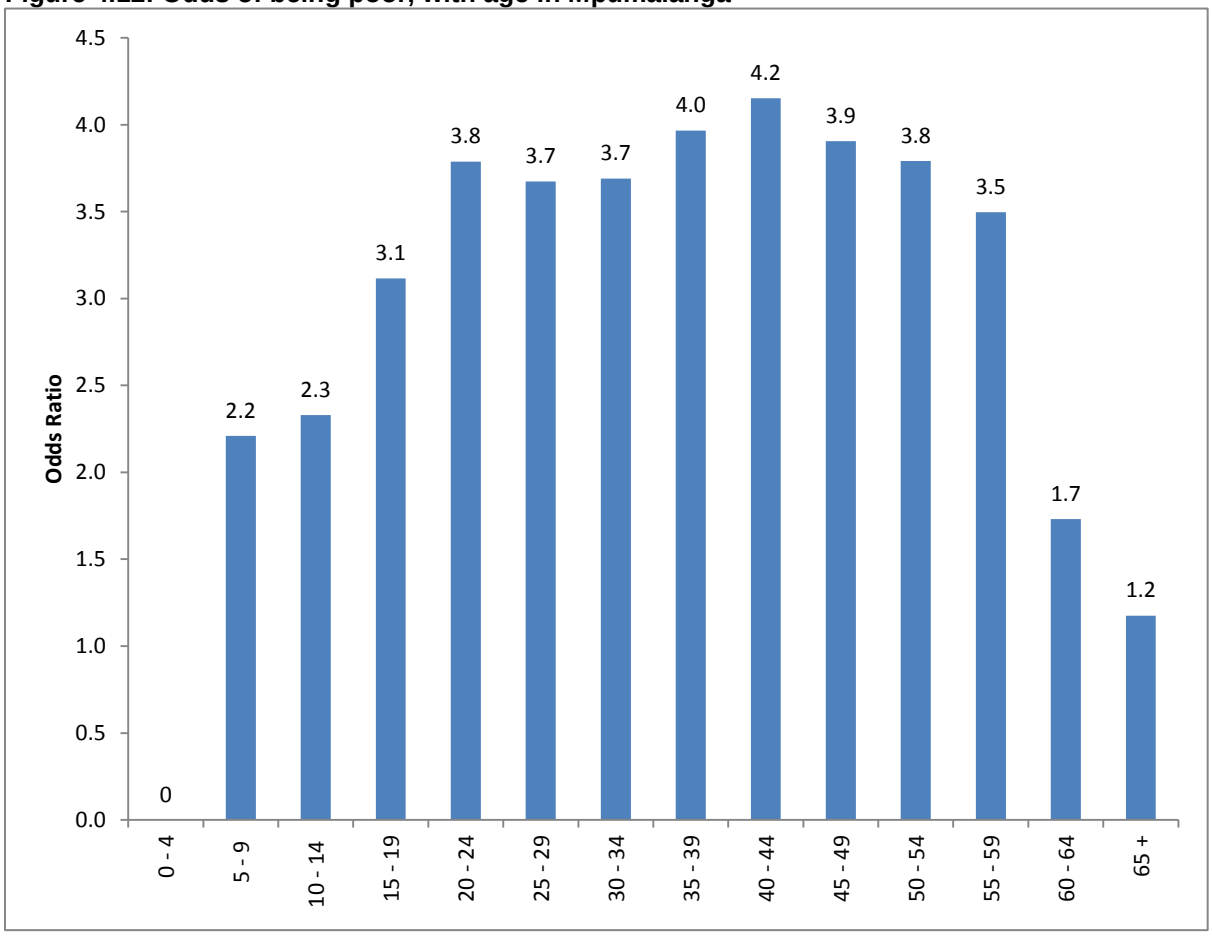
The results for the province also corroborate evidence from the same source that found that lack of education is also a key contributor to poverty in South Africa. Compared to those with higher education, all other forms of education are associated with a greater likelihood of being below the poverty line. The results show that those with no schooling are almost 28% more likely to be below the poverty line than those with a higher education. These results reinforce the importance of education within a post-apartheid South Africa.

The analysis included an age variable in order to assess the socioeconomic status of the youth. The results show that those who are not economically active (0-14 and 66 and older) are less likely to be below the poverty line, than those between the ages of 15-36. This could be the result of South Africa's comprehensive social protection system, which has a relatively extensive coverage across these two groups, through the child support grant and the old age grant. In addition, these two cohorts tend to live within a household and thus benefiting from the pooling of income from other household members. In contrast, those who are between the ages of 35-65 are marginally more likely to be below the poverty line than those who are between the ages of 15-34.

In order to understand the relationship between age and poverty the odds ratios, which quantify the relative risk of being in poverty were computed. Figure 4.12 shows the odds of being poor across all age categories for the province; with the 0-4 age group as a reference. These results show that given the current population profile, the odds of being poor increase from young to old, peaking at 4.2 for the age cohort 40-44. This means that, for the latter cohort the odds of being poor are 4.2 times higher relative to those who are between the ages of 0-4. This means that 0-4 year olds are most likely to

be in poor households due to higher support ratio. A reason could be that younger individuals are dependent on fewer income earners in the household. These results highlight the occurrence of poverty as a phenomenon that seems to affect those in the working age population.

Figure 4.12: Odds of being poor, with age in Mpumalanga



Source: Authors, 2015

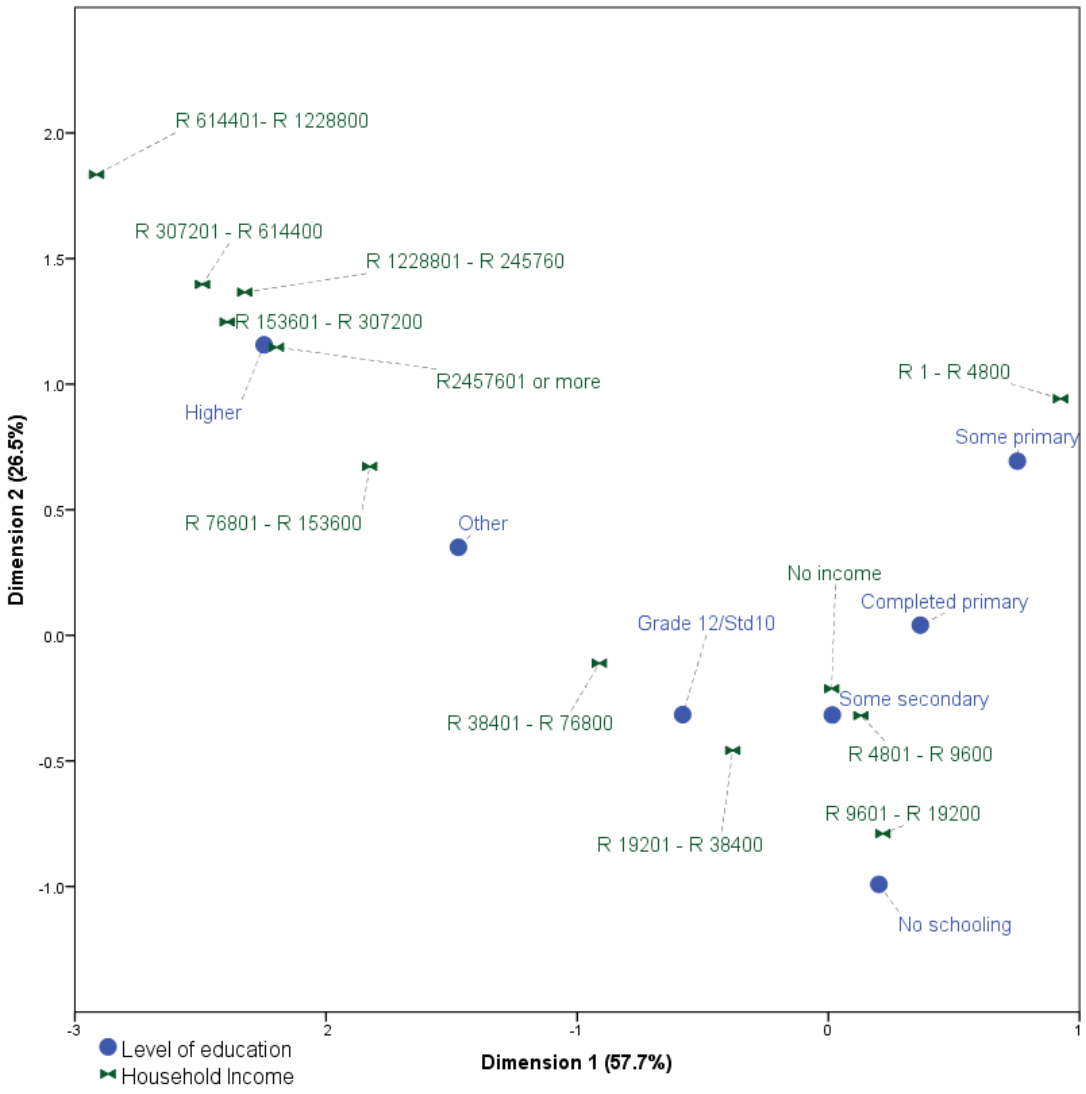
4.4.1 Level of education and household income in Mpumalanga

The above results highlighted the greater likelihood of those with lower levels of education being below the poverty line. Figure 4.13, goes beyond this, by investigating the specific association between level of education and household income. The plot is interpreted by looking at the distance between the categories of one variable to that of

the other variable. The closer the two dots are for the two categories, the stronger the strength of the association; and in a similar way, the further they are the weaker the relationship between the two categories. This analysis also allows for quickly identifiable patterns in the data, in terms of the tendency of some groups of categories to bunch together. The latter makes it easy to summarise the findings in a meaningful way without having to spend time in presenting a shopping list of descriptive statistics.

Figure 4.13 shows that most of the variation in the data is explained by the level of income. This accounts for 57.7% of the pattern that we are seeing in the data. The figure also shows that there is a significant component of variation in the data that is explained by level of education. There is a clear cut-off in the data, with those earning above R76 800 per annum having a stronger association with higher education. It can therefore be concluded that for the population in Mpumalanga, higher education plays a strong role in allowing individuals in the province to access higher levels of income. This means that access to higher education should be prioritised in the province to allow people to move up the socioeconomic ladder.

Figure 4.13: The association between level of education and annual household Income of Mpumalanga



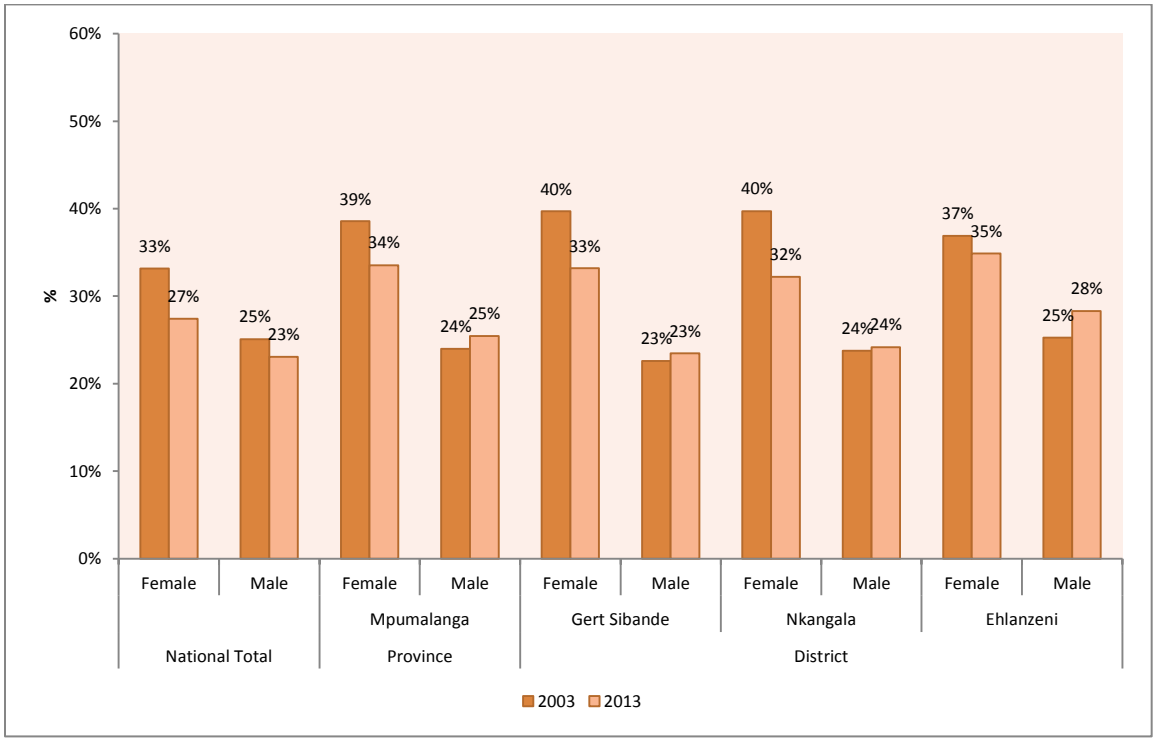
Source: Authors, 2015

4.4.2 Unemployment

Unemployment is one of South Africa's main challenges. Figure 4.14, highlights the fact that, for both men and women the provincial rates of unemployment have generally remained higher than the national average. Unemployment as defined by Stats SA is someone who is considered to be capable of working or starting a business but has not done so. In addition they need to be actively looking for work or trying to start a

business (Stats SA, 2011). The figure also shows three important provincial trends between 2003 and 2013. The first and most important is the fact that female unemployment is significantly higher than male unemployment. In 2013 it was 9% higher than that of males. The second trend is the decrease in the rate of unemployment for women, both at national and provincial levels.

Figure 4.14: Unemployment rate, official definition by gender in Mpumalanga in 2003 and 2013

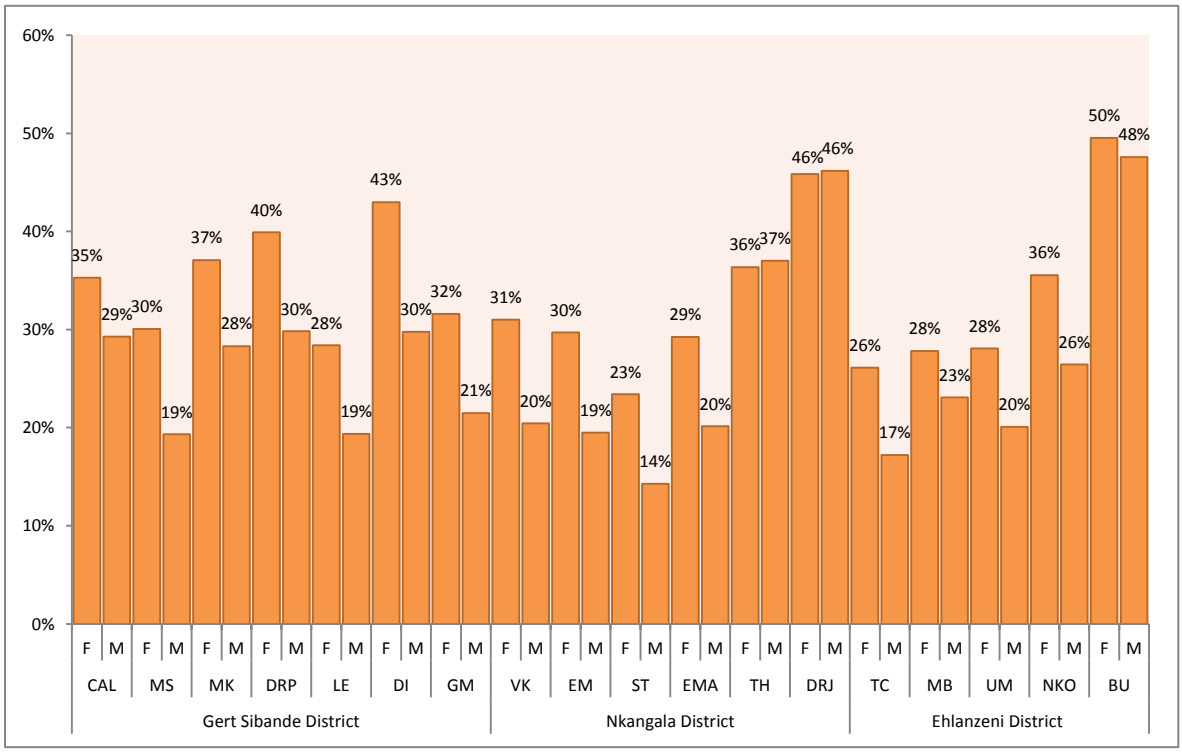


Source: IHS Global Insight – ReX, February 2014

The third trend shows that the gains that have been enjoyed by women over the 10 year period have not been shared by men who have seen a relatively marginal increase in the rate of unemployment. The increase for Mpumalanga goes against the national trend which shows a decrease of 2%. The Mpumalanga increase is being driven largely by the increase in the male unemployment rate of the Ehlanzeni district. Further investigation shows that at district level the increase is being driven by the high rates of unemployment from the local municipality Bushbuckridge (see Figure 4.15), with a

female and male rate of unemployment of 50% and 48%, respectively, the highest levels in the province.

Figure 4.15: Unemployment rate by gender in Mpumalanga local municipalities in 2014



CAL = Chief Albert Luthuli; MS = Msukaligwa; MK = Mkhondo; DRP = Dr Pixley Ka Isaka Seme; LE = Lekwa; DI = Dipaleseng; GM = Govan Mbeki; VK = Victor Khanye; EM = Emalahleni; ST = Steve Tshwete; EMA = Emakhazeni; TH = Thembisile Hani; DRJ = Dr JS Moroka; TC = Thaba Chweu; MB = Mbombela; UM = Umjindi; NKO = Nkomazi; BU = Bushbuckridge

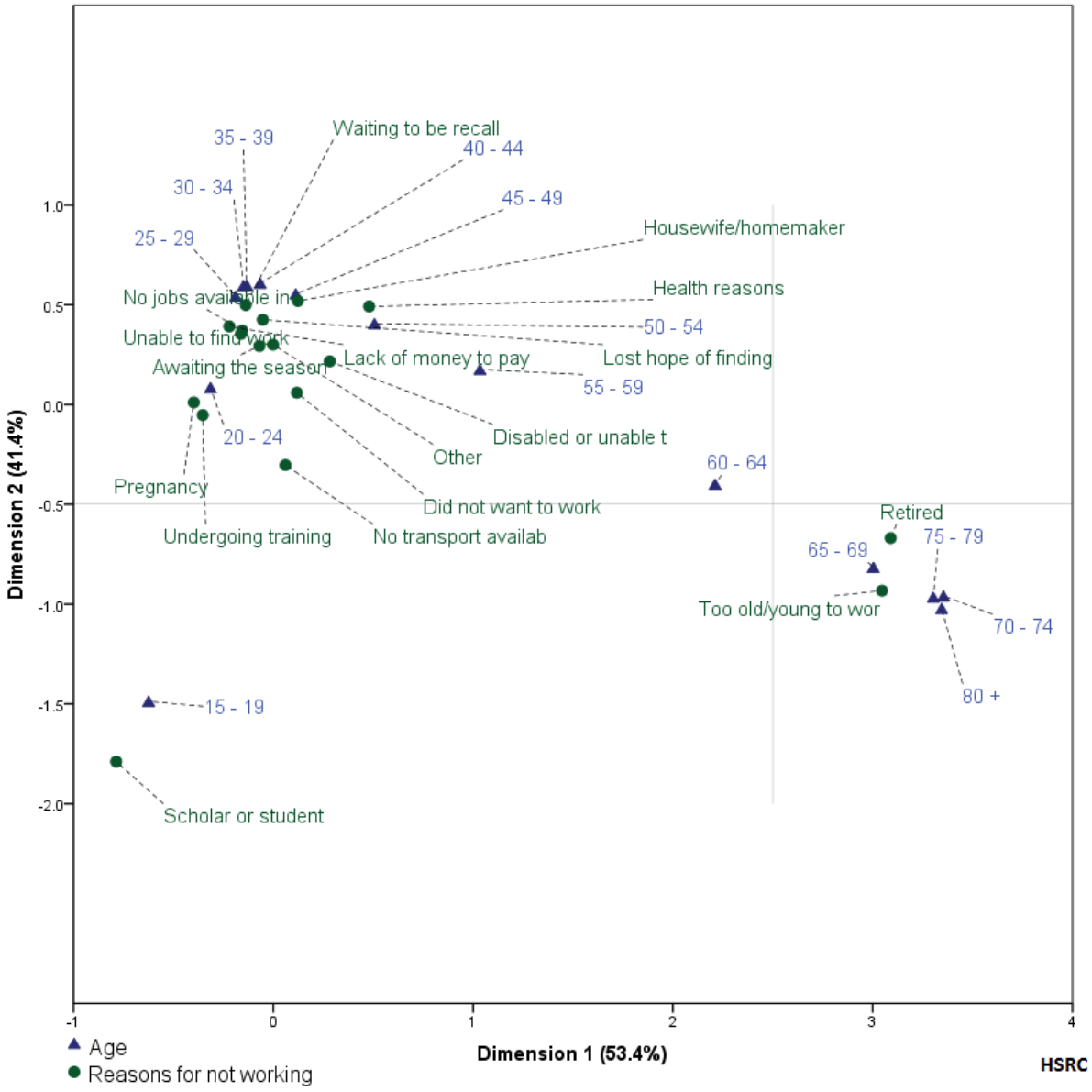
Source: IHS Global Insight – ReX, February 2014

4.4.3 Age and reason not employed

Given the significance of employment status as a contributor to poverty, this section exploits a variable in the census dataset where respondents were asked to give reasons why they were unemployed. This gives a subjective understanding of the reasons for not being employed and to also understand the associations of the different age cohorts with the reason identified by the respondent. The analysis and interpretation of the data is as described in the previous section.

Figure 4.16, shows that in Mpumalanga, age accounts for most of the variation in the data (53.4%). It can be seen, as expected, that those who are above 65 closely associate with the reasons too old or retired. Another association that is consistent with our understanding of age and work, is the association between those with the ages of 15-19, with the reason for not working, of student/scholar. As mentioned above, the closer the two dots are for the different categories the stronger the strength of association. If the two dots are located in exactly the same location, this would indicate a relatively high association between the two categories. A closer look at the latter association of those who are 15-19, indicates that for the status of being a student, although these bunch together, the two are not overlapping in the same location, which means that not all those who are within this cohort are students.

Figure 4.16: Association of age and reason not employed in Mpumalanga



Source: Authors, 2015

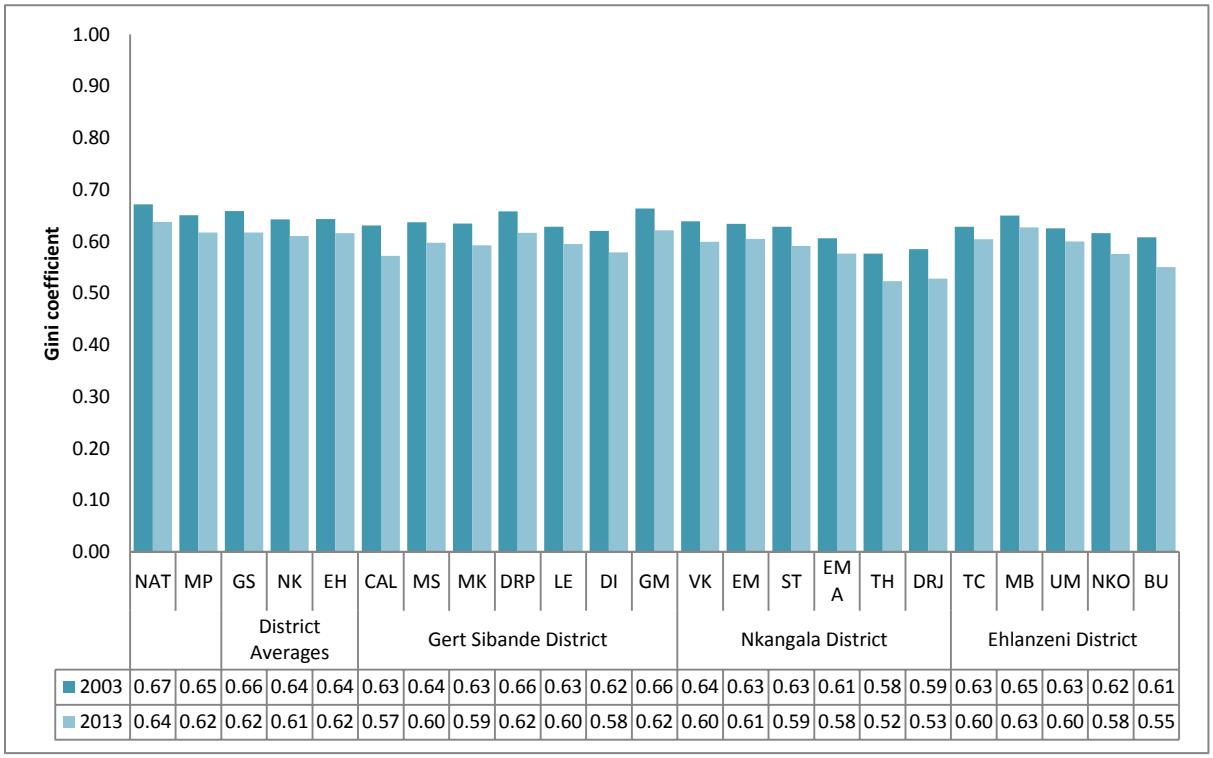
It is also interesting to note that pregnancy is strongly associated with the 20-24 age group. Beyond the age of 24 the strongest associations in the data are largely related to the inability to find work, waiting for the season to begin for seasonal workers, and lack of money for transportation. One of the most significant associations in the data is related to the unavailability of jobs and this seems to be strongly associated with the

youth. Specifically, the lack of jobs seems to affect those between the ages of 25 and 44. This result is consistent with the structural nature of the unemployment problem in South Africa. In the case of Mpumalanga the situation is compounded by the key sectors that are driving the provincial economy. In particular the dominance of primary sectors in the provincial economy means that the economy is being driven by sectors with fewer backward linkages and as such is unable to pull other industries, as in the case of the manufacturing sector. From this analysis it would appear that the province's development strategy should focus on diversifying the provincial economy into sectors that have a higher capacity to absorb low-skilled workers. The inability of the youth to find employment has serious implications for the ability of the province to fully exploit the demographic dividend and represents a wasted opportunity.

4.4.4 Income inequality

Mpumalanga's inequality levels broadly follow national trends and arise from the legacy of Apartheid and the inability of post-democracy resource driven growth to create jobs for the formerly disadvantaged population. The persistence of income inequality in the province is therefore in part related to the unemployment problem. Although slightly lower than the national figure, Mpumalanga's Gini-coefficient, a measure of income inequality, is still high at 0.62. Figure 4.17 shows that in line with the national trend there have been marginal decreases in the Gini-coefficient across the board. There are very little differences at the district level in terms of inequality. At the local municipality level Thembisile Hani (TH) has the lowest level of inequality with a Gini-coefficient of 0.52 whilst Mbombela (MB) has the highest level at 0.63.

Figure 4.17: Gini-coefficient in Mpumalanga local municipalities



	NAT	MP	GS	NK	EH	CAL	MS	MK	DRP	LE	DI	GM	VK	EM	ST	EMA	TH	DRJ	TC	MB	UM	NKO	BU
			District Averages			Gert Sibande District							Nkangala District						Ehlanzeni District				
2003	0.67	0.65	0.66	0.64	0.64	0.63	0.64	0.63	0.66	0.63	0.62	0.66	0.64	0.63	0.63	0.61	0.58	0.59	0.63	0.65	0.63	0.62	0.61
2013	0.64	0.62	0.62	0.61	0.62	0.57	0.60	0.59	0.62	0.60	0.58	0.62	0.60	0.61	0.59	0.58	0.52	0.53	0.60	0.63	0.60	0.58	0.55

NAT = National Total; MP = Mpumalanga; GS = Gert Sibande DM; NK = Nkangala DM; EH = Ehlanzeni DM; CAL = Chief Albert Luthuli; MS = Msukaligwa; MK = Mkhondo; DRP = Dr Pixley Ka Isaka Seme; LE = Lekwa; DI = Dipaleseng; GM = Govan Mbeki; VK = Victor Khanye; EM = Emalahleni; ST = Steve Tshwete; EMA = Emakhazeni; TH = Thembisile Hani; DRJ = Dr JS Moroka; TC = Thaba Chweu; MB = Mbombela; UM = Umjindi; NKO = Nkomazi; BU = Bushbuckridge

Source: IHS Global Insight – ReX, April 2014

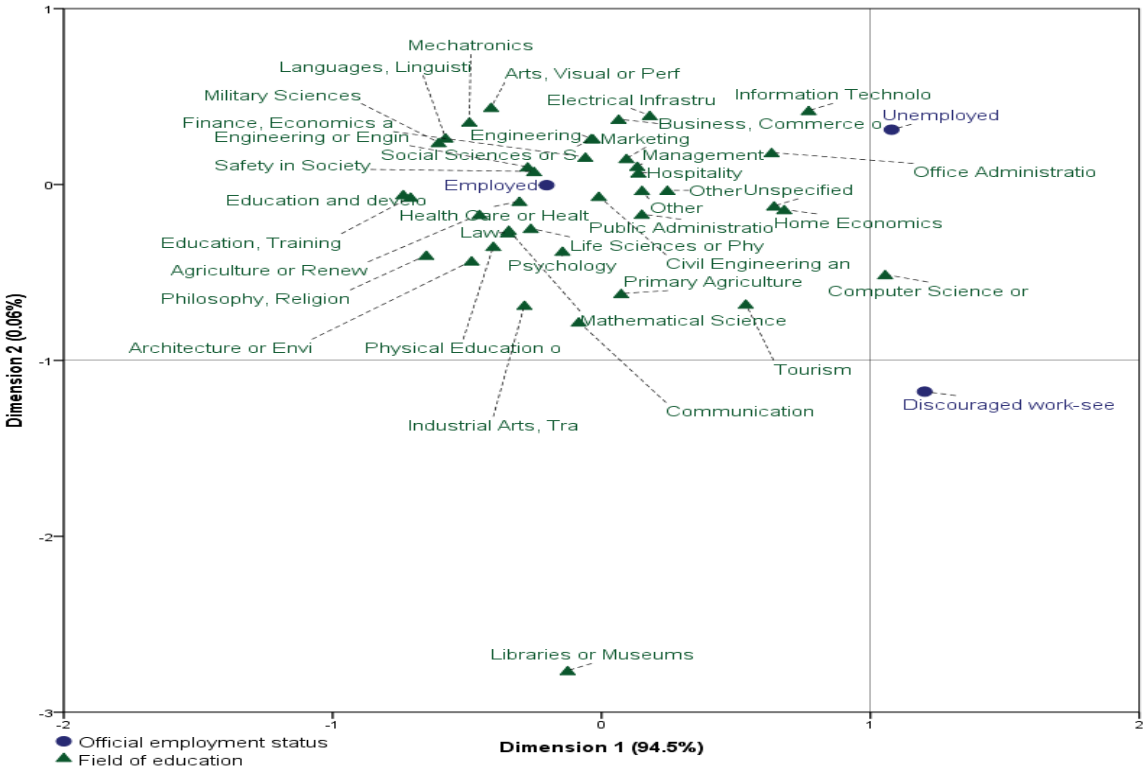
4.4.5 Employment status and field of education

The logistic regression pointed to the statistically significant association between poverty and education. This section explores the association between field of education and employment status and highlights the extent to which educational preferences have a bearing on an individual's employment status. The rationale behind this analysis is that in order for the province to fully exploit the demographic dividend, the human resources in the province have to be properly aligned with the skills that the provincial economy is demanding. The data for this analysis is also derived from Census 2011 which has a variable on field of education across 39 categories of education.

Figure 4.18 shows the correspondence analysis of the interaction between field of education and employment status. As explained in the previous section the closer together the two points of the variables are to each other, the stronger the association is between the two variables. In a similar vein, the closer together two categories of the same variable are to each other, the more similar their profiles are across the categories of the other variable. Figure 4.18 indicates that most of the variation in the data is being driven by employment status, with the first dimension separating those who are in the labour market from those who are not. This explains just over 94% of the variation in the data. It is also interesting to note that the disassociation between the three types of employment status also points to the fact that the field of education profile of these three groups are different. These differences in the profile of field of education could be driving the observed pattern of unemployment in the province.

Essentially, those fields of education that have a tendency toward the unemployed status are generally characterised by higher rates of unemployment relative to those fields of education that are closer to the employed status. In a similar vein fields like tourism have higher rates of graduates who are discouraged. It is also interesting to note that Information Technology (IT) is closely associated with the unemployed status. A look at field of education unemployment rates shows that IT has the highest unemployment rates in the province. This data begins to highlight the fact that the debates around unemployed graduates needs to be contextualised to the reality that different fields of education have different employment rates. This analysis can be used to guide learners towards those occupations with better opportunities for employment, given their field of education employment rates.

Figure 4.18: Correspondence analysis in Mpumalanga by employment status and field of education



Source: Authors

4.4.6 What young people say about employment, poverty and inequality

According to the focus groups unemployment is one of the main issues affecting the youth in the province. Many of the respondents commented that they are finding it incredibly difficult to find employment in the province as jobs are limited. In the towns where mining was the main economic activity in the area, many of the respondents commented that the mines are not hiring locals but rather workers from other provinces. A respondent commented:

> *You will find that they will put out an advert looking for a person, but they already have someone in mind and are just following procedures in terms of HR and not actually looking for candidates.*

The high level of youth unemployment can also be attributed to education in Mpumalanga. Many of the respondents commented that the schools are there but that teachers are striking. The constant shifting of educational curriculum (i.e. OBE to CAPS) affects their ability to get into university, TVET or FET colleges. The respondents felt that the FET colleges in the area were good for a start but different types of courses and trainings need to be offered. One of the examples cited was Dundonald, Redhill (Chief Albert Luthuli Municipality). Respondents commented that the FET colleges offered courses in forestry, engineering and mining because these were the economic activities in the area, but the respondents were not interested in going into these careers in the future and so the choice is very limited. In some areas the FET colleges are too far to access and hence they cannot attend the classes.

The National Youth Development Agency (NYDA) has begun to work with the youth in the province. Many of the respondents across the municipalities mentioned that the NYDA has been interacting with the youth in the various centres and has been giving information sessions on various careers, in particular on starting a small business. The NYDA has agreed to work with some of the respondents in funding their small businesses as long as the respondents have the proper documentation and a business plan.

4.5 Sexual reproductive health and rights

Sexual and reproductive health has been defined by the international community as a state of complete physical, mental, and social well-being, and not just the absence of disease or infirmity, in all matters relating to the reproductive system and its functions and process. It is an essential component of young people's ability to become well adjusted, responsible and productive members of society.

For many millions of young people in South Africa, adolescence is a critical passage in which they gain life experience through schooling, job training, work experiences, community activities, youth groups and relationships. The majority also have their first sexual relationships during this time. With this come the perils of sexually

transmitted diseases, including HIV and AIDS and unwanted pregnancies. It does, however, also offer policy makers the opportunity to address these issues to secure a healthy work force for the future.

4.5.1 Challenge of HIV and AIDS

HIV and AIDS has become a disease of the young, with young adults aged 15-24 accounting for the majority of deaths. Young people and particularly young women are vulnerable to HIV and AIDS infection due to social, political, cultural, biological and economic reasons. Whatever their circumstances, young people need information, skills, youth-friendly health services and a safe and supportive environment to protect themselves against HIV and AIDS

The importance of preventing HIV and AIDS infections among young people has been a consistent message in all HIV and AIDS related commitments to date, particularly ICPD+5, the Millennium Development Goals (MDGs), and the Declaration of Commitment made at the 2001 United Nations General Assembly Special Session on HIV and AIDS (UNGASS). HIV and AIDS prevention among young people is also one of the 'Essential Programmatic Actions for HIV and AIDS Prevention' in the UNAIDS Policy Position Paper Intensifying HIV and AIDS Prevention. Tackling this problem requires universal access to prevention, treatment, care and support programmes addressing youth needs. It requires a massive scaling up of the most effective programmes, as well as the simultaneous strengthening HIV and AIDS prevention and treatment programmes – building on existing synergies to increase impact and ensure sustainability, based on the 'Three Ones' principles as follows:

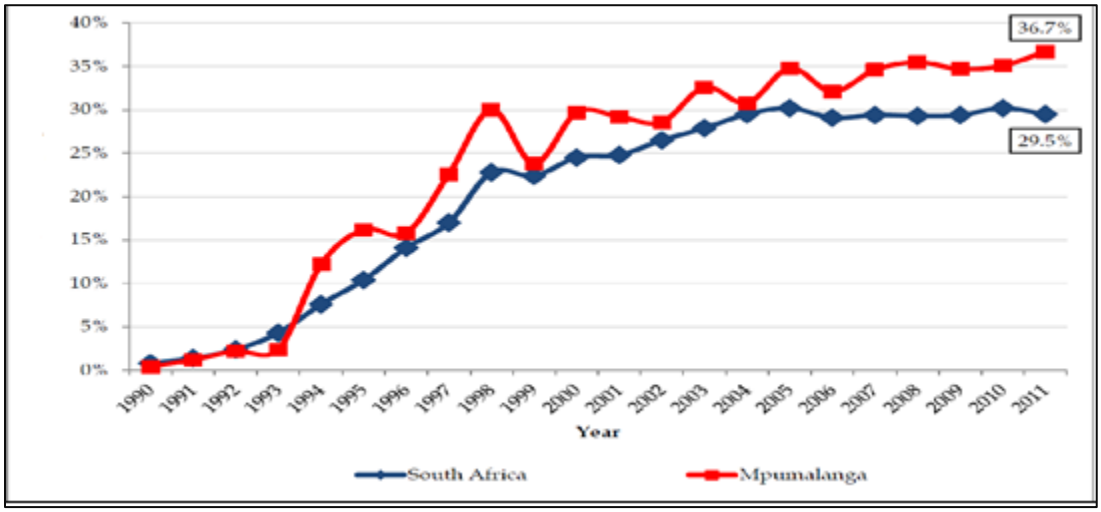
- One agreed HIV and AIDS action framework that provides the basis for coordinating the work of all partners;
- One national HIV and AIDS coordinating authority, with a broad-based multi-sectoral mandate; and
- One agreed country-level monitoring and evaluation system

National ownership of plans and priorities is the overarching theme of the Three Ones, which emphasizes the idea that urgently needed responses should contribute to developing national capacity and fit into broader national development strategies. They are also fully aligned with ongoing efforts for UN reform, which aim to streamline and harmonise multilateral assistance, as well as with the Millennium Development Goals, which provide an internationally-agreed upon framework for improving lives. Addressing HIV and AIDS permits governments, civil societies and communities to address poverty, gender based violence, education, employment and sexual and reproductive health services delivery.

4.5.2 HIV and AIDS amongst women

It is estimated that 29.7% of the population of South Africa is HIV and AIDS positive (Department of Health, 2014). Amongst women between the ages of 15-49 the increase of HIV and AIDS positive females in Mpumalanga is seen in Figure 4.19. Between 1990–2011 the prevalence of HIV and AIDS amongst females aged 15-49 has always been higher than the national prevalence. Research has shown that women are not in a position to negotiate protected and safe sex particularly because of high prevalence of, unemployment and illiteracy (Khosa, 2009).

Figure 4.19: Comparison of HIV and AIDS prevalence among females aged 15-49 in South Africa and Mpumalanga



Source: Department of Finance: Mpumalanga Provincial Government, 2013

In the rural areas of Mpumalanga there is a higher HIV and AIDS prevalence compared to urban areas. This is due to the low status assigned to women. Traditional beliefs still prevail about a women's role in society and most importantly women do not have access to or control over resources (Khosa, 2009). This limits their decision-making power, not only economically but also personally in relation to sexual engagements.

The issue of HIV and AIDS affecting women more has been recognised in the national strategic plans. This has meant that issues affecting women have been included in national strategies such as the National Strategic Plan for HIV and AIDS and Sexually Transmitted Infections, 2012-2016. The strategic plan pays particular attention to females in the framework. The plan recognises that in order to address the issue of HIV and AIDS prevalence amongst females, strategies are required to increase prevention, to ensure that females have access to medication and to quality clinic facilities. This is to ensure sustainable health and wellness (National Strategic Plan for HIV and AIDS, TB and Sexually Transmitted Infections, 2012-2016). The framework also stresses that sexual education needs to be communicated in all spheres of society and not only by

health officials. This would require assistance from the home as sex education needs to begin in the household.

4.5.3 Teenage pregnancy

Teenage pregnancy in South Africa has always been an issue as the numbers have not decreased as quickly as one would have expected in the new democracy (Department of Social Development, 2012). As seen in table 4.2, teenage pregnancy among young people in 2011 in Mpumalanga was estimated at 13.4%. The causes of teenage pregnancy include low coverage of sex education amongst young people, low levels of knowledge about contraceptives, lack of access to health services and peer pressure. This has an impact on the number of qualified females who can go through to university and ultimately be competitive in the labour market.

Table 4.2: Number of females pregnant at least once in 2011 between age groups of 10-14 and 10-19 in Mpumalanga

	Yes	No	Do Not Know	*Unspecified	Total
10-14	1.3%	51.3%	0.1%	47.3%	100%
15-19	13.4%	61.1%	0.2%	25.3%	100%

*The category 'Unspecified' indicates that respondents did not answer the question in the survey

Source: Stats SA, Census 2011

4.5.4 Access to health facilities

In Mpumalanga 64.1% of the population of those who use public healthcare are very satisfied, 24% of the population is somewhat satisfied and 3.9% of the population who uses public healthcare is very dissatisfied (Stats SA, 2015, General Household Survey, 2014). Of those who have used private health care, about 95.9% of Mpumalanga respondents are very satisfied with the services and 0.6% of respondents were very dissatisfied (Stats SA, 2015, General Household Survey, 2014).

The results above suggest that, in order to take advantage of the demographic dividend, the government should extend services for family planning, with the public sector targeting services and resources to the poor while, at the same time, releasing the energies of the private sector to meet the needs of those who can afford to pay for family planning and other health services. Reducing unwanted pregnancies benefits maternal health and family welfare. It also hastens the changes in age structure that advance development.

4.5.5 What young people say about sexual reproductive rights

According to the youth, teenage pregnancy continues to be an issue in the province. When asked why, many commented that this was because of a lack of jobs in the area. Young people are also not attending tertiary institutions and engage in alcohol and sexual activities. Another reason for the high pregnancy rate was that some of the young females knew that they could get a grant if they have a child and then use the money for themselves and the child.

There are several sexual educational programmes that have been conducted in the province. Respondents commented programmes are beneficial, but not sufficient as this education needs to be complemented by home based education. One respondent commented:

> *Sex education needs to begin in the household and then move to the schools. Parents are still afraid to talk to their children about sex and that is a problem as kids learn about sex outside which is not good.*

Another reason for the high level of teenage pregnancy is expressions of masculinities that portray males who have children as ‘real men’ in some of the areas researched. Respondents commented that having a child is seen as being valuable and young men

who have children are seen to have come of age. This creates pressure among young men to impregnate young women.

Respondents also mentioned alcohol abuse as a major problem in their areas. A suggestion was made by one respyondent that the legal age for alcohol consumption should be increased to 21 years and that there should be stricter rules related to the distribution of alcohol in the region. The alcohol abuse has led to the youth being engaged in risky sexual behaviour and this has contributed to the high HIV and AIDS rate in the province. Alcohol abuse also leads to people not using condoms to protect themselves.

4.6 Ageing

As shown in earlier sections, ageing is expected to increase in Mpumalanga for a number of decades. The process of ageing is related with a concept known as the 'second demographic transition'. This phenomenon is a window of opportunity that society gains when there is an increase in the number of older persons who have accumulated enough savings to bequeath to the next generations. The majority of the current generation of older people are dependent on social assistance. For Mpumalanga to benefit from the second dividend in future, it will have to earnestly encourage the culture of savings of the general population.

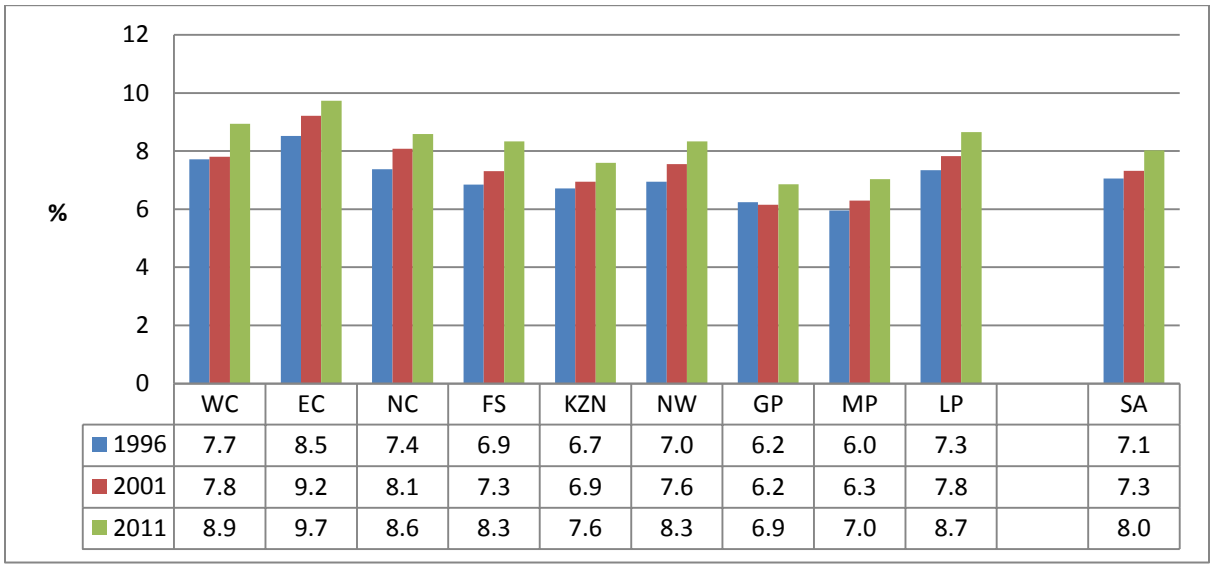
South Africa has the highest proportion of older persons in sub-Saharan Africa. Within South Africa the proportion of older persons differs considerably between the different provinces. The factors influencing the proportion of older persons are diverse, including the race racial composition of the population and migration patterns. Provinces with a larger proportion of White and Indian population, who have a higher life expectancy, are likely to have higher proportion of older persons.

As a result of age selective migration patterns, areas with high out-migration are likely to have a high proportion of older people. This is a result of many young people leaving rural areas to search for work in metropolitan areas, and returning when they reach

pensionable age. Thus, the Mpumalanga province, which is experiencing out migration of many young adults, has a large proportion of older people. It should also be noted that the proportion of older persons will be growing drastically for a number of decades, as was indicated in population projections presented in chapter 3.

Figure 4.20 looks at the percentage of elderly person aged 60 years and older by province from 1996-2011. As seen in the figure below, Mpumalanga has had an increase of elderly person from 6% in 1996 to 7% in 2011. This is lower than the national average which is 8%

Figure 4.20: Percentage of elderly persons aged 60 years and older by province: Censuses 1996, 2001 and 2011



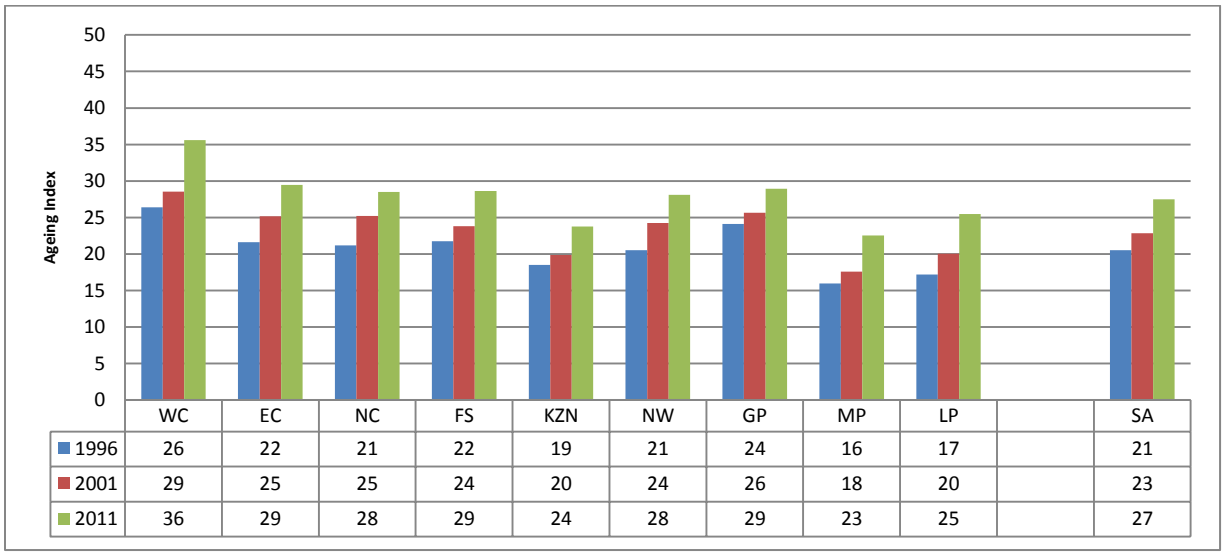
	WC	EC	NC	FS	KZN	NW	GP	MP	LP		SA
1996	7.7	8.5	7.4	6.9	6.7	7.0	6.2	6.0	7.3		7.1
2001	7.8	9.2	8.1	7.3	6.9	7.6	6.2	6.3	7.8		7.3
2011	8.9	9.7	8.6	8.3	7.6	8.3	6.9	7.0	8.7		8.0

Source: Stats SA, Census 2011

4.6.1 Ageing index

The ageing index is calculated as the number of persons of 60 years or older per hundred persons under the age of 15. Figure 4.21 shows that the Western Cape and Gauteng have higher aging index that the rest of South Africa. Mpumalanga has the lowest ageing index in the country.

Figure 4.21: Ageing index by province: Censuses 1996, 2001 and 2011



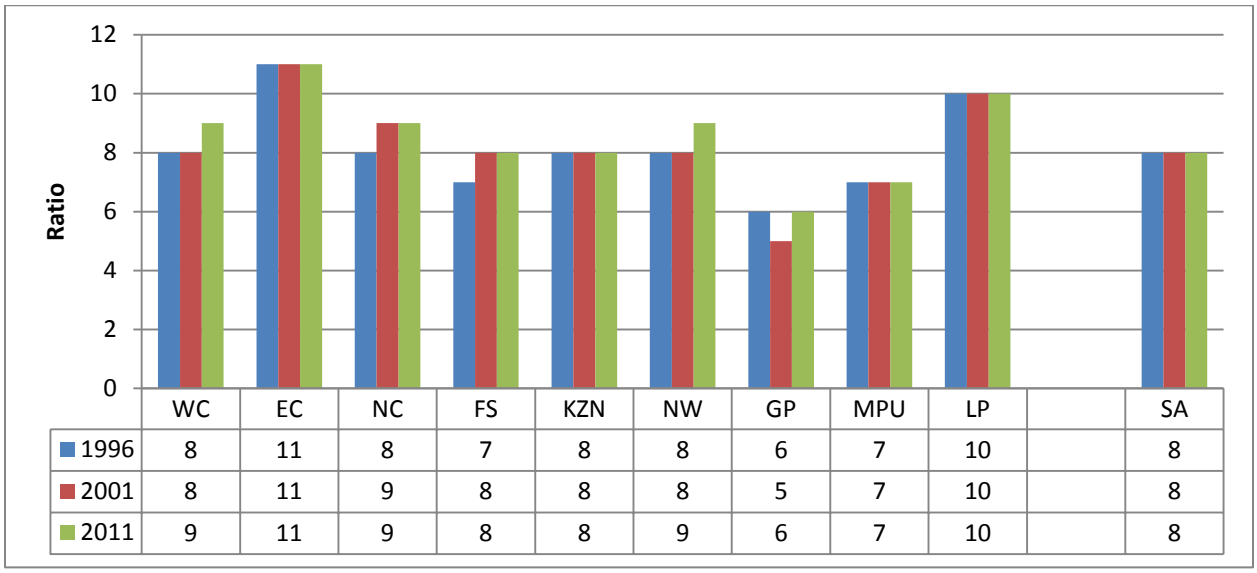
	WC	EC	NC	FS	KZN	NW	GP	MP	LP		SA
1996	26	22	21	22	19	21	24	16	17		21
2001	29	25	25	24	20	24	26	18	20		23
2011	36	29	28	29	24	28	29	23	25		27

Source: Stats SA, Census 2011

4.6.2 Old age dependency ratio by province

Old age dependency ratio is the number of old people as a share of the population in the working age. Figure 4.22 indicates that provinces with large metropolitan areas have lower old age dependency ratios, and provinces with large rural areas have higher old age dependency ratios. In line with this trend, Mpumalanga has a relatively high old age dependency ratio.

Figure 4.22: Old age dependency ratio



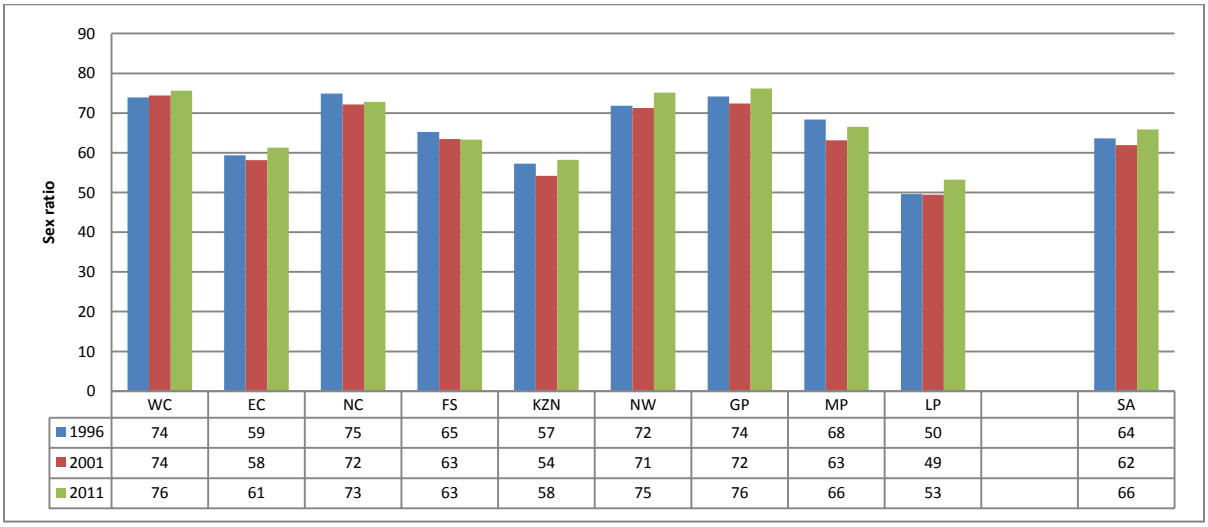
	WC	EC	NC	FS	KZN	NW	GP	MPU	LP		SA
1996	8	11	8	7	8	8	6	7	10		8
2001	8	11	9	8	8	8	5	7	10		8
2011	9	11	9	8	8	9	6	7	10		8

Source: Stats SA, Census 2011

4.6.3 Sex ratio of older persons

Sex ratio refers to the number of men to every 100 women. Thus, a lower sex ratio means that there are fewer men compared to women. Ageing in South Africa is associated with a drastic decline in sex ratios, where women outlive men. While this is the case in many parts of the world, the decline in sex ratio by age is especially acute in South Africa. Figure 4.23 shows that the sex ratio in Mpumalanga is in the region of 65, meaning that for every 100 women 60 years or older, there are approximately 65 men. Again urban-rural differences in sex ratios are of special interest, as the sex ratio is much lower in rural areas than in the cities. That means there among older persons in Mpumalanga, there are considerable more women as compared to men. As older persons play a big role of taking care of grandchildren, the care burden is mostly on the shoulders of ageing women.

Figure 4.23: Sex ratios among the elderly by province: Censuses 1996, 2001 and 2011



	WC	EC	NC	FS	KZN	NW	GP	MP	LP		SA
1996	74	59	75	65	57	72	74	68	50		64
2001	74	58	72	63	54	71	72	63	49		62
2011	76	61	73	63	58	75	76	66	53		66

Source: Stats SA, Census 2011

Older persons play an important role in Southern Africa. In addition to the traditional role of older persons as counsellors, in recent years, older persons have taken a leading role as breadwinners and caregivers in multi-generational households. Older persons have taken upon themselves to take care of orphans and vulnerable children. As the proportion of older people in society increases, their role will increasingly become more pronounced, especially if the culture of lifetime savings has been encouraged in Mpumalanga.

4.7 Urban-rural dichotomy

The concept of rurality is complex and has been defined in many ways. The most common way of defining rural areas is to contrast them with urban areas. Using this approach, rural areas can be defined as areas that are far from either commercial or industrial areas. Other classifications of urban-rural status are based on the level of population density and the types of economic activity that are conducted in an area. Using these classification measures, rural areas are defined as areas that are sparsely populated and dominated by an agrarian economy. Historically urban areas were classified in South Africa by the type of administration. Areas with a formalised local administration were deemed to be urban in contrast to areas which are governed by

traditional authorities. After the first democratic elections in 1994, formalised local structures were extended to rural areas, blurring the distinction by administrative type.

Currently urban and rural areas can be seen as one continuum, as neither population density nor type of economic activity clearly distinguishes the two. Some of the urban areas, especially those areas that are inhabited by the rich, are sparsely populated, whereas some of the rural areas are densely populated. As a result of the betterment schemes, a programme which was undertaken by the apartheid government, many dense areas were developed in many rural parts of South Africa. At the same time, many rural areas of South Africa are no longer dominated by an agrarian economy. Again the history of South Africa provides an explanation, as it was a policy of the colonial and apartheid governments to discourage subsistence agriculture, so as to encourage able-bodied males to sell their labour in city based industries.

Stats SA, which is responsible for population statistics in South Africa, recently divided South Africa into four areas, namely urban formal, urban informal, rural formal and rural informal. Urban informal are informal settlements that have mushroomed on the outskirts of many South Africa cities. Rural formal refer to commercial farms and rural informal areas have a combination of traditional and formal administration. Rurality and urbanity are thus not homogeneously defined in South Africa. Informal urban are areas which are within urban jurisdiction but have maintained a rural character in the sense that their housing and the infrastructure do not comply with basic standards that are set for urban areas.

The city-based industries, especially the mining industry, historically preferred ‘able-bodied’ males, something that was buttressed by Apartheid influx control laws which made it difficult for women to get permits to be in the city. Wives were required ‘to keep household fires burning’ while husbands were sustaining the household financially. This also contributed to the skewed gender distribution between urban and rural areas.

As a result, the urban-rural movements are both age and sex selective. Rural populations have a high proportion of both women and children. During working ages, many young people leave rural areas to look for work in urban areas. Historically it was mostly men who went to look for work, but of late women, especially at young ages, have moved in droves to cities for work purposes. In general, life expectancy is lower in rural areas, but the numbers at older ages is augmented by some adults who move back to rural areas once they reach pensionable ages.

Rural areas have a high dependency burden. Having fewer young people deprives rural areas of an important segment of the population that could contribute to innovative ideas and skilled labour.

The structure of the population is generally different in urban and rural areas. Urban areas have an exaggerated youth bulge as a result influx of young adults to the cities. On the other hand rural areas have a smaller cohort of young people, as many young people have left these areas. The outcomes of these different population structures are vast. It is easier to stimulate development in urban areas due to the fact that young people are more energetic, and more likely to be better educated. The downside is that too many young people concentrated in one area is likely to result in more incidences of social upheavals. Rural areas experience other social problems that are related to the fact that they are societies that are dominated by children and older people. These areas lack the energy and innovative ideas that are usually associated with young people, and thus it may be difficult to bring about development.

4.7.1 Patterns of family and households

Most rural villages have been affected by the physical and social movements of populations. The extended family support is no longer as strong as it was historically. Instead neighbourhood and social ties (most typically built through the church) are more highly regarded. Neighbours were mentioned often in terms of people to call on in times of distress. As this young woman from Ehlanzeni commented:

Neighbours end up being your relatives than the uncles you have around.

Differentials in access to income produce differences, even when it is a difference between those who are vulnerable and those who are extremely vulnerable. Expressing frustration with the class-based transference of social capital, this participant from one of the rural focus groups said the following:

It depends on the bond in the family. Families normally take care of those who are managing but if you are not. If you have a car you will associate with those who have cars. When a person gets a breakthrough he takes care of those who are at his class and forget the class where he comes from.

4.7.2 Economic survival of rural areas

The South African government has shown commitment in rural development in South Africa. This has been shown by the post-Apartheid government placing land restitution at the top of its post-apartheid programme of development. It is still difficult to classify many beneficiaries of the land redistribution, i.e. whether they are emerging commercial farmers or subsistence farmers. The land reform programmes have been implemented using different legal instruments, which include: *Land redistribution*, which is a programme where the government purchases land and distributes it to communities that were historically barred from owning land. *Land restitution* aims at restoring land to communities that were forcibly removed in the past. *Tenure reform* seeks to protect the rights of workers and communities that work on the land.

In addition, the South African government has been transferring capital for the development of rural areas. These include *neighbourhood development partnership*, which is a conditional development grant, for rural municipalities. The grant is aimed at improving the quality of life in rural households that are living in poverty. The other is the *rural households' infrastructure grant* which is meant to fund the construction of basic rural infrastructure.

4.7.3 Household income

De-agrarianisation in rural areas is of particular concern due to the sector's prominence in rural development policy. Specifically agriculture is cited as the key sector in terms of promoting rural development and employment growth in South Africa's National Development Plan (Makiwane et al, 2015). The contribution of subsistence agriculture has been declining over a number of decades. Currently rural households' income mostly comes through remittances, social assistance and employment (Makiwane et al, 2015). The contribution of subsistence farming, which has been declining over the years, has currently a negligible contribution to the rural economy. .

4.8 Gender

As explained in previous sections, gender equality is an important factor in the realisation of the demographic dividend. Gender as defined in the South Africa National Policy Framework for Women's Empowerment and Gender Equality is 'the social roles allocated respectively to women and men in particular societies and at particular times' (National Gender Policy Framework, 2000). These roles are influenced by a variety of political, economic, ideological and cultural factors and are characterised in most societies by unequal power relations. South Africa has made great strides in addressing gender equality in the representation of women in state and political governance, as women represent 45% of state positions (Department of Social Development, 2012).

In terms of population distribution in Mpumalanga females constitute 51.1% of the provincial population while males make up 48.9%. (Stats SA, 2011) When looking at the youth population (0-34), females make up 69.4% of the youth population of Mpumalanga.

4.8.1 Distribution of women across population groups

The majority of females in Mpumalanga are Black African constituting 92.8% of the population. (Stats SA, 2011). White females constitute 5.9% of the female population,

Coloured females 0.3%, Indian /Asian females 0.9% and those defined as 'Other' constitute 0.1% (Stats SA, 2011).

4.8.2 Employment and income equality between the sexes

Table 4.3: Employed vs unemployed between the sexes of Mpumalanga

		Employed	Unemployed
Gert Sibande			
	Male	60.7%	43.1%
	Female	39.3%	56.9%
Total		**100%**	**100%**
Nkangala	**Male**	60.2%	44.5%
	Female	39.8%	55.5%
Total		**100%**	**100%**
Ehlanzeni	**Male**	55.2%	40.7%
	Female	44.8%	59.3%
Total		**100%**	**100%**

Source: Stats SA, Census 2011

In table 4.3 one can clearly see that in all districts there is a higher proportion of males who are employed. In Gert Sibande 56.9% of women are unemployed while only 39.3% are employed. Gert Sibande as mentioned in previous sections, does not have much economic activity compared to the other districts. This has an impact on women especially in the light of the fact that mobility of women is usually less robust than that of men (Khosa, 2009).

Table 4.4: Income distribution between the sexes of Mpumalanga

	Income category												
	No income	R 1 - R 4800	R 4801 - R 9600	R 9601 - R 19200	R 19201 - R 38400	R 38401 - R 76800	R 76801 - R 153600	R 153601 - R 307200	R 307201 - R 614400	R 614401- R 1228800	R 1228801 - R 2457600	R2457601 or more	Unspecified
Male	38.8	18.5	3.0	10.2	6.8	5.5	4.1	3.1	1.5	0.5	0.2	0.1	7.9
Female	43.6	17.8	3.6	12.6	4.8	3.3	3.3	2.2	0.7	0.2	0.1	0.1	7.8

Source: Stats SA, Census 2011

Income inequality between the sexes continues to be an issue in South Africa. Females on average earn two to three times less than their male counterparts for the same work done (Stats SA, 2011). Looking at table 4.4 the 'No Income' category females are more (43.6%) than males (38.8%) in Mpumalanga. In the incomes of 'R1 – R4 800' and 'R4 801 – R9 600' females earn more than males, but as the incomes become higher females earn less than males. There are proportionally more females in the lower income categories as compared to males. About 56.8% of females in South Africa are in low-income households as compared to 36.3% of males (Stats SA, 2011).

A factor which contributes to the unequal pay is that, in addition to a higher proportion of men in employment, there are also more males in the formal sector (as seen in table 4.5) which offers more opportunities for higher wages.

Table 4.5: Sectors of employment between the sexes of Mpumalanga

	Formal Sector	Informal Sector	Private Household	Do Not Know
Male	55.6%	59.3%	49.7%	62.2%
Female	44.4%	40.7%	50.3%	37.8%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Stats SA. Census 2011

Income distribution within a household is a factor in determining unequal gender distribution of resources (Khosa, 2009). In households where there is both a male and female, the male usually decides how to distribute resources. In households headed by children, the eldest child with assistance from the extended family decides on how the social grant is going to be used in the household (Khosa, 2009). As a result, in female headed households females are also more likely to have savings to invest in education and food for the family more than males.

4.8.3 Gender and education

Education in South Africa is important and the government has made a concerted effort to have more young girls educated as they recognise the impact of education, not only on females but on society as a whole. Nevertheless, only 30.8% of children aged 0-4 years old were in pre-school in Mpumalanga (Stats SA, 2011). Other children were either at home with a parent or guardian or at somebody else's dwelling.

Table 4.6 looks at the distribution of gender in certain categories of formal education among persons who are 20 years and older. More females have never been to school (23%) compared to males (18.6%). This can be attributed to the fact that among older generations, gender disparity in school attainment was more pronounced. Gender disparity in access to school has changed drastically recently. There are more females who have obtained matric as compared to males. This is important in terms of gender roles. The higher the number of educated females who enter the job market becomes,

the less likely it will be that there will be gender income disparity. A strong and educated female labour force will be better able to assist in achieving the demographic dividend.

Table 4.6: Highest level of education attainment between the sexes of those 20 years and above by sex

	Grade 12/Std10/Form 5	Diploma with Grade 12/Std. 10	Higher Diploma	Bachelors Degree	Bachelors degree and Post Gradate diploma	Honours Degree	Higher Degree	Other	No Schooling
Male	62.5%	4.5%	4.4%	3.9%	1.6%	1.8%	1.7%	0.9%	18.6%
Female	68.6%	6.2%	5.9%	4.1%	1.2%	2.1%	1.9%	0.7%	23%

Source: Stats SA. Census 2011

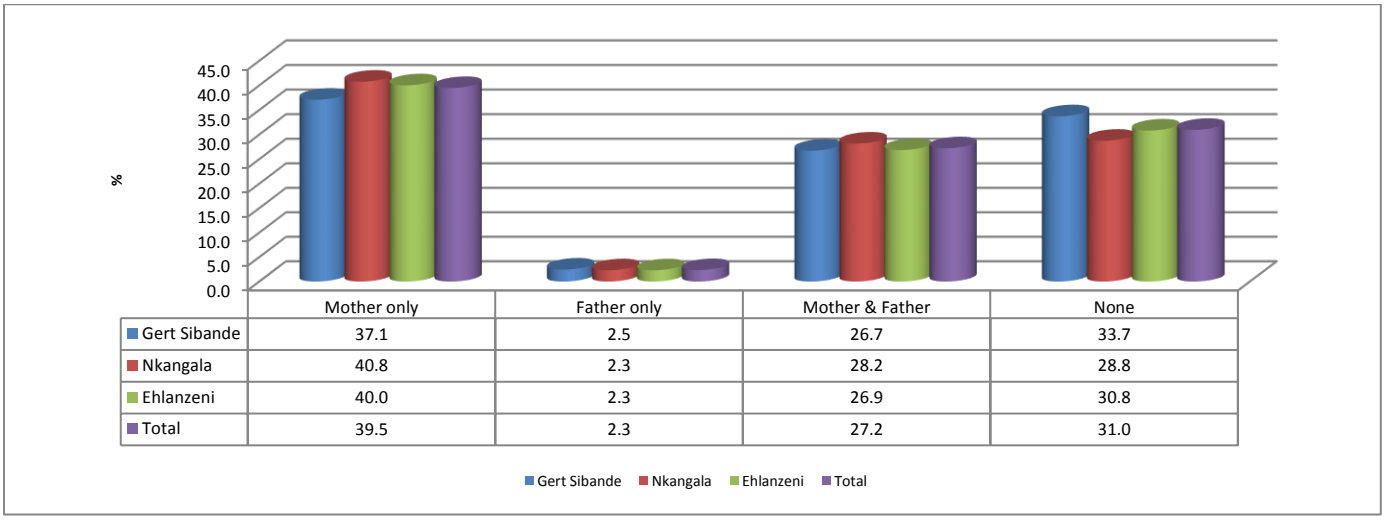
The University of Mpumalanga was recently opened in late 2014. The opening of this institution will allow both male and female residents of Mpumalanga better access to tertiary education.

4.9. Household and the family

4.9.1 Household structure

From figure 4.24 it is clear that households with a mother as the only parent is most prevalent in all districts of Mpumalanga. Nkangala has the highest number of females who are heads of households, followed by Ehlanzeni and Gert Sibande. A closer analysis of female-headed households in table 4.7 shows that across the districts, the proportion of households headed by females increased during the period from 1996 to 2001. After 2001, however, the proportion of female headed households declined.

Figure 4.24: Co-residence between children aged 0-9 years and their biological parents in Mpumalanga, 2011



	Mother only	Father only	Mother & Father	None
Gert Sibande	37.1	2.5	26.7	33.7
Nkangala	40.8	2.3	28.2	28.8
Ehlanzeni	40.0	2.3	26.9	30.8
Total	39.5	2.3	27.2	31.0

Source: Stats SA, Census 2011

One of the positive strategies to assist female-headed households has been the provision of social grants (Department of Social Development, 2012). This grant has helped to slightly alleviate poverty for female-headed households. Nationally individuals who have benefited from the social grant have risen from 12.7% in 2003 to 30.2% in 2012 (Department of Social Development, 2012).

Table 4.7: Female headed households in Mpumalanga, 1996-2011

	Gert Sibande	Nkangala	Ehlanzeni	Mpumalanga
Years				
1996	32.0%	35.5%	42.1%	**37.4%**
2001	39.7%	42.0%	45.9%	**43.0%**
2011	38.8%	36.2%	44.1%	**40.1%**

Source: Stats SA, Census 2011

4.9.3 Family

Demographic transition has a direct impact on the structure of families. The most notable is the reduction in fertility which directly results in the reduction of the size of families and the number of households. Thus, even if income has not increased, more prosperous families can be realised by the mere fact that the working population in the families are supporting fewer individuals.

There are many compounding changes that have happened to families in Mpumalanga since the idealised traditional family formations. Some of these changes are the reduction in fertility rates, decline in the rate of marriage. Reasons for changes in the family structure and function are numerous and it would be difficult to neatly delineate the impact of each of the complex causal factors. In general, the most often cited factors include modernisation, circular migration and the HIV and AIDS pandemic.

For practical reasons, of which the availability of data is the main consideration, this study examines only a few aspects of the broad spectrum of Mpumalanga families. In the analysis of current ‘sexual unions’ in the region, marriage and co-habitation, divorce and separation and widowhood patterns are assessed. Assessment of aspects of ‘blood relations’ is confined to childbearing and levels of co-residence between young children and their biological parents.

4.9.4 Co-residence between children and their parents

The low numbers of children who co-reside with their biological parents, especially fathers, in South African families have recently been a common cause of concern. Factors resulting in fathers not residing with their biological children are complex and cannot be explained by simply putting all the blame on lack of care and responsibility of fathers. Some of the explanatory reasons will be clear from the analysis of marriage patterns, migration patterns and gender disparity in the life expectancy. That said, a full explanation is beyond the scope of this study.

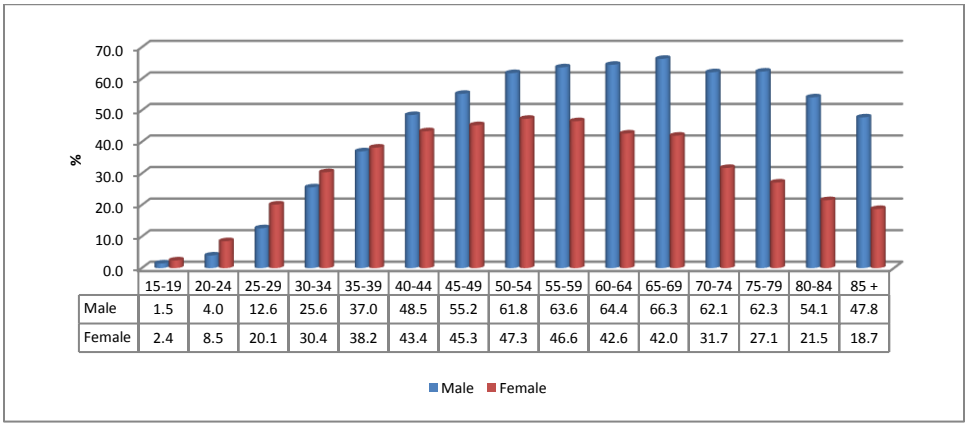
As seen in figure 4.24, a pattern that is common in South Africa, that only about 25% of children aged 0-9 are co-residing with both their fathers and mothers in Mpumalanga. The proportion of children co-residing with both parents do not differ considerable to that of many regions of South Africa. The most striking revelation in the figure is the high proportion of children who are not residing with any of their parents, estimated at around 30%. Gert Sibande district has the highest proportion of children who are not co-residing with parents. Overall a higher proportion of about 39% of children is co-residing with mothers only.

Thus, approximately 66% of children are sharing homes with their mothers. It is extremely rare for children to co-reside only with their fathers. The low proportion suggests that even in cases where fathers might have outlived mothers, it is not a given that children will reside with the fathers who are still alive. As indicated earlier, marriage patterns explain this phenomenon to a degree.

4.9.5 Marriage patterns

Figure 4.25 shows age-sex disaggregated patterns of marriage in Mpumalanga. As is generally the case in South Africa, marriage patterns are different to those that have always been viewed as characteristic of African societies, that of early and universal marriage. The figure indicates that throughout all age groups, a big proportion of persons are not married and the most notable aspect is that the majority of women in all age groups are not married. The general trend is that teenage marriage is extremely rare, and while women are likely to get married at an earlier age than men, eventually more men get married than women. This is also an indication of the age difference between husbands and wives, with men getting married to younger women.

Figure 4.25: Proportion of persons who are 15 years and above who are married in Mpumalanga



	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 +
Male	1.5	4.0	12.6	25.6	37.0	48.5	55.2	61.8	63.6	64.4	66.3	62.1	62.3	54.1	47.8
Female	2.4	8.5	20.1	30.4	38.2	43.4	45.3	47.3	46.6	42.6	42.0	31.7	27.1	21.5	18.7

Source: Stats SA, Census 2011

Table 4.8: Marital status of individuals aged 15 and above in Mpumalanga by Population Group

	Black African	Coloured	Indian/Asian	White	Other
Married	18.6%	27.5%	44.8%	47.8%	34.7%
Living together like married partners	7%	6.5%	2.4%	5.8%	7.1
Never married	69.7%	59.4%	44.9%	35.5%	53.4%
Widower/widow	3.4%	3.7%	5.3%	5.9%	2.4%
Separated	0.7%	0.6%	0.6%	0.5%	0.6%
Divorced	0.7%	2.2%	2%	4.6%	1.7%

Source: Stats SA, Census 2011

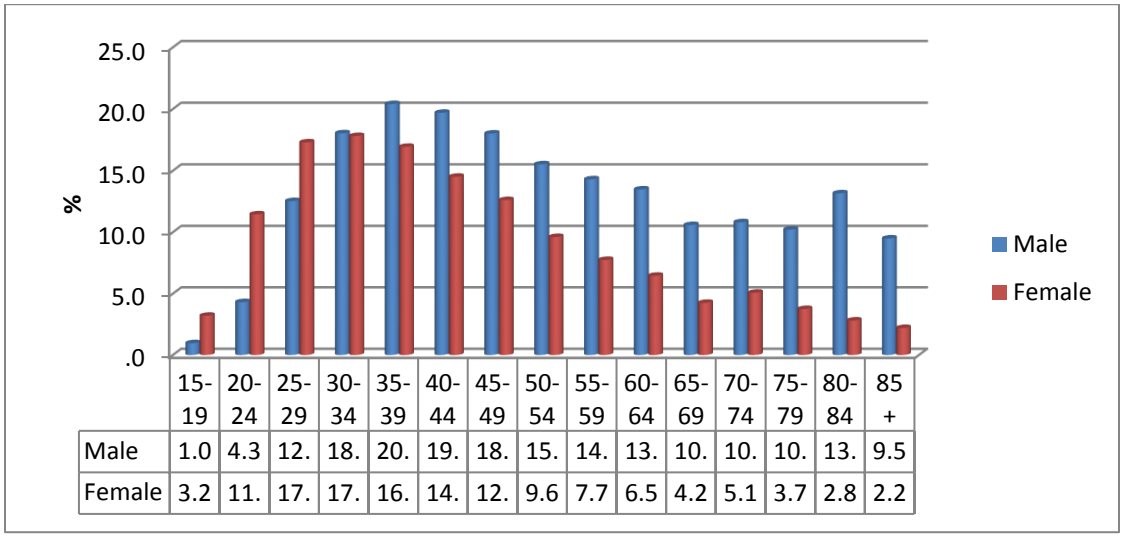
Table 4.8 confirms that marriage especially among the Black majority is low in the province. Only 18.6% % of Blacks are legally married, with 7% living together as husband and wife. Marriage is high amongst the Indian/Asian population group (44.8%) and White population (47.8%). Divorce is the highest amongst the White population at 4.6%.

4.9.6 Co-habiting patterns

The rate of co-habiting has been increasing in many parts of the world. This has also been the case in South Africa. Mpumalanga has a higher rate of co-habitation than the rest of South Africa. In spite of this increase, marriage rates are considerably higher than co-habitation rates. The age-sex pattern of cohabiting is quite similar to marriage

rates, with women more likely to cohabit at younger ages compared to men, and on the whole, more men are in co-habiting relationship than women. The age disparity between men and women is not as pronounced as those found in marriage relationships.

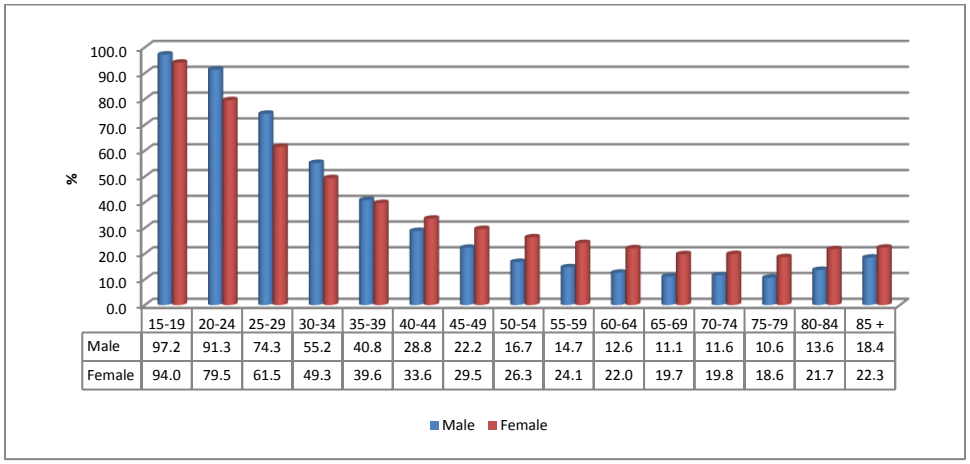
Figure 4.26 Age-sex distribution of persons 15 years above co-habiting in Mpumalanga



	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 +
Male	1.0	4.3	12.	18.	20.	19.	18.	15.	14.	13.	10.	10.	10.	13.	9.5
Female	3.2	11.	17.	17.	16.	14.	12.	9.6	7.7	6.5	4.2	5.1	3.7	2.8	2.2

Source: Stats SA, Census 2011

Figure 4.27: Distribution of persons from 15 years and above who have never married by age and gender



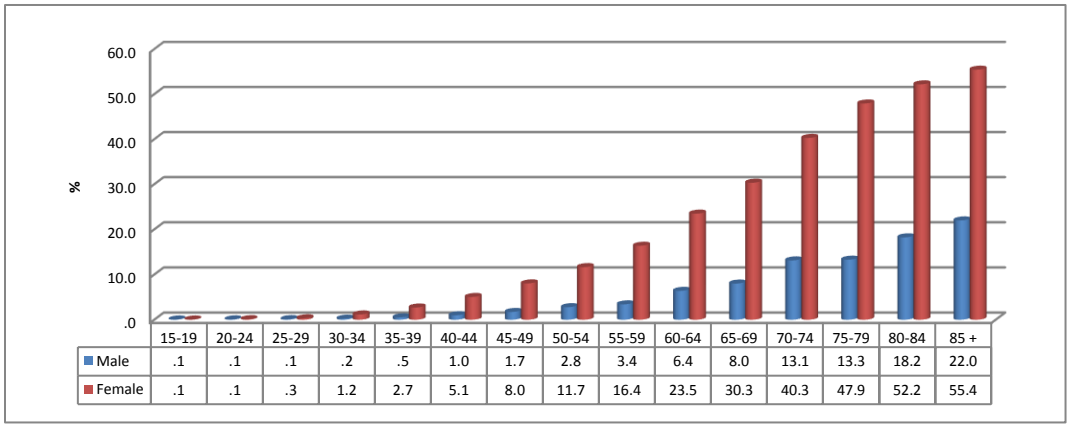
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 +
Male	97.2	91.3	74.3	55.2	40.8	28.8	22.2	16.7	14.7	12.6	11.1	11.6	10.6	13.6	18.4
Female	94.0	79.5	61.5	49.3	39.6	33.6	29.5	26.3	24.1	22.0	19.7	19.8	18.6	21.7	22.3

Source: Stats SA, Census 2011

In looking at both figures above the age-sex pattern of persons who never married is of special interest, especially when viewed in the context of the previous marriage and cohabiting patterns. In many respects the patterns are an inverse of the marriage patterns as very few men and women were ever married at teenage ages, and the proportion of never married persons declines progressively with age.

The figures confirm late marriages in Mpumalanga and the significant proportion of women who do not get married in their lifetime.

Figure 4.28: Distribution of widowhood by age and sex in Mpumalanga



	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 +
Male	.1	.1	.1	.2	.5	1.0	1.7	2.8	3.4	6.4	8.0	13.1	13.3	18.2	22.0
Female	.1	.1	.3	1.2	2.7	5.1	8.0	11.7	16.4	23.5	30.3	40.3	47.9	52.2	55.4

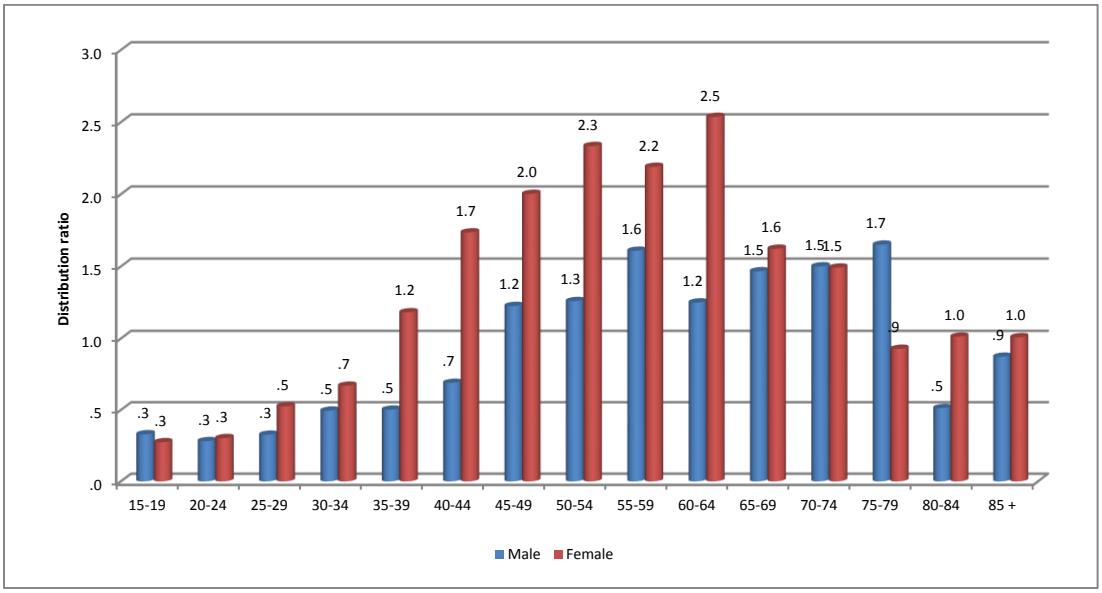
Source: Stats SA, Census 2011

Widowhood patterns follow a predictable pattern of increasing with age. As seen in figure 4.28 there are few widows at early ages and a high proportion of widowhood in higher ages. The most notable feature is the high difference in the rate of widowhood between men and women. This is a result of a number of factors, including the previously identified age disparity between husbands and wives, the fact that remarriage is more common among men than women, and the higher male mortality rate.

4.9.7 Separation and divorce rates

Apart from the death of a spouse, marriage can be dissolved by either separation or divorce. While these are not the same, a clear distinction between the two might not be clear cut in certain societies. The rates of both separation and divorce are not high in the region as illustrated in 4.29. Separations are more frequent than divorce at younger ages and on the whole more women than men report that they were either separated or divorced.

Figure 4.29: Distribution of separation and divorce rates by age and gender in Mpumalanga



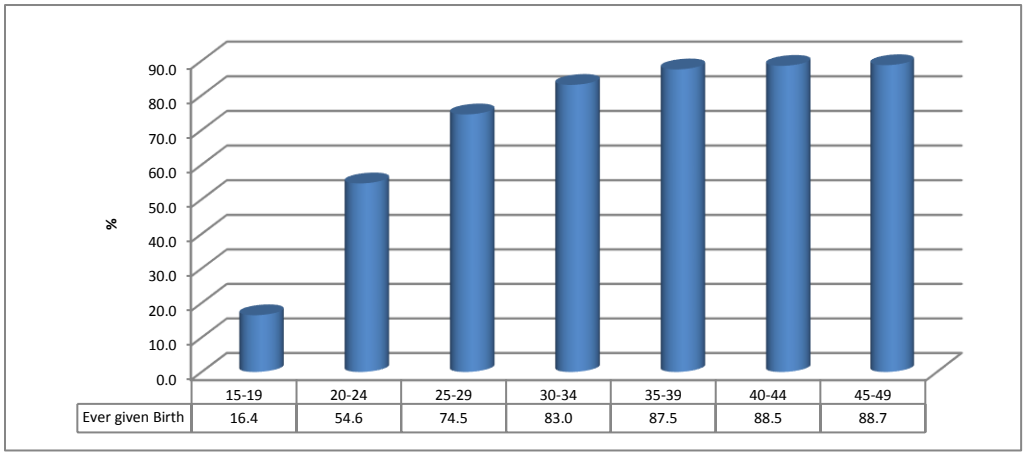
Source: Stats SA, Census 2011

4.9.8 Reproduction in the household

The issue of fertility and childbearing is discussed in detail in a separate section. The most important point is the contrast in age-sex distribution of childbearing compared to that of marriage and co-habiting. The figure 4.30 shows that childbearing starts early in life, as indicated by the fact that a considerable high proportion of women have given birth by the end of their teenage years. As marriage is generally late, many of the women who eventually get married have given birth before.

The second observation is that a much higher proportion of women have given birth in their lifetime compared to those who have been married. The indication is that there is high probability of reconstituted families and children growing up not co-residing with both parents.

Figure 4.30: Proportion of women who have ever given birth, age group 15-49



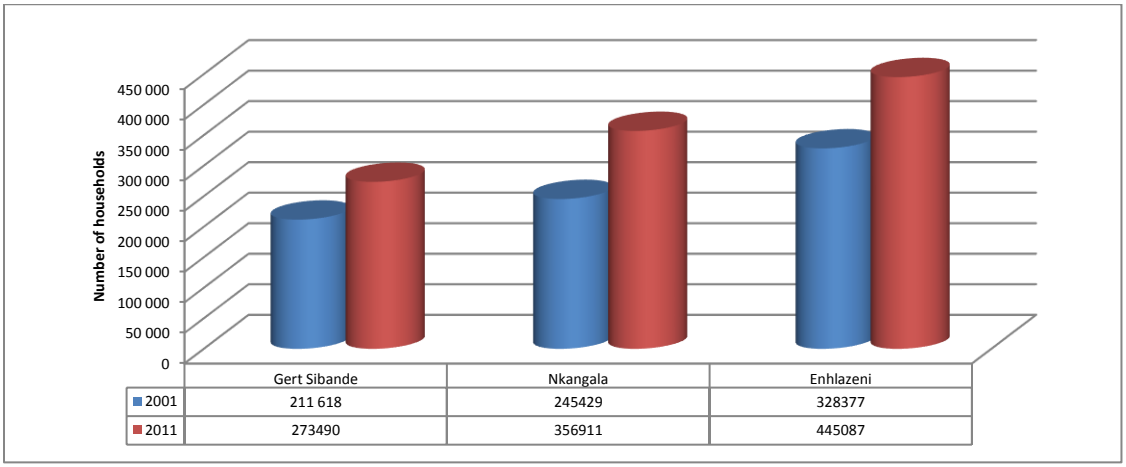
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Ever given Birth	16.4	54.6	74.5	83.0	87.5	88.5	88.7

Source: Stats SA, Census 2011

4.9.9 Trends in the number of households

Figure 4.31 indicates that there has been an increase in the number of households in all three districts. The increase is highest in Ehlanzeni. It has always been observed that the number of households is growing faster than the growth of population in a process regarded as the 'disaggregation of households'. As a result the demand for expansion of basic services outstrips the growth of the population. Households are becoming smaller and their numbers are expanding rapidly.

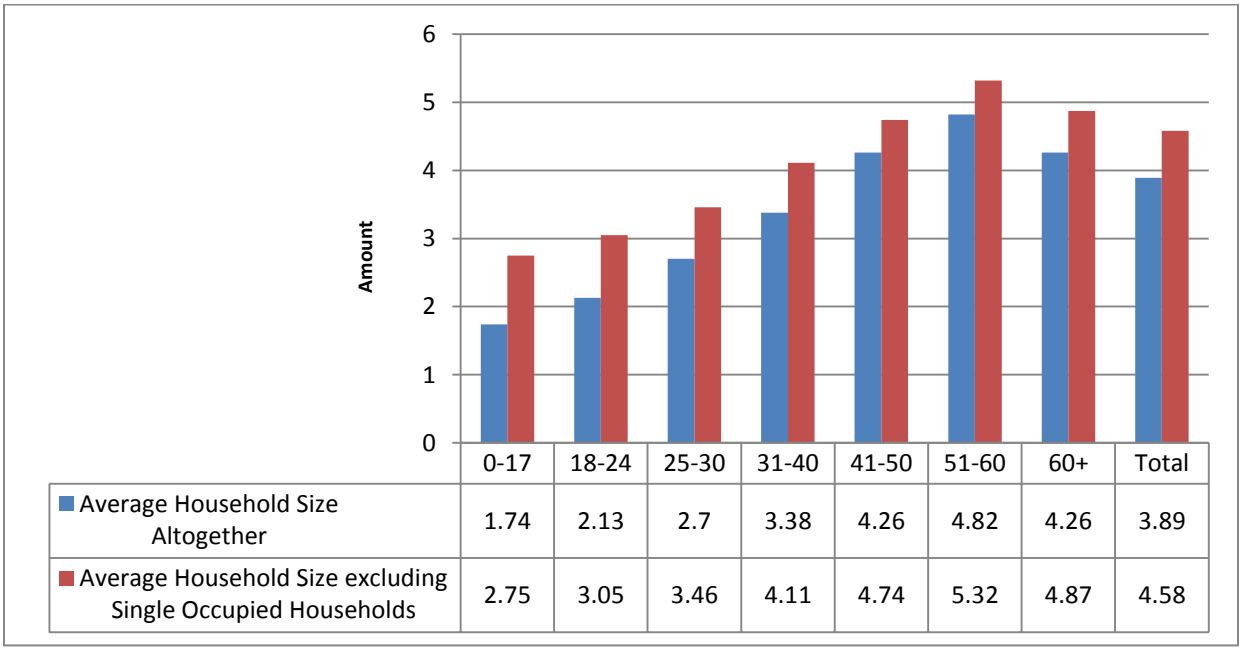
Figure 4.31: Mpumalanga: Growth in the number of households by district



	Gert Sibande	Nkangala	Enhlazeni
2001	211 618	245429	328377
2011	273490	356911	445087

Source: Stats SA, Census 2011

Figure 4.32: Average household size distributed by the age of the household head in 2011



	0-17	18-24	25-30	31-40	41-50	51-60	60+	Total
Average Household Size Altogether	1.74	2.13	2.7	3.38	4.26	4.82	4.26	3.89
Average Household Size excluding Single Occupied Households	2.75	3.05	3.46	4.11	4.74	5.32	4.87	4.58

Source: Stats SA, Census 2011

The trends shown above (figure 4.31 and figure 4.32) are consistent with trends expected in a society that is experiencing demographic transition. The data presented above confirms that household sizes are declining as the fertility rate is decreasing. Marriage rates are indirectly linked to the demographic transition in South Africa, as

lower marriage rates are an important driver in the fertility decline that is observed in Mpumalanga.

4.10 People with disabilities

According to the World Health Organisation there are more than 600 million people with disabilities[11] worldwide. Disability is defined as a broad term which covers such aspects as impairments, movement limitations and participation restrictions where impairment is described as a problem in the body function or structure. It is estimated that 400 million developing countries have 400 million people with disabilities of which 80 million are in Africa.

People with disabilities are subject to a number of deprivations, including poor access to buildings and public facilities, such as schools, offices, factories and shops and inadequate provision for access to public transportation. Disability tends to increase the risk of poverty at the same time poverty increases the risk of disability (WHO, 2011).

4.10.1 Disability in South Africa

Stats SA defines disability as

> *'the loss or elimination of opportunities to take part in the life of the community, equitably with others that is encountered by persons having physical, sensory, psychological, developmental, learning, neurological or other impairments, which may be permanent, temporary or episodic in nature, thereby causing activity limitations and participation restriction with the mainstream society' (Stats SA, 2011).*

Apart from being associated with international conventions that address the status of disabled persons in society, the Constitution of South Africa, as the supreme law, also provides the necessary protection of everyone, including people with disabilities, under

[11] The WHO (2002) defines disability as a sunshade term which covers such aspects as impairments, movement limitations and participation restrictions where impairment is described as a problem in the body function or structure.

the Bill of Rights (Nhlapho, et al, 2006). Besides the constitution, a number of national policies and legislative frameworks have been developed to redress inequality and to empower vulnerable groups, including people with disabilities. These include the White paper on integrated National Disability Strategy (1997), the White paper on Special Needs Education (2001), the Employment Equity Act (1996) and the Promotion of Equality and Prevention of Unfair Discrimination Act (1996).[12]

In 2009, the ANC-led government established the Department of Women, Children and People with Disabilities (DWCPD). The purpose was to strengthen the country's response to the needs of the said groups and to monitor the progress as well as to ensure the mainstreaming of critical issues concerning these groups into all government programmes. The part of the department dealing with children and people with disabilities has since been incorporated into the Department of Social Development while a stand-alone Department at the Presidency has been established to deal with issues of women.[13]

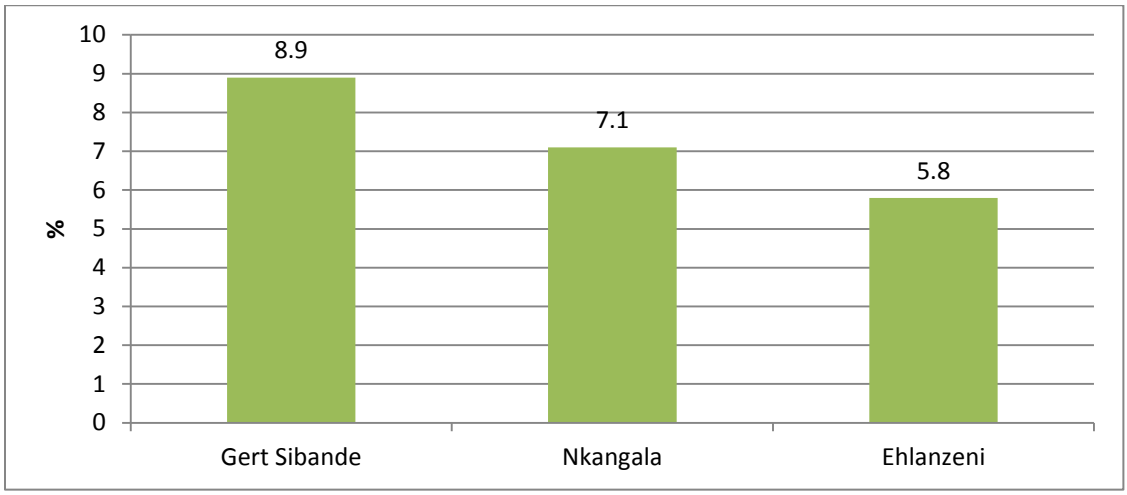
The National Development Plan (NDP) is a flagship plan that sets South Africa's development agenda for the period 2010-2030. Among others this policy document calls for the need to achieve a comprehensive social protection system that addresses vulnerability of marginalised groups which include persons with disabilities, the elderly and orphans and vulnerable children[14]. In South Africa people with disabilities are entitled to a disability grant which is means-tested. However, in recent years the relaxation of the qualifying criteria has seen more beneficiaries being able to access social grants.

4.10.2 Disability in Mpumalanga

This section looks at the disability situation in Mpumalanga province. About 7% of the population of the province are disabled (Stats SA, 2011).

[12] Stats SA, 2011. Census 2011: Profile of persons with disabilities in South Africa. Report no. 03-01-59
[13] http://www.thepresidency.gov.za/pebble.asp?relid=17453: President's announcement of new Cabinet and Departments after May 2014 elections
[14] National Development Plan 2010-2030 : Republic of South Africa

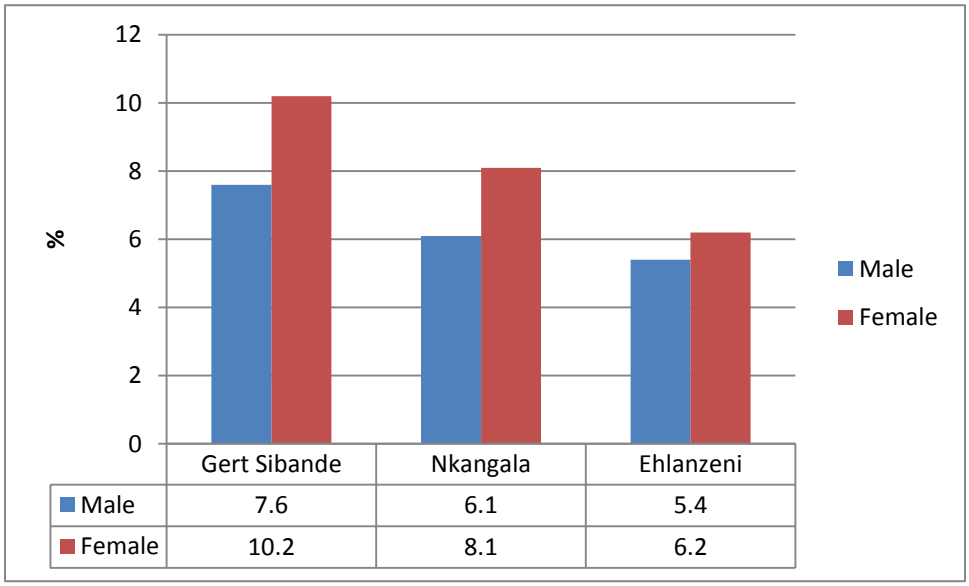
Figure 4.33: Population aged five years and older by district with a disability



Source: Stats SA, Census 2011 Profile of persons with disabilities in South Africa.

Figure 4.33 indicates that Gert Sibande has the highest population of individuals over five years old who have a disability (8.9%). This is followed by Nkangala (7.1%) and Ehlanzeni (5.8%)

Fig 4.34: Population aged five years and older by district with a disability by sex



	Gert Sibande	Nkangala	Ehlanzeni
Male	7.6	6.1	5.4
Female	10.2	8.1	6.2

Source: Stats SA, Census 2011, Profile of persons with disabilities in South Africa.

Figure 4.34 looks at individuals over five years and older who have a disability by district and sex. As illustrated in the figure there are more females in Gert Sibande who have a disability than any other district at 10.2%. Gert Sibande also has the highest levels of males with a disability at 7.6%. This is consistent with the figure above which indicates Gert Sibande having the highest levels of individuals with a disability. In the other districts, Nkangala has 8.1% of females who have a disability and 6.1% of males who have a disability. In Ehlanzeni 5.4% of males have a disability and 6.2% of females have a disability.

There are six types of disabilities that have been identified by the government:

- difficulty in seeing (sight disability);
- difficulty in hearing (hearing disability);
- difficulty in communicating (communication disability);
- difficulty in walking (physical disability);
- difficulty in remembering or concentrating (mental disability) and;
- difficulty in self-care

Table 4.9: Percentage of persons aged 15–64 employed by degree of difficulty in the six functional domains

	Type and Degree of Difficulty	Percent (%)
Seeing		
	None	37.5
	Mild	43.7
	Severe	36.1
Hearing		
	None	38.1
	Mild	35.2
	Severe	27.3
Communication		
	None	38.1
	Mild	32
	Severe	19.3
Walking		
	None	38.2
	Mild	31.5

	Severe	19.2
Remembering		
	None	38.2
	Mild	31.7
	Severe	16.7
Self-care		
	None	38.2
	Mild	23.9
	Severe	13.3

Source: Stats SA, Census 2011, Profile of persons with disabilities in South Africa.

In table 4.9 the different disabilities are looked at between the ages of 15-64. This group is currently active in the labour force and can contribute to the realisation of the dividend through employment (tax) and savings. In relation to severity, seeing has the highest distribution of individuals (36.1%) followed by hearing (27.3%); communication (19.3%); walking (19.2%); remembering (16.7%) and lastly self-care (13.3%).

It is therefore important that the provincial government ensures that policies and programmes that deal with disabilities are implemented in order for people in the labour force and outside of it can benefit from the potential demographic dividend. This will ensure that a holistic human development occurs.

4.11 Environment, population and development

4.11.1 Environment

Due to paucity of data related to environment in South Africa, most of the observations made in this section are anecdotal in nature. The Millennium Declaration, the ICPD and other UN Conferences of the 1990s point to the linkages at global level between population, environment, poverty and cultural dimensions of poverty. It has been acknowledged that continued growth of populations and economies threaten food and water security, forest resources and biodiversity, and increase pressure on limited natural resources. When combined with poverty, wasteful production and consumption patterns, increasing population growth could have a more far-reaching negative impact on the environment.

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The State of the Environment Report (2003) provides information on the current state of the environment in the province, the causes of environmental change and what is being done about it. The report aims to improve the understanding of environmental issues, which can be used in the decision-making process.

Mpumalanga enjoys a sub-tropical climate with hot summers and mild to cool winters. The average daily temperature in January (summer) is 24 °C, while in June (winter) the average daily temperature is 14.8 °C. The average annual rainfall is 767 mm, with approximately 10 times more rain falling in summer than in winter.

Mpumalanga province is an area of extreme natural beauty, with many areas still in pristine condition. The province has a high biological diversity, including three recognised centres of endemism and one proposed centre of endemism. There are areas of high intrinsic biodiversity value, but less than a quarter of this land falls within protected areas in the province.

Driving forces are the human influences and activities that, when combined with environmental conditions, underpin environmental change (DEAT, 1996). The driving forces in explaining environmental change in the province are both national and global, and are related to economic, social (including population) and political factors. National population driving forces have been identified to include population growth and structure, population mobility and distribution, employment, economic growth, export markets, macro-economic and sectoral policies (DEAT, 1996). Provincial drivers of environmental change in Mpumalanga include the above drivers (in a provincial rather than national setting), as well as conditions specific to Mpumalanga (such as the Maputo corridor development initiative, local resource use, land reform, and traditional cultures and practices (Mpumalanga Provincial Government, 2002).

4.11.2 Economic factors

The impact of economic activities in driving environmental change has been reported to be significant in the province, originating in the main economic sectors in Mpumalanga: manufacturing, mining, power supply, agriculture and forestry, with the tourism sector growing increasingly (MII, 2003). Mpumalanga is a mineral rich province and it has huge deposits of coal, gold, iron ore, as well as quantities of chrome, alusite, magnetite and vanadium. There are also deposits of fire clay, silver, asbestos, nickel, platinum group metals, limestone, semiprecious stones, silica and talc in the province (MII, 2003).

Mining

The mining and electricity sectors have a visible impact on the immediate environment. Due to its large coal deposits, Mpumalanga accommodates most of the power stations in South Africa. Eight of the eleven operational coal-fired power stations in South Africa are located in Mpumalanga and contribute roughly 70% of the total electricity generated in South Africa (Eskom, 2002). It is with this in mind that economic growth must occur in a planned and environmentally conscious manner.

Mining has been a major attraction for international labour migration in South Africa for centuries. Migrants from Mozambique, Malawi, Lesotho, Swaziland and Zimbabwe have been attracted, sometimes through localised agreements with business interests, to the South African mines and to some extent commercial farming, including Mpumalanga province. Indeed, for most of its history, mineworkers from the region, particularly Lesotho and Mozambique, constituted over half of the labour force of the gold mining industry on which the economy of South Africa has been based (Crush, Jeeves & Yudelman, 1991).

Mining has also been identified as a major source of hazardous waste in South Africa. According to the Department of Minerals and Energy, in 1997 mining was accountable for about 470 million tonnes of waste, both general and hazardous, almost half of it contributed by gold mining alone. In 2008, the then Department of Housing concluded

four memoranda of understanding with external stakeholders, including Anglo Platinum, for integrated human settlement development around large mining operations.

It has been observed that mining communities throughout the SADC region, including South Africa, are characterised by deplorable human conditions, such as poverty, unemployment, poor housing and infrastructure, prostitution, and a high influx of unaccompanied migrant labour. Major health issues in this regard are the extraordinarily high incidence of HIV and AIDS and sexually transmitted infections (STIs), unwanted pregnancies, malnutrition, alcohol addiction, and mental illness (Cronje, Reyneke & Van Wyk, 2013).

Extensive coal resources sustain several large coal-fired power stations situated on the Highveld between Witbank, Standerton, Piet Retief and Carolina. The gold mines at Evander and Barberton are both of historic significance; iron ore mined at the Mapoch mine north of Roossenekal is processed near Witbank. Chrome, alusite, magnetite and vanadium are mined further east in the Lydenburg district. There are also deposits of fire clay, silver, asbestos, nickel, platinum group metals, limestone, semiprecious stones, silica and talc in the province (MII, 2003).

In August 2014 the Bench Marks Foundation released its Policy Gap 9 on South African coal mining. This report contains an exhaustive analysis of the problems created by the extraordinary concentration of coal mines in Mpumalanga: the awful living conditions of mine-affected communities and the lamentable failure of mining companies to meaningfully or positively engage with them; the devastating impact of coal mining on previously arable land; the impact of air, water and soil pollution on farming activities and human health; mining companies' poor compliance with legal and regulatory requirements for environmental protection; the almost total lack of compliance monitoring and enforcement by the Department of Mineral Resources; and the "extremely cavalier attitude [of the South African mining industry] towards the closure of mines and the rehabilitation of the environment."

Manufacturing

The effect of manufacturing on the environment is visibly revealing in three main areas:

- In the southern part of the Highveld, where almost two-thirds of the manufacturing activities in the province take place, most notably in the Highveld Ridge area where Sasol's coal mining, synthetic fuels and chemical

operations at Secunda employ more than 15 000 people and contribute 12% of the province's GGP (MII, 2003);

- The large-scale manufacturing activities in the northern part of the Highveld as well, particularly in the Middelburg-Witbank area, the most important being chrome alloy and steel manufacturing; and
- In the Lowveld, mining is dominated by the beneficiation of the area's agricultural and forestry raw materials, largely in food and wood related industries - sugar mills, paper and pulp mills, sawmills, fruit and vegetable processors, and board (plywood, particle, etc.) manufacturers are among the major manufacturing concerns in the Lowveld (MII, 2003).

These industrial activities are known to contribute to environmental change in the province through air emissions, waste disposal and the use of resources.

Power supply

Over the years, Eskom has continued to improve the internal energy efficiency of its facilities (power stations and office buildings); Eskom's thermal power stations require primary energy (fuel in the form of coal, diesel and uranium) as well as water to function. Eskom operates 27 power stations with a total nominal capacity of 41 995MW, comprising 35 726MW of coal-fired stations, 1 860MW of nuclear, 2 409MW of gas-fired, 2 000MW hydro and pumped-storage stations as well as the 3MW wind farm at Klipheuwel. The company also maintains more than 359 337km of power lines and substations with a cumulative capacity of 232 179MVA (Eskom, 2014).

Emissions from coal-fired power stations are a serious concern for Mpumalanga as they cause impaired air quality in areas close to and away from the emission source. However, a decreasing trend in particulate emissions is being shown in Mpumalanga (Eskom, 2014), probably due to the rise in public awareness of air quality and the importance of frequent monitoring and compliance.

4.11.3 Population factor

The population factors consist of population dynamics (size and growth of population), population distribution (rural/urban distribution and density), and population composition (social and economic characteristics of the population). The interaction among these factors impact on the environment (comprising land use, water consumption patterns and air).

In the recent past, three important developments have emerged on the subject of population and environment globally. Firstly, the less developed regions coping with an increasing share of world population has resulted in increased pressures on already dwindling resources. Secondly, the redistribution of population through migration shifts the relative pressures exerted on local environments from some areas to other areas. Finally, rapid urbanisation poses particularly complex environmental challenges, including the management of urban space, control of pollution and other environmental hazards.

Conceptually, important relations exist between population, development and environment, but there is little agreement about the nature and magnitude of the links. It has been argued that population dynamics and climate change are ‘inextricably linked and must be understood and addressed at the same time, as they relate to one another, as two sides of the same coin’ (Markham, 2008). This is because population change influences climate change mainly through energy use and greenhouse gas emissions; and population factors can exacerbate climate change effects by placing more pressures on the natural resource base at specific points of population concentration (cities, mining centres, farmlands, etc.) and use of technology in support of human activities.

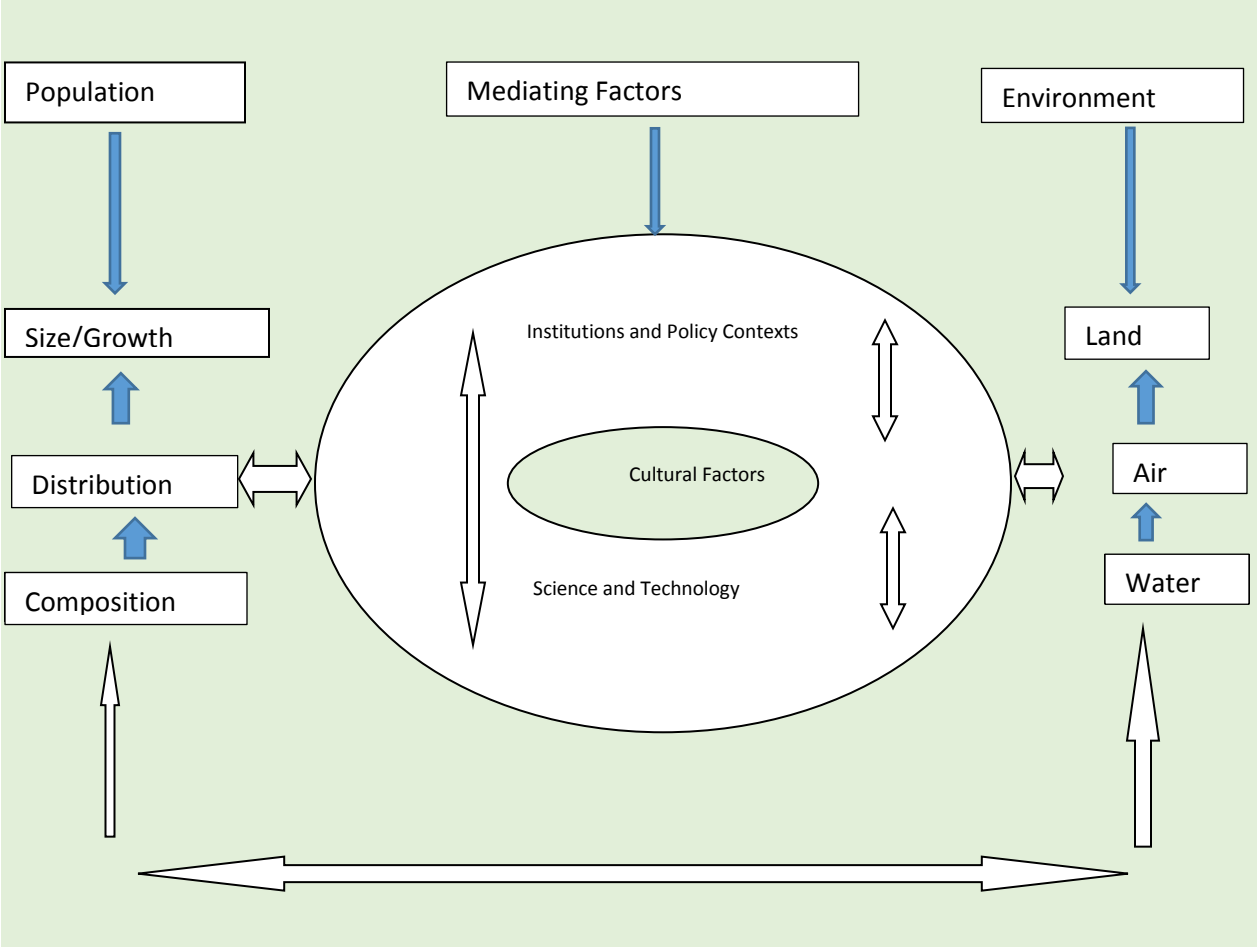
Population size is directly linked to the environment as a result of individual resource needs, consumption patterns and individual contributions to pollution. The growth rate of the population also affects environmental resources (land, water and air) as an

increasing number of people will tend to generate pressure on land, water and vegetation, while contributing to air pollution. One example of this is global water consumption that increased six fold between 1900 and 1995, which is more than double the rate of population growth (UNFPA, 2001).

There are several factors in the linkages between population and environment, including characteristics of the society in relation to technology, policy, institutions, politics and culture (see figure 4.35). Research has uncovered the effect of the so-called 'mediating factors' that forge the linkage between population and environment; these include the characteristics of the society in relation to technology, policy, institutions, politics and culture (UNFPA, 2001). Energy use in different forms also affects the environment. Policies and politics may influence conservation or deforestation, land clearing, road building, settlement patterns, mining, urban expansion, etc. So also, cultural factors regarding production and consumption habits and attitudes towards conservation may exert tremendous influence on the environment.

For example, technological changes in agriculture in the 20th century profoundly affected the interactions of population with the environment through diffusion of new varieties of plants and animals, nitrogenous fertilizers, pesticides and modern contraceptives (Cohen, 2001). Energy use in different forms also affects the environment.

Figure 4.35: Framework for population and environment linkages



Source: Adapted from UNFPA, 2001

Government policies and programmes often affect the environment. For illustration, past policies on settlement and urban growth in South Africa have placed natural vegetation under constant attack, especially in informal settlements and peri-urban areas where the poor struggle to satisfy their basic needs. According to a report by the Project on Environment, Population and Security (Part I, 1995), a growing population, concentrated in a limited area, coupled with the structural inequalities that deny them access to basic services, such as electricity, running water, refuse collection, and adequate sewage disposal facilities, results in environmental degradation.

Apart from the economic, social and demographic factors discussed above, a government report (2003) has identified drivers of environmental change to also include

specific institutional arrangements within the province, as well as any policy and legislation governing Mpumalanga.

Research has revealed that the population distribution has three important implications for environmental change (Hunter, 2000): As less developed regions cope with an increasing share of world population, pressures intensify on already dwindling resources within these areas. The redistribution of population through migration shifts the relative pressures exerted on local environments, easing the strain in some areas while increasing it in others. Rapid urbanisation poses particularly complex environmental challenges, including the introduction of regulatory mechanisms for coping with pollution and other environmental hazards.

Regarding population composition, the different socioeconomic characteristics of population (including age) impact on the environment through differences in behaviour among population sub-groups. At the household level, environmental pressures are felt mostly at the highest and lowest income levels. Higher incomes tend to be correlated with increased levels of production and consumption, while unsustainable levels of resource use are associated with increasing growth of population among the poor.

There are social and cultural factors as well, which influence the dynamics of population and impact on the environment. Social influences are those relating largely to issues of land reform, population growth, population structure, population mobility and distribution relating to the Mpumalanga environmental landscape.

4.12 Conclusion

All of the above mentioned socioeconomic issues are important when looking at the demographic dividend. These issues need to be addressed properly in order to yield the benefits of the dividend. All of these issues have an impact on policy formulation on population dynamics. This will be looked at in greater detail in chapter 5.

5. Policy implications of population dynamics

5.1 Introduction

As already discussed in the preceding sections of this report, three demographic factors influence population dynamics in Mpumalanga; fertility rate (birth rate); mortality rate (death rate); and net migration (balance of migration out of and into the province). These three factors affect not only the growth rate but also the demographic and socioeconomic characteristics of the population: age and sex structure; future size; rural and urban composition; population distribution and density; and variations in the size and growth of the labour force with implications for employment and unemployment. In turn, social, economic and environmental factors affect the levels and trends in fertility, mortality and migration, with consequences for demographic processes such as population distribution and urbanisation.

Based on the analysis of the demographic factors in population dynamics and their implications for social, economic and environmental change, a valid basis is established for a coherent policy response by the Mpumalanga Department of Social Development in collaboration with related institutions within and outside of the government. However, population policy, like many other development policies in South Africa, is viewed nationally; but having regard to the overarching themes of the national policy on population, each province has the latitude to identify their local concerns and address them accordingly.

Following an extensive consultative process between 1994 and 1997, the draft population policy was prepared and in April 1998 and the White Paper on South Africa's new population policy was tabled in parliament. The population policy paper was published in 1998[15]. One of the major challenges facing the country is the development of human and institutional capacity, particularly at provincial, municipal and local government levels, for policy implementation. The population policy was designed to

[15] Department of Social Development, Population Policy for South Africa, April 1998

provide a comprehensive plan for addressing population issues that are currently affecting development in negative ways. By the same token, based on the preceding analysis of population, environment and socioeconomic development in Mpumalanga, this report addresses the population challenges being faced in the province and offers solutions to such challenges through policy.

5.2 Towards a provincial population policy for Mpumalanga

In order to appreciate the basis for a population policy for Mpumalanga, it is important to understand the population issues and challenges being faced by the province and the need to address them within the context of the Provincial Growth and Development Strategy (PGDS). The PGDS (2004-2014) has ended, and as the provincial government is busy with the next strategic framework, it is appropriate to focus on population and development issues because of the imperative of the demographic dividend and its implications for sustainable human development.

The population issues in Mpumalanga have been identified and data analysed in the preceding sections of this report. Specifically, the population and development issues faced by the province include the following: population dynamics and development; demographic transition; youth and demographic dividend; poverty and inequality; population and environment; gender and development; HIV and AIDS and other diseases; health and reproductive health; and people with disability.

Other population issues in the province that should be addressed by policy are: migration and urban and rural settlement patterns; family and community life; access to population data; capacity for population planning; and awareness of population and development interrelations.

These population issues are summarised and discussed below, and based on the preceding analysis, policy measures are suggested for the consideration of the provincial government.

a) Population dynamics and development

The growth rate of population affects the future size of population, its age structure, labour force supply, rural and urban distribution, overall and regional densities – all of which have implications for development. The analysis of population dynamics presented in this report shows that the major population concerns relate to the growth of population and associated dynamics in its composition (men and women, children, youth, adults and the elderly; rural and urban population; etc.) in relation to the growth and capacity of the economy to cope with backlogs and growing demand for employment, education, housing, health and other social services to meet the needs and aspirations of the people. Obviously, Mpumalanga province easily identifies with the national population and development challenges described in the population policy (1998).

The major factor in population growth is fertility. The macroeconomic impact of high fertility is that it impedes development in a variety of ways. According to UNFPA, fertility impacts on a family's poverty in several ways: i) smaller families share income among fewer people, and average income per capita increases; ii) fewer pregnancies lead to lower maternal morbidity and mortality, and often to more education and economic opportunities for women; iii) high fertility undermines the education of children, especially girls; and iv) families with lower fertility are better able to invest in the health of each child, and to give their children proper nourishment (UNFPA, 2004: p. 13).

As will be shown below, one major area of policy focus for Mpumalanga should be fertility reduction, with implications for, among others, reduction in incidence of teenage pregnancies, reduction in infant and child mortality, improvement in maternal health and reduction in HIV and AIDS prevalence among the adult population. Indeed, the expectation about achieving the demographic dividend in the province depends on demographic transition by the province from high to low levels of fertility and mortality.

b) Demographic transition

One African country that has achieved demographic transition from high to low levels of fertility and mortality is Mauritius. It took Mauritius 20 years to reduce the TFR from 2.4 (1985) to 1.9 (2005), while infant mortality rate already low declined from 19.8 per 1 000 live births in 1995 to 13.8 in 2010 (SADC Statistics Yearbook 2012). The TFR of 2.4 for Mpumalanga in 2011 represents the rate for Mauritius in 1985, and under that country's comprehensive RH and fertility programme it took 20 years to move the TFR from 2.4 to 1.9. Even if the Mpumalanga TFR could be moved so quickly to the level of Mauritius over the same period, the same can hardly be said about infant mortality rate which now stands at 41.7 per 1 000 live births, double the rate for Mauritius (19.8) in 1995.

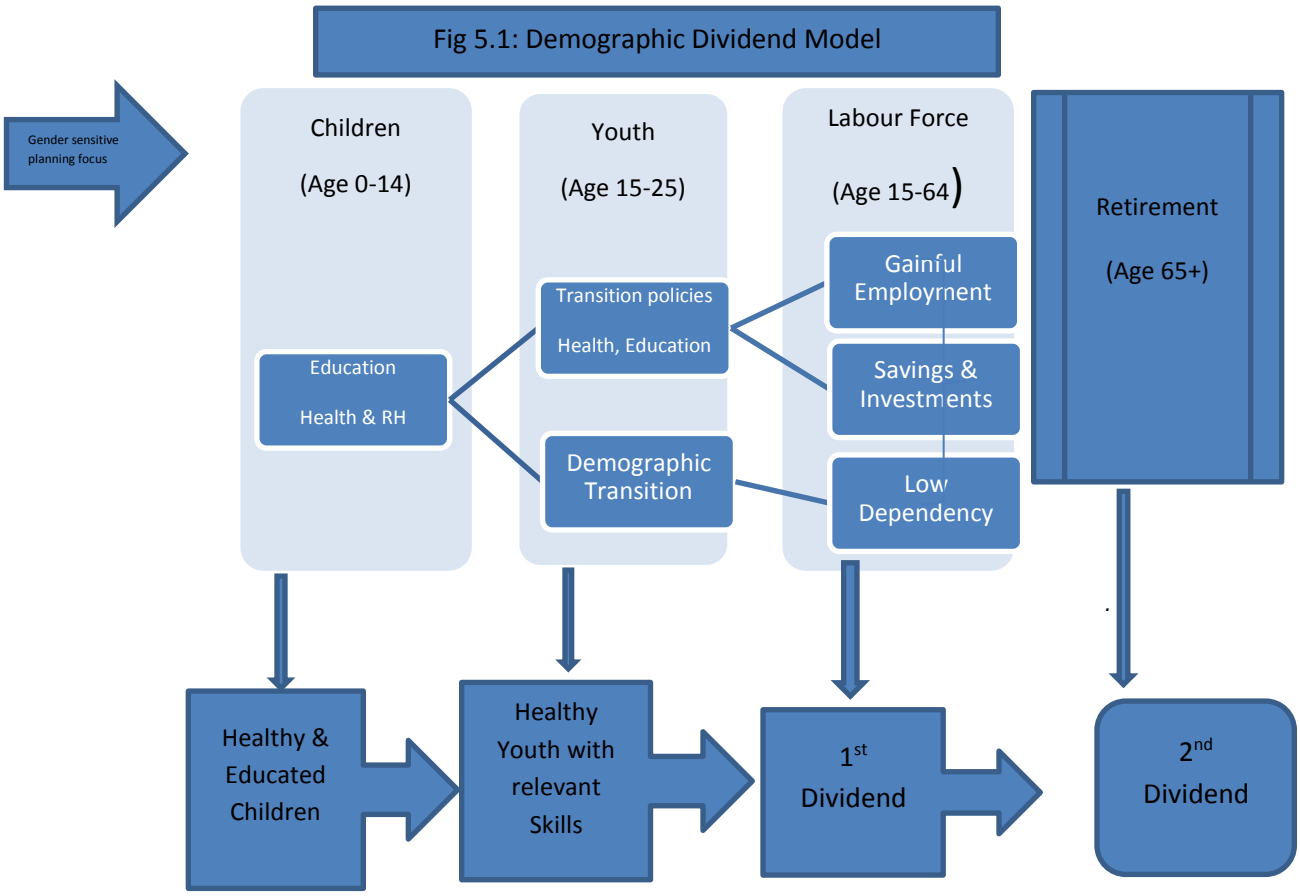
A decline to low levels of fertility and mortality is also a precondition for the realisation of the demographic dividend. As already discussed in the preceding sections, the demographic dividend occurs when a falling birth rate changes the age distribution, so that fewer investments are needed to meet the needs of the youngest age groups and resources are released for investment in economic development and family welfare (Ross, 2004). It is generally acknowledged that at an early stage of demographic transition, fertility rates fall, leading to fewer young mouths to feed. The demographic dividend most often occurs late in the demographic transition, when birth rates are falling. Resources shift from dependent children and elders to the youth, the age group that comprises the bulk of the productive labour force.

In essence Mpumalanga, as a matter of policy, should be looking forward to achieving demographic transition through programming to reduce the level of fertility and mortality especially infant and child mortality rates.

c) Youth and the demographic dividend

The policy perspective of the demographic dividend for Mpumalanga is presented as a model in figure 5.1 below. The model of 'demographic dividend' is conceptualised on effective implementation of gender-sensitive sustainable national development

programme, comprising health for all, universal education including early childhood development (ECD), skills development, effective labour absorption capacity of the economy through gainful employment of new entrants into the labour force, and a macroeconomic environment that promotes savings and investments in the economy.



Source: Authors, 2015

Critical to the model is the focus of development planning – children, youth, the labour force, and the elderly – all segments of the population, with emphasis on their needs for survival and healthy development as at when needed. If a child misses out on early childhood development, the chances of catching up with the primary education are reduced; worse still, if a child is poorly educated at primary level, the foundation of good

education and skills development during adolescence and youth is severely weakened; and if opportunities for sound secondary education are limited, a substantial proportion of secondary school graduates is poorly educated and largely unemployable. Vocational education comes as a remedial programme and often comes too late for many. All those education opportunities lost during the early years result in only a handful of the youth prepared and qualified for tertiary education in many developing countries.

What this model attempts to accomplish, in consonance with the basic formulation of the demographic dividend principle, is to place emphasis on the focused development of every group of individuals in the population – the children, youth, adults in the labour force and the elderly – with a view to realising the dividend that emanates from demographic transition. The difference is that such planning leaves no one behind – every one matters.

Such planning starts with a comprehensive accounting system of all live births in the country, regardless of location (rural or urban), population group or family status. This is conventionally done through a country's vital registration system, which must be complete and continuous to be useful for planning.

All children require adequate health and protection coverage and as soon as the law permits, full participation in ECD programmes; enrolment and sustained participation in education at primary and secondary school levels. Thereafter, opportunities for further education and skills development should be open to all, while the state collaborates with the private sector to provide as much support as possible.

In the circumstance, parents are themselves better enabled to support their families that have become smaller as a result of demographic transition. Parents experience a reduced burden of childhood dependency, and all things being equal, save part of their income more and are better open to future productive investment possibilities. It is to be expected that as family savings improve, aggregately national level of savings will

increase, so also combined propensity in the economy to invest in productive enterprises.

The gender-sensitive character of development planning employed has its remarkable benefits: both males and females participate fully and effectively in the education system; they both enjoy health and protection offered by family, community and the state; they enter the labour force well educated and skilled and become very productive; and a healthy and skilled labour force under close to full employment releases the energy necessary for sustained economic growth and development.

Underpinned by good governance, such an economy is bound to reap the first dividend that comes with effective participation of a rapidly increasing labour force in the economy; secondarily, the savings and productive investments in reference lead to further growth of the economy and the advent of the second dividend.

For the demographic dividend to materialise, there must be in place a conducive policy environment, including:

a) an environment where high-quality health and education provision is possible to facilitate demographic transition;
b) access to reproductive health services and facilities by all, especially the youth;
c) sufficient flexibility in the labour market to allow its expansion through creation of adequate employment opportunities;
d) macroeconomic policies that permit and encourage investment; and
e) access to adequate saving mechanisms plus confidence in domestic financial markets.

Considering the significance of the youth population in South Africa and their potential for social and economic development and democratic governance, South Africa formulated a National Youth Policy 2009-2014. The stated goal of the policy is to:

intentionally enhance the capacities of young people through addressing their needs, promoting positive outcomes, and providing integrated coordinated package of services, opportunities, choices, relationship and support necessary for holistic development of all young people particularly those outside the social, political and economic mainstream.[16]

The terms 'adolescents', 'youth', and 'young people' are used differently in various societies. These categories are associated, where they are recognised at all, with different roles, responsibilities and ages that depend on the local context. In South Africa, the National Youth Policy is directed toward young males and females aged from 14 to 35 years. In addition, the policy segments the age category of 'youth' so as to more accurately address the issues of particular groups. It recognises that the issues faced by males and females aged 16 to 24 years are likely to be quite different than those who are 28 to 35 years (National Youth Policy, p12).

Apart from issues relating to accessibility of young women and men to resources for development and the need for all youth development service providers to be responsive to their needs, the policy is premised on a 'holistic' approach to youth development in the country. It is an approach which advocates for youth development initiatives that 'encompass all aspects of a young person's life and respond to their physical, psychological, social, economic and spiritual needs within the socio-political environment thus ensuring that they gain the necessary knowledge, skills, and experience required to ensure smooth transition into adult life' (Ibid). It is the process of this transition that constitutes the initial challenge of any move to achieve the demographic dividend in any society.

[16] South Africa. National Youth Policy 2009-2014; March 2009. Accessed at: http://www.thepresidency.gov.za/MediaLib/Downloads/Home/Publications/YouthPublications/NationalYouthPolicyPDF/NYP.pdf

On 12 January 2015, the DPME published the ‘Draft National Youth Policy for 2014-2019’. Although yet to be finalised, the draft policy is premised on the need for ‘youth-targeted interventions that will enable young people's active participation and engagement in both the society and the economy’, given the various forms of marginalisation faced by young people in the country at the close of the previous youth policy framework (2009-2014).

In order to reap the dividend from our youth there is a need for a multi-sectoral approach which considers reproductive and sexual health issues as one aspect of personal development, with links to a range of other health and social services including those that deal with employment, gender based violence, education and livelihoods programmes. There is also a need to include innovative programmes which leverage the positive involvement of boys and men as partners in the struggle for equality and reproductive health. Evidence of the negative impact on the economy of the failure to address adolescent health issues is available for seven Caribbean countries. The data relates to the costs of adolescent pregnancies, for instance, compared with pregnancies after the age of 20. By not addressing health issues faced by older children and adolescents such as HIV and AIDS, teen pregnancy, poor nutrition, investments in improving the health in children, and education can easily be dissipated.

d) Poverty and inequality

The national population policy notes that inequities exist in South Africa with regard to access to productive resources such as land, infrastructure (housing, transport and communication) and social services (health, education and water), particularly in rural areas. Poor access by a substantial proportion of the people, particularly the youth, to employment and to social and infrastructural services and resources is a population problem, and it has negative effect on redistribution and growth and the alleviation of poverty. Again, Mpumalanga faces the same set of challenges of poverty and inadequate delivery of social services and infrastructure.

Mpumalanga has a high rate of poverty, unemployment and inequality. Factors associated with poverty and inequality are age, gender, rural/urban residence and education.

Breaking the cycle of poverty will require addressing young people's vulnerabilities and empowering them to be agents of change for development. Investing in young people is not only a priority for furthering human rights and poverty reduction, but could also bring about a demographic bonus. With higher investments in young people's education, reproductive health, job skills, employment and housing, these young people can be a source of increased productivity. A larger workforce and relatively fewer older dependants offer a unique opportunity for investment in economic growth as East Asian countries have found. Appropriate investments in young people can also reduce the risks of violence, civil disorder, crime, and drug abuse. Education investments reduce risks if they are buttressed by the creation of jobs for educated youth. Investments in youth also save money in lost productivity and direct public expenditure – as a result of teen pregnancy, crime, HIV and AIDS, yielding long term dividends to societies and economies. Involvement of young people in policies and decisions which affect them assists in developing a positive self-image in them, as well as developing a sense of belonging to society, allowing them to make positive contributions to their communities.

e) Population and the environment

Another concern expressed in the national population policy is the pressure of the interaction of population, production and consumption patterns in South Africa on the environment, as well as the high incidence and severity of poverty in both rural and urban areas. In this regard, people in rural areas suffer high rates of unemployment and low incomes, particularly farm workers and those outside commercial agriculture.

Past policies on settlement and urban growth in South Africa have placed natural vegetation under constant attack, especially in informal settlements and peri-urban

areas where the poor struggle to satisfy their basic needs. According to a report by the Project on Environment, Population and Security (Part I, 1995), a growing population, concentrated in a limited area, coupled with the structural inequalities that deny them access to basic services, such as electricity, running water, refuse collection, and adequate sewage disposal facilities, results in environmental degradation. As most residents in these poor settlements lack access to piped water, electricity, and good sanitation facilities, trees are cut down for fuel, grasses are used for feeding livestock and thatching, and residents often burn the veld to promote rapid regrowth, which depletes the soil of its humus content. These processes increase soil erosion, which is particularly high during intense rainstorms. Devegetation leads to floods, mud slides, and sinkholes, because informal settlements are frequently in water catchment areas.

Most cities do not have a coherent environmental management strategy, and those cities that do have one, have not integrated it in any way with other plans, particularly those of housing and transport. The crisis of urbanisation in South Africa therefore, lies in the continued spatial form of the cities – the disjuncture between where people live and where they seek to earn a living, – with the Achilles heel being an incredibly poor transport network (Lombard, 2007).

The main thrust of South Africa's environmental policy, from which all provincial environmental programmes derive, is to ensure: improved pollution and waste control, focusing on people and their participation in environmental decision making, developing an improved system of governance, and ensuring that environmental decision making employs an integrated and macroeconomic perspective[17]. The policy itself

Section 24 of the Bill of Rights in the Draft Final Constitution (1) of the Republic of South Africa guarantees environmental rights for the people of South Africa.

Section 24 states that '...Everyone has the right: (a) to an environment that is not harmful to their health or well-being; and (b) to have the environment protected for the benefit of present and future generations, (i) through reasonable legislative and other measures that prevent pollution and ecological degradation; (ii) promote conservation; and (iii)secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development...'

[17] DEA. 1996. Green Paper on an Environmental Policy for South Africa

derives impetus from the Constitution of South Africa (see box).

In order to achieve the objectives of the policy on the environment nationwide, emphasis is placed on the need to integrate environmental concerns into all policies and decision-making processes in government ministries and departments at national and provincial levels. It calls for harmony between the national environmental policy and many other policies, including population policy and all policies that affect the use and management of resources. The Department of Agriculture, Conservation and Environment is the lead government department for environmental policy and management, supported by other departments.

The environmental policy identifies aspects of population dynamics that impact upon the environment in South Africa, including settlement patterns and dynamics. In this regard, attention is drawn to migration involving the movement of people from the rural to urban areas and stress it places on towns and cities; this is evident in the plight of homeless street-dwellers, polluted air, lack of safe drinking water and sanitation, leading to preventable deaths and ill-health. It is acknowledged that towns and cities generate and accumulate wealth, and are centres of education, economic opportunity, employment, innovation and culture. However, they are also immense consumers of natural resources. Increasing urbanisation of the population in South Africa has led to encroachment of large areas of productive agricultural land, and increasing use of large quantities of water, energy, foodstuffs and raw materials, while generating enormous quantities of waste and pollution (DEAT, Ibid).

The strategic response to this policy in Mpumalanga as elsewhere has recognised the fact that environmental policy is cross-sectoral and should therefore be integrated into the work of all ministries and departments, including inter-departmental coordination and the rationalisation of policies, legislation, monitoring and other environmental functions. This points to the importance of integrated population and development

planning in the province, as a veritable strategy for addressing and resolving population-related issues in the development of the province.

f) Gender issues

Gender cuts across all sectors and is a pivotal dimension of comprehensive social analysis and an element of socioeconomic development. Crosscutting gender issues include disparities in power, decision-making capacity, and the ability to influence others (including women's empowerment); access to productive and human resources; time use and work burdens; and the gendered dimensions of poverty. Some of these issues have multi-sector implications and cannot be addressed effectively within the framework of one single sector, hence the need to integrate them is critical.

The national population policy notes, as a gender concern, the high incidence of unplanned and unwanted pregnancies and teenage pregnancies prevalent in all the provinces in South Africa. This tends to reduce human development potential and contributes to poverty. So also is the prevailing high rates of infant and maternal mortality, linked to high-risk child bearing, all of which impact negatively on development. As already discussed in the previous sections of this report, Mpumalanga also faces the challenge of gender and development with the regard to all the issues identified at national level.

The other major gender issues in South Africa, equally relevant to the situation in Mpumalanga, are identified (Department of Social Development, 1998) as follows: women are bunched in traditional female occupations, which are relatively low-paid; women are under-represented in the decision-making structures of both government and the private sector; the high level of maternal mortality rate reflects their poor reproductive health status; the incidence of violence against women is high, with an estimated average of one rape every 83 seconds; although the Constitution guarantees equality between the sexes in all aspects of life, many administrative and cultural practices still discriminate against them; women cannot as a rule take advantage of

such life enhancing opportunities as politics, education, community involvement or leisure, because of their heavy domestic and work burdens; and female-headed households are particularly disadvantaged. Their average income is about half that of male-headed households and consequently a larger proportion of female rather than male-headed households live in poverty.

Other gender issues in South Africa reported in the literature include the following: women have weak bargaining position in the family, so can hardly challenge unsafe sex practices; limited accessibility to resource (wealth) and opportunities because of gender imbalance; victims of rape and physical violence; female-headed households tend to be poorly resourced; teenage pregnancies compromise education of girls and their career chances; and prostitution destroys normal life chances and increases exposure to STIs, including HIV and AIDS.

Addressing gender inequality in Mpumalanga, like the rest of the country remains a challenge. Employment, income inequality, HIV and AIDS and teenage pregnancy remain critical issues that the provincial government needs to address. At the same time by investing money into educating young females slow benefits are slowly being seen in more women attending tertiary institutions and will begin to enter the job market and be well equipped. Finally, gender mainstreaming needs to be institutionalised in all departments in order to begin to have substantial impact on gender equality.

Increasing education, lucrative job opportunities and general improvements in the standards of living particularly for women will not only create awareness of contraceptives but will also promote their effective use. Contraceptive effort must be strengthened as well so as to meet the needs of the people for services and facilities. For the large majority of the population who are illiterate or poorly educated, most of who live in rural areas, the demand for contraceptives will have to be promoted through advocacy interventions.

One of the greatest problems facing the female population in post-independence South Africa, equally applicable to Mpumalanga, is the growing number of prostitutes, particularly in urban areas, which is mainly caused by economic constraints. Poverty, domestic violence, family breakdown as a result of HIV and AIDS and family rejection are contributory factors to children taking refuge on the streets and young girls becoming caught up in the streets in the province and urban South Africa in general.

This research found in Mpumalanga as in South Africa and like many other parts of the world, men often act in ways that contribute to a variety of public health problems such as domestic and sexual violence, increasing rates of sexually transmitted infections (STIs and HIV and AIDS), and high rates of maternal and infant mortality. Men's actions and behaviours can either impede or promote sexual and reproductive health.

The South African government has disbanded the Women, Children & People with Disabilities department and has created the Department of Women which sits in the Presidency. The aim of the department is to lead, coordinate and oversee the transformation agenda on women's socio-economic empowerment, rights and equity[18].

The department currently has two programmes it is focusing on. The first programme seeks to provide effective management, leadership and administrative support to the department and secondly, the department wants to establish the Women's Empowerment and Gender Equality (WEGE) programme which seeks to 'provide oversight on measures to promote the participation and empowerment of women and eliminate all forms of discrimination against women'[19] Underpinning these programmes is the South Africa National Policy Framework for Women's Empowerment and Gender Equality.

[18] See: www.women.gov.za

[19] Accessed at: www.women.gov.za.

The framework argues a review of existing policies which do not properly take women into consideration and begin to institutionalise women in any policy formation. The framework recommends that gender mainstreaming, needs to occur when policies are being formulated. This means that all aspects of policy making from research, budgeting and implementation, gender needs to be included in all aspects. The Department of Health and the Department of Basic Education have taken this into consideration, but other departments still are not properly including women in their policy formation.
The above considerations should be taken up by the concerned departments in the Province to ensure a thorough review of the framework at provincial level and to ensure the integration of gender concerns into the next PGDS (2015-2025).

g) Health and reproductive health

Perhaps one of the most significant factors compromising the health of most young women and contributing to poverty and gender inequality in the country is early age of pregnancy and motherhood. When a young girl falls pregnant, her ability to continue to participate in the education system is jeopardised. If she eventually drops out of school as is often the case, she is ill prepared for participation in the modern sector of the economy. With limited education, she is only good for elementary occupation (cleaning, washing, etc.) if a position is available; otherwise she starts adult life as unemployed or under-employed. Both ways, earnings are low, if at all, and the probability of remaining poor is almost a certainty.

Research has shown that the early onset of fertility (teenage pregnancies and motherhood) and the close spacing of births present health risks and prematurely intensify pressures on families and governments to provide livelihoods for new generations of children. The SADHS 1998 report also notes that early age at childbearing has a detrimental effect on the health of both mother and child. According to the report, the proportion of adolescents (women aged 15-19 years) who have ever been pregnant rises rapidly with age, from 2% at age 15 to 35% at age 19. Provinces with high levels of teenage pregnancies are Mpumalanga (25%), Limpopo (20%), the

Eastern Cape (18.2%), the Northern Cape (18%), with Gauteng recording the lowest level of 9.5% (Stats SA, Census 2011).

Interventions to reduce the incidence of teenage pregnancies include the following:

- Promotion of population and family life education, including provision of information and education on family planning to all sexually exposed women and men;
- Provision of adolescent-friendly reproductive health services and facilities
- Increased access of youth to family planning; and
- Peer education and counselling for the youth of reproductive and sexual health.

Widely established interventions for increasing contraceptive use prevalence and fertility reduction include the following:

- Promotion of reproductive health services, including family planning, among sexually exposed women of all ages;
- Provision of family planning services at the facility level;
- Promotion of the use of condoms for birth control and prevention of STIs, including HIV and AIDS;
- Promotion of reproductive health services among men;
- Provision of adolescent friendly reproductive health services;
- Service facilities that offer the appropriate method mix of contraceptives;
- Facilities that have standard reproductive health equipment;
- Availability of essential reproductive health drugs available; and
- Improved family planning counselling and interpersonal communication among couples.

h) HIV and AIDS and other diseases

Also of serious concern to development in South Africa (as well as Mpumalanga) is the high incidence of sexually transmitted diseases, especially HIV and AIDS, and the projected socioeconomic impact of AIDS. Equally serious is the marked gender

inequalities in development opportunities, including access to productive resources that reflect the low status of women. By discriminating against women who make up about half of the total population, society is limiting their ability to contribute to development. This is unproductive and it is a violation of their human rights. Largely because of poverty and high rates of immigration, Mpumalanga has one of the highest HIV and AIDS rates among the provinces in South Africa.

HIV and AIDS affect the human capital of the economy by distorting the skill composition of the labour force, with consequent implications for productivity. The loss of productivity that results from the growing need to replace skilled and experienced personnel lost to HIV and AIDS with younger and inexperienced professionals could be enormous. There are indirect costs as well; including loss of earnings, productivity losses arising from absenteeism, labour turnover, substitution of less qualified and experienced staff and additional training.

Family planning interventions, particularly the use of condoms, will serve to curtail the spread of the virus and at the same time contribute to fertility reduction, thereby reducing overall health cost to the economy.

i) People with disabilities

In Mpumalanga 7% of the population is disabled. The available evidence suggests that the more prevalent type of disability in Mpumalanga in the age group of 15-64 is seeing. In relation to severity, seeing has the highest distribution of individuals (36.1%) followed by hearing (27.3%); communication (19.3%); walking (19.2%); remembering (16.7%) and lastly self-care (13.3%).

While major strides have been taken to incorporate people with disabilities in the mainstream, much still remains to be done to address persistent discriminatory attitudes, inaccessible public transport systems, barriers in the built environment that often bar people with disabilities from accessing services, lack of access to

communication and information as well as poor enforcement of key legislation impacting on disability. In response to these challenges, the South African government has come up with vast intervention mechanisms which are articulated in the NDP. These include plans to increase access to services, particularly quality education, and employment for people with disabilities.

In an attempt to try and address the challenges facing disabled people in Mpumalanga province, the provincial government has developed a disability policy framework which contains the following guiding principles: self-representation/advocacy; human rights and social justice; participation and social integration; equity and redress; and responsibility and ownership.

It is the responsibility of all development functionaries responsible for poverty alleviation through service delivery to ensure that programme and project implementation includes people with disabilities as a specific target group and is supportive of group building and participatory processes among disabled persons.

Self-representation and advocacy

The province recognises that persons with disabilities are a force for change through self-advocacy. Group membership enables persons with disabilities to gain a new sense of dignity and confidence giving group members the strength to voice their needs, assert themselves and achieve their entitlements so that, collectively, they can be a force for self-advocacy to be reckoned with.

Human rights and social justice

All disabled persons should be treated with dignity and respect, irrespective of race, religion, language, class or ability. Perceptions of people with disabilities must shift to a new focus on their abilities.

Participation and social integration

Active participation by disabled persons should at all times be promoted. Specific attention should be given to the promotion and utilisation of enabling mechanisms to address any barriers that might hinder full participation.

Equity and redress

People with disabilities should benefit equally from the outcomes of all development strategies and public spending. Particular attention should be given to facilitation of participation for disabled persons previously excluded or marginalised on the basis of poverty, geographical location, disability, language, race, age or gender.

Responsibility and ownership

It is the responsibility of all development functionaries responsible for poverty alleviation through service delivery to ensure that programme and project implementation includes people with disabilities as a specific target group and is supportive of group building and participatory processes among disabled persons.

This research found this to be a good document that needs to be implemented moving forward in order to for the policy to be translated into practical workable solutions. Barriers standing in the way of people with disabilities would then be removed and disabled people would be able to participate even more in society. In fact there is already a lot that Mpumalanga province has achieved in terms of dealing with issues of disabled people. Areas of involvement include the following: education; housing; formal employment; SMME's development and partnering with organisations dealing with people with disabilities; publicity, public awareness and attitude changing; removal of environmental barriers; and accessibility of public facilities.

j) Other population issues

Apart from the above population concerns, the population policy also notes other population issues, also characteristic of the population of Mpumalanga, including:

- The nature of spatial population movements across the country and the causes and consequences of urban and rural settlement patterns;
- The insecure family and community life, due mainly to poverty and crime;
- The inadequate availability and access to population and development data and information for designing, monitoring and evaluating population and development strategies and programmes;
- The limited capacity of government and planners to use population data and information for planning; and
- The poor understanding of how population issues affect development and poverty.

The policy paper notes that government is committed to resolving these concerns in a comprehensive manner through strategies such as contained in the RDP and the GEAR. This commitment is also evident from the development programmes of the DSD and related departments. These concerns should be integrated into the Provincial Growth and Development Strategy (PGDS).

5.3 Population policy goal, objectives and strategies

The vision of South Africa's population policy is to contribute towards the establishment of a society that provides a high and equitable quality of life for all citizens in which population trends are commensurate with sustainable socioeconomic and environmental development.

This is in accord with the Mpumalanga vision for development as articulated in the PGDS 2004 - 2014: Vision: 'Reconstruction, development and sustainable growth, with

employment and redistribution'; which is complemented by the mission 'to improve the quality of life for all the people of Mpumalanga'.[20]

Proposed goal

Putting together the ideas behind the province's vision and mission, the goal of the proposed Mpumalanga Provincial Population Policy is to achieve sustainable human development and realise the 'demographic dividend'.

Objectives of the policy

The objectives of the national policy are to enhance the quality of life of the people through:

a) the systematic integration of population factors into all policies, plans, programmes and strategies at all levels and within all sectors and institutions of government;
b) developing and implementing a coordinated, multi-sectoral, interdisciplinary and integrated approach in designing and executing programmes and interventions that impact on major national population concerns; and
c) making available reliable and up-to-date information on the population and human development situation in the country in order to inform policy making and programme design, implementation, monitoring and evaluation at all levels and in all sectors.

Both the goal and objectives of the national population policy derived from wide consultations with all sectors and the public at large, including Mpumalanga province. Given that the province shares the same basic population characteristics and challenges with the national population, the goals and broad objectives of the Population Policy for South Africa (1998) are applicable to the province as well. Critical to the strategies listed above is integration; if integrated population and development

[20] Mpumalanga Province. Provincial Growth and Development Strategy (PGDS): 2004-2014

planning and implementation can be done, then the other strategies must have been implemented.

Major strategies of the policy

The major strategies for addressing the challenges of population in the country are identified in the policy paper as follows:

- Integration of population and development planning;
- Advocacy: Information, education and communication;
- Poverty reduction;
- Environment: Population, consumption and sustainability;
- Health, mortality and fertility;
- Gender equity, youth and children;
- Education: Availability and affordability;
- Employment: Education and skills relevance; and
- Rural population, migration and urbanisation.

These national strategies for population policy implementation show that the policy relates to the mandates of almost all sectors (education, health, labour, economic development, environment, law and justice, gender, youth, settlement, information, transport, etc.). Therefore, the programme for policy implementation should be designed and operated by a variety of government departments at national and provincial levels, including in Mpumalanga.

5.4 Conclusion

As noted in the National Population Policy for South Africa (1998), the population strategies identified here are not the sole responsibility of any one government department or institution. They cut across the line functions of various departments at national and provincial levels. They should be implemented within the scope and functional responsibility of the relevant line function departments, and in the context of the Provincial Integrated Development Plan, supported by the private sector and organisations of civil society.

The specific activities under each of the strategies should be elaborated in the Provincial Action Plan for Population Policy Implementation, mentioned in part in this report. These clusters of activities provide entry points for each sector in identifying their relevant tasks in the action plan. The next section of this report focuses on moving the policy from statements of objectives to actual implementation.

6. From policy to action

6.1 Introduction

The systematic integration of population factors into all policies, plans, programmes and strategies at all levels and within all sectors and institutions of government is both an objective as well as one of the strategies of the National Population Policy for South Africa (1998). It is obvious from the list of strategies that integration of population issues into development policies and plans is the responsibility of all departments, both at national and provincial levels.

In addition, if the population policy must be implemented, it calls for a rigorous consideration of related objectives: a) developing and implementing a coordinated, multi-sectoral, interdisciplinary and integrated approach in designing and executing programmes and interventions that impact on major national population concerns; and b) making available reliable and up-to-date information on the population and human development situation in the country in order to inform policy making and programme design, implementation, monitoring and evaluation at all levels and in all sectors. In practical terms, the policy must be moved from statements of intension to actualisation.

South Africa's National Population Policy (1998) has made adequate provisions for moving the policy document to implementation, at national and provincial levels of governance. In this regard, three important steps should be taken by the Mpumalanga DSD:

a) Recognition of institutional responsibilities in population matters;
b) Programming for policy implementation; and
c) Population programme management, including monitoring and evaluation.

6.2 Institutional arrangements for policy implementation

6.2.1 Established institutions for policy implementation

The population policy has specific guidelines that frame the institutional processes that bring it to fruition. The institutional arrangements are well organised in the form of a hierarchy from national, provincial and local government levels. These include cabinet, parliament and provincial legislatures, population units, sectoral departments, civil society and advisory bodies. The functions of these institutions, as defined in the population policy, are briefly described below.

The cabinet

The policy prescribes that the President of the Republic will oversee its implementation, and will report on its progress in the Annual National Development Report. The cabinet will see to it that a political drive ensures the integration of population concerns into national developmental programmes. At provincial level, the Office of the Premier takes responsibility for the population policy.

The parliament and provincial legislatures

These will ensure that the legislation supports the realisation of the intents of the policy. Likewise, parliament and legislatures must monitor the implementation of the policy on the ground.

The population units

Population units were established to provide support to the national and provincial departments in which they are located. They are mainly tasked with facilitating inter-agency collaboration in order to ascertain the implementation of policy at all spheres of government. They are tasked with an overall monitoring and evaluation of the progress of the implementation of the population policy.

Sectoral departments

In order to achieve the objectives of the policy in their diversity, a sectoral approach needs a political commitment from various ministries. The list of sector departments involved in population activities is provided in column 3 of Table 6.1.

The role of civil society

The private sector and civil society are expected to be involved in the process of planning, implementation, monitoring and evaluation of population development activities. This will ensure that there is great degree of transparency as well as public and community participation.

Advisory body

This is a non-bureaucratic multi-sectoral body comprising population and development experts, which is designed to facilitate the technical operations of the national or provincial population unit. This body is tasked with assessing the contributions of the various sectors to the population policy implementation as much as it is expected to coach inter-sectoral cooperation.

6.2.2 The challenge of coordination

Population activities in Mpumalanga province, like in other provinces, are being carried out by many actors in several sectors of the economy and society. Table 6.1 illustrates four population sectors (reproductive health, gender and development, population planning, and training data research and development), together with the specific population activities being carried out and the leading institutions and agencies involved at national and provincial levels in South Africa.

In order to achieve cohesion and maximize resource utilisation, it is necessary to have an effective mechanism for the coordination of population activities in the country. Such a mechanism, as suggested in the population policy, could operate at national as well as provincial level.

Table 6.1: Determination of possible sectors for the Population Policy Action Plan

Sector	Description of sector issues	Institutional/Supporting Agencies**
1. Reproductive health	Reproductive health issues; family planning; sexually transmitted diseases; human sexuality; primary health care; women's health and safe motherhood; STIs & HIV AND AIDS/AIDS/AIDS; fertility; mortality	Dept. of Health Education Information, etc. NGOs International agencies
2. Gender and development	Gender and development issues; population education, behavioural change and practices; population and family life education; harmful practices; reproductive health education; advocacy for population issues in development, including integration, gender	National Gender Commission Dept. of Education Information & Broadcasting Dept. of Labour Dept. of Justice SAPS
3. Population planning	Integration of population issues in plan formulation and implementation: coordination of all population activities; monitoring & evaluation of population plan implementation; vital registration; youth; elderly; people living with disability; population growth; population distribution, resource use and the environment; labour force - employment and unemployment; urban and rural population; internal and international migration; displaced persons; refugees; asylum seekers.	Dept. Social Development Dept. Education Dept. of Labour Dept. of Home Affairs Dept. of Foreign Affairs Dept. of Health, etc. Sport and Recreation Public Works NGOs International agencies
4. Training, data, research and development (TDRD)	Capacity building for population programme management; basic population data collection, analysis and dissemination (census, surveys, vital registration); research and policy studies; modelling;	Stats SA Dept. Social Development Dept. Home Affairs Dept. Education Universities Research institutions, etc.

** Agencies and institutions often responsible

The institutional framework for coordination is an action plan designed to implement the population policy. Indeed, the population policy stipulates that:

> *Once the population policy has been finalised and approved, a comprehensive National Action Plan will be drawn up in consultation and collaboration with all relevant stakeholders at national and provincial levels for its implementation. (Population policy, 1998: 37).*

The process of drafting the action plan should be consultative, though not as elaborate as the policy consultations. It should draw upon the full participation of the main actors, including government departments, research institutions, universities, communities,

NGOs and interested international agencies. Such an inclusive process also assures ownership and participation in the management of the action plan.

The lead agency for policy implementation and for facilitating the coordination of population activities is the National Department of Social Development through its Chief Directorate of Population and Development (CDP&D). At the provincial level, the population unit should work within the DSD to facilitate the coordination of population activities. In order to be effective, the Mpumalanga population unit requires an action plan to provide a platform for all actors in the field of population to interact.

In some countries where population policies are being implemented through programming, the coordination is actually done by a high-level committee (national and provincial), chaired by the President or Premier, and made up of cabinet ministers (MECs) responsible for key population activities (social development, health, education, labour, etc.). The committee is often supported by a technical group from the same set of government departments and collaborating institutions and agencies. At national level, CDP&D serves as the Secretariat to the Population Committee. If there is such a committee in a province, its PPU becomes the secretariat.

6.2.3 The role of the population unit

Population units were established to provide support to the national and provincial lines of function departments in which they are located. Making the results of population estimates/projections available to sector planners is, perhaps, the most significant contribution of the population planner (population unit) to the process of integration. It provides a common base for estimating and calculating future requirements for social services and provision of facilities. Without such a common base, each sector would be forced to use different data sources with the effect that the basic assumptions about the population and its future patterns and characteristics may differ from sector to sector. The projections of population, fertility, mortality, life expectancy, contraceptive adoption by methods, HIV and AIDS cases, HIV and AIDS mortality, orphans, women in their

reproductive years, youth population, etc.) also provide the database for programme monitoring and evaluation.

It may not be possible for the Population Unit (PU) to satisfy all sectors when it comes to specific details. Therefore, the PU should familiarise each sector department with the necessary skills that will enable them to make their own estimates and projections deriving from the general base established by PU.

In sum, the role of the population unit is in two parts, namely technical and administrative:

A): Technical

- Making the population projection results available to sector planners;
- Providing database for development programme monitoring and evaluation;
- Assisting sector planners in the use of population data, particularly in the application of population and development models; and
- Sensitising management and planners about population policy and relevance to the planning process.

B) Management

- Facilitating inter-agency collaboration in order to ascertain the implementation of policy at all spheres of government; and
- Monitoring and evaluation the progress of the implementation of the population policy.

6.2.4 Need for sensitisation

Population issues in development are often difficult to conceptualise by planners and policy and decision-makers; more so at provincial and lower levels of governance due to

capacity constraints. A programme of sensitisation is one way of addressing such a problem and has proved quite effective in many countries.

Sensitisation involves the creation of space for different categories of audience to have information and be enabled to discuss population issues in relation to development and the relevance of population to the works they do. Through the CDP&D or Public Participation Unit (PPU) or its provincial counterpart, and assisted by an expert where necessary, different groups are selected for a one-day discussion forum. At such a forum issues for discussion should relate to the following:

a) What is development?
b) What are the factors in population change?
c) What are the population issues in development?
d) How can population issues be integrated into development policies and plans?
e) What are the population and development indicators for progress monitoring?

Sensitisation, if well managed, could be very rewarding both to the population unit as well as policy makers and planners. It should prove positive to the population agent as better knowledge of what they are doing leads to recognition by policy makers and improved collaboration by the colleagues in planning. On the part of development planners, improved knowledge of the role of population in development should translate in more population or people-centred planning, which is what integrated population and development planning is all about. The ultimate result is better and more balanced planning and a more efficient service delivery to the population.

6.3 Programming for policy implementation

In order to make progress, the provincial DSD, through the population unit, should consider the following additional steps that will translate the aims and objectives of the policy into reality. These steps are conceived as the activities to be undertaken by the

responsible government department under a project designed to implement the national population policy.

6.3.1 Formulation of an action plan

Once a national population policy is adopted, there is the need to develop a comprehensive framework for implementing the population policy. Such a framework, often referred to as an action plan, should be seen as a useful tool for several reasons:

a) It provides a common platform for support to population and related activities by all the stakeholders, including multilateral, bilateral agencies and national and international non-government organisations;
b) It provides a mechanism for bringing together all the agencies and government departments involved in population and related activities in the country, to foster collaboration, mobilise resources and ensure synergy of programme activities;
c) It provides an operational basis for programme coordination, monitoring and evaluation;
d) It defines the work of the national coordinating body (such as National Population Council) and serves as the work plan of its secretariat, the Department of Population, DSD;
e) It allows government to have a firm control over programme activities in the field of population and provides information for budget allocation to population;
f) It serves as a direct response to, and fulfilment of, South Africa's commitment to implement the ICPD Programme of Action (as agreed in Cairo, Egypt in 1994) in accordance with national objectives and priorities in the field of population and development; and
g) It provides a framework for also addressing the MDGs on poverty reduction; gender disparity, empowerment of women, infant, child and maternal mortality; reversing the spread of HIV and AIDS; and youth employment.

In order to formulate such a framework for population (known as provincial action plan for population policy implementation), it will be necessary to understand the scope of

population as a field of development; the range of actors in the field of population; the institutional locations for the major activities in the field; and resource requirements for population programme implementation. The action plan will incorporate the population policy and relevant aspects of the other existing social development policies, particularly the policies and plans on women, health, education and youth, in a coherent manner thus facilitating coordination and collaboration among the different agencies and partners in the broad area of social development.

6.3.2 Prepare an annual work plan

Based on the approved action plan, government departments and their component divisions prepare a work programme or business plan covering defined periods, say, one year or more. In the design of such a work plan the PPU should include activities relevant to integration and assist other sectors to do the same. The plan should: identify the unit's requirements of personnel, equipment, supplies and services; determine possible sources of funding for the activities; estimate staff and other inputs by the government; specify local and international subcontracting arrangements; define job specifications for all categories of professionals that will be involved in integration activities; and develop appropriate mechanism for monitoring and evaluation.

If integration is not specifically defined as an objective in the business plan, it will be difficult to identify and cost the activities that are required to achieve support to integration at sectoral and provincial levels. By implication also, unless integration is an objective, it will be difficult to include it as an item for monitoring and evaluation. The question of the extent to which integration has been achieved in a given time period presupposes that integration was an objective at the beginning of the programme.

6.3.3 Institutional structures for the management of population programmes

The action plan formulation process should determine the roles of implementing partners and how they work together under, say, a sub-committee system. This will include institutions at provincial and local administrative levels of government, as well as

interested local and international development partners. All the concerned departments and agencies take responsibility for the management of their sectoral programmes and together, get involved in the implementation of the National Population Policy.

For each population sector identified, the plan should reflect mainly the issues, the objectives, strategies and corresponding activities, some of which are indicated in the policy document. Each population sector also incorporates relevant programme elements of other approved sectoral policies and programmes which complement the population policy.

6.3.4 Establishment of a coordinating body

South Africa's population policy does not make any suggestions about the process of constituting such a body at national or provincial level, although its importance is mentioned. Nevertheless, there are certain considerations that could guide such a process:

- First, it must be recognised that population is a sensitive, political and poorly conceptualised issue. Therefore, care should be exercised in the process of establishing a supreme body that will preside over population issues;
- Second, knowledge of population as a conceptual dimension in development planning is not universal; even among highly educated people, and the understanding of population issues in development may be superficial, if not coloured, by professional bias. Therefore, there is a need to undertake population education for those who would be called to perform this important function as provincial population committee members;
- Third, the elements of provincial population policy defined in section 4 of this report (as well as the National Population Policy for South Africa, 1998) should be well understood by all, including committee members, parliamentarians, technocrats in government, and the population at large. Therefore, the English and local language versions of the provincial response to population policy

should be printed and disseminated as widely as possible, through workshops, radio, TV and print media; and

- Finally, members of the Provincial Population Committee (PPC), within the context of the PGDS, should be exposed through study tours to the operations of population committees elsewhere.

Secretariat of the oversight body [Provincial Population Committee]

The technical and coordinating organ of the PPC should be the PPU, within the context of DSD work at provincial level and PGDS. The PPU should draft their terms of reference for their consideration.

The PPC Council will be responsible to the provincial legislature for:

a) Providing policy advice and oversight to programs pertaining to provincial population and development to be undertaken in the various sectors of the economy and creating conditions conducive to inter-sectoral collaboration;
b) Suggesting a broad legal framework within which population and development related information are to be accessible to the general population by various governmental and non-governmental groups; and
c) Reviewing short, medium and long term plans of actions leading to a harmonisation of the factors in population dynamics and the consequences with national development objectives.

Government should mobilise resources, internal and external for the execution of population activities as laid out in the programmes.

6.4 Population programme management

Once an action plan is developed, a programme should be developed to manage the process of implementation. The major focus of the action plan is how to achieve integrated population and development in the province.

6.4.1 Integrated population and development

As it is generally known, population integration is a systematic consideration of population factors (including the determinants and consequences of population dynamics) in the determination of development objectives and strategies. Integrated population and development planning involves the explicit consideration of population and its social, economic and demographic characteristics in the national (regional or local) development planning process (Ekanem & Arowolo, 1994).

The UNFPA defines integration as involving considering systematically and taking into account explicitly in the planning process, population factors in so far as they significantly influence or are influenced by other variables relevant to development plans (UNFPA, 1973). Based on this definition, the two basic goals of integration are: i) to promote the general quality of development planning; and ii) to promote awareness among both planners and policy-makers of the need to adopt population policies consistent with development.

6.4.2 Integration as a development strategy

The Programme of Action (PoA) of the International Conference on Population and Development 1994 (ICPD) provides specific objectives to be achieved by all countries. One of these objectives is to fully integrate population concerns into development strategies, planning, decision-making and resource allocation at all levels and in all regions, with the goal of meeting the needs, and improving the quality of life, of present and future generations. This will lead to the promotion of social justice and eradicate poverty through sustained economic growth in the context of sustainable development. With regard to population, sustained economic growth and poverty, the PoA objective is to raise the quality of life for all people through appropriate population and development policies and programmes aimed at poverty eradication, and achieving economic growth.

Consistent with Agenda 21, the PoA objectives relating to population and environment, are to: a) ensure that population, environmental and poverty eradication factors are

integrated in sustainable development policies, plans and programmes; and, b) reduce both unsustainable consumption and production patterns as well as negative impacts of demographic factors on the environment in order to meet the needs of current generations without compromising the ability of future generations to meet their own needs.

To achieve these objectives, the ICPD called on governments to take actions to integrate population into sustained economic growth and sustainable development. Most of the actions focus on:

- integrating population issues into the formulation,
- implementation, monitoring and evaluation of all policies and programs;
- establishing the requisite internal institutional mechanisms;
- strengthening political commitment to integrate population in development strategies and plans;
- reducing and eliminating unsustainable patterns of production and consumption;
- giving priority to human resources development; and,
- promoting appropriate demographic policies.

The PoA also calls for actions to eliminate inequities; facilitate job creation; integrate population factors into environmental assessment; and, formulate and implement population policies and programs, which contribute to achieving poverty eradication and sustainable development goals. These actions are consistent with the population and development issues facing Mpumalanga province.

Integration as a process

Integration is a process, and it should start with recognition of the relevance of population factors in relation to provincial and sector plans and programmes of development. It is a process that involves virtually all the sectors and calls for intervention by government, private sector and civil society organisations.

The specific aspects of population that affect development are:

i) Current and projected population size and age/sex distribution;
ii) Population growth rates, provincial, local government, municipality;
iii) Demographic factors in population dynamics – fertility, mortality and migration;
iv) Characteristics of population, including age and sex composition, rural and urban composition, population distribution and density;
v) Reproductive health and reproductive rights issues, such as marriage age, exposure to pregnancy, family planning, access to family planning information, right to have children, sexual rights, morbidity, STIs, HIV and AIDS, child survival, maternal mortality, etc.; and
vi) Gender and development issues – male and female relations in access to social services such as education, health, water, housing, etc., productive resources, employment, decision-making and social status.

These population factors influence, and are in turn influenced by social, economic and environmental factors.

At each of the 'regional' levels, consideration should be given to the impact of various demographic options (viz. high, medium or low fertility alternatives of population growth) over certain strategic economic, social and environmental development objectives, as follows:

- economic development (viz. investments, growth of GNP, per capita GNP, poverty, labour market dynamics, particularly employment, migration, urbanization);
- social development (enrolment rates for males and females at all levels, percentage of population with access to health services, sanitation, housing, water, electricity, etc.); and
- environmental development (available land for cultivation, grazing, etc.; population density, carrying capacity, measures of environmental stress, etc.).

The specific task is setting complimentary population objectives, targets and strategies to achieve a defined social, economic or environmental development goal. If the goal of economic development, for example, is poverty eradication, while the economy sector is pursuing the objective of economic growth, an objective to reduce the level of fertility could be set in the development plan to complement the economic strategy to eradicate poverty. If the economy is improving but the level of fertility is high or increasing, the goal of poverty eradication might prove elusive. Indeed, the rate of economic growth could be compromised by high fertility; and, as poor people tend to exhibit higher fertility, economic growth may not have any meaningful impact on poverty reduction among the poor. By the same token, a programme of environmental development is most likely to get a boost from complimentary strategies to reduce population growth rate or unregulated migration and settlement. Failure to adequately integrate population strategies into national development efforts has been a major factor in underdevelopment in many societies.

Integration at sector level

At sector level, each sector should identify with the Mpumalanga provincial population policy direction, and show in its situational analysis the relationship between sector (education, health, labour, etc.) characteristics and population issues. The analysis must show how population interventions would complement the conventional sector interventions in achieving the objectives and targets of the sector.

Integrated planning should recognise both sector identity (health, education, agriculture, labour, etc.) and need for collaboration among the sectors. The relevant population sectors are defined in Table 6.1. Population interventions should be distinguished from other social and economic inputs (or interventions) into the sector programme. Programming for population interventions at the sector level requires a detailed analysis of the factors or elements that define the programme to address specific objectives/targets.

6.4.3 Population integration into the provincial development plan

Post-transition governance in South Africa identified the provinces as having a pivotal role to play in national and provincial development through 'contextualising national imperatives and grounding them within the realities and specificities of each province, and guiding local government in the development and implementation of IDPs and programmes for sustainable development' (The Presidency, 2015).

PGDS is seen as a critical tool to guide and coordinate the allocation of national, provincial and local resources and private sector investment to achieve sustainable development outcomes. Since most population interventions take place at lower levels of governance, integrating population issues into PGDS is particularly strategic and cost-effective as the province will cascade such interventions to lower levels through the Integrated Development Planning (IDP) framework in use by the municipal local governments.

According to the guidelines from the Presidency (2015), a PGDS should have the following characteristics:

a) It should build on the approach and principles set by the NSDP and engage with the metropolitan, district and local municipalities to deepen the sub-provincial application of the National Social Development Programme (NSDP);
b) It should provide direction and scope for province-wide development programmes and projects, within the context of a long-term perspective;
c) It should take into consideration the resources, economic, political, social and natural environment constraints and opportunities;
d) It should be a vehicle to address the legacies of the apartheid space economy, promote sustainable development and ensure poverty reduction and employment creation;
e) It should be a framework for both public and private sector investment, indicating areas of opportunities and development priorities;

f) It should be focused on addressing key implementation blockages and issues, including institutional reform; and
g) By being spatially referenced, it enables intergovernmental alignment and guides activities of various role-players and agencies (including national and provincial sector departments; parastatals; and metropolitan, district and local municipalities) by linking to and deepening the application of the NSDP and Medium-Term Strategic Framework (MTSF).

The Mpumalanga Provincial Growth and Development Strategy (PGDS) was first developed during 1996/7 and was based on national policy guidelines. Since then the provincial government has formulated new development policies and strategies to address ongoing and emerging development challenges in keeping with the provincial strategic focus.

The Mpumalanga PGDS 2004-2014 is regarded as the fundamental policy framework and a strategic document for development planning in the provincial government The framework provides an ample opportunity for the province to embark upon medium to long term (10 year) strategic planning and to prioritise and address major development challenges facing the economy and society. The strategy framework enables sector departments, including DSD, municipalities and other social partners to prioritise and align their sectoral strategies, plans and programmes in line with the priorities of the PGDS.

Preliminary considerations

In the process of formulating PGDS, emphasis is placed on inclusive participation. Role-players that would need to collaborate in the formulation of the PGDS include: government bodies (metropolitan, district and local municipalities; neighbouring or strategically linked provinces; national government departments; provincial sector and line departments, including development and trade forums and organisations; parastatals; and international donors, trade bodies and NGOs); private and civil

organisations (organised business and labour; national and regional community based organisations; corporate bodies; academic and training institutions; and social and cultural bodies). Such a forum obviously brings all interests and groups to a common platform and is ideal for discussing provincial population issues and strategies. The PPU must find a place at this forum where PGDS is being formulated or reviewed.

The suggested structure for PGDS lends itself to incorporating population strategies. According to the guidelines, the PGDS should have two 'parts': Part I should focus primarily on a long-term strategic view (10 to 20 years) of the province, while Part II is an action-orientated collaboration and implementation plan that sets specific annual goals and targets, including the monitoring and evaluation of their achievement. Given the nature of population parameters and associated demographic variables which are not amenable to short-term changes, the first part of PGDS is an ideal home to place population issues and strategies.

6.4.4 Provincial population integration process

The focus here is on preparation of *Part I: Long-term strategic view* of the PGDS. The population unit should be actively involved in the development of each of the five suggested aspects of the document as shown in Table 6.2 below. The column on 'PGDS Planning Perspective' refers to aspects of Part One of the PGDS as directed by the Presidency and is quoted from the official source. The column on 'Population dimension' contains corresponding population aspects of the overall plan perspective, as defined by the PPU.

Table 6.2: Integration of population issues into Mpumalanga provincial IDP

	PGDS Planning perspective	Population dimension
1	***Problem statement***	
	The starting point is a thorough strategic analysis of the demographic, spatial, environmental, economic, social and migratory trends and dynamics of the province. This must be done in the context of achieving sustainable development and must be spatially referenced.	Beyond demographic profile, the analysis should establish the relationships between population and development in the Province; the population problems; the relevant aspects of Population Policy and; strategies to address population issues identified.

2	***Assets, opportunities and constraints***	
	This analysis should serve as the backdrop to defining the economic assets, potential and comparative advantage of sub-provincial (district and metropolitan level) spaces, the distribution and extent of poverty and/or need and resource potential (natural, human and infrastructure) of the province.	Analysis of the spatial dimension of population problems in the province; adequacy of existing institutional (natural, human and infrastructure) structures in the Province for addressing the problems.
3	***Priorities and implications***	
	The above should be used to stimulate a dialogue among key stakeholders about the development and spatial priorities and the implications for the infrastructure investment and development policies and programmes of national, provincial and local government.	Initiate dialogue among the stakeholders about the nature and dimensions of provincial population problems and the need to define and implement appropriate policies and programmes in the province.
4	***Vision and value statement***	
	The outcome of the dialogue above is used to fashion a shared vision and value statement to provide overall coherence and lay the basis for divergent interests to be mobilised around common developmental objectives.	Fashion a provincial population goal and objectives, in line with the national vision for population and development.
5	***Key strategies***	
	In summary, the above process entails a regional analysis, the development of a spatial perspective on economic potential, social need and resource potential, articulation and agreement among key stakeholders of spatial principles (a la NSDP).	Determine the requirements for population interventions in the light of problems identified and proposed strategies.

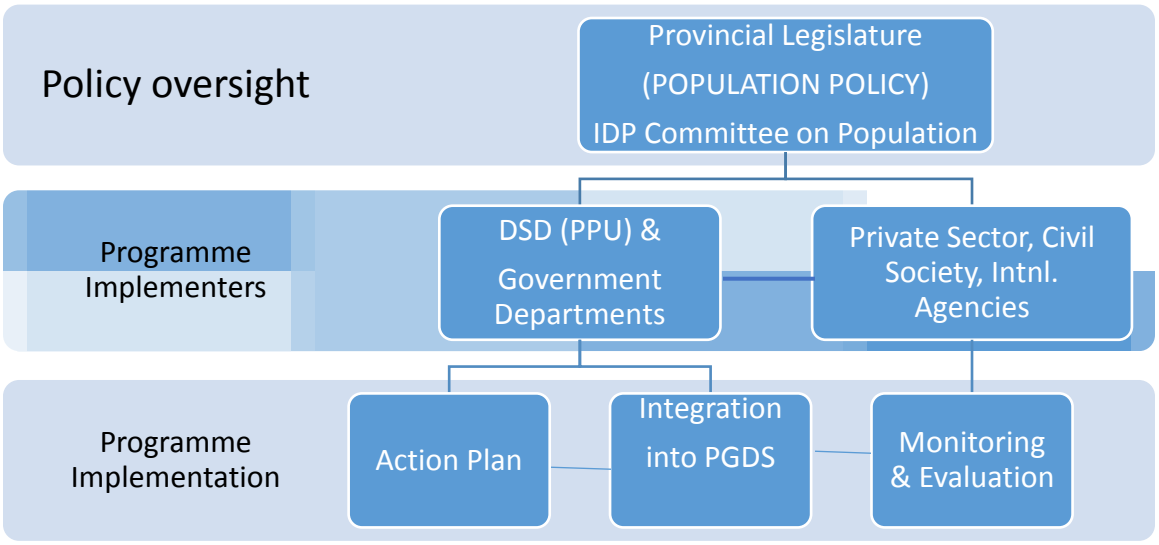
The challenge faced by the PPU here is articulating the specific population objectives of the PGDS relevant to particular sectors other than population sector itself. For illustration, the Department of Labour might plan to reduce the rate of open unemployment by, say 5%, during the 10-year period of the PGDS; the department will set its strategy of employment creation, skills development, etc. The PPU, in collaboration with the sector, should then explore complementary population strategies to achieve the same objective of reduction in open unemployment rate in the province.

Such strategies could include contributing to fertility reduction so as to slow down population growth and supply of new entrants into the work force. Inclusion of

population education in the orientation of new employees, provision of family planning information for all workers, and distribution of condoms in the work place (to reduce rate of transmission of sexually transmitted infections such as HIV and AIDS) might be some of the interventions by the Department of Labour to realise its objective. The PPU should run through all the objectives in the PGDS, and working in collaboration with the sectors, identify where population objectives and strategies compliment sector objectives and strategies.

In order to move population policy to action (see figure 6.1), the PPU must be proactive in the whole process, by making available to all the sectors information on population in the province, including updated data disaggregated by gender, analysis of relationship between population variables and development, and results of population projections and spatial analysis. For proper comprehension PPU may organise a workshop for all sector planners and managers on sensitization and dissemination of available population data and information. Such a seminar would motivate sector planners to support inclusion of population strategies in the PGDS and budget provision for population interventions.

Figure 6.1: Scheme illustrating the move from population policy to action



Source: Authors, 2015

6.4.5 Monitoring and evaluation

Part II of the PGDS is about implementation, monitoring and evaluation, based on annually revised implementation goals. It is designed to identify the means and structural mechanisms to realise the objectives of the strategy. Annual monitoring of programme inputs and related activities is possible using the general framework of the PGDS. While the basic principles enunciated in the guidelines should apply, the PPU may need to provide a complementary programme management tool as a point of departure.

As already noted, population parameters and associated demographic variables are not amenable to short-term, annual, changes. For example, depending on the effectiveness of programme inputs, it may take 10 years to achieve a 1 percentage point drop in population growth rate from 2.0% to 1.9%. Therefore, annual monitoring would not be of much benefit to many aspects of the population programme. As such, the PPU should design its population programme or action plan, based on the inputs into the First Part of the PGDS and identify appropriate indicators and benchmarks for progress monitoring and evaluation. At the end of five years, when the PGDS is being evaluated, PPU will then utilise the framework of the population action plan to evaluate the achievements made regarding certain demographic variables and population parameters.

Three aspects of Part II of the PGDS require mentioning here: intergovernmental communication and coordination; technical capacity and support; and resource allocation, coordination and budgeting. Regarding intergovernmental communication and coordination, the guidelines suggest that the Premier's Office should take responsibility for achieving coordination and communication among different spheres and agencies, as well as for monitoring implementation and addressing blockages in the system, through the Premier's Intergovernmental Forum. Given that population issues are integrated into the PGDS, coordination of population activities becomes an integral part of the overall management of the PGDS. For the sake of sector identity and

accountability, the Premier's Office could utilise the PPU as its secretariat for population affairs, just as the other government departments (Health, Education etc.) provide secretarial services to the Premier's Office under the common PGDS. Although the PGDS guidelines do not encourage the creation of new bodies institutions for programme management, the Premier's Office might wish to entrust the role of coordination of the population sector to an oversight body (Provincial Population Committee) for effectiveness.

The other aspect of Part II of the PGDS structure relates to technical capacity and support. The guidelines emphasize in this regard that appropriate and relevant technical support structures (as envisaged in Section 30 of the Inter-Governmental Relations Framework Act) as well as technical capability, supporting and lead by political decision-makers, are crucial to the coordination and implementation of distinct components of the PGDS. This aspect is particularly relevant to the PPUs given their generally weak technical capacity. The institutional and human capacity of PPU should be strengthened commensurate with the schedule of work implied in the PGDS (Inter-Governmental Relations Framework Act, 2005).

The third aspect mentioned in the PGDS guidelines concerns resource allocation, coordination and budgeting. According to the guidelines, the resources and actions required to implement the strategies must be prioritised and the necessary implementation actions and steps must be put in place.

6.5 Conclusion

The PPU should ensure that all the interventions necessary to achieve specific population objectives in the PGDS are well defined and costed. In addition, the PPU must respond to its mandate of facilitating the coordination of population activities through the Premier's Office.

GLOSSARY

Demographic dividend: The demographic dividend occurs when a falling birth rate changes the age distribution, so that fewer investments are needed to meet the needs of the youngest age groups and resources are released for investment in economic development and family welfare.

Integrated population and development planning involves the explicit consideration of population and its social, economic and demographic characteristics in the national (regional or local) development planning process.

Internal migration involves movement within a particular country; in other words, both the origin and destination of a specific migratory move are in the same country.

International migration refers to the movement of people across the country's borders, that is, immigration or emigration.

Population integration is a systematic consideration of population factors (including the determinants and consequences of population dynamics) in the determination of development objectives and strategies.

Premature mortality measures the years of life lost (YLL) or the number of years a person died before the end of his or her expected lifespan (as given in the standard life-expectancy table).

Support ratio is defined in strictly demographic terms counting each person in the 15-64 age range as one worker and each member of the population as one consumer.

Window of opportunity: Associated with the changing age distribution in the process of demographic transition and the dividend that accrues. However, the demographic dividend does not last forever; it is only a limited window of opportunity. This is because the dynamics of population cause the age distribution of population to change again, and this results in the large adult population moving into the older, less-productive age groups.

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ANNEXURES

ANNEXURE A: METHODOLOGY

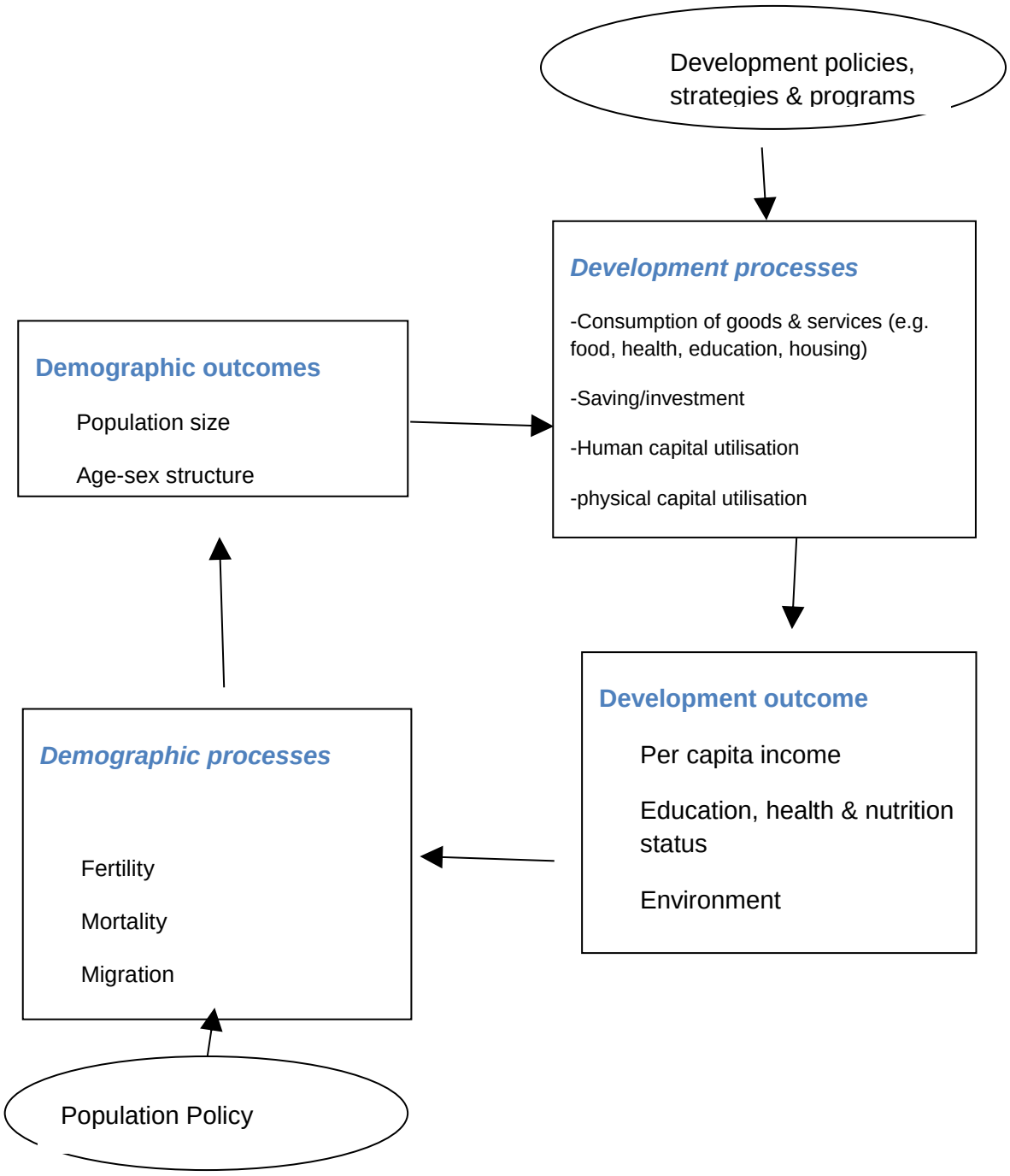
Research methodology

There are three related elements to the methodology for this research: a) the analytical framework; b) the data collection approaches; and c) consolidation of the data analysed and synthesis of information generated.

3.1 Analytical framework

The analytical framework for presentation of research results will be based on a conceptual model developed by the UNFPA, underpinned by the population-environment-development relationships articulated by the International Conference on Population and Development Plan of Action (ICPD PoA) held in Cairo in 1994 Figure 1 illustrates the framework.

Figure 1: Framework for Interrelationships of population, environment and development



Source: UNFPA (2001)

The analysis is based on the range of development policies, strategies and programmes implemented by the Mpumalanga provincial government and analyse these frameworks in relation to the development process in general and the effect of programme implementation on development outcomes (economy, employment, education, health, environment, community, etc.). The analysis covers the implications of the development outcomes for demographic change and vice versa, to how population policy interventions influence the course of demographic outcomes (population size and characteristics, age/sex structure and distribution), which in turn influence development processes.

This analytical framework is in line with empirical evidence and consensus about population, development and environment interrelationships. Concerning the interrelationships between population, sustained economic growth and sustainable development, it has been generally recognised that there are three areas of development planning focus: a) integrating population and development strategies; b) population, sustained economic growth and poverty; and c) population and environment (ICPD PoA, 1994).

The need for integrating population and development strategies has been derived from empirical evidence showing that persistent widespread poverty and serious social and gender inequities have significant influences on, and are in turn influenced by, demographic factors such as population growth, structure and distribution. In terms of the development process, there is also general agreement that unsustainable consumption and production patterns are contributing to the unsustainable use of natural resources and to environmental degradation. Part of the Cairo (ICPD 1994) consensus is also that *e*fforts to slow population growth, reduce poverty, achieve economic progress, improve environmental protection and reduce unsustainable consumption and production patterns are mutually reinforcing; and that meeting the basic needs of growing populations is dependent on a healthy environment. Such needs

must be addressed when developing comprehensive policies for sustainable development (Ibid).

3.2 Data collection approaches

Two data sources are explored by this study: data from secondary sources and data from primary sources. Overall, in addressing each of the themes of this study (see section 3.4 below), comprehensive and analytical reviews of provincial background documents and empirical literature relevant to a respective theme were undertaken. Thereafter, and to the extent possible, quantitative outcome indicators were analysed using nationally comparable data. Where this was not possible, the analysis focuses on thematic review of progress, with reference to policy and programme interventions.

Where deemed necessary to complement the findings of the desk-top assessment, interviews were conducted with the following relevant key informants, including departmental heads, programme managers and planning/M&E Units in the province from the following departments:

- Department of Social Development
- Department of Labour
- Department of Economic Development
- Department of Tourism
- Department of Basic Education
- Department of Environmental Affairs
- Department of Human Settlements
- Department of Rural Development and Land Reform
- Department of Home Affairs
- Department of Health
- Stats SA
- Premier's Office

The intention of the interviews was to obtain a general assessment of achievements, gaps and lessons across regions.

3.2.1 Secondary data

A large body of data for this research was derived from secondary sources, including the Stats SA publications; published data and information from departmental surveys (Department of Health – Demographic and Health Surveys; Surveys of Causes of Death, etc.); similar survey results published by other departments (Education, Labour, Home Affairs; Agriculture; Human Settlements; etc.) Research reports based on large scale surveys are also explored (HSRC survey reports on HIV AND AIDS; reports on migration, urbanisation etc.).

The major source of data is the Population Census of 2011 database provided by Stats SA. This is the latest updated source of information that exists for tracking development indicators at provincial and district level. The research also sourced data from previous censuses, community surveys, general household surveys, living condition surveys, labour force surveys and demographic and health surveys and similar authoritative data sets to track changes over-time for the Mpumalanga province. In addition, the research employed rapid policy appraisal techniques and reviews of population-related programme assessments that add useful insights into the themes identified in this project.

Additional data were obtained from published research reports and official documents on various issues relevant to population, environment and development in Mpumalanga province. The research team will consult with DSD team on published and unpublished official reports available. All other relevant departments in the province will also be sourced for the same purpose. In addition, reports available on websites were also retrieved in the course of literature review and relevant data collected.

The key research questions/issues which will be addressed by data from secondary sources are the following:

- Trends in provincial population size
- Trends in population growth rates
- Fertility trends
- Mortality trends
- Trends in the health indicators, including disease patterns
- Migratory trends
- Trends in life expectancy
- Trends in population age and sex composition
- Trends in family size
- Trends in marital status of the adult population
- Trends in household population size and composition
- Trends in urban and non-urban population composition
- Formal and informal settlements
- Trends in the educational composition of the population
- Trends in enrolment rates at all levels of education
- Trends in completion rates at primary and secondary levels of education
- Trends in matriculation
- Trends in the subscription to tertiary education by age and sex
- Trends in labour force participation rates
- Trends in employment and unemployment by age and sex
- Trends in the occupational composition of the labour force
- Trends in the industrial composition of the labour force
- Changing patterns of population distribution and density.

The major focus of this report is on the promise of demographic dividend for Mpumalanga province. Based on demographic data analysis, the report presents the stage of demographic transition attained by the province and the promise of the dividend.

A model has been developed to illustrate the demographic, social and economic dimensions involved in the process. Model calculations have also been made to determine the requirements for the dividend and the opportunities generated by the 'window'. The report presents alternative scenarios in the model to demonstrate the opportunity costs of not addressing the policy aspects of demographic dividend.

3.2.2 Primary data

In order to address the deeper social and economic concerns of the population, this study also collected data using interview schedules from selected respondents across the spectrum of the social and economic categories that define the provincial population. Most of the data were collected from selected groups using focus group interview approach, but selected community leaders and public policy and decision-makers will be interviewed to seek their views of policy implementation capacity and future direction of population policy.

Sampling was purposeful and the selection of respondents was done in collaboration with the DSD team in clusters around specific social, economic and population issues that affect the province. The focus is on youth in both urban and rural areas of the province, including:

- Young women on social grants (teenage pregnancy)
- Youth and employment
- Youth and homelessness
- Youth clubs/development process – inclusiveness
- Youth and service delivery
- Youth and education: Early childhood development (ECD); primary; secondary; vocational; university.

Group discussions provided information that deepens the interpretation of population trends and characteristics, as well as serving as a source of information for making assumptions that are required when making population projections.

The key research questions/issues addressed in focus group discussions include, but are not limited to the following:

- Health

  What are the major health issues in the province? Why?

  To what extent are these concerns being adequately addressed by the provincial/municipality government?

  What are the barriers to accessing public health services and facilities?

  What should be the role of individuals and the community in promoting healthy living?

  Who needs to do what in order to ensure adequate provision and utilisation of public health facilities and services?

- Education

  What is the value of education and whose responsibility is it to provide education?

  What is your opinion regarding the quality of education at all levels in the province/municipality?

  Why are learners not sufficiently motivated?

  What is your impression of teachers in primary and secondary schools?

What are the challenges facing the education system in the province/municipality? Suggested solutions?

Why are some learners dropping out of school? What should be done to achieve 100% retention in schools?

What happens when a child drops out of school? How should government and or the community do to assist?

What role should the family play in children's education?

- Poverty

  Who are the poor people in your community? Do you think they are poor or do they know that they are poor?

  Why do you think people become poor?

  What should be done by individuals, families, the community or government to lift the poor out of their situation?

  What is your opinion of government efforts to alleviate poverty in the province?

  What is your view on employment of youth in the province? What should be done?

  Do you see any relationship between the number of children in a family and poverty? What is the link? What should be done?

  Is there a link between poor health and poverty? What should be the solution?

  What do people in rural areas do to cope with poverty?

  What do poor people in urban/informal settlements do to cope with poverty?

What should be done about the phenomenon of informal settlements?

- Family

  What are your views on the family in the province? What should be done to protect disintegration of the family?

  What challenges do families seem to be facing? What should be done to support them?

  Is teenage pregnancy a problem in families?

  How does a family see a pregnant teenager through life after childbirth?

  How does teenage pregnancy affect a girl's education, employment and poverty status? What should be done?

  Is family size relevant to poverty?

  What are your views on marriage in general?

- Social cohesion

  Comment freely on crime in the province and in your community.

  What are your views on alcohol use and misuse? What should be done, and by who?

  What are your views on domestic violence? What should be done?

  What are your views on gender-based violence, including rape? What should be done?

  What are your views on child abuse? What should be done?

What are your general impressions of foreigners who migrate here? What should be done to accommodate them?

- Environment

  What are your views on environmental protection in your community and in the province?

  Do you think there are threats to the environment in any community or area in the province?

  Comment freely on homelessness and overcrowding in some places.

  Is there enough environmental education for all?

  What are the sources/agents of pollution in the province?

  How can the province be cleaned up?

- Policy and programme management

  To what extent are the different policies and programmes in the province integrated?

  What should be done to achieve integrated population and development in the province?

  Deriving from the national population policy, what are the major policy issues on population and development in Mpumalanga?

  How should these issues be addressed in programming?

3.3 Consolidation of data, analysis and synthesis of information

In order to consolidate data from all sources, the analysis derived appropriate demographic, social, economic and environmental indicators in respect of policy and strategy directions being implemented and the effect on the provincial population at individual, family, community levels.

3.3.1 Consolidation of data

Data collected were consolidated through deriving demographic measures and population indicators appropriate to the analytical work to be carried out.

Population indicators

Population size; growth rate of population per annum; projected population size; percentage population urban; urban growth rate; total fertility rate; mortality rates (maternal, infant, under-five, etc.); life expectancy by sex, etc.

Social indicators

a) Education: Literacy (in any language); school enrolment; retention rate among learners; pass rate at matriculation level; subscription to university education; vocational education and teachers' training institutions; etc.
b) Health: percentage of population with access to basic health care; morbidity measures (including prevalence and incidence of diseases such as HIV and AIDS), etc.
c) Housing: Households and household socioeconomic characteristics; average household size; household headship by age and sex; housing conditions; access to electricity; access to pipe-borne water; sanitary facilities, etc.

Economic indicators:

Provincial contribution to the GDP; unemployment rate by age and sex; youth employment by sex; occupational specialisation; industrial distribution of the labour

force; labour force participation by sex and age; household gross earnings per annum; pattern of household expenditure; percentage below national poverty line, etc.

Environmental indicators

Environmental degradation; soil erosion; soil fertility; over-farming/grazing; drought; environmental sanitation; pollution index; etc.

3.3.2 Analysis and synthesis of information

Analysis and synthesis of data were done, including population projections and application of statistical techniques in the analysis of data from primary sources.

The study explores the range of available demographic models for estimating and projecting population by components. Reflecting on the National Development Plan (2014), the question is asked: What is the population of Mpumalanga likely to look like, say by 2030 or beyond?

The most commonly used models are consolidated by SPECTRUM, a Windows-based system of integrated policy models. This study employed *Demography DemProj* for making population projections. This is a program to make population projections based on i) current population; and ii) fertility, mortality, and migration rates for a country or region. Input data for the projection include: total population by age and sex in the base year; the total fertility rate over time; the age distribution of fertility; life expectancy at birth in the absence of AIDS; the age pattern of mortality; and the number and distribution by age and sex of international migrants.

Data analysis using primary data is based on an agreed tabulation plan, as basis for producing a series of frequency and cross-tabulated tables. For this type of research involving multiple dependent and independent variables in which there is a need to show general distribution of sample by each variable, relationships among variables, means and proportions and their variance distributions, and test for significance as well

as demonstrate relationships in testing hypotheses, the following sequence of statistical applications may be used: Patterns and strength of association; measures of central tendency – mean, mode and median values; measures of dispersion – variances and standard deviations; significance tests of means; and proportions and correlations.

Research risks and limitations

The major risks associated this this research relates to data collection and management processes.

Regarding data collection, while there is much assurance of obtaining most of the secondary data through document searches and institutional enquiries, the same cannot be said about data from interviews and focus group discussions. Social investigations of this nature are often prone to refusals by respondents, poor response and unavailability for interview or meetings. Quality assurance was exercised to ensure that response rate is not so low as to cast doubt on the integrity of the data collected.

Management processes are such that the service provider does not have control on signing of the contract in time, document collection and facilitation of interviews at institutional level, ensuring that those invited to workshops actually attend and participate effectively. Lastly, the process of peer review of documents can also be delayed by collaborating partners. The service provider will provide the steering committee with early warning signs of any potential delays.

ANNEXURE B: TERMS OF REFERENCE

MPUMALANGA PROVINCIAL GOVERNMENT

Building 3
No 7 Government Boulevard
Riverside Park
Nelspruit 1200
Republic of South Africa

Private Bag X11213
Nelspruit
1200
Tel: +27 13 766 3428
Fax:+27 13 766 3456 / 57

Department of Social Development

Litiko Lokuthuthukiswa Kwesive UmNyango WezokuThuthukiswa KomPhakathi Departemente van Maatskaplike Ontwikkeling

TERMS OF REFERENCE FOR THE DEVELOPMENT OF THE STATE OF MPUMALANGA POPULATION REPORT

INVITATION: APRIL 2014

The department of Social Development invites research agency to submit proposal for a research project about the State of the Mpumalanga Population.

1. BACKGROUND:

The South African Population Policy is one of the explicit population policies across the globe. This Population Policy, as influenced by the International Conference on Population and Development (ICPD) held in Cairo in 1994 "emphasizes the shift to a sustainable human development paradigm which places population at the centre of all development strategies and regards population as the driving force and ultimate beneficiary of development". The policy was adopted in 1998 and it clearly articulates the government's position with regards to population and development relationship. This position that the government has taken is also confirmed by the policy's vision as it states that it is "to contribute towards the establishment of a society that provides a high and equitable quality of life for all South Africans in which population trends that are commensurate with sustainable socio-economic and environmental development". The goal of the policy is also coined in a way to contribute to the realisation of the vision of the policy. The goal of the South African Population Policy is "to bring about changes in the determinants of the country's population trends, so that these trends are consistent with the achievement of sustainable human development" (Population Policy for South Africa, 1998).

Since the dawn of democracy in South Africa, which gave birth to the population policy, a lot has been done working towards sustainable human development. However, a story still needs to be told in Mpumalanga Province on how the province is doing with regards to the determinants of the province's population trends. This would help in chatting a way forward on how best to respond in ensuring that the province's population trends are indeed commensurate with sustainable development. In the light of this, the

province would like to develop a “State of Population Report”, which would be used as an advocacy tool to be used to influence the determinants of the province’s population trends in support of the population policy objectives. However, this report should not be the traditional state of population report, but will be structured according to themes identified as the key focus areas. These themes are as follows:

1) Demographic factors influencing population trends
1.1 Fertility,
1.2 Mortality and
1.3 Migration.
2) Implications of population trends for:
2.1 Youth and the ‘demographic dividend’;
2.2 Education;
2.3 Employment;
2.4 Sexual reproductive health and rights;
2.5 Aging;
2.6 Rural population
2.7 Urbanization
2.8 Gender, household and the family
2.9 Population dynamics and the environment
3. Policy implications of population dynamics in Mpumalanga province
4. From policy to action

The above-mentioned factors in population dynamics and the socioeconomic, demographic and environmental consequences on Mpumalanga province should be analysed with a view to responding to the following questions:

- Where is the province in relation to the themes?
- What does that mean for the overall development of the province?
- What are the policy implications of projected trends in population?
- What should be done, in terms of policy and programme, to ensure that these themes contribute towards the realisation of sustainable human development in the province?

2. AIM

The aim of the project is to compile a comprehensive State of the Population Report that will place emphasis on sustainable human development that is attained through integrating population issues into plans and programs.

3. OBJECTIVES

1. To highlight population issues that need to be considered to attain sustainable human development.
2. To formulate recommendations about population and human development related issues.

3. To compile a comprehensive research report and make three presentations about the research findings to the project management team, Senior managers in the Department of Social Development in Mpumalanga, as well as the Mpumalanga provincial cabinet

THE SCOPE OF WORK

The service provider will design and conduct a study about the state of Mpumalanga population. The study will include desktop research with a variety of data sources. The data sources could include data banks and reports, interviews, historical data and trends to cover all dimensions of the project's study. The quality of data with respect to accuracy, reliability and validity is crucial to the study.

The service provider will be expected to work closely with the project coordinator(s) of the Department of Social Development. The proposal to undertake this study should include a plan to indicate how the study will be executed from planning phase to the delivery of the final report.

Specific activities related to the scope of work

- Design a comprehensive study in consultation with the project management team;
- Conduct the research study in the three districts of Mpumalanga utilising the tools and methods developed;
- Provide a clear methodology for sampling.
- Develop data collection techniques, formats and guidelines;
- Develop instruments for data collection of the information required in consultation with the Department of Social Development.
- Pre-test the research instrument
- Compile, analyse and validate the data collected for the research study and produce a report
- The service provider will be required to undertake a comprehensive review of the literature; this will enable the department to publish the study.
- Design and develop an electronic database and appropriately store data from the baseline study in an easily accessible format both electronic and hard copies;
- Capacitate Department of Social Development research team officials with a view to develop skills in sampling, collecting, analysing, validating and consolidating data for an analytical report;
- Participate in project management team meetings;
- Submit monthly progress reports
- The report should be subjected to peer review before it is presented to the department for final approval
- Present the draft report to the project management team.
- Present the final draft report to the Department's senior managers.
- Present the final report to Mpumalanga Provincial Government Cabinet

Assumptions underlying the intervention:

The intended success of the research study is based on the following assumptions and conditions:
The service provider has an understanding of the Mpumalanga province where the assignment will be undertaken;

- The service provider has understanding and experience in research methodologies;

- The service provider has expertise in research and baseline studies;
- The service provider has the necessary capacity to undertake the study;
- The service provider will deliver on the Terms of Reference in alignment with Project Implementation Plan and the proposal;
- The service provider will complete the work within the agreed time frame;
- The service provider will ensure commitment and responsibility in the undertaking of the study

EXPECTED OUTPUTS OF THE WORK

The expected outputs are:

- A comprehensive research study design and plan outlining the execution phase with clear time-frames. This should include: The sampling method, the data collection plan, methodologies utilised during the study; and research tools; An analysis of the collected data; research risks and limitations; reflections on the methodologies utilized during the design and execution phases;
- Recommendations;
- A professional edited comprehensive and detailed report of all procedures, processes, findings and recommendations, including a synopsis and an executive summary in hard copy as well as an electronic version.
- An MS Word format, 12 pitch, Arial font, should be used
- An accessible (electronic and hardcopy) database with all the data collected during the study; including all completed questionnaires; codebooks and any other relevant documentation must be submitted to the Department together with the final results before payment will be made. Any further analysis of the data by the service provider and other researchers must be done with the written permission from the head of the Department of Social Development.
- MS Power Point presentation of findings
- A detailed report regarding capacity building provided/ convey to the Department of Social Development research team

REQUIRED EXPERTISE OF THE SERVICE PROVIDER

General requirements:

- A detailed description of the planning for all the stages, including the research methodology, data analysis and the framework for the presentation of results,
- A schedule of milestones and deliverables that would facilitate the monitoring of the research process, keeping in mind that this will require presentations, reporting and/or consultations with the Department of Social Development, after the completion of each stage.
- A detailed time schedule considering that the final report has to be submitted before 15 February 2015.

Specific requirements from the service provider:
The agency or an individual engaged to conduct the project should have the following:

- Relevant educational qualifications;
- Relevant quantitative and qualitative research skills;
- Research expertise and experience;
- Ability to communicate effectively;

- Gender, cultural balance, sensitivity, and language skills;
- A high standard of professionalism;
- Ability to work independently and with teams;
- CVs of individual research team members

TIMELINES AND PROGRESS REPORTS

The exact timeframe for this assignment will be negotiated in line with the proposal submitted by the successful service provider. The methodology proposed by the service provider and the budget available for this assignment will to some extent influence the duration of the assignment.

BUDGET

- Service provider will submit a budget breakdown. The budget presented should be VAT inclusive.
- Original signed invoices must be submitted according to the payment schedule with the necessary outputs as per agreed and signed contract.
- The budget of the study should be based on the 90/10 principle.

SPECIAL CONDITIONS OF THE TENDER:

- The service provider should take into account that all product outputs will be the *property* of the Department of Social Development.
- Copyright of this work will be reserved under the Copyright Act of the Republic of South Africa, (Act 98 of 1978) and the provisions of the Berne Convention.
- All deliverables related to the research, or parts thereof, in any form or format whatsoever, may not be reproduced or used in any matter or by any means without prior permission in writing from the provincial Department of Social Development.
- The Department of Social Development will appoint a project manager to monitor progress and to evaluate the final result of the project. This person will work together with a project management team comprising of different stakeholders with basic knowledge about the research area.
- The Department will be responsible for payment to the service provider upon successful completion and presentation of the research project
- Note that the Department of Social Development will not provide any resources or facilities to the research agency.

EVALUATION OF PROPOSAL

The following aspects will be considered during the awarding of the tender:

- Acceptability of the research design relevant to the study.
- The ability of the service provider to adhere to the time frame.
- Organisational capacity in terms of the facilities and resources to be provided and / or utilized by the research agency.
- The experience and expertise of the research team in research field as indicated in their CVs.

A 90/10 principle will be considered.