Statistics South Africa

The South Africa I know, the home I understand

Statistical release

P0309.3

Mortality and causes of death in South Africa, 2013: Findings from death notification

Embargoed until:
02 December 2014
11:00

Enquiries:

User Information Services
012 310 8600

Forthcoming issue:	Expected release date
2014	November 2015

170 Thabo Sehume Street, Pretoria 0002, Private Bag X44, Pretoria 0001, South Africa
Tel: +27 12 310 8911, Fax: +27 12 310 8500, www.statssa.gov.za, info@statssa.gov.za

Mortality and causes of death in South Africa, 2013: Findings from death notification / Statistics South Africa

Published by Statistics South Africa, Private Bag X44, Pretoria 0001

Stats SA Library Cataloguing-in-Publication (CIP) Data
Mortality and causes of death in South Africa, 2013: Findings from death notification / Statistics South Africa. Pretoria: Statistics South Africa, 2014

135 pp

A complete set of Stats SA publications is available at Stats SA Library and the following libraries:

National Library of South Africa, Pretoria Division
National Library of South Africa, Cape Town Division
Library of Parliament, Cape Town
Bloemfontein Public Library
Natal Society Library, Pietermaritzburg
Johannesburg Public Library
Eastern Cape Library Services, King William's Town
Central Regional Library, Polokwane
Central Reference Library, Nelspruit
Central Reference Collection, Kimberley
Central Reference Library, Mmabatho

This report is available on the Stats SA website: www.statssa.gov.za

Copies are obtainable from: Printing and Distribution, Statistics South Africa

Tel: 012 310 8358
012 310 8093
Email: magdaj@statssa.gov.za
inadp@statssa.gov.za

Technical enquiries

Tel: 012 337 0250
Email: ntsikim@statssa.gov.za

Preface

This statistical release presents information on mortality and causes of deaths in South Africa for deaths that occurred in 2013 and were registered at the Department of Home Affairs. It is based on all death notification forms received and processed by Statistics South Africa in 2014. Statistics for deaths that occurred in the previous years (1997–2012) are also included to show trends in mortality and causes of death.

PJ Lehohla
Statistician-General

Contents

List of tables

List of figures

1. Introduction

1.1 Background

Socio-economic planning and monitoring requires information on both the number of deaths and the causal sequences that led to the deaths (UN, 2004). Ye et al. (2012) stated that one of the best ways to help the living is by counting the dead, establishing the characteristics of those who died and the underlying causes based on data from civil registration systems. Such data are an essential component of population health status and are required for identifying priority areas; and for evidence-based policy-making and programme implementation.

Comprehensive, efficient and effective records of deaths from the civil registration systems are among some of the sources of information on mortality and causes of death statistics (UN, 2014). This information is invaluable for the assessment and monitoring of the health status of populations. However, for most African countries, civil registration and vital statistics systems are non-existent or incomplete (UNECA, 2011), which has led to failure to establish well-functioning health systems.

The registration of deaths in South Africa falls under the mandate of the Department of Home Affairs (DHA) and is governed by the Births and Deaths Registration Act, 1992 (Act No. 51 of 1992) (Republic of South Africa, 1992). This Act was last amended in 2010, with the regulations of the Act revised in 2014. The death notification form used to register deaths in South Africa provides legal evidence of death and is used to compile national statistics on mortality and causes of death. After the death registration process is completed, a death certificate is issued. All death notification forms are then collected by Statistics South Africa (Stats SA) regularly for data processing, analysis, publication and dissemination of statistical releases and datasets on mortality and causes of death.

South Africa has made great strides both in terms of coverage and timely registration of deaths; improvements in the quality of data; and continuous production of mortality and causes of death statistics based on international standards. The South African government is currently undertaking a comprehensive assessment of the civil registration system with the view of providing the evidence required to prioritise interventions for strengthening the civil registration and vital statistics systems in the country. The assessment focuses on births; deaths and causes of death; stillbirths; marriages; and divorces. The assessment involves determining strengths and weaknesses of the current civil registration systems, drawing lessons from what has worked over time and how improvements have been made or can be made and sustained.

1.2 Objectives of this statistical release

The mortality and causes of death statistical release is an annual publication by Stats SA. The information used to produce this release is obtained continuously from the South African civil registration system. The statistical release has two main objectives:

- To outline trends in mortality from 1997 to 2013 and differentials of mortality by selected demographic and geographic characteristics in 2013; and
- To present statistics on the causes of death for deaths that occurred in 2013, focusing on the underlying causes of death.

1.3 Scope of this statistical release

All death notification forms for deaths that occurred in 2013 or earlier, that were registered at DHA and reached Stats SA during the 2014 processing phase have been used to produce this statistical release. The release also provides information on deaths that occurred between 1997 and 2012 and processed in 2014 (updated for late registrations or delayed transfer of forms) to show trends in mortality and causes of death. This release excludes stillbirths, which are also registered using the same death notification form. The definitions of technical terms used in this release are provided in Appendix A.

1.4 Organisation and presentation of this statistical release

The release has five sections. This first section (introduction) provides the background information, objectives and scope of this statistical release.

Section two provides an overview of the data sources and methods used in data processing and data analysis.

Section three deals with registered deaths and focuses on the levels, trends and differentials in mortality. Specific emphasis is placed on age and sex differentials. The distribution of deaths by population group, marital status, place or institution of death, province of death occurrence and province of residence are also provided in this section.

Information on the underlying causes of death for all deaths registered in 2013 is presented in section four. Comparisons with data from 1997 to 2012 have also been included. Additional analyses on natural versus non-natural causes and communicable versus non-communicable causes are also undertaken.

Finally, section five presents a summary of main finding and concluding remarks.

2. Data and methods

This section provides information on data sources; data processing methods; assessment of the quality of data; and data analysis procedures applied.

2.1 Data source

Administrative records from the Department of Home Affairs (DHA) are the exclusive data source used to produce this statistical release. Two death notification forms are currently used by the DHA to register deaths: Form BI-1663 and Form DHA-1663 (see appendices B and B1, respectively). Statistics South Africa (Stats SA) obtains all the death notification forms; processes the data; and publishes statistics on mortality and causes of death. This statistical release covers deaths that occurred in 2013 and were registered at DHA, including deaths for the period 1997−2012 to show trends in the mortality profile of the country.

The Births and Deaths Registration Act, 1992 (Act No.51 of 1992) last amended as the Births and Deaths Registration Amendment Act, 2010 (Act No.18 of 2010) is the legislative framework governing the registration of deaths in South Africa (Republic of South Africa, 1992; Republic of South Africa, 2010). In terms of section 32 of the Births and Deaths Registration Act, 1992, the DHA published the Regulations on the Registration of Births and Deaths in 2014 (Republic of South Africa, 2014). Based on these regulations informants should now give notice of death within 72 hours of death occurrence.

The Births and Deaths Registration Act, 1992 (Act No. 51 of 1992) states that for deaths due to natural causes, a medical practitioner must certify the cause of death and issue a prescribed certificate to that effect, irrespective of where the death occurred. However, if the medical practitioner is of the opinion that the death was not due to natural causes, he/she shall report such a death to a police officer. Subject to the provisions of the Inquest Act, 1959 (Act No. 58 of 1959), the police officer shall investigate the circumstances of the death and a district surgeon or any other medical practitioner shall issue a prescribed certificate in that regard (Republic of South Africa, 1992). In instances where a death occurs in remote areas where there is no medical practitioner within reasonable distance to certify the cause of death, a chief or tribal leader completes form DHA-1680 (see Appendix B3), as confirmation of death occurrence. BI-1663 or DHA-1663, without the cause of death information, will then be completed for death registration purposes.

Although the BI-1663 form is still being used in some areas, it has been replaced by form DHA-1663. The BI-1663 form will continue to be used until its stock is depleted. The major difference between the two forms is in the registration of perinatal deaths. The DHA-1663 has a dedicated section for recording causes of death for perinatal deaths, whereas the BI-1663 records perinatal deaths in the same section as all other deaths. However, most data elements in the two forms are comparable, which allowed for the merging of information from the two forms into one dataset for the analysis on trends.

A total of 458 933 deaths that occurred in 2013 were registered at DHA and reached Stats SA in time for the 2014 data processing phase, thus forming the basis for this release. About 86,3% of these deaths were registered using the DHA-1663 form, while the remaining 13,7% were registered using the BI-1663 form. As expected, the use of BI-1663 continues to decline.

2.2 Data processing

Stats SA collects all completed death notification forms from the DHA head office for data processing. The main stages of data processing include pasting labels with unique identifiers on each form; coding information on occupation; coding information on causes of death; capturing the data; and deriving the underlying causes of death.

Classification of the causes of death

The cause-of-death information is coded using the International Classification of Diseases, tenth revision (ICD-10), as published by the World Health Organization (WHO, 1992). The tool was developed by WHO to promote international comparability in collection, processing, classification and presentation of mortality statistics (WHO, 2009). The ICD-10 has been adopted by all member states of the United Nations (UN) as the standard classification system. The tool enables countries to monitor and evaluate the prevalence of health problems and compare and share information in a consistent manner. The International Classification of Diseases (ICD) is revised from time to time to incorporate changes in medical knowledge and currently the tenth edition is under review.

The ICD-10 contains approximately 8 000 categories of causes of death. It provides information on assigning causes of death and coding in terms of disease, injury and a wide variety of symptoms and other abnormal findings. Furthermore, it provides a standard for certifying causes of death, definitions, as well as regulations on the use of the classification system and other guidelines on collecting internationally standardised mortality statistics. The ICD-10 is organised into chapters covering communicable diseases, other diseases that may affect the whole body, localised diseases by site, developmental diseases, injuries and external causes. The quality of the causes of death data depends heavily on the completeness and quality with which the death notification form was completed and on the accuracy of coding. Stats SA follows the principle of '*what you see, is what you code*' in coding information on causes of death provided by certifying officials.

The coders use the ICD-10 for categories of causes of death coded in the ICD-10 manual. For diseases that are not coded in the manual, Stats SA has outlined specific guidelines. For instance, *immunosuppression* is coded as *immunodeficiency*, not as *human immunodeficiency virus (HIV) disease*. The cause of death is sometimes reported as *acquired immune suppression* which is not coded in the ICD-10 manual. According to Stats SA coding procedures, this term is interpreted as *HIV disease* and given an *HIV code (B20-B24)*. If *HIV* was written on the form, this is also coded in the *HIV* group, as prescribed by the ICD-10 manual. Codes U51 and U52 are assigned to *multidrug-resistant tuberculosis (MDR-T*B) and *extensively drug-resistant tuberculosis (XDR-TB)* respectively, and included in the *tuberculosis (A15-A19)* broad group of causes of death. The processing of the 2013 data on causes of death used four-character coding where sufficient details were provided. However, analysis in this statistical release is based on three-character categories for underlying causes. A dataset that is published subsequent to this statistical release includes all details available for individual causes and for the underlying causes of death.

Automated generation of the underlying causes of death

Once the causes of death given on the death notification forms have been coded, Stats SA uses a software programme called Automated Classification of Medical Entities (ACME 2011) to automatically derive the underlying cause of death. The ACME programme was developed by the United States National Center for Health Statistics (NCHS) and applies the World Health Organization (WHO) rules on the selection of the underlying cause of death. In addition, an interactive computer based system called IRIS, which also automatically selects the underlying cause of death, was used for comparison with results from ACME. It is anticipated that IRIS will be used in future for the coding of causes of death data.

Both ACME and IRIS were used in deriving the underlying cause of death. Both programmes derived the same underlying cause for 94,1% of the death notification forms. This allowed for the usage of results from one programme where the other failed to derive the underlying cause. An additional 4,3% underlying causes of death were derived by ACME only. There were 1,6% records where both programmes derived different underlying causes and experienced coders manually applied causes of death rules to derive the final underlying cause of death.

2.3 Data editing

When all stages of data processing had been completed, the Stats SA editing rules were applied to the data to check for accuracy and to flag implausible cases for investigation. In addition, two electronic tools: version 2.0 of the "Analysing mortality levels and causes-of-death" (ANACoD) and version 1.0 CoDEdit, developed by the World Health Organization (WHO) were used to assess the quality of the causes of death in order to enhance their value in informing health policies and programmes.

The ANACoD electronic tool was designed to comprehensively analyse mortality and causes of death data. The tool automatically checks the accuracy of data in terms of consistency and plausibility and highlights cases with causes that were unlikely to cause death generally, by specific ages and by sex (WHO, 2014a). These cases were manually investigated and this involved checking the cases against the original death notification form for verification and making corrections where necessary.

The CoDEdit electronic tool also assesses data consistency and plausibility. Its primary objectives are to warn and flag basic gross errors, alert about possible misuse of codes and finally provide a summary of the dataset (WHO, 2014b). For the 2013 mortality and causes of death, CoDEdit checked for notifiable diseases, errors in the use of ICD-10 codes as well as sex and age specific causes. The advantage of also using CoDEdit was that it provided unit record analysis, unlike ANACoD which checked for validity at an aggregate level. As was the case with ANACoD, the records with errors were validated against the death notification form and corrected.

2.4 Assessment of the quality of data

The quality of mortality and causes of death data can be affected by the completeness of death registration in a country; the timeliness of registering the death; the timeliness of publishing the statistics on deaths; accuracy of information provided; ill-defined causes of death; and misreporting of causes of death. A brief summary of the results of the assessment of the quality of data reported in this release in provided in this subsection. Detailed discussions covering each element of quality assessed are provided in Appendix C.

The estimation procedures used for estimating the completeness of death registration is dependent on the availability of census data. As such, the completeness of death registration estimated for the period 2007–2011 will be assumed for each year from 2012 until the results of the next census are available. This release assumes that the completeness of death registration for 2014 for adult deaths (15 years and older) is 94%. Estimation procedures for deaths occurring at ages younger than 15 years are still being explored.

This release provides statistics for deaths that occurred in 2013, indicating that it has taken 11 months since the last day in 2013 to publish the results. Furthermore, of the deaths that occurred in 2013 and were registered, 76,7% were registered within 72 hours as stipulated by the legislation in the country. There was also a reduction in the proportion of causes of death assigned to ill-defined causes to 12,7%.

Generally, age, sex, province of death occurrence and province of usual residence of the deceased were well-reported, each with less than 2% with missing information. Other variables such as population group, place or institution of death occurrence, method used to ascertain cause of death, marital status, smoking status, pregnancy status, education, occupation and industry well not well-reported, with missing information ranging from 13,5% for population group to 78,3% for pregnancy status.

2.5 Data analysis

The analyses undertaken in this statistical release included univariate analysis (frequency distributions) of deaths and ranking of the causes of death, bivariate analysis (cross-tabulations) of selected variables and calculations of median ages at death. The median ages at death provide a basic measure of how early or late mortality occurs in a population over time. These were calculated by sex and year of death from 1997 to 2013.

Additional analysis in the release included demographic indicators on sex ratios at death and age specific death rates that were computed for the years 2009 to 2013. The sex ratios at death show the ratio of male deaths per 100 female deaths, and age specific death rates show variations in mortality taking into consideration population size of each age group.

The analysis of the information on causes of death was mainly based on ranking the underlying causes of death and providing the proportions of deaths due to specific causes. Ranking the underlying causes of death is useful for showing the relative burden of cause-specific mortality. The ranking simply denotes the frequency of causes of death among those causes eligible to be ranked, and does not reflect the causes of death in terms of their importance from a public health perspective (Heron, 2012).

The top-ranking causes determine the leading causes of death. Causes of death that had the same number of deaths received the same rank and a rank was skipped for the next cause. For example, if two causes of death had the same frequency and were the top-ranked causes, they both received rank one, and the next cause received rank three.

In South Africa, natural and non-natural causes have been separated due to concerns about violence and deaths due to accidents. However, no ranking was done for non-natural causes of death. In ranking natural underlying causes of death, *symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified* (R00–R99), was excluded as this main group of underlying causes does not provide sufficient information for public health policy and planning. It is therefore essential, through training programmes and other initiatives, to raise awareness among certifying practitioners to seek sufficient evidence to assign causes of these deaths to the more precise categories.

Tables on mortality and causes of death for district municipalities in the country are presented in the appendices. Information on local municipalities is not provided in this release, but it can be made available to users on request. The boundaries for local and district municipalities as well as provinces are in line with 2011 municipal demarcations.

Data in this statistical release are presented in tables and graphs.

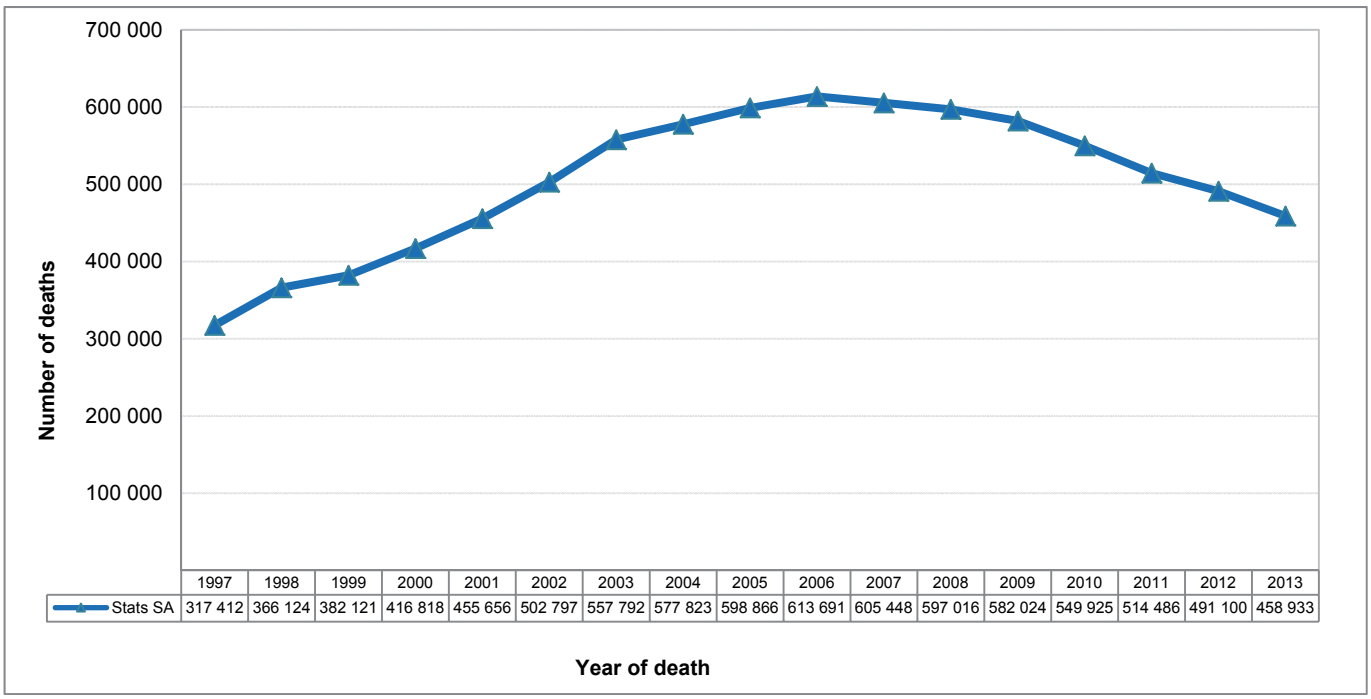
3. Mortality

This section covers all deaths that occurred in 2013; were registered at the Department of Home Affairs (DHA); and were processed by Statistics South Africa (Stats SA). Data are presented by selected socio-demographic and geographic factors, including age, sex, population group, place or institution of death occurrence and geographic information (province and district municipalities). The overall number of deaths is also provided by year of death for the period 1997 to 2013 to show levels and trends of mortality in the country.

3.1 Levels and trends of mortality

Figure 3.1 shows the number of deaths by year of death for the period 1997–2013. There was a total of 458 933 in 2013, indicating a decrease of 6,5% from the 491 100 deaths for 2012. The general pattern observed since 1997 is that the number of deaths increased consistently up to 2006, after which the number of deaths have continued to decline. These figures will be updated continuously as late registrations and delayed forms are processed at Stats SA.

Figure 3.1: Number of registered deaths by source of data and year of death, 1997–2013*



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Stats SA	317 412	366 124	382 121	416 818	455 656	502 797	557 792	577 823	598 866	613 691	605 448	597 016	582 024	549 925	514 486	491 100	458 933

*Data for 1997–2012 have been updated with late registrations / delayed death notification forms processed in 2014.

3.2 Age differentials

The distribution of deaths by age is presented in Table 3.1. The highest number of deaths that occurred in 2013 was amongst those aged 60–64, representing 7,4% of all deaths. This age group was followed by those aged 35–39 (7,0%). About 6,9% of all deaths occurred among those aged 40–44, 50–54, 55–59 and 70–74. Infant deaths (age 0 years) accounted for 5,7% of all deaths. The lowest percentages of deaths were observed in age groups 5–9 years and 10–14 years, each representing 0,7% of all deaths in 2013.

Table 3.1: Number and percentage distribution of deaths by age, 2013

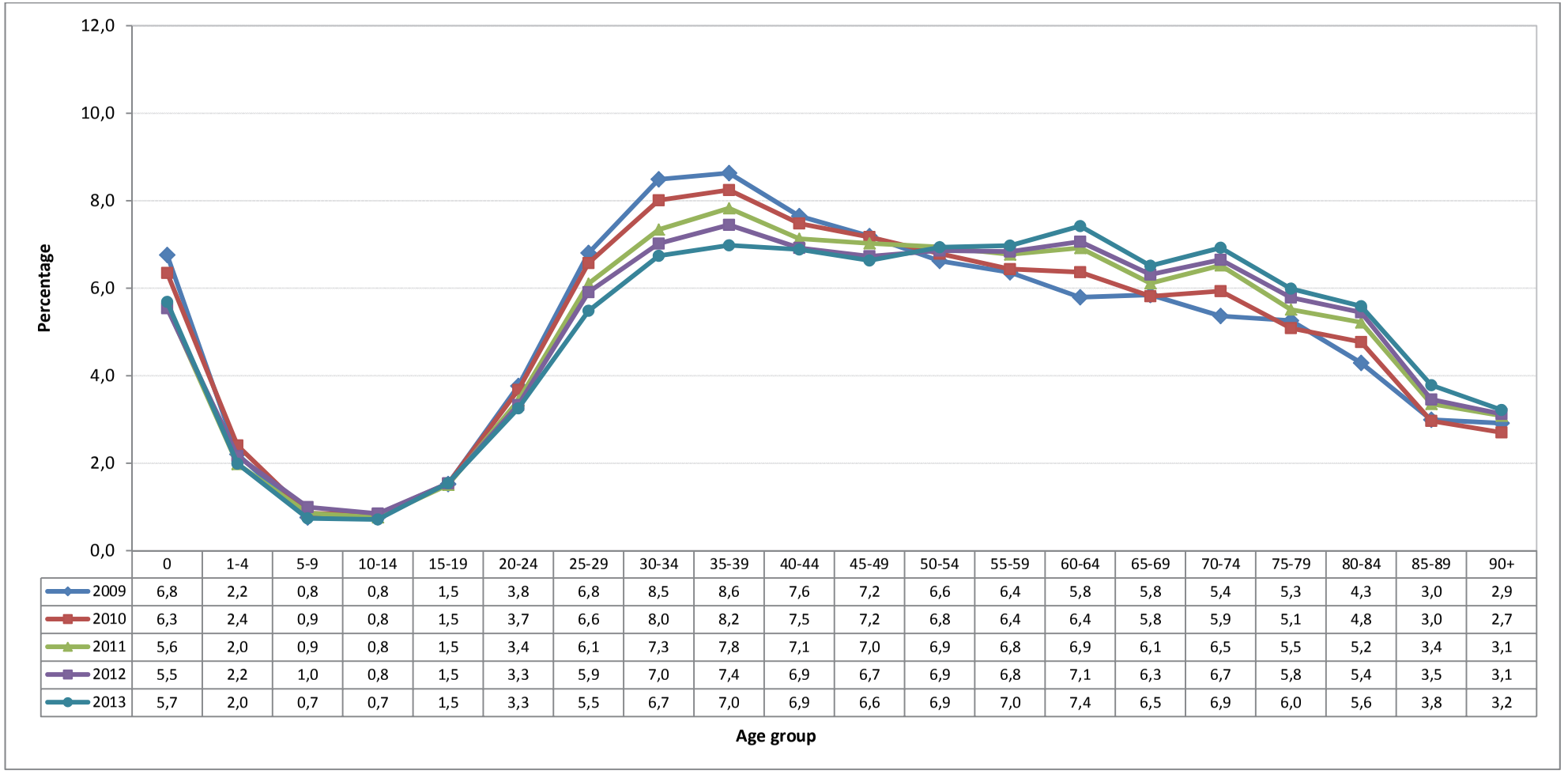
Age group	Number	Percentage
0	25 993	5,7
1–4	9 101	2,0
5–9	3 382	0,7
10–14	3 261	0,7
15–19	7 066	1,5
20–24	14 871	3,2
25–29	25 068	5,5
30–34	30 817	6,7
35–39	31 913	7,0
40–44	31 480	6,9
45–49	30 324	6,6
50–54	31 705	6,9
55–59	31 879	6,9
60–64	33 923	7,4
65–69	29 776	6,5
70–74	31 656	6,9
75–79	27 381	6,0
80–84	25 552	5,6
85–89	17 297	3,8
90+	14 705	3,2
Unspecified	1 783	0,4
Total	**458 933**	**100,0**

Figure 3.2 shows the age pattern of mortality between 2009 and 2013. In general, the age pattern of mortality was uniform over the five-year period, though there were declines in the proportion of deaths at younger ages (from age group 20–24 to age group 35–39) and increases at older ages (from age group 60–64 to age group 80–84). The figure further shows that the percentage of infant deaths (age 0) was 6,8% in 2009, after which it consistently declined to 5,5% in 2012, but increased slightly to 5,7% in 2013.

The highest proportion of deaths was amongst age group 35–39 for the period 2009 to 2012; while age group 60–64 constituted the highest proportion of deaths in 2013. For all the years, the lowest percentages of deaths were observed in the age groups 5–9 and 10–14, each representing less than one per cent of deaths.

The distribution of deaths from 1997 to 2013 by age and sex, updated with late registrations or delayed death notification forms processed in 2014 is provided in Appendices D (1997–1999), D.1 (2000–2002), D.2 (2003–2005), D.3 (2006–2008), D.4 (2009–2011) and D.5 (2012–2013).

Figure 3.2: Percentage distribution of deaths by age and year of death, 2009–2013*



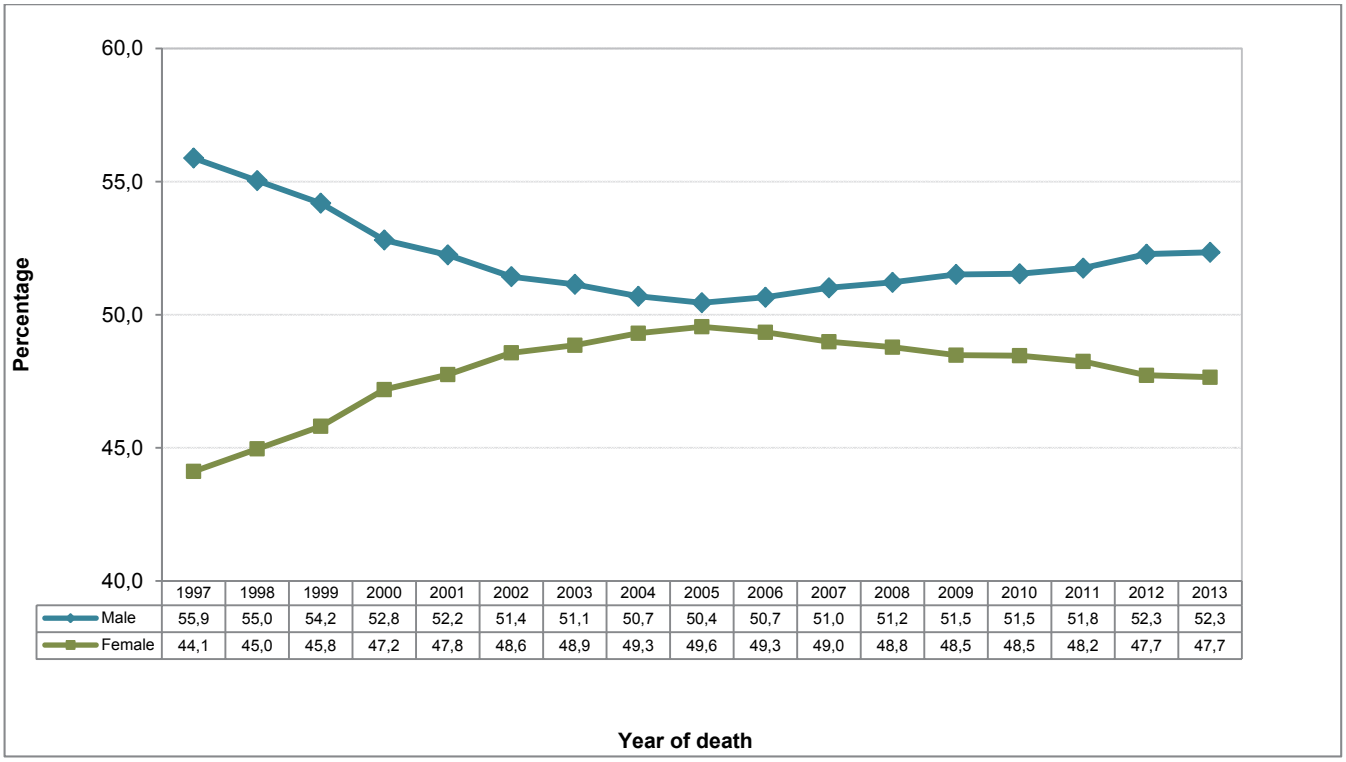
	0	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+
2009	6,8	2,2	0,8	0,8	1,5	3,8	6,8	8,5	8,6	7,6	7,2	6,6	6,4	5,8	5,8	5,4	5,3	4,3	3,0	2,9
2010	6,3	2,4	0,9	0,8	1,5	3,7	6,6	8,0	8,2	7,5	7,2	6,8	6,4	6,4	5,8	5,9	5,1	4,8	3,0	2,7
2011	5,6	2,0	0,9	0,8	1,5	3,4	6,1	7,3	7,8	7,1	7,0	6,9	6,8	6,9	6,1	6,5	5,5	5,2	3,4	3,1
2012	5,5	2,2	1,0	0,8	1,5	3,3	5,9	7,0	7,4	6,9	6,7	6,9	6,8	7,1	6,3	6,7	5,8	5,4	3,5	3,1
2013	5,7	2,0	0,7	0,7	1,5	3,3	5,5	6,7	7,0	6,9	6,6	6,9	7,0	7,4	6,5	6,9	6,0	5,6	3,8	3,2

*(1) Excluding deaths with unspecified age.
(2) Data for 2009–2012 have been updated with late registrations / delayed death notification forms processed in 2014.

3.3 Sex differentials

Figure 3.3 presents the percentage distribution of deaths by sex and year of death from 1997 to 2013. The results show that prior to 2006, the proportion of male deaths persistently decreased while that of female deaths increased. The reverse of this pattern was observed from 2006 for both males and females. The proportions of female deaths decreased yearly from 49,3% in 2006 to 47,7% in 2013. Conversely, the percentages of male deaths increased from 50,7% in 2006 to 52,3% in 2013. However, for all the years, the proportions of male deaths were higher than the proportions of female deaths.

Figure 3.3: Percentage distribution of deaths by sex and year of death, 1997–2013*



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Male	55,9	55,0	54,2	52,8	52,2	51,4	51,1	50,7	50,4	50,7	51,0	51,2	51,5	51,5	51,8	52,3	52,3
Female	44,1	45,0	45,8	47,2	47,8	48,6	48,9	49,3	49,6	49,3	49,0	48,8	48,5	48,5	48,2	47,7	47,7

*(1) Excluding deaths with unspecified sex.
*(2) Data for 1997–2012 have been updated with late registrations / delayed death notification forms processed in 2014.

The annual percentage changes in the number of deaths by sex from 1997–1998 to 2012–2013 are shown in Appendix E. Between 1997–1998 and 2004–2005, female deaths increased at a higher pace than male deaths. In 2005–2006, male deaths increased at a higher rate than female deaths. From 2006–2007 to 2012–2013, the number of deaths for both males and females decreased, with more notable decreases observed for female deaths as compared to male deaths. Both males and females observed their highest increases between 1997 and 1998. The largest declines for males were observed between 2010 and 2011, whilst amongst females the annual percentage changes in the number of deaths declined the most between 2010 and 2011.

Age Specific Death Rates (ASDR) were calculated for the period 2009–2013 and are shown in Appendix F. The ASDR provide an indication of the age pattern of mortality, taking into consideration the population size at each age. Generally, the age pattern of mortality was the same for the period 2009–2013, following relatively high rates of deaths in infancy (age 0), declining death rates from ages 5 to 19 and more rapid increases from age group 65–69.

3.4 Age and sex differentials

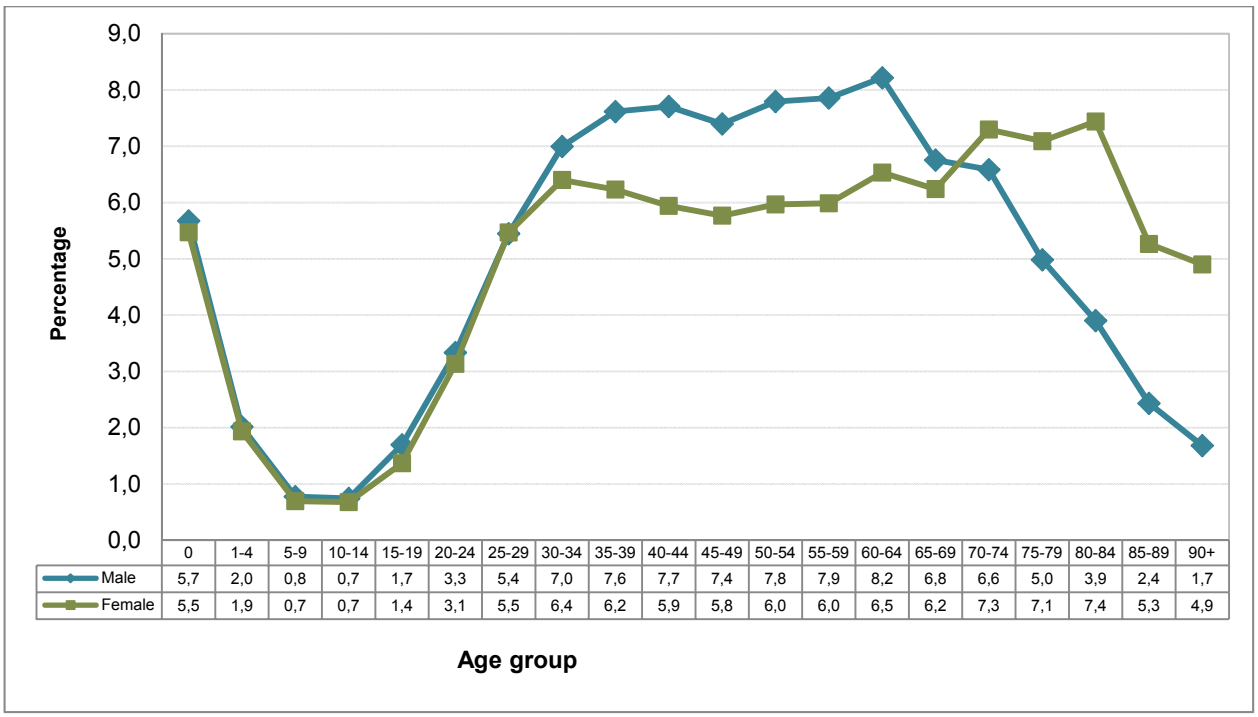
Percentage distribution

Figure 3.4 shows the percentage distribution of deaths by age and sex for 2013 (absolute numbers are provided in Appendix D.5). Three patterns are evident in the graph:

- For ages 10–14 and below, the proportions of deaths were somewhat similar for both males and females;
- Between age groups 30–34 and 65–69, the proportion of male deaths exceeded the proportion of female deaths; and
- From age group 70–74 up to 90 years and older, the proportion of female deaths exceeded the proportion of male deaths.

Figure 3.4 also shows that male deaths peaked at ages 50 to 64 [highest at age group 60–64 (8,2%)]. This pattern differs from what was observed in 2012 where male deaths reached a peak at age group 35–39 while age groups 50–54 and 55–59 both occupied the third highest position. Among female deaths, the highest proportion of deaths occurred between ages 70 and 84 [highest at age group 80–84 (7,4%), closely followed by age group 70–74 (7,3%) and 75–79 (7,1%)]. In 2012, the proportions of female deaths followed the same pattern with ages 70 to 84 contributing higher percentages to the total number of female deaths.

Figure 3.4: Percentage distribution of deaths by age and sex, 2013*



	0	1-4	5-9	10-14	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	85-89	90+
Male	5,7	2,0	0,8	0,7	1,7	3,3	5,4	7,0	7,6	7,7	7,4	7,8	7,9	8,2	6,8	6,6	5,0	3,9	2,4	1,7
Female	5,5	1,9	0,7	0,7	1,4	3,1	5,5	6,4	6,2	5,9	5,8	6,0	6,0	6,5	6,2	7,3	7,1	7,4	5,3	4,9

*Excluding deaths with unspecified age and unspecified sex.

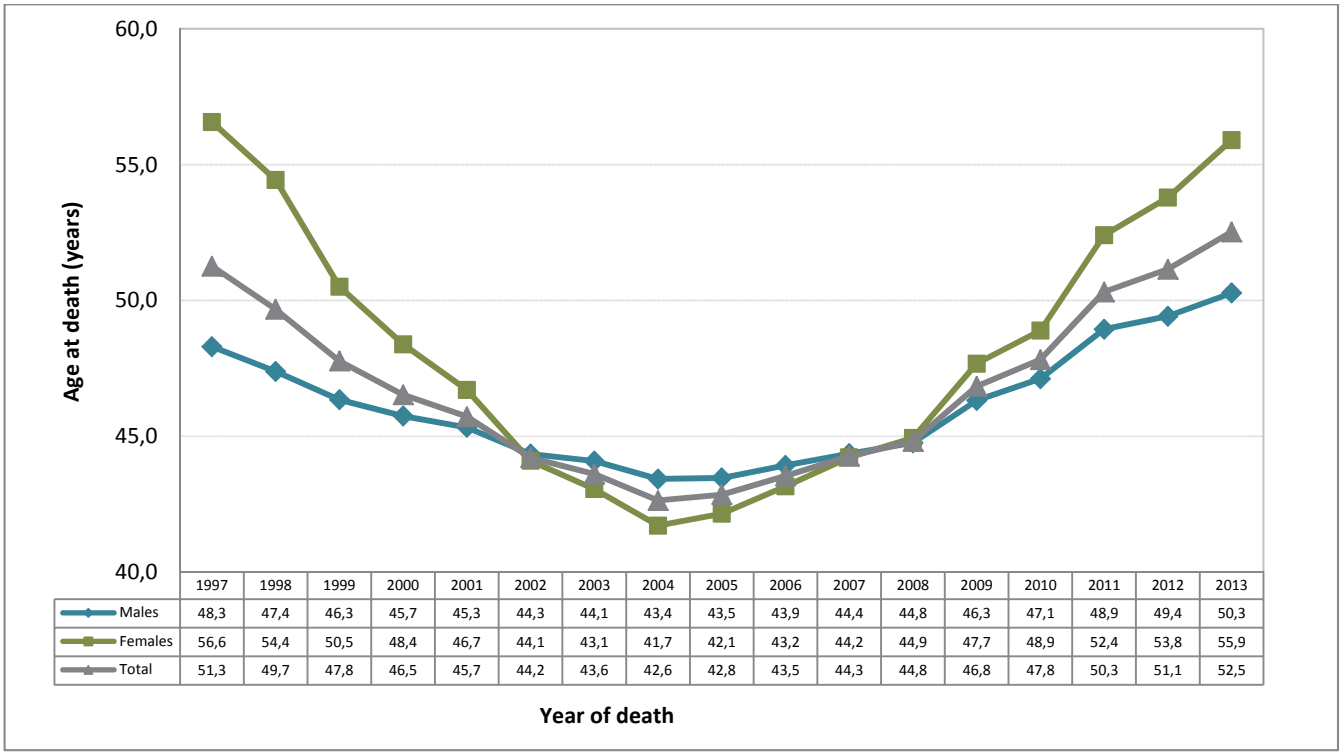
Median ages at death by sex

The median ages at death by sex and year of death for 1997 to 2013 are presented in Figure 3.5. The median age at death indicates the age at which exactly half of all registered deaths occur. A lower median age at death indicates that on average, mortality occurs early in a population while, a higher median age at deaths indicates that on average mortality occurs late in a population. Consequently, an analysis of median ages at death can reveal changes in age patterns of mortality over time.

Generally, the median ages at death depict two patterns of mortality over time. First, the period between 1997 and 2004 shows declining median ages at death. Second, the period between 2005 and 2013 shows increasing median ages at death, with more pronounced increases from 2009. The median ages at death for total deaths decreased from 51,3 years in 1997 and reached their lowest level of 42,6 years in 2004. That is, in 2004, mortality was occurring at earlier ages than it was in 2003 and in the preceding years. However, the decreases were more pronounced for females. The median age at death for females decreased by 14,9 years from 56,6 years in 1997 to 41,7 years in 2004, while the median age at death for males decreased by 4,9 years from 48,3 years in 1997 to 43,4 years in 2004. From 2005, the median ages for both sexes increased again gradually, indicating that mortality was occurring later in life.

A comparison between males and females shows that the median age at death for females was higher than that of males from 1997 to 2001, indicating that mortality was occurring earlier for males and later for females. The median ages then converged in 2002, after which the gap between male and female median ages at death widened. The period between 2003 and 2006 is characterised by earlier female mortality as opposed to later male mortality. By 2007, the median age at death for both males and females was around 44 years, increasing to about 45 years in 2008. From 2009 to 2013, female deaths started to occur at later ages than male deaths. In 2013, the median age at death for females was 55,9 years and 50,3 years for males.

Figure 3.5: Median ages at death by sex and year of death, 1997–2013*



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Males	48,3	47,4	46,3	45,7	45,3	44,3	44,1	43,4	43,5	43,9	44,4	44,8	46,3	47,1	48,9	49,4	50,3
Females	56,6	54,4	50,5	48,4	46,7	44,1	43,1	41,7	42,1	43,2	44,2	44,9	47,7	48,9	52,4	53,8	55,9
Total	51,3	49,7	47,8	46,5	45,7	44,2	43,6	42,6	42,8	43,5	44,3	44,8	46,8	47,8	50,3	51,1	52,5

* Data for 1997–2012 have been updated with late registrations / delayed death notification forms processed in 2014.

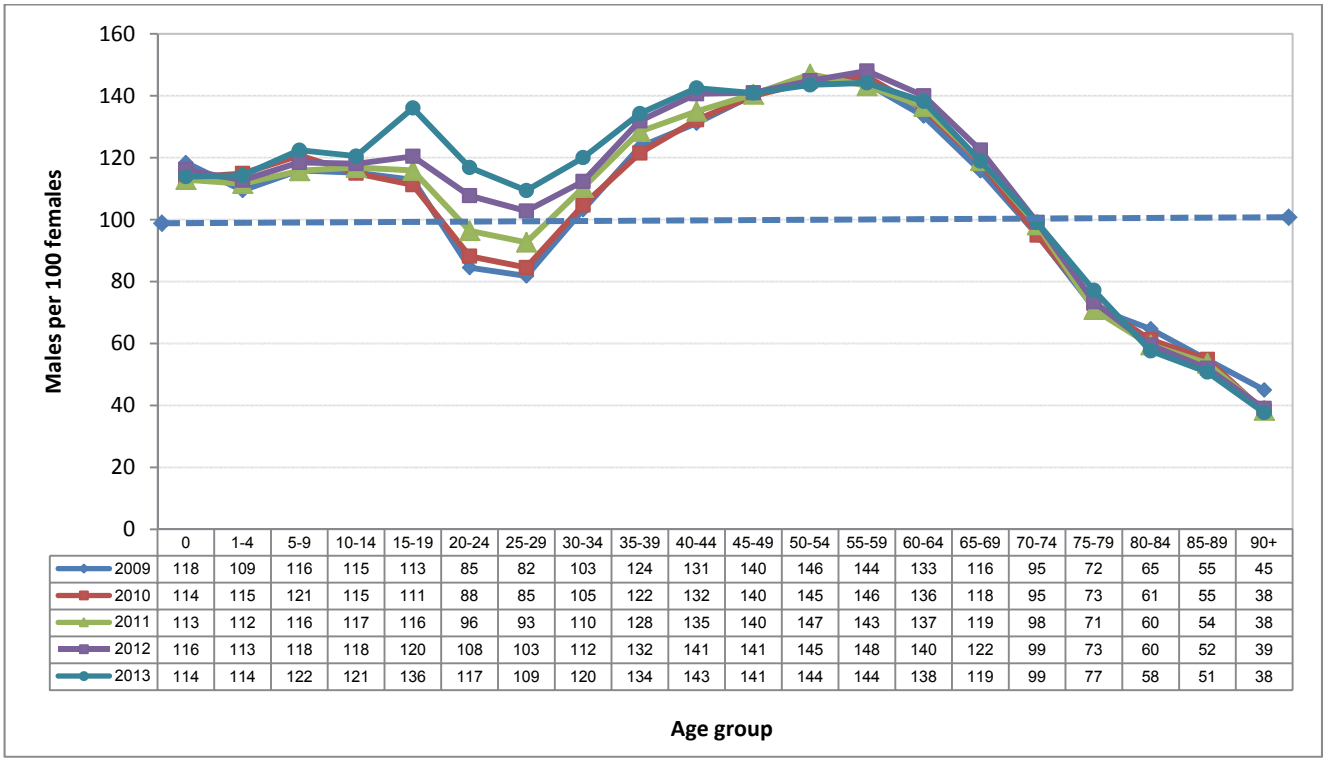
Sex ratios by age

The sex ratio at death denotes the number of male deaths per 100 female deaths. A ratio of 100 indicates an equal number of male and female deaths, a number less than 100 indicates relatively more female death occurrences and a number more than 100 indicates relatively more male death occurrences.

Figure 3.6 shows the sex ratio at death by age and year of death from 2009 to 2013. Over the five-year period, more male than female deaths were observed from age 0 years up to age group 15–19, as well as from age group 30–34 years up to age group 65–69 years. Conversely, there were more female than male deaths amongst those aged 70 years and older over the period 2009–2013. For all these years, there was a consistent increase in the sex ratios for age groups 20–24 and 25–29, implying that female deaths were decreasing much more than male deaths in these ages. These age groups show that although female deaths were higher than male deaths between 2009 and 2011 (sex ratios less than 100), sex ratios increased over time-such that in 2012 and 2013 there were more male deaths than female deaths in these age groups (sex ratios over 100). This further indicates relatively more improvements in female than male mortality in these ages.

Appendix G shows the overall sex ratios for 1997–2013. Sex ratios at death were consistently above 100 for all these years, indicating more male than female deaths. However, sex ratios decreased from 127 male deaths per 100 female deaths in 1997 to 102 male deaths per 100 female deaths in 2005. Thereafter, sex ratios increased to 103 male deaths per 100 females in 2006, and further increased to an overall sex ratio at death of 110 male deaths per 100 female deaths in 2013, indicating that there were more male death occurrences than female death occurrences.

Figure 3.1: Sex ratio at death by age and year of death, 2009–2013*



	0	1-4	5-9	10-14	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	85-89	90+
2009	118	109	116	115	113	85	82	103	124	131	140	146	144	133	116	95	72	65	55	45
2010	114	115	121	115	111	88	85	105	122	132	140	145	146	136	118	95	73	61	55	38
2011	113	112	116	117	116	96	93	110	128	135	140	147	143	137	119	98	71	60	54	38
2012	116	113	118	118	120	108	103	112	132	141	141	145	148	140	122	99	73	60	52	39
2013	114	114	122	121	136	117	109	120	134	143	141	144	144	138	119	99	77	58	51	38

* (1) excluding deaths with unspecified sex and age.
(2) Data for 2009–2012 have been updated with late registrations / delayed death notification forms processed in 2014.

3.5 Population group differences in mortality

The distribution of deaths by population group is shown in Table 3.2. It is worth noting that this distribution largely reflects the general distribution of the population by population group in the country. Results show that the majority of deaths were among black Africans, representing 70,2% of all registered deaths, while 8,3% of the deaths occurred among the white population group. About 6,4% of all deaths occurred to the coloured population group and the Indian/Asian population group accounted for 1,4% of all deaths.

For 2013 deaths, 13,5% of the deaths had population group classified as unknown or unspecified. Therefore, the results on population groups have to be treated with caution due to this high percentage of deaths with missing information, although reporting with regard to variable has improved over time.

Table 3.2: Number and percentage distribution of deaths by population group, 2013

Population group	Number	Percentage
Black African	322 301	70,2
White	38 154	8,3
Indian/Asian	6 445	1,4
Coloured	29 543	6,4
Other	714	0,2
Unknown or unspecified	61 776	13,5
Total	**458 933**	**100,0**

3.6 Marital status differences in mortality

Table 3.3 shows the distribution of deaths by the marital status of the deceased. Almost half (49,8%) of the deceased were reported as never having been married at the time of death. About a quarter (24,0%) of the deaths were among married people. Furthermore, 8,4% and 1,9% of all deaths occurred amongst widowed and divorced persons, respectively.

The marital status of the deceased at the time of death was missing in 15,9% of all registered deaths and therefore, these results must be interpreted with caution.

Table 3.3: Number and percentage distribution of deaths by marital status, 2013

Marital status	Number	Percentage
Never married	228 438	49,8
Married	110 262	24,0
Widowed	38 681	8,4
Divorced	8 749	1,9
Unknown or unspecified	72 803	15,9
Total	**458 933**	100,0

3.7 Differences in mortality by smoking status

Smoking status refers to smoking of tobacco on most days in the five years preceding death. Table 3.4 shows that in 2013, 18,2% of the deceased were reported as smokers while 40,4% were reported as non-smokers.

It is also observed that 35,6% of registered deaths in 2013 had missing information on smoking status. This shows that capturing information for smoking status has improved in comparison to 2011 and 2012 where the proportions were 44,7% and 38,8%, respectively. While there has been an improvement in the reporting of this variable, the percentage of deaths with missing information on smoking status remains high, and the results should therefore be treated with caution.

Table 3.4: Number and percentage distribution of deaths by smoking status among those aged 16 years and older, 2013

Smoking status	Number	Percentage
Yes	75 589	18,2
No	167 787	40,4
Do not know	23 767	5,7
Unknown or unspecified	147 784	35,6
Total	**414 927**	**100,0**

3.8 Differences in mortality by place or institution of death occurrence

In 2013, 44,2% of the deaths took place in hospitals, 1,7% in emergency rooms or as outpatient deaths and 2,5% died in nursing homes (see Table 3.5). This indicates that a total of 48,4% of the deaths occurred within a health care facility. About 23,2% of all deaths occurred at home while 2,1% were dead on arrival at a health facility.

Caution should be exercised when interpreting the results as 22,9% of the registered deaths had missing information on place or institution of death of the deceased.

Table 3.5: Number and percentage distribution of deaths by place or institution of death occurrence, 2013

Place of death	Number	Percentage
Hospital	202 994	44,2
Emergency room / Out patient	8 000	1,7
Dead on arrival	9 532	2,1
Nursing home	11 586	2,5
Home	106 554	23,2
Other	14 960	3,3
Unknown or unspecified	105 307	22,9
Total	**458 933**	**100,0**

3.9 Geographic variations in mortality

This subsection provides information on the distribution of 2013 deaths by province and district where deaths occurred. The district and province of death occurrence information was derived based on the 2011 municipal boundaries. The distribution of deaths by province of usual residence of the deceased is also included in this subsection.

Appendices H and H1 show the number and the percentage distribution of deaths by province of death occurrence and province of usual residence of the deceased, respectively. Appendix I presents the number of deaths at provincial and district municipality levels by age and Appendix I1 shows the percentage distribution of these deaths. The sex distribution is provided in Appendix J.

3.9.1 Differences by province, age and sex

Table 3.6 shows the distribution of deaths by province of death occurrence and province of usual residence of the deceased in 2013. The highest proportion of deaths occurred in Gauteng (21,3%), followed by KwaZulu-Natal and Eastern Cape, each comprising 18,3% and 13,9% of the deaths, respectively. The same pattern was observed for deaths that occurred in 2012. The lowest percentage of deaths occurred in Northern Cape (3,0%). With regard to province of usual residence, Gauteng (20,4%) had the highest proportion of deaths, followed by KwaZulu-Natal (18,2%) and then Eastern Cape (13,7%). The overall distribution of deaths by province also portrays the general distribution of the population by province in the country.

A cross tabulation of province of death occurrence and province of usual residence of the deceased (see Appendices H and H1) shows that the majority of deaths in 2013 in each province occurred in the province of usual residence. For all the provinces, at least 90% of deaths occurred within the province of usual residence, with KwaZulu-Natal having the highest percentage (94,8%), followed by Western Cape (94,3%). North West had the smallest proportion (90,0%) of deaths occurring in the province of residence. The highest percentage of people who died outside of South Africa (33,5%) were residents of Gauteng at the time of death occurrence.

Subsequent analyses on geography only focus on province or district of death occurrence, and not on area of usual residence or place of birth of the deceased. However, information on area of residence and area of birth of the deceased is available on request from Stats SA.

Table 3.6: Number and percentage distribution of deaths by province of death occurrence and province of usual residence of the deceased, 2013

Province	Province of death occurrence		Province of usual residence of deceased	
	Number	Percentage	Number	Percentage
Western Cape	46 007	10,0	44 608	9,7
Eastern Cape	63 935	13,9	62 679	13,7
Northern Cape	13 699	3,0	13 529	3,0
Free State	33 382	7,3	33 087	7,2
KwaZulu-Natal	84 193	18,3	83 466	18,2
North West	35 531	7,7	35 701	7,8
Gauteng	97 595	21,3	93 423	20,4
Mpumalanga	34 820	7,6	35 675	7,8
Limpopo	47 549	10,4	47 383	10,3
Foreign	535	0,1	1 316	0,3
Unspecified	1 687	0,4	8 066	1,8
Total	**458 933**	**100,0**	**458 933**	**100,0**

Appendices I and I1 present the number and percentages of deaths by age, province and district/metropolitan municipality of death occurrence for 2013. It is important to note that the distribution of deaths may be affected by underreporting of deaths at specific ages, which may differ widely by district of death occurrence which has not been accounted for in this distribution.

The results by province show that on one hand, North West and Northern Cape had the highest proportion of infant deaths (7,5% and 7,3%, respectively), while Limpopo (5,2%) and Mpumalanga (4,3%) had the highest proportions of deaths occurring among children aged 1–14. On the other hand, Eastern Cape had the lowest percentage of children dying in infancy (3,4%) while Western Cape had the lowest proportion of deaths for children ages 1–14 (1,7%). For the age group 15–44, Mpumalanga had the highest proportion of deaths (36,2%) while Northern Cape had the highest percentage of deaths in the 45–64 age category (31,6%) and Western Cape had the highest proportion of deaths occurring in older ages [65 years and older (39,3%)].

The sex ratios at death as indicated in Appendix J ranged from 98 male deaths per 100 female deaths in Limpopo to 126 male deaths per 100 female deaths in Western Cape. Western Cape had the highest sex ratio, followed by Northern Cape (116 male deaths per 100 female deaths), while Gauteng and North West had the third highest sex ratios equally at 113 male deaths per 100 females. Limpopo was the only province where the number of male deaths was lower than the number for female deaths (98 male deaths per 100 female deaths).

3.9.2 Differences by district municipality, age and sex

The number of deaths by age and district municipality of death occurrence is shown in Appendix I. The results indicate that the municipalities that were in the top five for highest numbers of deaths in absolute terms (all metropolitan municipalities) were: City of Johannesburg (29 468), City of Cape Town (28 210), Ekurhuleni (26 045), City of Tshwane (20 653) and eThekwini (16 984). Three of these metropolitan municipalities are in Gauteng province.

Appendix I1 shows the percentage distribution of 2013 deaths by age and district/metropolitan municipality of death occurrence. John Taolo Gaetsewe in Northern Cape (12,6%) and Dr Ruth Segomotsi Mompati in North West (9,1%) had the highest percentages of deaths during infancy (age 0). District municipalities which had the lowest proportions of infant deaths were in Eastern Cape [Amathole (2,7%) and Buffalo City (3,0%)].

Deaths among children aged 1–4 were mostly found in Vhembe (5,7%) and Mopani (5,6%), both in Limpopo. O.R. Tambo in Eastern Cape had the highest proportion of deaths amongst those aged 15–44 (38,6%), closely followed by Ehlanzeni in Mpumalanga (37,8%). Central Karoo (38,0%) in Western Cape had the highest proportion of deaths for the age group 45–64 years. The deaths among the elderly (65 and older) were mostly found in Overberg in Western Cape (44,0%) and in Namakwa in Northern Cape (43,3%).

Further comparison of district information by sex (refer to Appendix J) shows that out of the 52 district/metropolitan municipalities of death occurrence, one district (uMkhanyakude in KwaZulu-Natal) had a sex ratio of 100 (equal deaths for males and females), six districts had a sex ratio below 100 (more female deaths) and a total of forty-five districts had a sex ratio above 100 (more male deaths).

The districts where female deaths were more than male deaths (sex ratio of less than 100) were: Alfred Nzo in Eastern Cape (98 male deaths per 100 female deaths); Sisonke (99 male deaths per 100 female deaths) and uMzinyathi (99 male deaths per 100 female deaths) in KwaZulu-Natal; and Greater Sekhukhune (94 male deaths per 100 female deaths), Mopani (99 male deaths per 100 female deaths) and Vhembe (93 male deaths per 100 female deaths) in Limpopo.

The 44 districts with sex ratios above 100 ranged from 101 male deaths per 100 female deaths in O.R Tambo in Eastern Cape and Zululand in KwaZulu-Natal, to 133 male deaths per 100 female deaths in West Coast district in Western Cape. The district level analysis of deaths by sex shows that 2013 registered deaths were predominantly characterised by more male deaths relative to female deaths. For deaths that occurred outside South Africa, the sex ratio was 190 male deaths per 100 female deaths.

4. Causes of death

4.1 Introduction

This section presents information on causes of death for all deaths that occurred in 2013; were registered at the Department of Home Affairs (DHA); and were processed by Statistics South Africa (Stats SA) in 2014. Data for the previous years (1997–2012) updated for late registrations or delayed transfer of forms have been included in this section for the purposes of trends analysis in order to establish prevailing patterns.

The analysis further provides the proportion of deaths due to natural and non-natural causes by age groups. Due to concerns about high levels of violent crimes and accidents in South Africa, non-natural underlying causes of death are treated as a separate group. These are deaths that were not attributable, or may not have been attributable to natural causes. In terms of the Inquests Act (Act No. 58 of 1959), these deaths are subject to medico-legal investigation. An autopsy must be performed to establish the cause of death, and an inquest is compulsory.

This section also provides a comprehensive analysis of causes of death (according to the 10th revision of the International Classification of Diseases) by age, broad age groups, sex, and province and district of death occurrence. Deaths were also condensed into three groups of causes of death as per the Global Burden of Disease cause list namely: communicable diseases, non-communicable diseases and external causes of mortality. A breakdown of deaths according to selected 19 main groups (chapters) of the classification of deaths is also provided.

4.2 Reported causes of death

Information on diseases, injuries or complications that caused death is provided on a death notification form when a death is registered at the DHA. Forms BI-1663 (see Appendix B, section G) and DHA-1663 (see Appendix B1, sections G.1 and G.2) make provision for recording information on diseases, injuries or complications that caused death. Provision is made for one or more causes to be recorded on the forms.

Table 4.1 provides information on the number of causes of death reported on each death notification form for deaths that occurred in 2013. It is observed that less than one per cent (0,5%) of the forms had no cause of death indicated on the forms. These are forms which either had a doctor's tick to show that it was a natural cause, with no specific cause given, or where a death was still under investigation and therefore causes of death not yet established, or where pages with causes of death information were missing.

Of the 2 232 forms with no causes, 1 1342 (60,1%) of these had a doctor's tick to show that it was a natural cause of death and for the remaining 890 (39,9%), the doctors indicated that they were "not in a position to certify" or that the "death was under investigation". ICD-10 codes *R99 (other ill-defined and unspecified causes of mortality*) and *P96* (*other conditions originating in the perinatal period*) were used for these deaths, depending on the age of the deceased.

The majority of death notification forms (54,8%) had only one cause of death recorded; just over a quarter (26,4%) had two causes recorded; 13,0% had three causes recorded; and a total of 5,3% had four to six causes recorded. The pattern of recording causes on the death notification forms for 2013 is similar to that observed in the previous years.

Table 4.1: Number and percentage distribution of death notification forms by the number of causes entered on the form, 2013

Number of reported causes of death	Number of death notification forms	Percentage
No cause	2 232	0,5
One cause	251 560	54,8
Two causes	121 167	26,4
Three causes	59 446	13,0
Four causes	19 234	4,2
Five causes	5 241	1,1
Six causes	53	0,0
Total	**458 933**	**100,0**

4.3 Method of ascertaining the cause of death

The Births and Deaths Registration Act, 1992 (Act No. 51 of 1992) requires that all deaths be certified by a medical practitioner, who must issue a prescribed certificate stating the cause of death. The BI-1663 and DHA-1663 forms make provision for a certifying official to indicate the method used in ascertaining the cause of death. There are some differences in the options between the BI-1663 and DHA-1663 forms:

- BI-1663 form has six options (autopsy, opinion of attending medical practitioner, opinion of attending medical practitioner on duty, opinion of professional nurse, interview of family member and other).
- DHA-1663 form (for deaths occurring after one week of birth) has the same six options plus an additional option of “post-mortem examination”.
- DHA-1663 form (for perinatal deaths) has three options (autopsy, autopsy results may be available later and autopsy not performed).

Table 4.2 provides the resulting categories after combining comparable information in forms BI-1663 and DHA-1663. Post mortem examination was the most common method of ascertaining causes of death, with 22,9% deaths of which the cause was ascertained through this method. It was followed by the opinion of the attending medical practitioner (19,5%). Autopsy was performed in 8,9% of the deaths, while for 11,2%, the cause of death was ascertained through the opinion of registered professional nurse. There were 2,9% forms that indicated that cause of death was ascertained through an interview with a family member of the deceased to establish the cause of death.

Table 4.2: Number and percentage distribution of deaths by method used to ascertain the cause of death, 2013

Method of ascertaining the cause of death	Number	Percentage
Autopsy	40 742	8,9
Post-mortem examination	105 206	22,9
Opinion of attending medical practitioner	89 695	19,5
Opinion of attending medical practitioner on duty	15 410	3,4
Opinion of registered professional nurse	51 556	11,2
Interview of family member	13 299	2,9
Other	5 900	1,3
Autopsy results may be available later*	56	0,0
Autopsy not performed*	1 352	0,3
Unknown	3 138	0,7
Unspecified	132 579	28,9
Total	**458 933**	**100,0**

* For perinatal deaths only.

4.4 Main groups of the underlying causes of death

An overview of the underlying causes of death for main groups (chapters) of classification of causes of death is presented in this subsection. The ICD-10 classifies diseases and related health problems into 22 chapters, of which 19 are used in the reporting of information on underlying causes of death (see Table 4.3). The chapters in the ICD excluded in this report are chapters 19, 21 and 22. These are discussed briefly below:

1. Chapter 19*: Injury, poisoning and certain other consequences of external causes (S00-T98).* These codes are used to classify causes of death in other causes but not in the underlying causes.
2. Chapter 21: *Factors influencing health status and contact with health services (Z00-Z99).* These are only used in morbidity coding.
3. Chapter 22: *Codes for special purposes.* These codes are used by WHO for the provisional assignment of new diseases of uncertain aetiology. U51 and U52 were used for coding *multidrug-resistant tuberculosis (MDR-TB)* and *extensively drug-resistant tuberculosis (XDR-TB)* in this release for individual causes of death, but were both recoded to the broad group *of tuberculosis (A15-A19)* in the analyses.

Table 4.3 shows both the number and percentage distribution of deaths by the 19 main groups (chapters) of the classification of causes of death. The most common main group of causes of death in 2013 was *certain infections and parasitic diseases*, comprising 22,6% of all deaths. This group also included 668 deaths due to *multidrug-resistant tuberculosis (MDR-TB)* and 78 deaths due to *extensively drug-resistant tuberculosis (XDR-TB).* The number of deaths due to *MDR-TB* and *XDR-TB* have declined between 2012 and 2013 with *MDR-TB* decreasing by 14,4% and *XDR-TB* reducing by 36,5%.

The second most common main group of causes of death was *diseases of the circulatory system* (16,7%), followed by *diseases of the respiratory system* (10,4%). *Neoplasms* comprised 8,3% of all deaths, *certain conditions originating in the perinatal period* contributed to 2,1% of all deaths, while *pregnancy, childbirth and puerperium* contributed to 0,2% of all deaths. Deaths due *to external causes of morbidity and mortality* comprised 10,3% of all deaths.

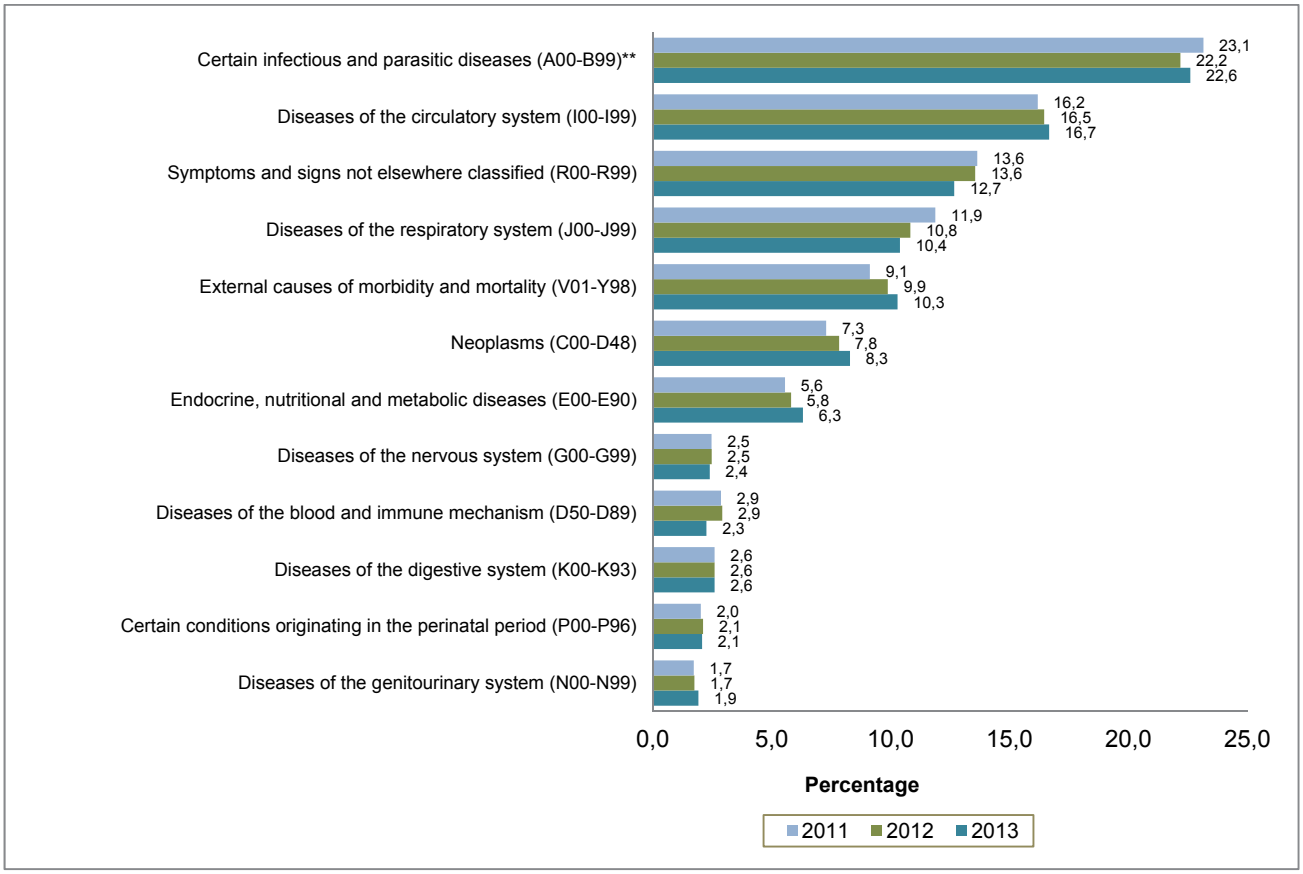
Table 4.3: Number and percentage distribution of deaths by main groups of causes of death, 2013*

No.	Main groups of underlying causes of death (based on ICD-10)	Number	Percentage
1	Certain infectious and parasitic diseases (A00-B99)*	103 708	22,6
2	Neoplasms (C00-D48)	38 034	8,3
3	Diseases of the blood and immune mechanism (D50-D89)	10 357	2,3
4	Endocrine, nutritional and metabolic diseases (E00-E90)	28 974	6,3
5	Mental and behavioural disorders (F00-F99)	1 787	0,4
6	Diseases of the nervous system (G00-G99)	10 998	2,4
7	Diseases of the eye and adnexa (H00-H59)	18	0,0
8	Diseases of the ear and mastoid process (H60-H95)	58	0,0
9	Diseases of the circulatory system (I00-I99)	76 468	16,7
10	Diseases of the respiratory system (J00-J99)	47 695	10,4
11	Diseases of the digestive system (K00-K93)	11 914	2,6
12	Diseases of the skin and subcutaneous tissue (L00-L99)	826	0,2
13	Diseases of the musculoskeletal system etc. (M00-M99)	1 513	0,3
14	Diseases of the genitourinary system (N00-N99)	8 794	1,9
15	Pregnancy, childbirth and puerperium (O00-O99)	946	0,2
16	Certain conditions originating in the perinatal period (P00-P96)	9 508	2,1
17	Congenital malformations (Q00-Q99)	1 966	0,4
18	Symptoms and signs not elsewhere classified (R00-R99)	58 150	12,7
19	External causes of morbidity and mortality (V01-Y98)	47 219	10,3
Total		**458 933**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Figure 4.1 shows the percentage distribution of deaths by selected main groups of causes of death and year of death occurrence from 2011 to 2013. Between 2011 and 2012 there was a slight decline in the proportion of deaths due to *certain infectious and parasitical diseases* (from 23,1% in 2011 to 22,2% in 2012). However, the proportion of deaths due to this main group increased from 22,2% in 2012 to 22,6% in 2013. The proportions of deaths due to *diseases of the circulatory system, neoplasms and endocrine, nutritional* and *metabolic diseases* increased slightly each year over the three-year period, while those due to *diseases of the respiratory system* decreased. For the rest of the main groups the proportions were either inconsistent over time or remained generally the same.

Figure 4.1: Percentage distribution of deaths by selected main groups of causes of death, 2011–2013*



*(1) Data for 2011 and 2012 have been updated with late registrations / delayed death notification forms processed in 2014.
(2) Excluding main groups with less than 1% of deaths.
** Including deaths due to *MDR-TB* and *XDR-TB*.

4.5 Natural and non-natural causes of death

Non-natural causes of death comprise all deaths that were not attributable, or may not have been attributable to natural causes. Natural and non-natural causes of death information reported in this release was derived from the underlying causes of death based on specific causes of death recorded on the death notification form. Chapter 20 (V01-Y98) of ICD-10 is used for classifying all non-natural causes of death (no. 19 in Table 4.13) whereas chapters 1–18 are for all natural causes of death.

Table 4.4 shows the actual number of natural and non-natural deaths by year of death from 1997 to 2013. Since 1997, the number of deaths due to natural causes were higher than the number of deaths due to non-natural causes. Between 1997 and 2006, there was a consistent increase in the number of natural deaths, after which a decline was then observed. Further, it can be observed from the table that there was an inconsistent pattern in the number of deaths due to non-natural causes. However the number of deaths due to non-natural causes has decreased consistently between 2008 and 2011. The number of non-natural deaths increased between 2011 and 2012 but also decreased again between 2012 and 2013.

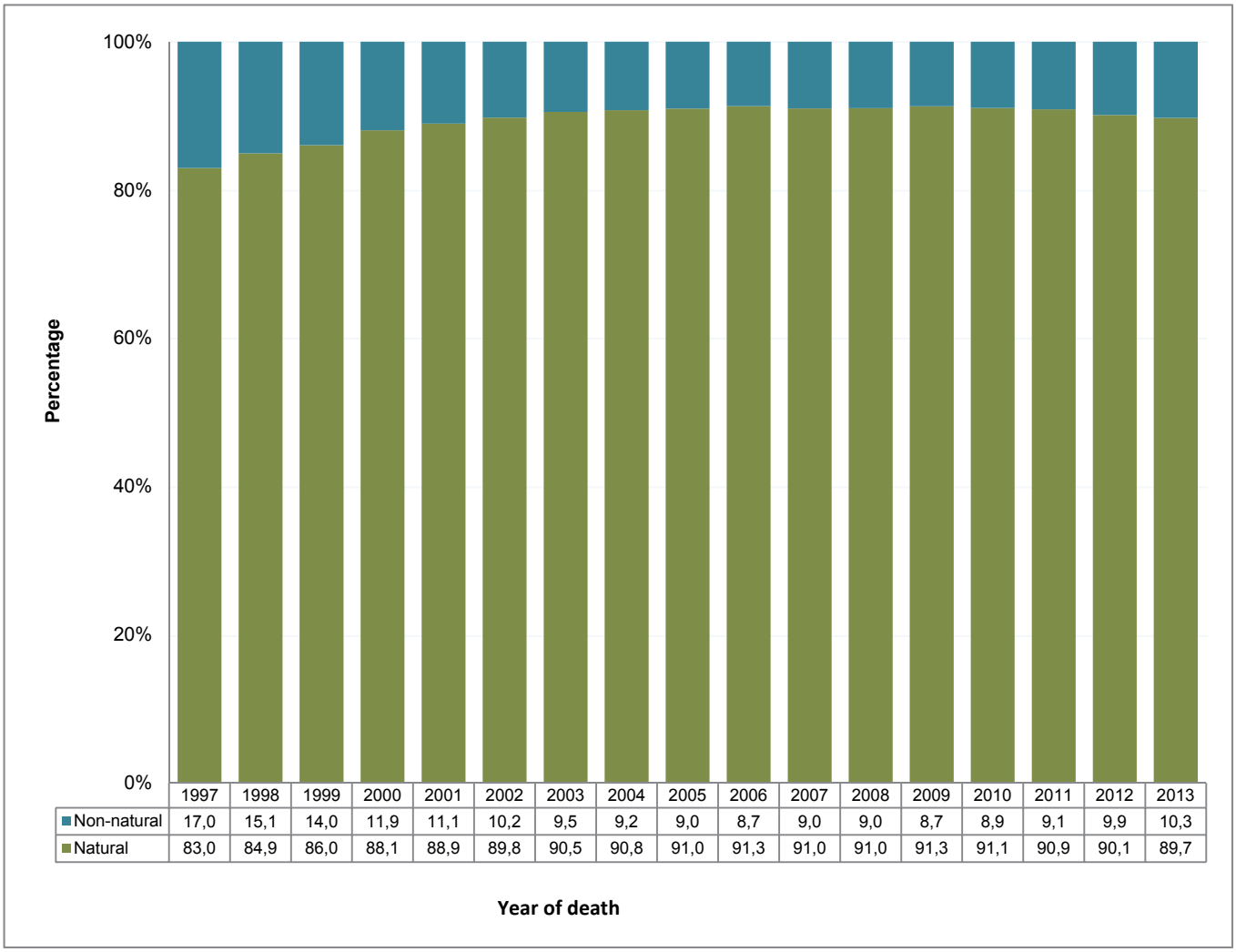
Table 4.4: Number of natural and non-natural deaths by year of death, 1997–2013*

Year of death	Number of natural deaths	Number of non-natural deaths	Total
1997	263 306	54 106	**317 412**
1998	310 998	55 126	**366 124**
1999	328 769	53 352	**382 121**
2000	367 013	49 805	**416 818**
2001	405 273	50 383	**455 656**
2002	451 292	51 505	**502 797**
2003	504 889	52 903	**557 792**
2004	524 413	53 410	**577 823**
2005	544 857	54 009	**598 866**
2006	560 415	53 276	**613 691**
2007	550 875	54 573	**605 448**
2008	543 485	53 531	**597 016**
2009	531 366	50 658	**582 024**
2010	500 750	49 175	**549 925**
2011	467 531	46 955	**514 486**
2012	442 570	48 530	**491 100**
2013	411 714	47 219	**458 933**

*Data for 1997–2012 have been updated with late registrations / delayed death notification forms processed in 2014.

Percentage distributions of natural and non-natural causes of death by year of death for the period 1997 to 2013 are shown in Figure 4.2. The pattern shows that the percentage of deaths due to natural causes was consistently above 80% each year. For non-natural causes of death, the pattern shows decreases in the proportion of deaths from 1997 to 2006. In 2007, the proportion of deaths due to non-natural causes increased to 9,0% and remained at this level in 2008 then declined to 8,7% in 2009. Looking at the trend between 2009 and 2013, there seems to be a consistent increase in the proportion of deaths due to non-natural causes of death, although the levels were still lower than those observed in 1997 (17,0%).

Figure 4.2: Percentage distribution of natural and non-natural causes of death by year of death, 1997–2013*



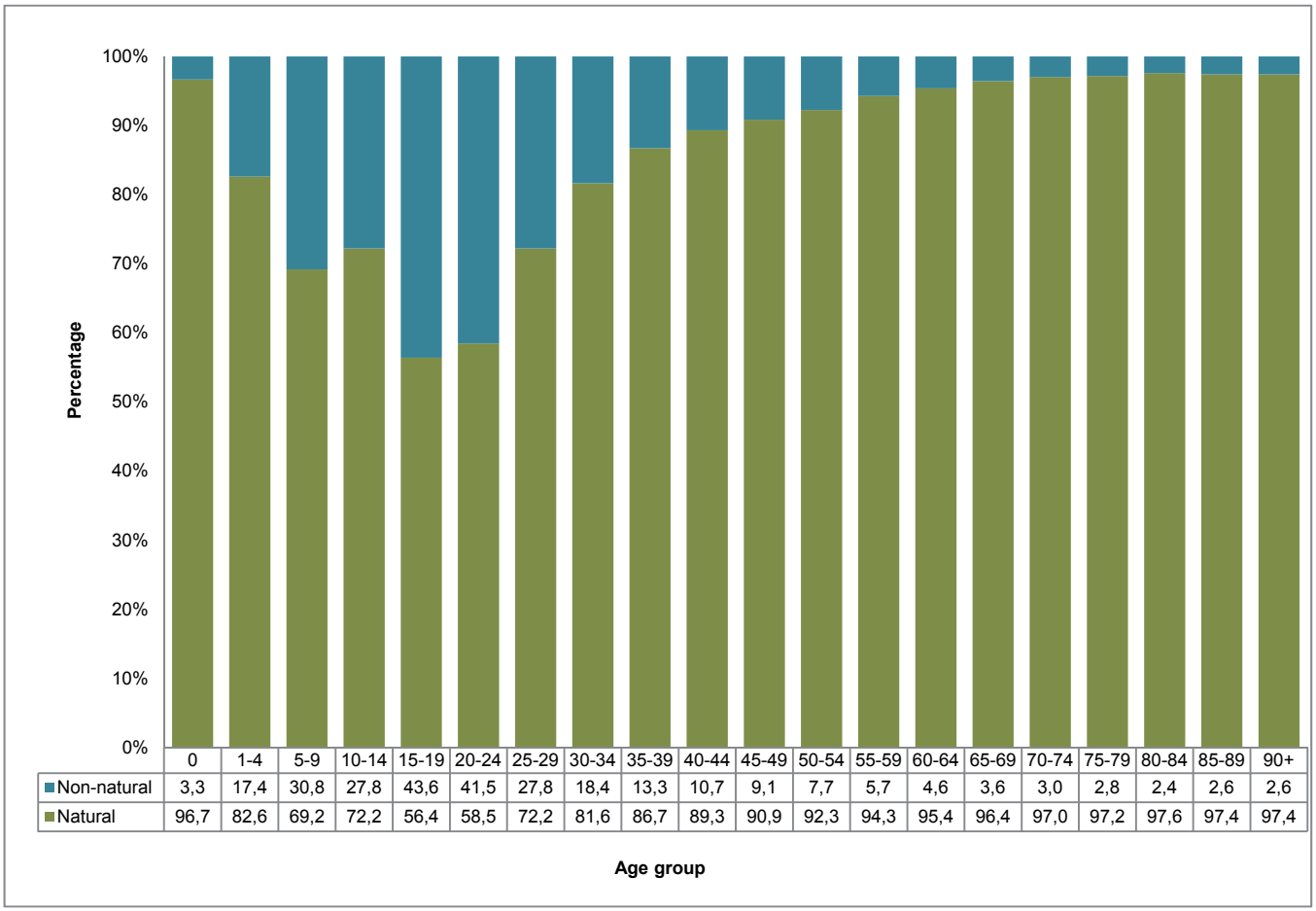
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Non-natural	17,0	15,1	14,0	11,9	11,1	10,2	9,5	9,2	9,0	8,7	9,0	9,0	8,7	8,9	9,1	9,9	10,3
Natural	83,0	84,9	86,0	88,1	88,9	89,8	90,5	90,8	91,0	91,3	91,0	91,0	91,3	91,1	90,9	90,1	89,7

*Data for 1997–2012 have been updated with late registrations / delayed death notification forms processed in 2014.

Natural and non-natural causes of death by age

Figure 4.3 shows the percentage distribution of deaths due to natural and non-natural causes classified by age group for deaths that occurred in 2013. The general pattern observed is that the proportion of deaths due to non-natural causes increased almost consistently from age 0 to age group 15–19 and decreased with increasing age thereafter. The age group that was mostly affected by non-natural causes was 15–19, whereby 43,6% of the deaths were due to non-natural causes. Other ages with higher proportions of deaths due to non-natural causes were age groups 20–24 (41,5%) and 5–9 (30,8%). Ages least affected by non-natural deaths were infancy (less than 0) and older ages (60 years and older) where less than 5% of the deaths in each age group were due to non-natural causes of death.

Figure 4.3: Percentage distribution of natural and non-natural causes of death by age, 2013*



	0	1-4	5-9	10-14	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	85-89	90+
Non-natural	3,3	17,4	30,8	27,8	43,6	41,5	27,8	18,4	13,3	10,7	9,1	7,7	5,7	4,6	3,6	3,0	2,8	2,4	2,6	2,6
Natural	96,7	82,6	69,2	72,2	56,4	58,5	72,2	81,6	86,7	89,3	90,9	92,3	94,3	95,4	96,4	97,0	97,2	97,6	97,4	97,4

* Excluding deaths with unspecified age.

4.6 Major groups of causes of death as per Global Burden of Disease

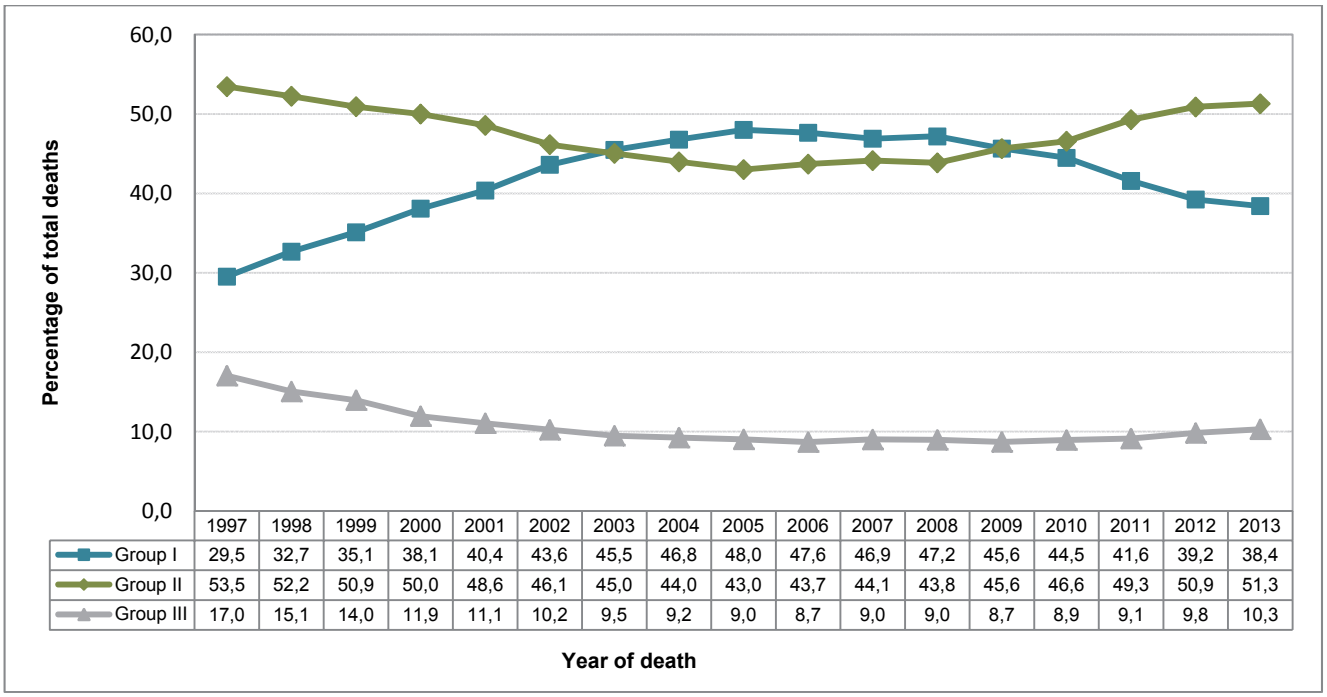
The 19 ICD-10 chapters used in the reporting of information on underlying causes of death can be further condensed into three groups of causes of death as per the Global Burden of Disease cause list:

- Group I:
  - Communicable diseases (e.g. Tuberculosis, pneumonia, diarrhoea, malaria, measles);
  - Maternal and perinatal causes (e.g. maternal haemorrhage, birth trauma); and
  - Nutritional conditions (e.g. protein-energy malnutrition)
- Group II: Non-communicable diseases (e.g. cancer, diabetes, heart disease, stroke)
- Group III: External causes of mortality (e.g. accidents, homicide, suicide)

Communicable diseases are diseases that are infectious and include amongst other diseases, *tuberculosis, intestinal infectious diseases,* and *influenza and pneumonia*. Non-communicable diseases are defined as diseases that are non-infectious, are of long duration and generally slow progression and include amongst others, *cerebrovascular diseases, diabetes mellitus* and *ischaemic heart diseases.*

The percentage distribution of deaths by group type and year of death is depicted in Figure 4.4. The pattern observed shows that South Africa is going through an epidemiological change with deaths resulting mainly from non-communicable diseases. In the past four years, there has been a notable shift in the causes of death away from infectious diseases towards non-communicable diseases. This period is also characterised by increases in the proportion of deaths due to external causes of mortality.

Figure 4.4: Percentage distribution of deaths due to communicable diseases (Group I), non-communicable diseases (Group II) and injuries (Group III) by year of death, 1997–2013*



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Group I	29,5	32,7	35,1	38,1	40,4	43,6	45,5	46,8	48,0	47,6	46,9	47,2	45,6	44,5	41,6	39,2	38,4
Group II	53,5	52,2	50,9	50,0	48,6	46,1	45,0	44,0	43,0	43,7	44,1	43,8	45,6	46,6	49,3	50,9	51,3
Group III	17,0	15,1	14,0	11,9	11,1	10,2	9,5	9,2	9,0	8,7	9,0	9,0	8,7	8,9	9,1	9,8	10,3

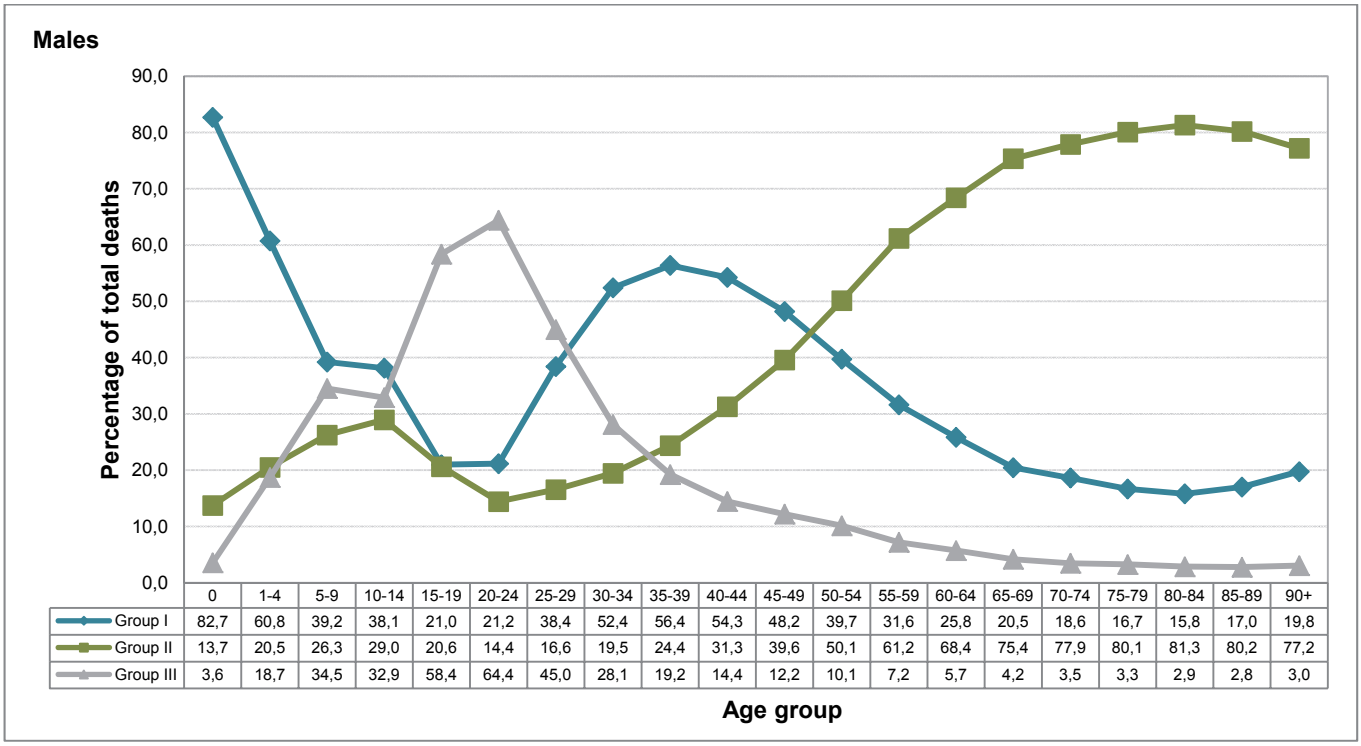
* (1) Data for 1997–2012 have been updated with late registrations / delayed death notification forms processed in 2014.
(2) Redistributed unknown age and ill-defined diseases *R00-R99* proportionately to causes to Group 1 and Group 2.

Figure 4.5 shows the percentage distribution of causes of death by sex, group type and age group. The proportion of deaths due to Group I causes (*communicable diseases, maternal, perinatal* and *nutritional conditions*) was high among children (aged 0 to 4 years) for both males and females. The highest percentage of male and female deaths due to communicable diseases occurred among those aged 0 years (82,7% for males and 81,9% for females). For both sexes, the proportion of deaths due to Group I was less than 20% at ages 65 years and older.

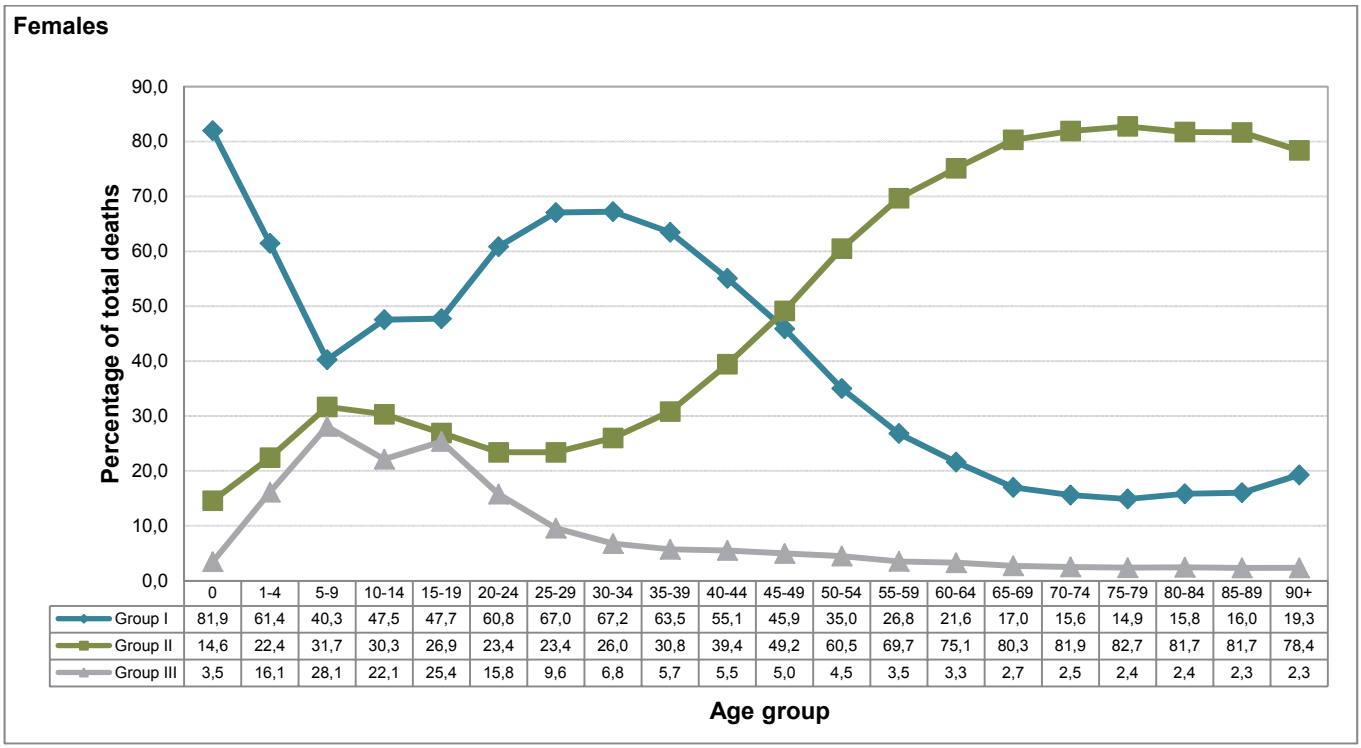
The proportion of deaths due to Group II causes was relatively lower in children but rose dramatically at older ages due to the increasing incidence of *neoplasms*, *cardiovascular diseases* and *ischaemic heart diseases* in particular. For males, the risk of dying from Group II causes starts to be noticeably higher at ages 50–54 whereas for females this occurs at ages 45–49. Deaths due to Group II causes were highest for males in age group 80–84 (81,3%) whereas for females they were highest in age group 75–79 (82,7%).

The proportion of deaths due to Group III causes, i.e. *external causes of death* was higher for males compared to females at all ages. For males, the proportion of deaths due to this group was particularly high at ages 15–29 where at least 45% of deaths due to *external causes* exceeded deaths due to other causes. For females, deaths due to *external causes* were lowest at all ages, although relatively higher (more than 20%) at ages 5–19.

Figure 4.5: Percentage distribution of deaths due to communicable diseases (Group I), non-communicable diseases (Group II) and injuries (Group III) by sex and age group, 2013*



	0	1-4	5-9	10-14	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	85-89	90+
Group I	82,7	60,8	39,2	38,1	21,0	21,2	38,4	52,4	56,4	54,3	48,2	39,7	31,6	25,8	20,5	18,6	16,7	15,8	17,0	19,8
Group II	13,7	20,5	26,3	29,0	20,6	14,4	16,6	19,5	24,4	31,3	39,6	50,1	61,2	68,4	75,4	77,9	80,1	81,3	80,2	77,2
Group III	3,6	18,7	34,5	32,9	58,4	64,4	45,0	28,1	19,2	14,4	12,2	10,1	7,2	5,7	4,2	3,5	3,3	2,9	2,8	3,0



	0	1-4	5-9	10-14	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	85-89	90+
Group I	81,9	61,4	40,3	47,5	47,7	60,8	67,0	67,2	63,5	55,1	45,9	35,0	26,8	21,6	17,0	15,6	14,9	15,8	16,0	19,3
Group II	14,6	22,4	31,7	30,3	26,9	23,4	23,4	26,0	30,8	39,4	49,2	60,5	69,7	75,1	80,3	81,9	82,7	81,7	81,7	78,4
Group III	3,5	16,1	28,1	22,1	25,4	15,8	9,6	6,8	5,7	5,5	5,0	4,5	3,5	3,3	2,7	2,5	2,4	2,4	2,3	2,3

*Redistributed unknown age and ill-defined diseases *R00-R99* proportionately to causes in Group 1 and Group 2.

4.7 Broad groups of natural causes of death

This subsection presents information on the leading underlying natural causes of death for broad groups. The ten leading causes were identified by ranking the causes of death by the number of deaths among those eligible for ranking as described in Section 2 and excludes *symptoms, signs and abnormal findings, not elsewhere classified* as well as all non-natural deaths (*external causes of morbidity and mortality*). The top-ranking causes determine the leading underlying natural causes of death.

Overall pattern of the leading underlying natural causes of death

Table 4.5 shows the ten leading underlying natural causes of death in South Africa for the years 2011–2013. The years 2011 and 2012 have been included to show recent trends in natural causes of death. The table provides changes in the ten leading underlying causes of death by absolute numbers and percentages over the three-year period.

For a list of deaths by all broad groups of causes of death ranked by frequency (including non-natural causes and symptoms and signs not elsewhere classified) for 2013 refer to Appendix K while the breakdown of individual causes for the broad groups that were among the ten leading causes in 2013 is provided in Appendix L.

Table 4.5 shows that all the ten leading causes of death for the three-year period were the same, although they differed in rank as well as proportions. The most notable change in rank was for *human immunodeficiency virus (HIV) disease* which moved from being ranked sixth in 2012 accounting for 3,9% to third rank in 2013 and accounting for 5,1% of deaths. The number of deaths due to *HIV disease* increased by 10,4% between 2011 and 2012 and further by 21,0% between 2012 and 2013.

Tuberculosis and *influenza and pneumonia* remained the two leading causes of death for the three-year period, but the trend shows that the number of deaths due to these causes has been declining. The proportion of deaths due to *tuberculosis* decreased from 10,7% in 2011 to 8,8% in 2013 and deaths due to *influenza and pneumonia* decreased from 6,6% in 2011 to 5,2% in 2013. *Intestinal infectious diseases* moved from ninth place in 2012 (responsible for 3,1% deaths) to eighth rank in 2013 (responsible for 3,4% deaths).

Cerebrovascular diseases kept the third rank between 2011 and 2012 but dropped to fourth rank in 2013 accounting for 4,9% deaths. *Diabetes mellitus* remained the fifth underlying cause of death in the three-year period although the proportion of deaths due to this cause increased slightly every year (4,1% in 2011; 4,4% in 2012 and 4,8% in 2013).

Table 4.5: The ten leading underlying natural causes of death, 2011–2013*

Causes of death (based on ICD-10)	2011			2012			2013		
	Rank	Number	%	Rank	Number	%	Rank	Number	%
Tuberculosis (A15-A19)**	1	55 102	10,7	1	48 409	9,9	1	40 542	8,8
Influenza and pneumonia (J09-J18)	2	33 847	6,6	2	26 887	5,5	2	23 727	5,2
Human immunodeficiency virus [HIV] disease (B20-B24)	7	17 338	3,4	6	19 146	3,9	3	23 203	5,1
Cerebrovascular diseases (I60-I69)	3	26 104	5,1	3	24 454	5,0	4	22 463	4,9
Diabetes mellitus (E10-E14)	5	21 147	4,1	5	21 820	4,4	5	22 196	4,8
Other forms of heart disease (I30-I52)	4	23 916	4,6	4	22 352	4,6	6	21 104	4,6
Hypertensive diseases (I10-I15)	8	15 784	3,1	7	16 491	3,4	7	16 754	3,7
Intestinal infectious diseases (A00-A09)	6	19 647	3,8	9	15 225	3,1	8	15 782	3,4
Other viral diseases (B25-B34)	9	14 805	2,9	8	15 301	3,1	9	13 614	3,0
Chronic lower respiratory diseases (J40-J47)	10	13 277	2,6	10	12 464	2,5	10	12 035	2,6
Other natural causes		226 564	44,0		220 021	44,8		200 294	43,6
Non-natural causes		46 955	9,1		48 530	9,9		47 219	10,3
All causes		**514 486**	**100,0**		**491 100**	**100,0**		**458 933**	**100,0**

*Data for 2011–2012 have been updated with late registrations / delayed death notification forms processed in 2014.
** Including deaths due to *MDR-TB* and *XDR-TB*.

Leading underlying natural causes of death by sex

The distribution of the ten leading underlying natural causes of death by sex in 2013 is shown in Table 4.6. The ten leading causes of death for both sexes were the same although the ranks between the sexes were the same for only two underlying causes i.e. *tuberculosis* which ranked first and *other viral diseases* which ranked ninth. Though the ranks may be the same, the contribution of each cause to the total number of deaths differed for each sex. The proportion of deaths due to *tuberculosis* was slightly higher for males (9,9%) compared to females (7,6%), while the proportion of deaths due *other viral diseases* was 2,7% for males and 3,3% for females.

For males, the second leading cause of death was *influenza and pneumonia* accounting for 5,1% of all male deaths, while *diabetes mellitus* was the second leading cause of death for females accounting for 6,2% of female deaths. *Diabetes mellitus* had the highest difference in ranking between the two sexes, ranking second for females and sixth for males.

HIV disease was the third leading cause of death for males and was responsible for 4,9% of male deaths. It ranked as the fourth leading cause of death for females and was responsible for 5,3% female deaths. *Influenza and pneumonia* which ranked second amongst males responsible for 5,1% male deaths was ranked fifth amongst female deaths, accounting for 5,3% of female deaths. *Cerebrovascular diseases* ranked third amongst females accounting for 5,9% of females deaths and ranked fifth for males, accounting for 4,0% of male deaths.

Table 4.6: The ten leading underlying natural causes of death for males and females, 2013*

Causes of death (based on ICD-10)	Male			Female		
	Rank	Number	%	Rank	Number	%
Tuberculosis (A15-A19)**	1	23 791	9,9	1	16 582	7,6
Influenza and pneumonia (J09-J18)	2	12 133	5,1	5	11 480	5,3
Human immunodeficiency virus [HIV] disease (B20-B24)	3	11 643	4,9	4	11 481	5,3
Other forms of heart disease (I30-I52)	4	9 651	4,0	6	11 399	5,2
Cerebrovascular diseases (I60-I69)	5	9 518	4,0	3	12 920	5,9
Diabetes mellitus (E10-E14)	6	8 699	3,6	2	13 484	6,2
Intestinal infectious diseases (A00-A09)	7	7 441	3,1	8	8 259	3,8
Chronic lower respiratory diseases (J40-J47)	8	7 262	3,0	10	4 757	2,2
Other viral diseases (B25-B34)	9	6 459	2,7	9	7 102	3,3
Hypertensive diseases (I10-I15)	10	6 352	2,7	7	10 388	4,8
Other natural causes		100 527	42,0		98 786	45,4
Non-natural causes		35 712	14,9		11 109	5,1
All causes		**239 188**	**100,0**		**217 747**	**100,0**

*Excluding deaths with unspecified sex.
**Including deaths due to *MDR-TB* and *XDR-TB*.

The percentage distribution of deaths associated with the ten leading causes of death classified by sex for the period 2011–2013 is shown in Figure 4.6. Over the three-year period, *tuberculosis* remained the leading cause of death for both males and females, although the proportions declined over time.

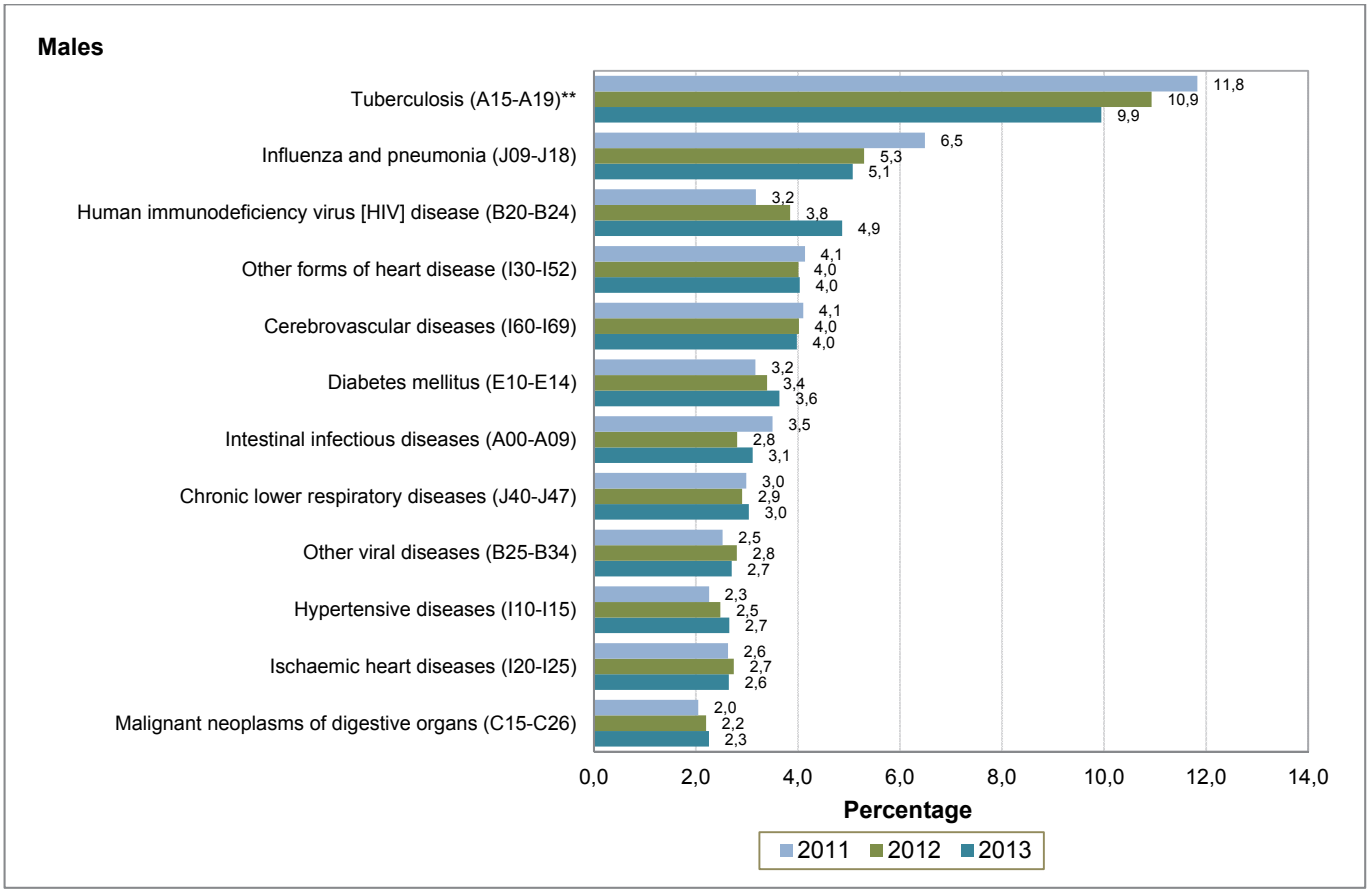
The main similarity between males and females is that there were consistent increases in the proportion of deaths due to *HIV disease, diabetes mellitus* and *hypertensive diseases* and decreases in the proportion of deaths due to *tuberculosis* and *influenza and pneumonia*.

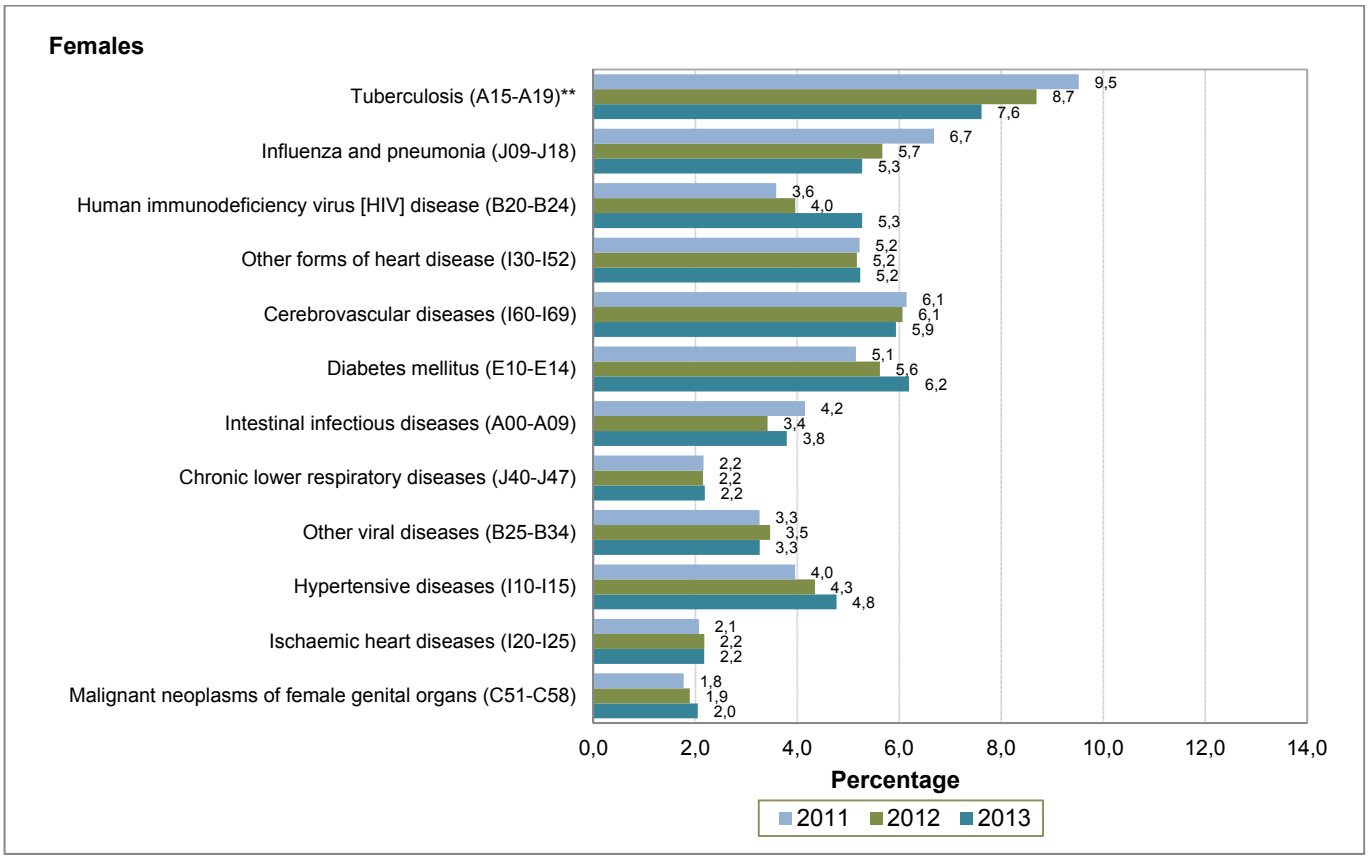
The proportion of male deaths due to *HIV disease* increased from 3,2% in 2011 to 4,9% in 2013, while for females it increased from 3,6% in 2011 to 5,3% in 2013. Similarly, the proportion of deaths due to *diabetes mellitus* increased from 3,2% in 2011 to 3,6% in 2013 for males and from 5,1% in 2011 to 6,2% in 2013 for females. Between 2011 and 2013, the proportion of deaths due to *hypertensive diseases* increased from 2,3% to 2,7% for males and from 4,0% to 4,8% for females.

The proportion of deaths due to *tuberculosis* decreased from 11,8% in 2011 to 9,9% in 2013 for males and from 9,5% to 7,6% for females during the same period. Likewise, the proportion of deaths due to *influenza and pneumonia* decreased from 6,5% in 2011 to 5,1% in 2013 for males and from 6,7% in 2011 to 5,3% in 2013 for females.

The proportion of deaths due to *cerebrovascular diseases* remained at around 4,0% for males in the three-year period and was around 6,1% among females during the same period. There was no noticeable pattern in the proportion of deaths due to *intestinal infectious diseases, ischaemic heart diseases* and *other viral diseases* over the three-year period for both sexes.

Figure 4.6: Percentage distribution of deaths for the leading causes of death by year of death and sex, 2011–2013*





*Data for 2011 and 2012 have been updated with late registrations / delayed death notification forms processed in 2014.
** Including deaths due to *MDR-TB* and *XDR-TB*.

Leading underlying natural causes of death by broad age groups

For this release, the broad groups 0, 1–14, 15–44, 45–64 and 65 years and older were used in line with the World Health Organization recommendations for classifying age for general purposes (WHO, 2009b). Table 4.7 shows the ten leading underlying natural causes of death for these age groups. It is observed that *influenza and pneumonia* was the only underlying cause of death common for all age groups. However, the ranking varied greatly by age. For example, deaths due to *influenza and pneumonia* were the third leading cause of death for age 0 (9,0%), second for age group 1–14 (9,0%), fourth for age group 15–44 (5,2%) and fifth for both age groups 45–64 (4,7%) and 65 years and older (4,6%).

For infant deaths*, respiratory and cardiovascular disorders specific to the perinatal period* was the leading underlying cause of death responsible for 14,3% of deaths in this age group. *Intestinal infectious diseases* were the second leading cause of death responsible for 13,8% deaths, followed by *influenza and pneumonia* responsible for 9,0% deaths in this age group*. Malnutrition* was ranked eighth and was responsible for 2,7% deaths in this age group.

The leading cause of death for those aged 1–14 years was *intestinal infectious diseases* accounting for 14,1% deaths in this age group followed by *influenza and pneumonia* which was responsible for 9,0% deaths. *Tuberculosis* was the third leading underlying cause of death responsible for 5,5% deaths. *Cerebral palsy and other paralytic syndromes* were in the top ten leading causes of death for only those aged 1–14 and was ranked tenth responsible for 1,7% deaths in this age group. *Malnutrition* and *other acute lower respiratory infectious* were amongst the ten leading causes of death only for age 0 and age group 1–14 although their rankings were different.

The leading cause of death for age group 15–44 was *tuberculosis* accounting for 15,2% deaths in this age group, followed by *HIV disease* which was responsible for 10,8% of deaths. *Other viral diseases* (6,0%), *influenza and pneumonia* (5,2%) and *certain disorders involving the immune mechanism* (3,3%) were ranked third, fourth and fifth respectively. *Certain disorders involving the immune mechanism* and *protozoal diseases* ranked fifth and tenth respectively, and were amongst the ten leading causes of death for only this age group.

For age groups 45–64 and 65 years and older, eight of the ten leading underlying causes of death were the same with the difference only in the rankings. The only two underlying causes of death which had the same ranking amongst the two groups were *diabetes mellitus and influenza and pneumonia* which ranked second and fifth respectively*.* On one hand, *other viral diseases* and *HIV diseases* were among the ten leading causes of death for age group 45-64 but not for age group 65 years and older. On the other hand, *intestinal infectious diseases* and *ischaemic heart diseases* were among the ten leading causes of death among those aged 65 years and older but not among those aged 45-64 years.

The leading underlying cause of death for age group 45–64, was *tuberculosis* and responsible for 10,5% deaths in this age group followed by *diabetes mellitus* responsible for 6,5% deaths. *HIV disease* was ranked fourth accounting for 5,0% deaths. Amongst those aged 65 years and older, *cerebrovascular diseases* were the first leading cause of death with 9,4% deaths, followed by *diabetes mellitus* accounting for 8,5% deaths in this age group. *Tuberculosis* was in the ninth position, responsible for 3,1% deaths.

Diabetes mellitus, hypertensive diseases, chronic lower respiratory diseases and *malignant neoplasm of digestive organs* were amongst the ten leading underlying causes of death for only age groups 45–64 and 65 years and older. *Intestinal infectious diseases* were amongst the ten leading underlying causes of death for all age groups except for age group 45–64 while *other viral diseases* was not one of the top leading causes of death in age group 65 years and older.

Table 4.7: The ten leading underlying natural causes of death for broad age groups, 2013

Causes of death (based on ICD-10)	0			1–14			15–44			45–64			65+		
	Rank	Number	%	Rank	Number	%	Rank	Number	%	Rank	Number	%	Rank	Number	%
Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	1	3 727	14,3	…	…	…	…	…	…	…	…	…	…	…	…
Intestinal infectious diseases (A00-A09)	2	3 591	13,8	1	1 946	14,1	6	3 946	2,8	…	…	…	10	3 352	2,3
Influenza and pneumonia (J09-J18)	3	2 343	9,0	2	1 244	9,0	4	7 274	5,2	5	6 032	4,7	5	6 749	4,6
Disorders related to length of gestation and fetal growth (P05-P08)	4	1 422	5,5	…	…	…	…	…	…	…	…	…	…	…	…
Other disorders originating in the perinatal period (P90-P96)	5	1 346	5,2	…	…	…	…	…	…	…	…	…	…	…	…
Infections specific to the perinatal period (P35-P39)	6	1 085	4,2	…	…	…	…	…	…	…	…	…	…	…	…
Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	7	833	3,2	…	…	…	…	…	…	…	…	…	…	…	…
Malnutrition (E40-E46)	8	701	2,7	4	636	4,6	…	…	…	…	…	…	…	…	…
Other acute lower respiratory infections (J20-J22)	9	513	2,0	9	260	1,9	…	…	…	…	…	…	…	…	…
Other viral diseases (B25-B34)	10	466	1,8	6	343	2,5	3	8 501	6,0	10	3 759	2,9	…	…	…
Tuberculosis (A15-A19)	…	…	…	3	754	5,5	1	21 521	15,2	1	13 380	10,5	9	4 491	3,1
Human immunodeficiency virus [HIV] disease (B20-B24)	…	…	…	5	460	3,3	2	15 201	10,8	4	6 361	5,0	…	…	…
Inflammatory diseases of the central nervous system (G00-G09)	…	…	…	7	336	2,4	8	2 361	1,7	…	…	…	…	…	…
Other forms of heart disease (I30-I52)	…	…	…	8	297	2,2	7	3 102	2,2	6	5 813	4,5	3	11 664	8,0
Cerebral palsy and other paralytic syndromes (G80-G83)	…	…	…	10	234	1,7	…	…	…	…	…	…	…	…	…
Certain disorders involving the immune mechanism (D80-D89)	…	…	…	…	…	…	5	4 692	3,3	…	…	…	…	…	…
Cerebrovascular diseases (I60-I69)	…	…	…	…	…	…	9	1 911	1,4	3	6 662	5,2	1	13 778	9,4
Protozoal diseases (B50-B64)	…	…	…	…	…	…	10	1 666	1,2	…	…	…	…	…	…
Diabetes mellitus (E10-E14)	…	…	…	…	…	…	…	…	…	2	8 265	6,5	2	12 415	8,5
Hypertensive diseases (I10-I15)	…	…	…	…	…	…	…	…	…	7	4 813	3,8	4	10 833	7,4
Chronic lower respiratory diseases (J40-J47)	…	…	…	…	…	…	…	…	…	8	4 397	3,4	7	6 332	4,3
Malignant neoplasm of digestive organs (C15-C26)	…	…	…	…	…	…	…	…	…	9	3 795	3,0	8	4 710	3,2
Ischaemic heart diseases (I20-I25)	…	…	…	…	…	…	…	…	…	…	…	…	6	6 678	4,6
Other natural causes		9 097	35,0		5 703	41,3		41 548	29,4		55 934	43,8		61 132	41,8
Non-natural causes		869	3,3		3 531	25,6		29 492	20,9		8 620	6,7		4 233	2,9
All causes		**25 993**	**100,0**		**15 744**	**100**		**141 215**	**100,0**		**127 831**	**100,0**		**146 367**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*. …Category not in top ten.

Leading underlying natural causes of death for children aged below five years by age groups, 2013

The ten leading causes of death for neonatal deaths (less than 29 days), post-neonatal deaths (29 days to 11 months), all infant deaths (aged less than one year), and deaths among those aged 1–4 years are shown in Table 4.8. Infant deaths are composed of both neonatal and post-neonatal deaths.

The number of neonatal deaths was 10 438 representing 40,2% of all infant deaths. Deaths due to *respiratory and cardiovascular disorders specific to the perinatal period* maintained their position as the first leading underlying cause of death amongst neonates, accounting for 35,2% of all deaths in 2013. *Other disorders originating in the perinatal period* ranked second contributing 12,8% of deaths among neonates. *Intestinal infectious diseases* were ranked tenth, and was responsible for 1,6% of neonatal deaths. The ten leading underlying causes of death during the neonatal period constituted 90,3% of deaths in this age group.

The leading underlying cause of death for those who died during the post-neonatal period was *intestinal infectious diseases* which accounted for 22,0% of deaths, followed by *influenza and pneumonia* which was responsible for 15,1% of deaths. The third leading underlying cause of death was *malnutrition* (4,5%) followed by *other acute lower respiratory infections* (3,2%). *Tuberculosis* was ranked tenth accounting for 1,4% of deaths and *HIV disease* (2,2%) occupied the eight position.

Among infants (less than one year) the first leading underlying cause of deaths was *respiratory and cardiovascular disorders specific to the perinatal period* (14,3%). *Intestinal infectious diseases* (13,8%) was ranked second. *Influenza and pneumonia* (9,0%), *disorders related to length of gestation and fetal growth* (5,5%) and *other disorders originating in the perinatal period* (5,2%) were ranked third, fourth and fifth respectively.

For the age group 1–4 years, the leading underlying cause of death was *intestinal infectious diseases* (17,0%). *Influenza and pneumonia* was ranked second, accounting for 9,8% of deaths. The third leading underlying cause of death was *malnutrition* (6,5%), followed by *tuberculosis* (3,2%) and *HIV disease* was ranked sixth (2,0%).

Overall, there were a total of 35 094 children who died before their fifth birthday in 2013. The first leading cause of death for children aged below five years was *intestinal infectious diseases* (14,6%), followed by *respiratory and cardiovascular disorders specific to the perinatal period* (10,6%). *Influenza and pneumonia* was ranked third and was responsible for 9,2% deaths followed by *disorders related to length of gestation and fetal growth* which ranked fourth and was responsible for 4,1% of deaths. *HIV disease* was not amongst the top ten leading causes of death when considering all children aged less than five years in total.

Table 4.8: The ten leading underlying natural causes of death for infants and children aged below five years, 2013

Causes of death (based on ICD-10)	Neonatal (0–28 days)			Post-neonatal (29 days to 11 months)			Infant (less than 1 year)			1–4 years			Under-5 years		
	Rank	Number	%	Rank	Number	%	Rank	Number	%	Rank	Number	%	Rank	Number	%
Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	1	3 676	35,2	...	...	...	1	3 727	14,3	...	...	...	2	3 727	10,6
Other disorders originating in the perinatal period (P90-P96)	2	1 341	12,8	...	...	...	5	1 346	5,2	...	...	...	5	1 348	3,8
Disorders related to length of gestation and fetal growth (P05-P08)	3	1 282	12,3	...	...	...	4	1 422	5,5	...	...	...	4	1 431	4,1
Infections specific to the perinatal period (P35-P39)	4	1 030	9,9	...	...	...	6	1 085	4,2	...	...	...	7	1 085	3,1
Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	5	824	7,9	...	...	...	7	833	3,2	...	...	...	8	833	2,4
Haemorrhagic and haematological disorders of fetus and new-born (P50-P61)	6	413	4,0	...	...	...	...	...	...	...	...	...	...	...	...
Other congenital malformations (Q80-Q89)	7	259	2,5	...	...	...	...	...	...	...	...	...	...	...	...
Digestive system disorders of fetus and new-born (P75-P78)	8	245	2,3	...	...	...	...	...	...	...	...	...	...	...	...
Congenital malformations of the circulatory system (Q20-Q28)	9	186	1,8	...	...	...	...	...	...	...	...	...	...	...	...
Intestinal infectious diseases (A00-A09)	10	167	1,6	1	3 424	22,0	2	3 591	13,8	1	1 546	17,0	1	5 137	14,6
Influenza and pneumonia (J09-J18)	...	...	...	2	2 343	15,1	3	2 343	9,0	2	892	9,8	3	3 235	9,2
Malnutrition (E40-E46)	...	...	...	3	701	4,5	8	701	2,7	3	592	6,5	6	1 293	3,7
Other acute lower respiratory infections (J20-J22)	...	...	...	4	501	3,2	9	513	2,0	7	176	1,9	9	689	2,0
Other bacterial diseases (A30-A49)	...	...	...	5	414	2,7	...	...	...	10	128	1,4	...	...	...
Other viral diseases (B25-B34)	...	...	...	6	393	2,5	10	466	1,8	5	189	2,1	10	655	1,9
Other diseases of the respiratory system (J95-J99)	...	...	...	7	343	2,2	...	...	...	...	...	...	...	...	...
Human immunodeficiency virus [HIV] disease (B20-B24)	...	...	...	8	342	2,2	...	...	...	6	186	2,0	...	...	...
Metabolic disorders (E70-E90)	...	...	...	9	276	1,8	...	...	...	...	...	...	...	...	...
Tuberculosis (A15-A19)*	...	...	...	10	222	1,4	...	...	...	4	288	3,2	...	...	...
Other forms of heart disease (I30-I52)	...	...	...	...	...	...	...	...	...	8	174	1,9	...	...	...
Inflammatory diseases of the central nervous system (G00-G09)	...	...	...	...	...	...	...	...	...	9	152	1,7	...	...	...
Other natural causes		894	8,6		5 848	37,6		9 097	35,0		3 195	35,1		13 209	37,6
Non-natural causes		121	1,2		748	4,8		869	3,3		1 583	17,4		2 452	7,0
All causes		**10 438**	**100,0**		**15 555**	**100,0**		**25 993**	**100,0**		**9 101**	**100,0**		**35 094**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*. … Category not in top ten.

Leading underlying natural causes of death for the population aged 15–24

The recommendation by the World Health Organization in the ICD-10 is that the 15–24 age group must also be included in the analysis for international comparison (WHO, 1992). The ten leading causes of death for age group 15–24 are depicted in Table 4.9. *Tuberculosis* was the leading cause of death for those aged 15–24, accounting for 10,1% of deaths in this age group, followed by *human immunodeficiency virus [HIV] disease* (5,9%) while *influenza and pneumonia* (3,7%) ranked third. *Other viral diseases* (3,4%)*, intestinal infectious diseases* (2,1%) and *other forms of heart disease* (1,8%) were ranked as the fourth, fifth and sixth leading causes of death, respectively. The ten leading causes of death in 2013 contributed 32,8% of deaths in this age group.

Table 4.9: The ten leading underlying natural causes of death for the population aged 15–24 years, 2013

Causes of death (based on ICD-10)	15–24		
	Rank	Number	Percentage
Tuberculosis (A15-A19)*	1	2 213	10,1
Human immunodeficiency virus [HIV] disease (B20-B24)	2	1 288	5,9
Influenza and pneumonia (J09-J18)	3	812	3,7
Other viral diseases (B25-B34)	4	739	3,4
Intestinal infectious diseases (A00-A09)	5	460	2,1
Other forms of heart disease (I30-I52)	6	400	1,8
Certain disorders involving the immune mechanism (D80-D89)	7	398	1,8
Inflammatory diseases of the central nervous system (G00-G09)	8	384	1,8
Episodic and paroxysmal disorders (G40-G47)	9	290	1,3
Other acute lower respiratory infections (J20-J22)	10	207	0,9
Other natural causes		5 491	25,0
Non-natural causes		9 255	42,2
All causes		**21 937**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Leading underlying natural causes of death by province of death occurrence

Table 4.10 shows the provincial variations in the ranking of the ten leading underlying causes of death for 2013. *Tuberculosis* was the leading cause of death in all provinces except Western Cape, Northern Cape and Limpopo where it ranked fourth in Western Cape and second in both Northern Cape and Limpopo provinces. *Diabetes mellitus* was the leading cause of death in Western Cape whereas *HIV disease* was the leading cause of death in Northern Cape and *influenza and pneumonia* the leading cause of death in Limpopo.

As stated in the 2012 statistical release, from 1997 to 2011; *tuberculosis* was the leading cause of death in Western Cape, while *influenza and pneumonia* has been the leading cause of death in Free State during the same period (Stats SA, 2014). The leading causes of death changed in 2012 in these provinces, whereby *diabetes mellitus* became the leading cause of death in Western Cape and *tuberculosis* the leading cause of death in Free State. This pattern was also maintained in 2013.

Another change in the leading cause of death was noted in Northern Cape. *Tuberculosis* was the leading cause of death in this province between 1997 and 2012 but changed to *HIV disease* in 2013, responsible for 8,7% deaths in the province. This is the first year since 1997 that *HIV disease* was ranked the leading cause of death in any province. It was the second leading cause of death in Eastern Cape and KwaZulu-Natal, accounting for 5,4% and 7,3% of deaths in these provinces respectively. *HIV disease* was the third leading cause of death in Western Cape, accounting for 6,0% of all deaths in this province.

It is worth noting that although *tuberculosis* ranked first in six provinces; its contribution differed by province. The highest proportion of deaths due to *tuberculosis* was observed in KwaZulu-Natal (11,9%), followed by Mpumalanga (10,6%) and Eastern Cape (9,8%). The proportion of deaths due to *tuberculosis* in all three of these provinces was higher than the national average of 8,8% in 2013. The lowest proportion of deaths due to *tuberculosis* was observed in Western Cape, contributing 5,7% of deaths in this province.

The causes of death that were common for all nine provinces were *diabetes mellitus*, *HIV disease, tuberculosis, cerebrovascular diseases, hypertensive diseases* and *other forms of heart disease*. However, the ranks of these causes differed between provinces. For example, while *diabetes mellitus* was the first leading cause of death in Western Cape (6,9%), it was the fifth leading cause in Eastern Cape (4,3%) and the seventh leading cause in Northern Cape (3,8%).

Influenza and pneumonia was among the ten leading causes of death in all provinces, with the exception of Western Cape. Conversely, *malignant neoplasms of respiratory and intrathoracic organs* were among the ten leading causes of death only in Western Cape. Furthermore, *other acute lower respiratory infections* and *inflammatory diseases of the central nervous system* were among the ten leading causes of death only in Mpumalanga and Limpopo respectively.

Detailed information on the distribution of the ten leading underlying causes by province, age and sex is provided in Appendices M to M.9.

Table 4.10: The ten leading underlying natural causes of death in each province of death occurrence, 2013*

Causes of death (based on ICD-10)	Western Cape			Eastern Cape			Northern Cape			Free State			KwaZulu-Natal			North West			Gauteng			Mpumalanga			Limpopo		
	Rank	No.	%	Rank	No.	%	Rank	No.	%	Rank	No.	%	Rank	No.	%	Rank	No.	%	Rank	No.	%	Rank	No.	%	Rank	No.	%
Diabetes mellitus (E10-E14)	1	3 174	6,9	5	2 734	4,3	7	522	3,8	6	1 366	4,1	4	4 796	5,7	8	1 432	4,0	4	3 960	4,1	6	1 664	4,8	4	2 472	5,2
Ischaemic heart diseases (I20-I25)	2	2 767	6,0	…	…	…	9	423	3,1	…	…	…	10	1 813	2,2	…	…	…	8	2 837	2,9	…	…	…	…	…	…
Human immunodeficiency virus [HIV] disease (B20-B24)	3	2 745	6,0	2	3 467	5,4	1	1 187	8,7	8	1 193	3,6	2	6 117	7,3	5	1 706	4,8	6	3 411	3,5	5	1 772	5,1	9	1 552	3,3
Tuberculosis (A15-A19)	4	2 643	5,7	1	6 272	9,8	2	1 061	7,7	1	2 843	8,5	1	10 007	11,9	1	3 097	8,7	1	7 142	7,3	1	3 700	10,6	2	3 653	7,7
Cerebrovascular diseases (I60-I69)	5	2 582	5,6	4	2 941	4,6	3	636	4,6	3	1 732	5,2	3	4 857	5,8	6	1 644	4,6	5	3 946	4,0	4	1 796	5,2	5	2 236	4,7
Chronic lower respiratory diseases (J40-J47)	6	2 184	4,7	6	2 399	3,8	6	546	4,0	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…
Malignant neoplasms of digestive organs (C15-C26)	7	2 074	4,5	10	1 520	2,4	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…
Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	8	2 063	4,5	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…
Hypertensive diseases (I10-I15)	9	1 684	3,7	7	2 154	3,4	4	621	4,5	7	1 331	4,0	9	2 855	3,4	4	1 835	5,2	7	3 162	3,2	9	1 404	4,0	8	1 635	3,4
Other forms of heart disease (I30-I52)	10	1 442	3,1	3	3 016	4,7	8	446	3,3	4	1 724	5,2	5	3 714	4,4	3	2 082	5,9	3	5 112	5,2	8	1 457	4,2	6	1 998	4,2
Other viral diseases (B25-B34)	…	…	…	9	1 853	2,9	…	…	…	9	976	2,9	8	3 123	3,7	9	1 151	3,2	9	2 645	2,7	7	1 530	4,4	7	1 637	3,4
Influenza and pneumonia (J09-J18)	…	…	…	8	2 007	3,1	5	600	4,4	2	2 455	7,4	7	3 213	3,8	2	2 487	7,0	2	5 772	5,9	2	2 037	5,9	1	4 009	8,4
Certain disorders involving the immune mechanism (D80-D89)	…	…	…	…	…	…	…	…	…	10	849	2,5	…	…	…	10	878	2,5	…	…	…	…	…	…	…	…	…
Intestinal infectious diseases (A00-A09)	…	…	…	…	…	…	10	378	2,8	5	1 374	4,1	6	3 362	4,0	7	1 449	4,1	10	2 293	2,3	3	1 823	5,2	3	3 136	6,6
Other acute lower respiratory infections (J20-J22)	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	10	1 052	3,0	…	…	…
Inflammatory diseases of the central nervous system (G00-G09)	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	…	10	1 133	2,4
Other natural causes		16 753	36,4		28 702	44,9		5 742	41,9		14 363	43,0		31 745	37,7		14 778	41,6		47 016	48,2		12 919	37,1		20 258	42,6
Non-natural causes		5 896	12,8		6 870	10,7		1 537	11,2		3 176	9,5		8 591	10,2		2 992	8,4		10 299	10,6		3 666	10,5		3 830	8,1
All causes		**46 007**	**100,0**		**63 935**	**100,0**		**13 699**	**100,0**		**33 382**	**100,0**		**84 193**	**100,0**		**35 531**	**100,0**		**97 595**	**100,0**		**34 820**	**100,0**		**47 549**	**100,0**

*Excluding deaths that occurred outside South Africa and deaths with unspecified province of death. **Including deaths due to *MDR-TB* and *XDR-TB*. … Category not in top ten.

Underlying causes of death by district/metropolitan municipality of death occurrence

Main group

The main groups of underlying causes of death by district/metropolitan municipalities are provided in Appendices N to N.2 and Appendices O to O.2. Appendices N to N.2 provide the number of deaths by main groups of causes of death for each district/metropolitan municipality of death occurrence while Appendices O to O.2 show their percentage distribution. Information on local municipality level is not provided in this release but is available on request from Stats SA.

Appendices N to N.2 show that *certain infectious and parasitic diseases* was the most common main group of causes of death in all provinces with the exception of Western Cape where *diseases of the circulatory system* was the most common main group of causes of death. *Certain infectious and parasitic diseases* was responsible for more than a quarter of deaths occurring in KwaZulu-Natal (29,2%) and Mpumalanga (28,5%). Western Cape had the lowest proportion of deaths due to *certain infectious and parasitic diseases* with 15,6% of deaths. The district municipalities worst affected *by certain infectious and parasitic diseases* were those in KwaZulu-Natal, particularly uMkhanyakude (37,2%), Zululand (36,6%), iLembe (35,9%) and uThukela (33,0%). The other district with the highest number of deaths due to *certain infectious and parasitic diseases* was Ehlanzeni in Mpumalanga accounting for 32,8% of all deaths in the district.

Diseases of the circulatory system which was the second most common main group of underlying causes of death for all deaths in 2013 was also the second most common cause of death for all provinces except for Western Cape (19,9%). *Diseases of the circulatory system* was the most common main group of underlying causes for all districts in the Western Cape; for two districts in Gauteng (City of Tshwane and Sedibeng); and for one district in both Northern Cape (Namakwa) and Free State (Fezile Dabi).

Certain infectious and parasitic diseases was the second most common main group of causes of death in three (Cape Winelands, Central Karoo and West Coast) out of the six districts in Western Cape Province. For the other three districts (Overberg, City of Cape Town and Eden), *neoplasms* was the second most common main group of causes of death, accounting for 20,1%; 18,3%; and 17,3% of total deaths in these districts respectively.

Diseases of the respiratory system was more prevalent in North West (12,7%), Limpopo (12,4%) and Free State (12,4%). With regard to district/metropolitan municipalities, *diseases of the respiratory system* was more prevalent in Greater Sekhukhune (16,5%) in Limpopo; Dr Ruth Segomotsi Mompati (14,7%) in North West; and Sedibeng (14,6%) in Gauteng. Deaths due to *diseases of the respiratory system* were lowest in uMkhanyakude district in KwaZulu-Natal and comprised 4,9% of all deaths in the district.

Broad groups

Appendices P to P.8 show the ten leading underlying causes of death by district/metropolitan municipality. The results show that *tuberculosis, diabetes mellitus, cerebrovascular diseases* and *other forms of heart disease* were part of the ten leading causes of death in all districts/metropolitan municipalities. *Tuberculosis* was the leading cause of death in all districts in Eastern Cape and Mpumalanga. In KwaZulu-Natal, *tuberculosis* was the leading cause of death in all districts except in uMkhanyakude; in Free Sate, it was the leading cause of death in all districts except in Lejweleputswa; and in North West, it was the leading cause of death in all districts except in Ngaka Modiri Molema. For Limpopo, Free State and North West, *influenza and pneum*onia was the leading cause of death in the districts where *tuberculosis* was not the leading cause.

Although *diabetes mellitus* and *other forms of heart disease* were part of the ten leading causes of death in all districts, they were the first leading cause of death only in the City of Cape Town and City of Tshwane respectively. *Cerebrovascular diseases* was the first leading cause of death only in Eden and Overberg both in Western Cape.

HIV disease was part of the ten leading causes of death for all districts in Western Cape, Northern Cape, KwaZulu-Natal, North West, Gauteng and Mpumalanga. It was the first leading cause of death for Cape Winelands in Western Cape; for three districts in the Northern Cape namely Siyanda, John Taolo Gaetsewe and Pixley ka Seme; and uMkhanyakude in KwaZulu-Natal. The only districts where *HIV disease* was not among the ten leading underlying causes of death were Buffalo City in the Eastern Cape; Fezile Dabi in the Free State; and Vhembe in Limpopo. The districts with the highest percentage of deaths (over 10%) due to *HIV disease* were uMkhanyakude (15,4%) in KwaZulu-Natal and John Taolo Gaetsewe in Northern Cape (12,4%).

Underlying natural causes of death by population group

Due to a large proportion of unknown or unspecified cases, the ten leading underlying natural causes of death by population group are not discussed in this section. The discussion and distribution of underlying causes of death by population group are provided in Appendices Q and Q.1, respectively.

4.8 Non-natural causes of death

This subsection discusses non-natural causes of death. When completing death notification forms, medical practitioners need to specify whether the deceased died from natural or non-natural causes. However this release uses non-natural cause of death as derived from the cause of death specified on the death notification form. All exter*nal causes of morbidity and mortality* (*V01-Y98*) are treated as non-natural causes of death.

Table 4.3 (see page 27) in this release showed the distribution of deaths by main groups of causes of death. It was indicated that 10,3% of all deaths that occurred in 2013 were due to *external causes of morbidity and mortality*. Table 4.11 further breaks down the external causes of morbidity and mortality by broad groups. It is observed that the majority of non-natural causes of death resulted from *other external causes of accidental injury* (56,4% of non-natural deaths and 5,8% of all deaths).

Event of undetermined intent was the second most common non-natural cause of death, accounting for 16,0% of non-natural causes and 1,6% of all deaths. The third most common cause of non-natural deaths was *transport accidents* (12,1%), followed by *assault* (10,6%). *Complications of medical and surgical care* accounted for 3,6% of non-natural deaths while 1,3% of non-natural deaths were due to *intentional self-harm*. *Sequelae of external causes of morbidity and mortality* and *legal intervention and operations of war* each accounted for less than 1% of non-natural causes of death.

Table 4.11: Number and percentage distribution of non-natural causes of death by broad groups, 2013

Causes of death (based on ICD-10, 1992)	Number	Percentage of non-natural causes	Percentage of all causes (N = 458 933)
Other external causes of accidental injury (W00-X59)	26 608	56,4	5,8
Event of undetermined intent (Y10-Y34)	7 557	16,0	1,6
Transport accidents (V01-V99)	5 698	12,1	1,2
Assault (X85-Y09)	5 019	10,6	1,1
Complications of medical and surgical care (Y40-Y84)	1 709	3,6	0,4
Intentional self-harm (X60-X84)	592	1,3	0,1
Sequelae of external causes of morbidity and mortality (Y85-Y89)	34	0,1	0,0
Legal intervention and operations of war (Y35-Y36)	2	0,0	0,0
Total	**47 219**	**100,0**	

A breakdown of deaths due to *other external causes of accidental injury* is provided in Table 4.12 to provide information that can be used for a better understanding of deaths due to this cause, which comprised nearly two-thirds of all non-natural deaths.

The table shows that almost half (45,6%) of these deaths were due to *accidental exposure to other and unspecified factors.* This mainly includes *exposure to unspecified factor* (including *accident not elsewhere classified* and *exposure not elsewhere classified*). The next common cause was *other accidental threats to breathing* (17,9%), which includes *accidental hanging and strangulation*. *Accidental hanging and strangulation* accounted for 80,5% of deaths due to *other accidental threads to breathing* (results not shown).

Deaths due to *exposure to inanimate mechanical forces* came third and this *includes discharge from other and unspecified firearms*. The fourth most commonly reported deaths due to *other external causes of accidental injury* was *exposure to smoke, fire and flames* (8,4%) followed by *accidental drowning and submersion* (5,7%).

Table 4.12: Number and percentage distribution of deaths due to other external causes of accidental injury, 2013

Cause of death (based on ICD-10)	Number	Percentage
Accidental exposure to other and unspecified factors (X58-X59)	12 123	45,6
Other accidental threats to breathing (W75-W84)	4 768	17,9
Exposure to inanimate mechanical forces (W20-W49)	4 303	16,2
Exposure to smoke, fire and flames (X00-X09)	2 227	8,4
Accidental drowning and submersion (W65-W74)	1 518	5,7
Accidental poisoning by and exposure to noxious substances (X40-X49)	799	3,0
Exposure to forces of nature (X30-X39)	282	1,1
Exposure to electric current, radiation and extreme ambient air temperature and pressure (W85-W99)	303	1,1
Falls (W00-W19)	181	0,7
Contact with venomous animals and plants (X20-X29)	49	0,2
Exposure to animate mechanical forces (W50-W64)	36	0,1
Overexertion, travel and privation (X50-X57)	11	0,0
Contact with heat and hot substances (X10-X19)	8	0,0
Total	**26 608**	**100,0**

Non-natural causes of death by age and sex

This subsection focuses on the distribution of non-natural causes of death by sex and broad age groups (0, 1–14, 15–29, 30–44, 45–64 and 65 and older). The 15–44 age group as recommended by the WHO (1992) has been divided into two age groups (15–29 and 30–44) for the analysis of non-natural deaths due to differing patterns in non-natural causes for these age groups. Table 4.13 shows the distribution of non-natural causes of death by sex and broad age groups for deaths that occurred in 2013. The absolute numbers and percentages for both sexes may not be similar to the results presented in Table 4.11 as deaths with missing sex and age are excluded.

For both sexes, the age group mostly affected by non-natural causes of death was age group 15–29 where 34,5% of all deaths in this age group were due to non-natural causes. The age group least affected by non-natural causes was 65 years and older where less than 3% of deaths in this age group were due to non-natural causes. *Assault* was more common among those aged 15–29, accounting for 11,2% of non-natural deaths in this age group.

Differences by sex show that males had a higher proportion of deaths due to non-natural causes (14,9%) as compared to females (5,1%). Furthermore, for each of the age groups, males had higher proportions of deaths due to non-natural causes compared to females, with the gap much wider at age group 15–29 where as much as 53,3% of male deaths resulted from non-natural cause compared to 12,8% of females in the same age group. This is the only age group where the proportion of non-natural deaths is more than that of natural deaths.

For males as well as females, non-natural deaths due to *complications of medical and surgical care* increased with increasing age. This cause of death was also highest amongst females as compared to males for all age groups. For specific causes, the main difference between males and females was the percentage of deaths due to *assault* and *complications of medical and surgical care.* On the one hand, as much as 12,3% of male non-natural deaths were due to *assault*, while 5,3% of female deaths were due to the same cause. On the other hand, 7,7% of female non-natural deaths were due to *complications of medical and surgical care* while 2,4% of male deaths were due to the same cause.

Non-natural deaths due to *transport accidents* were highest amongst females (13,3%) as compared to males (11,8%). For each of the sexes, *intentional self-harm* and *sequelae of external causes of morbidity and mortality* were uncommon, each comprising less than 5% of deaths for each sex.

For all age groups, *other external cause of accidental injury* was the highest non-natural cause of death followed by *event of undetermined intent*. However, these broad groups do not give valuable information they cover non-natural deaths not adequately classified.

Table 4.13: Underlying non-natural causes of death by age group and sex, 2013

Causes of death based on ICD-10	Number							Percentage						
	0	1–14	15–29	30–44	45–64	65+	Total	0	1–14	15–29	30–44	45–64	65+	Total
Both sexes*														
Transport accidents (V01-V99)	29	557	1 768	1 773	1 193	319	5 639	3,4	15,9	13,4	13,9	13,9	7,5	12,1
Other external causes of accidental injury (W00-X59)	729	2 376	8 376	7 231	4 843	2 652	26 207	84,8	67,6	54,8	56,3	56,3	62,7	56,3
Intentional self-harm (X60-X84)	0	15	275	161	110	26	587	0,0	0,4	1,2	1,3	1,3	0,6	1,3
Assault (X85-Y09)	12	42	2 758	1 474	547	132	4 965	1,4	1,2	11,2	6,4	6,4	3,1	10,7
Event of undetermined intent (Y10-Y34)	48	468	2 776	2 326	1 381	389	7 388	5,6	13,3	17,6	16,0	16,0	9,2	15,9
Legal intervention and operations of war (Y35-Y36)	0	0	0	1	1	0	2	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Complications of medical and surgical care (Y40-Y84)	42	54	170	221	520	698	1 705	4,9	1,5	1,7	6,0	6,0	16,5	3,7
Sequelae of external causes of morbidity and mortality (Y85-Y89)	0	2	4	3	12	13	34	0,0	0,1	0,0	0,1	0,1	0,3	0,1
Subtotal	**860**	**3 514**	**16 127**	**13 190**	**8 607**	**4 229**	**46 527**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**
Non-Natural causes	860	3 514	16 127	13 190	8 607	4 229	46 527	3,4	22,4	34,5	14,1	6,7	2,9	10,2
Natural causes	24 632	12 147	30 648	80 632	118 978	142 027	409 064	96,6	77,6	65,5	85,9	93,3	97,1	89,8
All causes	**25 492**	**15 661**	**46 775**	**93 822**	**127 585**	**146 256**	**455 591**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**
Males*														
Transport accidents (V01-V99)	20	326	1 340	1 417	880	189	4 172	4,2	15,4	10,0	13,1	13,5	8,8	11,8
Other external causes of accidental injury (W00-X59)	411	1 472	6 931	6 020	3 686	1 318	19 838	85,4	69,3	51,9	55,5	56,7	61,2	55,9
Intentional self-harm (X60-X84)	0	7	224	132	88	16	467	0,0	0,3	1,7	1,2	1,4	0,7	1,3
Assault (X85-Y09)	3	23	2 529	1 286	458	79	4 378	0,6	1,1	18,9	11,9	7,0	3,7	12,3
Event of undetermined intent (Y10-Y34)	27	263	2 239	1 889	1 088	225	5 731	5,6	12,4	16,8	17,4	16,7	10,5	16,2
Legal intervention and operations of war (Y35-Y36)	0	0	0	1	1	0	2	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Complications of medical and surgical care (Y40-Y84)	20	30	86	102	296	316	850	4,2	1,4	0,6	0,9	4,5	14,7	2,4
Sequelae of external causes of morbidity and mortality (Y85-Y89)	0	2	2	3	9	9	25	0,0	0,1	0,0	0,0	0,1	0,4	0,1
Subtotal	**481**	**2 123**	**13 351**	**10 850**	**6 506**	**2 152**	**35 463**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**
Non-Natural causes	481	2 123	13 351	10 850	6 506	2 152	35 463	3,5	25,1	53,3	20,3	8,7	3,4	14,9
Natural causes	13 093	6 330	11 709	42 531	68 273	60 852	202 788	96,5	74,9	46,7	79,7	91,3	96,6	85,1
All causes	**13 574**	**8 453**	**25 060**	**53 381**	**74 779**	**63 004**	**238 251**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**
Females*														
Transport accidents (V01-V99)	9	231	428	356	313	130	1 467	2,4	16,6	15,4	15,2	14,9	6,3	13,3
Other external causes of accidental injury (W00-X59)	318	904	1 445	1 211	1 157	1 334	6 369	83,9	65,0	52,1	51,8	55,1	64,2	57,6
Intentional self-harm (X60-X84)	0	8	51	29	22	10	120	0,0	0,6	1,8	1,2	1,0	0,5	1,1
Assault (X85-Y09)	9	19	229	188	89	53	587	2,4	1,4	8,2	8,0	4,2	2,6	5,3
Event of undetermined intent (Y10-Y34)	21	205	537	437	293	164	1 657	5,5	14,7	19,3	18,7	13,9	7,9	15,0
Complications of medical and surgical care (Y40-Y84)	22	24	84	119	224	382	855	5,8	1,7	3,0	5,1	10,7	18,4	7,7
Sequelae of external causes of morbidity and mortality (Y85-Y89)	0	0	2	0	3	4	9	0,0	0,0	0,1	0,0	0,1	0,2	0,1
Subtotal	**379**	**1 391**	**2 776**	**2 340**	**2 101**	**2 077**	**11 064**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**
Non-Natural causes	379	1 391	2 776	2 340	2 101	2 077	11 064	3,2	19,3	12,8	5,8	4,0	2,5	5,1
Natural causes	11 539	5 817	18 939	38 101	50 705	81 175	206 276	96,8	80,7	87,2	94,2	96,0	97,5	94,9
All causes	**11 918**	**7 208**	**21 715**	**40 441**	**52 806**	**83 252**	**217 340**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

*Excluding cases with unspecified age

Non-natural causes of death by province of death occurrence

The distribution of the underlying non-natural causes of death by province for 2013 is shown in Table 4.14. The table shows that Western Cape had the highest proportion of deaths due to non-natural causes (12,8%), followed by Northern Cape (11,2%); Eastern Cape (10,7%), Gauteng(10,6%) and Mpumalanga at 10,5%. The lowest percentages of deaths due to non-natural causes were observed in Limpopo (8,1%) and North West (8,4%). For KwaZulu-Natal, the proportion of deaths due to non-natural causes was 10,2%.

The most common causes of non-natural deaths in all provinces were *other external causes of accidental injury.* Western Cape was the only province where the second most common non-natural cause of death was *assault* accounting for 18,7% non-natural deaths in the province. For Limpopo (30,6%); Northern Cape (24,0%); Free State (18,5%) and Mpumalanga (11,7%) the second most common non-natural cause of death was *transport accidents*. *Event of undetermined intent* was the second most common non-natural cause of death in Gauteng (24,0%); North West (23,5%); Eastern Cape (16,8%) and KwaZulu-Natal (14,9%).

Intentional self-harm and *sequelae of external causes of morbidity and mortality* were least common, each affecting about 5% or less of non-natural deaths in each province except for Northern Cape where 7,7% of non-natural deaths were due to *intentional self-harm*. Also, *complications of medical and surgical care* was least common, affecting about 5% or less of non-natural deaths in each province except for Western Cape (5,2%) and Gauteng (5,0%).

Non-natural causes of death by district municipalities

The information provided in Appendices O to O.2 shows the proportion of deaths due to non-natural causes for each of the district/metropolitan municipalities. Non-natural causes of death belong to the main group *external causes of morbidity and mortality (V01-Y98)*.

The highest proportion of deaths due to non-natural causes was observed in the Central Karoo in Western Cape, where 14,7% of all deaths in the district were due to non-natural causes. It was closely followed by Namakwa in Northern Cape with 14,3% deaths due to non-natural causes and the City of Cape Town (13,8%) in Western Cape. The lowest percentages of deaths due to non-natural causes were observed in Mopani in Limpopo and Dr Ruth Segomotsi Mompati in North West where 6,6% and 6,7% of deaths were due to non-natural causes respectively. All districts in Western Cape had at least 9,5% of their deaths resulting from non-natural causes. North West and Limpopo were the only provinces where deaths due to non-natural causes were less than 10% for all the districts.

Table 4.14: Underlying non-natural causes of death by province, 2013

Causes of death (based on ICD-10)	Western Cape		Eastern Cape		Northern Cape		Free State		KwaZulu-Natal		North West		Gauteng		Mpumalanga		Limpopo	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Transport accidents (V01-V99)	547	9,3	795	11,6	371	24,1	587	18,5	942	11,0	419	14,0	369	3,6	429	11,7	1 173	30,6
Other external causes of accidental injury (W00-X59)	3 094	52,5	3 582	52,1	571	37,2	1 674	52,7	5 040	58,7	1 428	47,7	6 401	62,2	2 689	73,3	1 906	49,8
Intentional self-harm (X60-X84)	73	1,2	63	0,9	119	7,7	33	1,0	168	2,0	68	2,3	19	0,2	31	0,8	14	0,4
Assault (X85-Y09)	1 102	18,7	1080	15,7	355	23,1	494	15,6	855	10,0	284	9,5	521	5,1	127	3,5	177	4,6
Event of undetermined intent (Y10-Y34)	763	12,9	1 156	16,8	69	4,5	269	8,5	1 282	14,9	702	23,5	2 472	24,0	318	8,7	487	12,7
Legal intervention and operations of war (Y35-Y36)		0,0	1	0,0		0,0		0,0		0,0		0,0		0,0		0,0		0,0
Complications of medical and surgical care (Y40-Y84)	307	5,2	188	2,7	50	3,3	117	3,7	298	3,5	89	3,0	512	5,0	71	1,9	072	1,9
Sequelae of external causes of morbidity and mortality (Y85-Y89)	10	0,2	5	0,1	2	0,1	2	0,1	6	0,1	2	0,1	5	0,0	1	0,0	1	0,0
Sub-total	**5 896**	**100,0**	**6 870**	**100,0**	**1 537**	**100,0**	**3 176**	**100,0**	**8 591**	**100,0**	**2 992**	**100,0**	**10 299**	**100,0**	**3 666**	**100,0**	**3 830**	**100,0**
Non-natural causes	5 896	12,8	6 870	10,7	1 537	11,2	3 176	9,5	8 591	10,2	2 992	8,4	10 299	10,6	3 666	10,5	3 830	8,1
Natural causes	40 111	87,2	57 065	89,3	12 162	88,8	30 206	90,5	75 602	89,8	32 539	91,6	87 296	89,4	31 154	89,5	43 719	91,9
All causes	**46 007**	**100,0**	**63 935**	**100,0**	**13 699**	**100,0**	**33 382**	**100,0**	**84 193**	**100,0**	**35 531**	**100,0**	**97 595**	**100,0**	**34 820**	**100,0**	**47 549**	**100,0**

4.9 Comparison between immediate, contributing and underlying causes of death

This section provides information on the total number of causes of death reported on each form. As noted in Table 4.1 (see page 26), the death notification form makes provision for several causes to be reported on the form. The BI-1663 and DHA-1663 death notification forms provide space to enter as much as six underlying causes of death. However, the majority of forms for 2013 deaths (54,8%) had just one cause of death indicated. This was followed by 26,4% of forms which recorded two causes of death. A cause recorded on the form can be indicated as immediate, contributing or underlying.

Table 4.15 aggregates the total number of causes mentioned on each form and groups these in broad groups of causes of death. The broad groups of causes of death were then ranked and the twenty leading causes based on all causes of death recorded on each form are shown in Table 4.15. The list includes all causes of death (natural and non-natural), as well as deaths due to *symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified* to indicate the frequency of mentioning any cause on the death notification form.

In 2013, the most frequently reported cause of death was *tuberculosis* and was recorded on 58 051 death notification forms. In terms of percentage distribution, about 12,6% of all death notification forms had *tuberculosis* recorded as either an immediate, contributing or underlying cause of death. The second most commonly reported cause was *ill-defined and unknown causes of mortality* representing 53 151 (11,6%) deaths. *Other forms of heart disease* was the third most reported cause of death (11,1%), mentioned on 50 848 forms. *Influenza and pneumonia* and *hypertensive diseases* were fourth and fifth respectively. *Influenza and pneumonia* was reported on 46 925 (10,2%) death notification forms and *hypertensive diseases* reported on 44 866 (9,8%) forms.

Table 4.15: Number and percentage distribution of the 20 most commonly reported causes of death, 2013

Rank	Causes of death (based on ICD-10)	Number of deaths in which the causes was reported	Percentage of all deaths
1	Tuberculosis (A15-A19)	58 051	12,6
2	Ill-defined and unknown causes of mortality (R95-R99)	53 151	11,6
3	Other forms of heart disease (I30-I52)	50 848	11,1
4	Influenza and pneumonia (J09-J18)	46 925	10,2
5	Hypertensive diseases (I10-I15)	44 866	9,8
6	Cerebrovascular diseases (I60-I69)	32 853	7,2
7	Other external causes of accidental injury (W00-X59)	27 976	6,1
8	Other viral diseases (B25-B34)	25 314	5,5
9	Diabetes mellitus (E10-E14)	25 846	5,6
10	Intestinal infectious diseases (A00-A09)	21 947	4,8
11	Renal failure (N17-N19)	23 393	5,1
12	Other bacterial diseases (A30-A49)	22 657	4,9
13	Human immunodeficiency virus [HIV] disease (B20-B24)	24 103	5,3
14	Certain disorders involving the immune mechanism (D80-D89)	15 577	3,4
15	Other diseases of the respiratory system (J95-J99)	16 188	3,5
16	Ischaemic heart diseases (I20-I25)	17 654	3,8
17	Chronic lower respiratory diseases (J40-J47)	17 885	3,9
18	Metabolic disorders (E70-E90)	17 606	3,8
19	Other acute lower respiratory infections (J20-J22)	12 028	2,6
20	Malignant neoplasm of ill-defined, secondary and unspecified sites (C76-C80)	12 001	2,6

*Including deaths due to *MDR-TB* and *XDR-TB*.

All the natural underlying causes of death that appeared among the ten leading causes of death also appeared among the twenty-five most commonly mentioned causes. The ten leading underlying natural causes of death shown in Table 4.5 are presented in Table 4.16 to show the breakdown of the number of deaths by whether the death was selected as the underlying cause or whether it was reported as the immediate or contributing cause.

Within each category, the counts of underlying causes and immediate or contributing causes are not duplicated, so that they can be summed up to equal the total number of times a specific cause of death was recorded on a death notification form. For example, 23 727 deaths had *influenza and pneumonia* as the underlying cause and another 23 198 deaths had it as an immediate or contributing cause. This gives a total of 46 925 death notification forms that had *influenza and pneumonia* mentioned on them.

The percentage distributions show that *human immunodeficiency virus [HIV] disease* was selected in 96,3% of cases as the underlying cause where the disease was reported on the form. Furthermore, where *diabetes mellitus* was reported on the form, it was selected as the underlying cause in 85,9% of the forms while *tuberculosis* was selected as the underlying cause in 69,8% of the forms. The causes of death which, when mentioned, were least selected as the underlying causes were *other forms of heart diseases* (41,5%) and *hypertensive diseases* (37,3%).

Table 4.16: Number and percentage distribution of deaths selected as underlying or reported as immediate or contributing causes of death, 2013

Causes of death (ICD-10)	Under-lying rank	Number of deaths			Percentage of any mention		
		Underlying	Immediate or contributing	Total recorded	Underlying	Immediate or contributing	Total recorded
Tuberculosis (A15-A19)**	1	40 542	17 509	58 051	69,8	30,2	**100,0**
Influenza and pneumonia (J09-J18)	2	23 727	23 198	46 925	50,6	49,4	**100,0**
HIV disease (B20-B24)	3	23 203	900	24 103	96,3	3,7	**100,0**
Cerebrovascular diseases (I60-I69)	4	22 463	10 390	32 853	68,4	31,6	**100,0**
Diabetes mellitus (E10-E14)	5	22 196	3 650	25 846	85,9	14,1	**100,0**
Other forms of heart disease (I30-I52)	6	21 104	29 744	50 848	41,5	58,5	**100,0**
Hypertensive diseases (I10-I15)	7	16 754	28 112	44 866	37,3	62,7	**100,0**
Intestinal infectious diseases (A00-A09)	8	15 782	6 165	21 947	71,9	28,1	**100,0**
Other viral diseases (B25-B34)	9	13 614	11 700	25 314	53,8	46,2	**100,0**
Chronic lower respiratory diseases (J40-J47)	10	12 035	5 850	17 885	67,3	32,7	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

5. Summary and concluding remarks

Statistics on mortality and causes of death are an essential component of population health status and are required for identifying priority areas and for policy-making and programme implementation. Socio-economic planning and monitoring requires information on both the number of deaths and the causal sequences that led to the deaths. One of the best ways to help the living is by counting the dead, establishing both who died and the underlying causes based on data from the civil registration system (Ye et al., 2012).

This statistical release has provided information on mortality and causes of death for deaths that occurred in 2013 as well as information for death occurrences from 1997 to 2012. A total of 458 933 deaths that occurred in 2013 were registered at the Department of Home Affairs (DHA) and processed by Statistics South Africa (Stats SA). Deaths continue to decline in the country as observed from 2007 in registered deaths processed by Stats SA, following a persistent increase from 1997 to 2006. In 2013, the total number of deaths processed by Stats SA decreased by 6,5% from a total of 491 100 deaths that occurred in 2012.

The median ages at death continue to indicate a shift from mortality at young ages to mortality at older ages for both males and females. For 2013 deaths, male deaths peaked at age group 60–64 compared to 35–39 in 2012. The shift in deaths in the thirties indicates that males have joined females with declines in the proportion of deaths at young ages, coupled with increases in the share contributed at older ages. The majority of female deaths occurred amongst the 80–84 age group in 2013. In 2012, the proportions of female deaths followed the same pattern with older ages contributing higher percentages to the total number of female deaths.

The trends in causes of death show that *diseases of the respiratory system* has declined between 2011 and 2013, whilst *diseases of the circulatory system*, *external causes of morbidity and mortality, neoplasms and endocrine, nutritional and metabolic disorders* have increased between the three years. The continual increase in the proportion of deaths due to non-natural causes is fuelled by deaths among those aged 15–24 which show higher levels in these ages compared to 2012.

The ten leading causes of death in 2013 showed that *tuberculosis* was still the number one leading cause of death, followed by *influenza and pneumonia*. The most notable change in rank was for *human immunodeficiency virus (HIV) disease* which moved from being ranked sixth in 2012 and accounting for 3,9% to third rank in 2013 and accounting for 5,1% deaths. It is for the first time in South Africa that *HIV disease* was in the top five ranked causes. This may be suggestive of better reporting of the disease. *HIV disease* was the leading cause of death in Northern Cape; the second leading cause of death in Eastern Cape and KwaZulu-Natal; and the third leading cause of death in Western Cape. Among those aged 15–44, *HIV disease* was the second leading cause of death.

The results on causes of death by age show that *respiratory and cardiovascular disorders specific to the perinatal period* was the number one leading cause of deaths for those aged 0. For ages 1–14, *intestinal infectious diseases* were the leading cause of death; for ages groups 15–44 and 45–54 *tuberculosis* was the top ranked cause of death; and for ages 65 and older *cerebrovascular diseases* was the leading cause of death.

Causes of death by province show that six provinces continued to have *tuberculosis* as the number one leading cause of death in 2013. *Diabetes mellitus* maintained its ranking as the leading cause in Western Cape; *HIV disease* ranked highest in Northern Cape replacing *tuberculosis;* and Limpopo province continued to have *influenza and pneumonia* as the leading cause of death.

The production of mortality and causes of death information from civil registration depends on the quality of input data. It also emphasises on the need for enhanced efforts to register deaths and attribute the underlying causes of death. Some improvements have been observed over time. Timely registration of deaths was noted, with an indication that 76,7% of 2013 deaths were registered within the legislative period of 72 hours as compared to 74,9% in 2012.

Ill-defined causes of death indicate diagnoses that are vague, non-specific and not detailed enough for disease control and prevention programmes. The analysis of causes of death, shows that, 13,6% of all deaths were attributed to ill-defined causes in 2012, whereas in 2013 this declined to 12,7%. This decline is indicative of improvements in the reporting of causes of death.

Improvements in the quality of data on mortality and causes of death have been observed in the recent years. These include timely reporting of statistics; improved reporting of causes of death; and improvements in reporting background characteristics of the deceased such as population group. It is anticipated that the findings from this release will inform the on-going assessment of civil registration and vital statistics (CRVS) systems in the country by identifying areas that require improvement so that interventions required for strengthening the systems can be prioritised.

References

Bennett, N.G. & Horiuchi, S. 1981. *Estimating the Completeness of Death Registration in a Closed Population*. Population Index, 47(2): 207–21.

Bennett, N.G. & Horiuchi, S. 1984. *Mortality estimation from registered deaths in less developed countries, Demography*, 21(2): 217–234.

Hill, K. 1987. *Estimating Census and Death Registration Completeness, Asian and Pacific Population Forum*, 1(3): 8–13, 23–24.

Heron, M. 2012. *Deaths: Leading causes for 2008*, National Vital Statistics Reports, 60 (6). National Centre for Health Statistics

Mahapatra, P. & Shibuya, K. & Lopez, A. & Coullare, F. & Notzon, F.C. & Szreter, S. On behalf of the Monitoring Vital Events (MoVE) writing group, 2007. *Civil registration systems and vital statistics: successes and missed opportunities,* The Lancet, 370 (10): 1653–1663.

Republic of South Africa, 1992. Births and Deaths Registration Act, 1992 (Act No. 51 of 1992). Pretoria: Government of South Africa.

Republic of South Africa, 2010. Births and Deaths Registration Amendment Act, 2010 (Act No.18 of 2010). Pretoria: Government of South Africa.

Republic of South Africa, 2014. Regulations on the Registration of Births and Deaths (Government notice No. 37373). Pretoria: Government of South Africa.

Stats SA (Statistics South Africa), 2014. *Mortality and causes of death in South Africa, 2011: findings from death notification form.* Pretoria: Statistics South Africa.

UN (United Nations), 2004. *Handbook on the collection of fertility and mortality data*. Department of economic and social affairs: United Nations publication.

UN (United Nations), 2014. *Principles and recommendations for a vital statistics system*, *Third Revision*. Department of economic and social affairs: United Nations publication.

UNECA (United Nations Economic Commission for Africa), 2011. *Handbook on data sources and estimation of development indicators in African countries Millennium Development Goals*. United Nations Economic Commission for Africa African centre for statistics: United Nations publication.

WHO (World Health Organization) 1992. *International classification of diseases and related health problems, Tenth Revision.* Geneva: World Health Organization.

WHO (World Health Organization), 2009. *International classification of diseases and related health problems, Tenth Revision.* Volume 1, 2008 Edition. Geneva: World Health Organization.

WHO (World Health Organization), 2013. Analysing mortality levels and causes-of-death (ANACoD) Electronic Tool, Version 1.1. Department of Health Statistics and Information Systems, WHO, Geneva, Switzerland.

WHO (World Health Organization), 2014a. Analysing mortality levels and causes-of-death (ANACoD) Electronic Tool, Version 2.0. Department of Health Statistics and Information Systems, WHO, Geneva, Switzerland.

WHO (World Health Organization), 2014b. Performing routine basic checks on compiling cause-of-death data (CoDEdit) Electronic Tool, Version 1.0. Department of Health Statistics and Information Systems, WHO, Geneva, Switzerland.

Ye, Y., Wamukoya, M., Ezeh, A., Emina, J. & Sankoh, O, (2012). *Health and demographic surveillance systems: a step towards full civil registration and vital statistics system in sub-Sahara Africa? BMC Public Health, 12 (741): 1*–22.

Appendices

Appendix A: Definitions

Causes of death are all those diseases, morbid conditions, or injuries that either resulted in or contributed to death, and the circumstances of the accident or violence which produced any such injuries.

Contributing causes of death are morbid conditions, if any, giving rise to the immediate cause of death.

Death is a permanent disappearance of all evidence of life at any time after a *live birth* has taken place.

Human immunodeficiency virus (HIV) is the pathogenic organism responsible for the acquired immunodeficiency syndrome (AIDS), also known as the lymphadenopathy virus (LAV).

Immediate cause of death is the disease or condition directly leading to death.

Leading underlying causes of death are the most frequent underlying causes of death in any given population. In this release, the underlying causes of death are ranked according to frequency.

Live birth in relation to a child, means the birth of a child born alive..

Multiple causes of death are all morbid conditions, diseases and injuries entered on the death certificate. These include those involved in the morbid train of events leading to the death which were classified as either the underlying cause, the intermediate cause, or any intervening cause and those conditions which contributed to death but were not related to the disease or condition causing death.

Neonatal death is the death of a live-born child during the first 28 completed days of life.

Perinatal deaths are a combination of stillbirths and infants who die in the first week after birth (early neonatal deaths)

Post-neonatal death is a live-born infant dying after 28 completed days of birth but before the first year of life is completed.

Population group: According to the Population Registration Act Repeal Act (No. 114 of 1991), the South African Population Register no longer stores information regarding the population group of individuals whose details are on the register. This Repeal Act is still in place; therefore, the population group used in this report refers to the population group as identified by the certifying physician/professional nurse on the death notification form and is only used for statistical purposes.

Stillbirth is the intra-uterine death of a foetus of at least 26 weeks of gestation that showed no sign of life after complete birth.

Underlying cause of death (previously known as primary cause) is the disease or injury that initiated the sequence of events leading directly to death; or the circumstances of the accident or violence which produced the fatal injury.

Appendix B: Death notification form (BI-1663)

REPUBLIC OF SOUTH AFRICA
DEPARTMENT OF HOME AFFAIRS

BI - 1663

NOTIFICATION / REGISTER OF DEATH / STILL BIRTH

in terms of the Births and Deaths Registration Act, 1992 (Act No. 51 of 1992)

Space for Bar Code

* *Must be completed in black ink (please tick ✓ where applicable)*
* *Please refer to instructions*

SERIAL No: A0 1857265

FILE No: DATE:

A PARTICULARS OF DECEASED INDIVIDUAL / **STILLBORN CHILD**

Identity number of deceased | Date of death | Date of birth
Surname
Maiden Name (If female)
Forenames
Age at last birthday ___ years
Sex
If death occurred within 24 hours after birth No. of hours alive

MARITAL STATUS OF DECEASED Single | Civil Marriage | Living as married | Widowed | Religious Law Marriage | Divorced | Customary Marriage

Left thumb print of deceased

PLACE OF BIRTH (municipal district or country if abroad)
PLACE OF DEATH (City / Town / Village)
PLACE OF REGISTRATION OF DEATH
CITIZENSHIP OF DECEASED

B PARTICULARS OF INFORMANT

Identity number
Initials and Surname
Relationship to deceased: Parent | Spouse | Child | Other kin | Other (specify)
Postal address
Postal Code
Dialling Code
Telephone No.
Was the next of kin of the deceased a smoker* during the past five years? Yes | No | Refuse to answer
Date Signature

Left thumb print of informant

CANCELLED

C PARTICULARS OF FUNERAL UNDERTAKER

Initials and Surname
Designation No.
Place of burial / cremation
Date Signature

Office Stamp of Funeral Undertaker

D CERTIFICATE BY ATTENDING MEDICAL PRACTITIONER / PROFESSIONAL NURSE

I, the undersigned, hereby certify that the deceased named in Section A, to the best of my knowledge and belief, died solely and exclusively due to NATURAL CAUSES specified in Section G

I, the undersigned, am not in the position to certify that the deceased died exclusively due to natural causes

INITIALS AND SURNAME SIGNATURE

Postal Address
Postal Code
SAMDC / SANC Reg. No.
Date signed

CERTIFICATE BY DISTRICT SURGEON / FORENSIC PATHOLOGIST

I, the undersigned, hereby certify that a medicolegal post-mortem examination has been conducted on the body of the person whose particulars are given in Section A and that the body is no longer required for the purpose of the Inquest Act, 1959 (Act No. 58 of 1959) and that the cause of death is:

Unnatural | Under investigation | Natural (Cause of Death as indicated in Section G)

Initials and Surname
Place of post-mortem Date
Signature Date signed

Postal Address
Postal Code
Mortuary Reference
SAMDC Reg. No.

E FOR OFFICIAL USE ONLY

Registration of death approved and burial order issued
Initials and Surname of Registrar
Address
Force No. / Designation No.
Persal No.
Date Signature

Office Stamp ▷

* Someone who smokes tobacco on most days

PARAGON 225639 (H)

Appendix B: Reverse side of the BI-1663 death notification form

NOTIFICATION / REGISTER OF DEATH / STILL BIRTH

BI - 1663
Page 2

INFORMATION FOR MEDICAL AND HEALTH USE ONLY
(After completion *seal* to ensure confidentiality)

Space for Bar Code

SERIAL No: A01857265

FILE No: DATE:

F DEMOGRAPHIC DETAILS

Initials and Surname of deceased

Identity Number

Place of death 1. Hospital: (Inpatient ☐ ER/ Outpatient ☐ DOA ☐) 2. Nursing Home ☐ 3. Home ☐ 4. Other (Specify) ☐

FACILITY NAME (If not institution, give street and number)

Usual residential address of deceased # Suburb

Town / Village

Name of Plot, Farm, etc. Census Enumerator Area

Street name and number Magist. Dist.

Postal Code

Province

Country

Deceased's Education (Specify ✓ only highest class completed/achieved)

None	Gr1	Gr2	Gr3	Gr4	Gr5	Gr6	Gr7	Gr8 Form 1	Gr9 Form 2	Gr10 Form 3 NTC1	Gr11 Form 4 NTC2	Gr12 Form 5 NTC3	Univ Tech	CODE

USUAL OCCUPATION OF DECEASED (give type of work done during most of working life. Do not use retired)

TYPE OF BUSINESS / INDUSTRY (e.g. Mining, Farming) refer to instructions

CANCELLED

Was the deceased a smoker* five years ago? (✓) : Yes ☐ No ☐ Do not know ☐ Not applicable (minor) ☐

G MEDICAL CERTIFICATE OF CAUSE OF DEATH

FOR OFFICE USE ONLY ICD-10

PART 1. Enter the disease, injuries or complications that caused the death. Do not enter the mode of dying, such as cardiac or respiratory arrest, shock, or heart failure. List only one cause on each line.

Approximate interval between onset and Death (Days/Months/Years)

IMMEDIATE CAUSE (Final disease or condition resulting in death) a. ____ Due to (or as a consequence of)

Sequentially list conditions, if any, leading to immediate cause. Enter UNDERLYING CAUSE last (Disease or injury that initiated events resulting in death)

b. ____ Due to (or as a consequence of)

c. ____ Due to (or as a consequence of)

d. ____ Due to (or as a consequence of)

PART 2. Other significant conditions contributing to death but not resulting in the underlying cause given in Part 1.

If a **female**, was she pregnant 42 days prior to death? (✓) : Yes ☐ No ☐

If **stillborn**, please write mass in grams

Do you consider the deceased to be: African ☐ White ☐ Indian ☐ Coloured ☐ Other ☐ (Specify)

Method of ascertainment of cause of death:

1. Autopsy ☐ 2. Opinion of attending medical practitioner ☐ 3. Opinion of attending medical practitioner on duty ☐

4. Opinion of registered professional nurse ☐ 5. Interview of family member ☐

6. Other ☐ (Specify)

Where someone lived on most days

* Someone who smokes tobacco on most days

Appendix B1: Death notification form (DHA-1663A)

G.P.-S. 09/09

REPUBLIC OF SOUTH AFRICA
DEPARTMENT OF HOME AFFAIRS

DHA-1663 A
Page 1 of 3

BARCODE

NOTICE OF DEATH / STILL BIRTH

[Births and Deaths Registration Act 51 of 1992]
[Regulations 11 and 14]

To be completed in full and submitted at the Department of Home Affairs' office by the informant or authorised funeral undertaker. The form to be completed in black ink with **BLOCK LETTERS**. Please mark with ☑ the CORRECT box, where required. **All fields are COMPULSORY. Incomplete applications and applications that are not legible may be considered invalid.** (Note: The fingerprints of the deceased, the informant and the undertaker must be taken by the undertaker)

Serial number

A. PARTICULARS OF THE DECEASED

Instructions: Section A to be filled out by **Authorised Medical Practitioner / Professional Nurse,** who is responsible for examining the body to determine the cause of death . The **Informant must** verify, and where necessary, complete in full the personal particulars and other information of the deceased below.

1. Was this a death or a still birth? ☐ 1.1 Death ☐ 1.2 Still birth

Left thumbprint of deceased

2. Identification of the deceased (tick one box):

☐ 2.1 The deceased was identified with an ID document / passport (if foreigner) produced by the family

☐ 2.2 Still born child

☐ 2.3 The features of the deceased do not seem to match the features on the ID document or passport of deceased

☐ 2.4 ID document or passport of the deceased was not presented. The deceased was identified through word of mouth

☐ 2.5 The deceased was already buried prior to the completion of this form

☐ 2.6 The deceased was unidentifiable: ☐ 2.6.1 Burnt ☐ 2.6.2 Decomposed ☐ 2.6.3 Other (specify) _____

☐ 2.6.4 DNA samples retrieved for identification purposes ☐ 2.6.5 Dental records taken for identification purposes

Right thumbprint of deceased

3. Date of Death / still birth Y Y Y Y M M D D

4.1 Place of Death/still birth (City/Town/Village)

4.2 Province of Death/still birth

5. Place of Registration of Death / still birth

6. If death occurred within 24 hours after birth, number of hours alive

7. Home telephone no.

8. Identity No. (Passport No. if foreigner)

9. Age at last birthday if DOB is unknown

10. Date of Birth if there is no ID number Y Y Y Y M M D D

11. Gender ☐ 11.1 Male ☐ 11.2 Female ☐ 11.3 Indeterminable

12. Surname

13. Previous / Maiden Surname

14. Forenames

15. Usual* Residential Address: Street

Town

Province

Postal code

16. Citizenship

16.1 Place of Birth (City / Town / Village) or Country of Birth, if abroad

16.2 Province of Birth

17. Marital Status of the deceased ☐ 17.1 Single ☐ 17.2 Married ☐ 17.3 Widowed ☐ 17.4 Divorced

18. Education level of deceased, (Specify only the highest class completed)

None	Gr R	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	Gr 6	Gr 7	Gr 8 Form 1	Gr 9 Form 2	Gr 10 Form 3 NTC 1	Gr 11 Form 4 NTC 2	Gr 12 Form 5 NTC 3	Univ Tech	Unknown
(mark with a ☑)															

19. Usual occupation of deceased (type of work done during most of working life)

20. Type of business / industry: (mark with a ☑)

1. Agriculture, hunting, forestry and fishing	2. Mining and quarrying	3. Manufacturing	4. Electricity, gas and water supply	5. Construction	6. Wholesale and retail trade; repair of motor vehicles, motor cycles and personal and household goods; hotels and restaurants	7. Transport, storage and communication	8. Financial intermediation, insurance, real estate and business services	9. Community, social and personal services	10. Private households, exterritorial organisations, representatives of foreign governments & other activities not adequately defined

21. Was the deceased a regular** smoker five years ago? (mark with a ☑) ☐ 21.1 Yes ☐ 21.2 No ☐ 21.3 Do not know ☐ 21.4 Not applicable (minor)

* Where the deceased lived on most days. **Smoking tobacco on most days.

Appendix B1: Death notification form (DHA-1663A) – page 2 of 3

G.P.-S. 09/09

REPUBLIC OF SOUTH AFRICA
DEPARTMENT OF HOME AFFAIRS

DHA-1663 A
Page 2 of 3

BARCODE

NOTICE OF DEATH / STILL BIRTH

[Births and Deaths Registration Act 51 of 1992]

[Regulations 11 and 14]

To be completed in full and submitted at the Department of Home Affairs' office by the informant or authorised funeral undertaker. The form to be completed in black ink with **BLOCK LETTERS**. Please mark with ☑ the CORRECT box, where required. **All fields are COMPULSORY. Incomplete applications and applications that are not legible may be considered invalid.** (Note: The fingerprints of the deceased, the informant and the undertaker must be taken by the undertaker)

Serial number

B. CERTIFICATE BY ATTENDING MEDICAL PRACTITIONER / PROFESSIONAL NURSE

Instructions: Section B to be filled out by the **same Medical Practitioner / Professional Nurse** who completed Section A.

☐ 22.1 I, the undersigned, hereby certify that the deceased named in **Section A**, to the best of my knowledge and belief, died solely and exclusively due to **Natural Causes**

☐ 22.2 I, the undersigned, **am not** in a position to certify that the deceased died exclusively due to **Natural Causes**

Particulars of the Medical Practitioner / Professional Nurse who filled out the form: 23. HPCSA Registration No.

24. Surname

25. Forenames

26. Name of Health Facility / Practice 27. Facility / Practice No.

28. Business Address: Street

Town Province

Telephone No. (Office) Postal Code

Office stamp of health facility or practice

I, the undersigned, hereby certify that I examined the body of the deceased named in section A and declare that the deceased, to the best of my knowledge and belief, died solely and exclusively due to natural or unnatural causes as indicated on paragraph 22 and in case this is not true, I shall be guilty of an offence and on conviction liable to a fine or to imprisonment for a period not exceeding five years or to both such fine and such imprisonment (Section 31(1)(b) of the Act 51 of 1992.)

Place signed

Date signed Y Y Y Y M M D D Signature

C. CERTIFICATE BY MEDICAL PRACTITIONER/ FORENSIC PATHOLOGIST

Instructions: Section C to be filled out by **Medical Practitioner or Forensic Pathologist**, who is conducting medico-legal investigation of death.

29. I, the undersigned, hereby certify that a medico-legal investigation of death has been conducted on the body of the person whose particulars are given in Section A and that the body is no longer required for the purpose of the Inquest Act, 1959 (Act No. 58 of 1959) and the cause of death is:

☐ 30.1 Natural ☐ 30.2 Unnatural ☐ 30.3 Under investigation

31. Date of Post-mortem Y Y Y Y M M D D

32. Name of Medico-legal Mortuary / Mortuary 33. Mortuary No.

34. Mortuary Reference Number of Deceased

35. SAPS Case No. 36. Name of Police Station

Particulars of the Medical Practitioner / Forensic Pathologist who filled out the form: HPCSA Registration No.

37. Surname

38. Forenames

39. Business Address Street

Town Province Postal Code

Telephone No. (Office)

Office stamp of mortuary

I, the undersigned, hereby certify that I examined the body of the deceased named in section A and the deceased, to the best of my knowledge and belief, died solely and exclusively due to natural or unnatural causes as indicated on paragraph 29 and in case this is not true, I shall be guilty of an offence and on conviction liable to a fine or to imprisonment for a period not exceeding five years or to both such fine and such imprisonment (Section 31(1)(b) of the Act 51 of 1992.)

Place signed

Date signed Y Y Y Y M M D D Signature

D. PARTICULARS OF INFORMANT

Instructions: Section D to be completed by **informant.** Informant is responsible for certifying the identity of the deceased.

40. Identity No. (Passport No. if foreigner) 41. Date of Birth Y Y Y Y M M D D

42. Citizenship

43. Surname

44. Forenames

45. Residential Address: Street

Town

Province Postal Code

Left thumb print of informant

Telephone No. (Home) Cellphone No.

46. The **Deceased** is my: ☐ 46.1 Parent ☐ 46.2 Spouse ☐ 46.3 Child ☐ 46.4 Other, Specify

I, the undersigned, hereby certify that the identity of the deceased mentioned in section A is to the best of my knowledge and belief true and correct in case it is not true, I shall be guilty of an offence and on conviction liable to a fine or to imprisonment for a period not exceeding five years or to both such fine and such imprisonment (Section 31(1)(b) of the Act 51 of 1992.)

Signature Date signed Y Y Y Y M M D D Place signed

Appendix B1: Death notification form (DHA-1663A) – page 3 of 3

G.P.-S. 09/09

REPUBLIC OF SOUTH AFRICA
DEPARTMENT OF HOME AFFAIRS

DHA-1663 A
Page 3 of 3

BARCODE

NOTICE OF DEATH / STILL BIRTH

[Births and Deaths Registration Act 51 of 1992]
[Regulations 11 and 14]

To be completed in full and submitted at the Department of Home Affairs' office by the informant or authorised funeral undertaker. The form to be completed in black ink with **BLOCK LETTERS**. Please mark with ☑ the CORRECT box, where required. **All fields are COMPULSORY. Incomplete applications and applications that are not legible may be considered invalid.** (Note: The fingerprints of the deceased, the informant and the undertaker must be taken by the undertaker)

Serial number

E. PARTICULARS OF FUNERAL UNDERTAKER

Instructions: Section E to be completed by **Funeral Undertaker**. The undertaker must take his or her finger print, the finger print of the deceased and the informant. **Authorised Funeral Undertaker or Informant** may submit the completed form to the nearest Home Affairs office.

47. Name of Funeral Parlour

48. DHA Designation No.

49. Company Reg. No.

50. SARS Reg. No. (Income tax reference no.)

Details of Funeral Undertaker or Authorised Representative

51. Identity No. (Passport No. if foreigner)

52. Surname

53. Forenames

54. Business Address Street

Town

Province

Postal Code

Left thumbprint of funeral undertaker

Telephone No. (Office)

Cellphone No.

55. Date of collection of corpse Y Y Y Y M M D D

56. Date of Cremation (if applicable) Y Y Y Y M M D D

57. Place of Burial (City / Town / Village)

Province

58. Date of Burial Y Y Y Y M M D D

59. Grave No. (if available)

Office stamp of funeral undertaker

Name of person who collected the deceased:

60. Identity No. (Passport No. if foreigner)

61. Surname

62. Forenames

Place signed _____

Date signed Y Y Y Y M M D D

Signature _____

F. FOR OFFICIAL USE ONLY

Registration of death approved, DHA-1663 received by (particulars of DHA official):

Office stamp of DHA

63. Identity No.

64. Surname

65. Forenames

66. Persal No.

Documents included with this notice:

- ☐ Copy of the deceased's ID
- ☐ Copy of ID document of the informant
- ☐ DHA - 6 (if applicable)
- ☐ DHA - 1680 (if applicable)

DHA-1663 was submitted by:

- ☐ Informant
- ☐ Funeral Undertaker

Appendix B2: Death notification form (DHA-1663B)

NOTICE OF DEATH / STILL BIRTH

DHA-1663 B

Confirmation for Medical and Health use Only

Page 1 of 1

(After completion seal to ensure confidentiality)

To be completed in full and submitted at the Department of Home Affairs' office by the informant or authorised party. The form to be completed in black ink with **BLOCK LETTERS**. Please mark with ☑ the CORRECT box, where required.
All fields are COMPULSORY. Incomplete applications and applications that are not legible may be considered invalid.

File no _____ Date _____

G. MEDICAL CERTIFICATE OF CAUSE OF DEATH

Instructions: Section G is to be filled out by **Medical Practitioner /Professional Nurse / Forensic Pathologist**, who has determined the cause of death

PARTICULARS OF DECEASED

67. Identity No. (Passport No. if foreigner)

68. Gender ☐ 68.1 Male ☐ 68.2 Female ☐ 68.3 Indeterminable

69. Surname

70. Forenames

71. Population Group ☐ 71.1 African ☐ 71.2 White ☐ 71.3 Indian/Asian ☐ 71.4 Coloured ☐ 71.5 Other (specify) _____

72. Place of Death ☐ 72.1 Hospital/Inpatient ☐ 72.2 ER/Outpatient ☐ 72.3 DOA ☐ 72.4 Nursing Home ☐ 72.5 At Home ☐ 72.6 Other (specify)

73. Name of Health Facility/Practice

74. Facility Contact Telephone No. incl. Area Code

75. Patient File No.

76. Contact Person at Facility: Surname

Forenames

Role/Rank

G.1 FOR DEATHS OCCURRING AFTER ONE WEEK OF BIRTH

Instructions: Section G.1 is to be completed for **all deaths** that occurred after one week of birth

77. CAUSES OF DEATH

For office use only

		Approximate interval between onset and death (Days / Months / Years)	ICD-10
Part 1	Enter the disease, injuries or complications that caused the death. Do not enter the mode of dying, such as cardiac or respiratory arrest, shock or heart failure. **List only one cause on each line**		
IMMEDIATE CAUSE (final disease or condition resulting in death)	a)		
	Due to (or as a consequence of)		
Sequentially list conditions, if any, leading to immediate cause.	b)		
	Due to (or as a consequence of)		
Enter UNDERLYING CAUSE last (Disease or injury that initiated events resulting in death)	c)		
	Due to (or as a consequence of)		
	d)		
Part 2	Other significant conditions contributing to death but not resulting in underlying cause given in **Part 1**		

78. If a **female**, was she pregnant at the time of death or up to 42 days prior to death? (☑) ☐ 82.1 Yes ☐ 82.2 No

79. Method used to ascertain the cause of death (tick all that apply):

☐ 79.1 Autopsy ☐ 79.2 Post mortem examination ☐ 79.3 Opinion of attending medical practitioner ☐ 79.4 Opinion of attending medical practitioner on duty

☐ 79.5 Opinion of registered professional nurse ☐ 79.6 Interview of family member ☐ 79.7 Other (specify) _____

G.2 FOR STILL BIRTHS AND DEATHS OCCURRING WITHIN ONE WEEK OF BIRTH (PERINATAL DEATHS)

Instructions: Section G.2 is to be completed for all **still births and deaths** that occurred within one week of birth (perinatal deaths)

Mother

80. Identity Number

81. Date Of Birth Y Y Y Y M M D D

82. Age of last birthday/ DoB unknown

83. Number of previous pregnancies resulting in:

☐☐ 83.1 Live births ☐☐ 83.2 Still births ☐☐ 83.3 Abortions

84. Outcome of last previous pregnancy (tick one):

☐ 84.1 Live birth ☐ 84.2 Still birth ☐ 84.3 Abortion

85. Date of last previous delivery Y Y Y Y M M D D

86. First day of last menstrual period Y Y Y Y M M D D

Or, if unknown, estimated duration of pregnancy (in completed weeks)

87. Method of delivery: ☐ 87.1 Spontaneous ☐ 87.2 Forceps delivery ☐ 87.3 Forceps and rotation ☐ 87.4 Vacuum extractor ☐ 87.5 Caesarean section ☐ 87.6 Other (specify) _____

88. Antenatal care two or more visits:

☐ 88.1 Yes ☐ 88.2 No ☐ 88.3 Unknown

Child

89. Type of death: ☐ 89.1 Still birth ☐ 89.2 Live birth

90. Birth weight (in grams)

91. This birth was: ☐ 91.1 Single birth ☐ 91.2 First twin ☐ 91.3 Second twin ☐ 91.4 Other multiple

92. If still born, heartbeat ceased:

☐ 92.1 Before labour

☐ 92.2 During labour but before delivery

☐ 92.3 Before delivery but not known whether before or during labour

93. If death occurred within 24 hours after birth, number of hours alive ☐☐

94. Attendant at birth:

☐ 94.1 Physician

☐ 94.2 Trained midwife

☐ 94.3 Other trained person (specify) _____

☐ 94.4 Other (specify) _____

95. CAUSES OF DEATH

a. Main disease or conditions in foetus or infant _____

b. Other diseases or conditions in foetus or infant _____

c. Main maternal disease or condition affecting foetus or infant _____

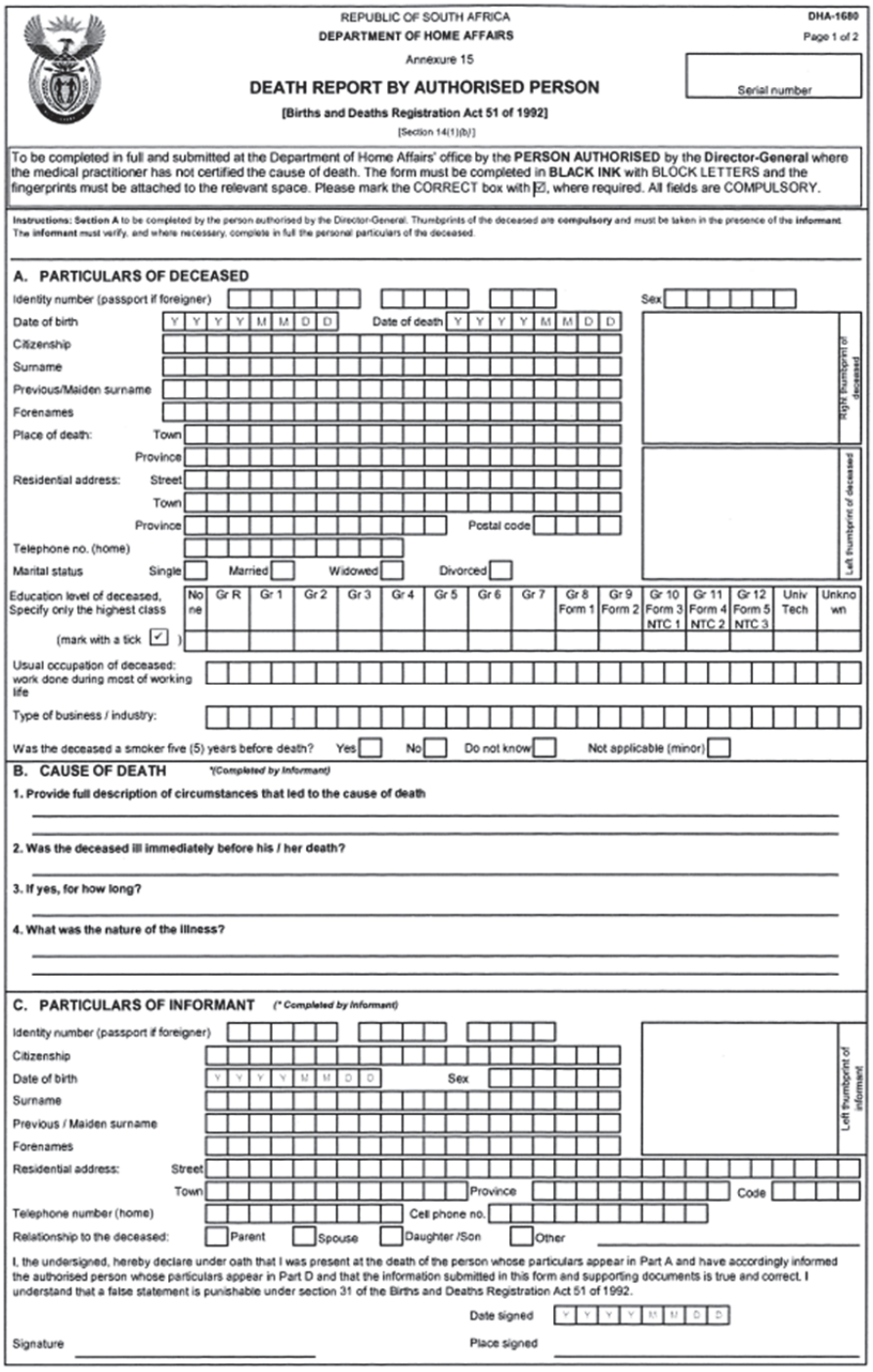
d. Other maternal diseases or conditions affecting foetus or infant _____

e. Other relevant circumstances _____

96. Autopsy information (☑)

☐ 96.1 Certified causes of death has been confirmed by autopsy ☐ 96.2 Autopsy information may be available later ☐ 96.3 Autopsy not performed

Appendix B3: Death report form (DHA-1680)



REPUBLIC OF SOUTH AFRICA
DEPARTMENT OF HOME AFFAIRS

DHA-1680
Page 1 of 2

Annexure 15

DEATH REPORT BY AUTHORISED PERSON

[Births and Deaths Registration Act 51 of 1992]

[Section 14(1)(b)]

Serial number

To be completed in full and submitted at the Department of Home Affairs' office by the **PERSON AUTHORISED** by the **Director-General** where the medical practitioner has not certified the cause of death. The form must be completed in **BLACK INK** with BLOCK LETTERS and the fingerprints must be attached to the relevant space. Please mark the CORRECT box with ☑, where required. All fields are COMPULSORY.

Instructions: Section A to be completed by the person authorised by the Director-General. Thumbprints of the deceased are **compulsory** and must be taken in the presence of the **informant**. The **informant** must verify, and where necessary, complete in full the personal particulars of the deceased.

A. PARTICULARS OF DECEASED

Identity number (passport if foreigner) | Sex

Date of birth (Y Y Y Y M M D D) | Date of death (Y Y Y Y M M D D)

Right thumbprint of deceased

Citizenship

Surname

Previous/Maiden surname

Forenames

Place of death: Town

Province

Residential address: Street

Town

Province | Postal code

Left thumbprint of deceased

Telephone no. (home)

Marital status: Single ☐ Married ☐ Widowed ☐ Divorced ☐

Education level of deceased, Specify only the highest class	None	Gr R	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	Gr 6	Gr 7	Gr 8 Form 1	Gr 9 Form 2	Gr 10 Form 3 NTC 1	Gr 11 Form 4 NTC 2	Gr 12 Form 5 NTC 3	Univ Tech	Unknown
(mark with a tick ☑)																

Usual occupation of deceased: work done during most of working life

Type of business / industry:

Was the deceased a smoker five (5) years before death? Yes ☐ No ☐ Do not know ☐ Not applicable (minor) ☐

B. CAUSE OF DEATH *(Completed by Informant)*

1. Provide full description of circumstances that led to the cause of death

2. Was the deceased ill immediately before his / her death?

3. If yes, for how long?

4. What was the nature of the illness?

C. PARTICULARS OF INFORMANT *(* Completed by Informant)*

Identity number (passport if foreigner)

Citizenship

Date of birth (Y Y Y Y M M D D) | Sex

Surname

Previous / Maiden surname

Forenames

Left thumbprint of informant

Residential address: Street

Town | Province | Code

Telephone number (home) | Cell phone no.

Relationship to the deceased: ☐ Parent ☐ Spouse ☐ Daughter /Son ☐ Other

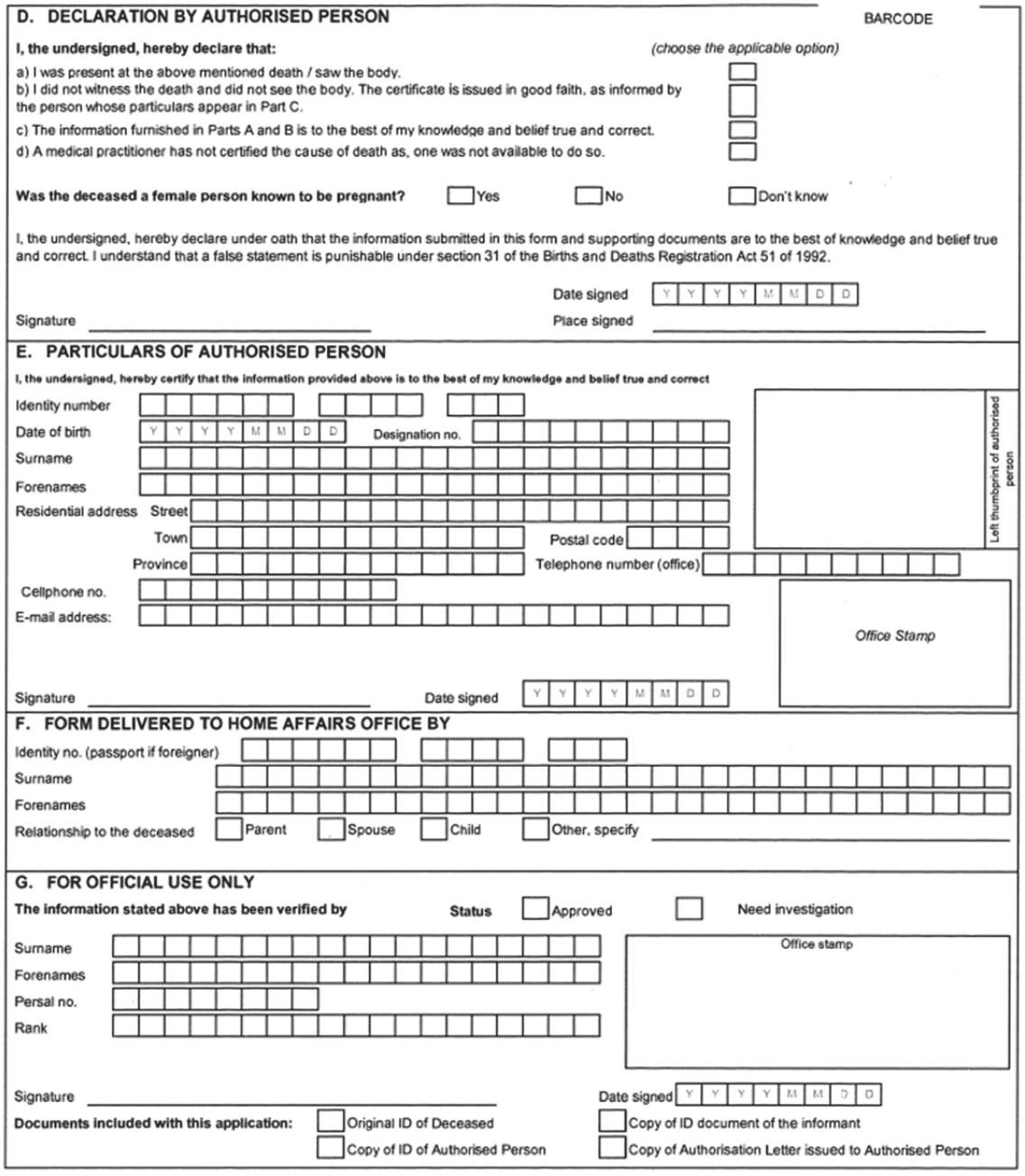
I, the undersigned, hereby declare under oath that I was present at the death of the person whose particulars appear in Part A and have accordingly informed the authorised person whose particulars appear in Part D and that the information submitted in this form and supporting documents is true and correct. I understand that a false statement is punishable under section 31 of the Births and Deaths Registration Act 51 of 1992.

Date signed (Y Y Y Y M M D D)

Signature

Place signed

Appendix B3: Reverse side of the death report form (BI-1680)



D. DECLARATION BY AUTHORISED PERSON BARCODE

I, the undersigned, hereby declare that: *(choose the applicable option)*

a) I was present at the above mentioned death / saw the body. ☐
b) I did not witness the death and did not see the body. The certificate is issued in good faith, as informed by the person whose particulars appear in Part C. ☐
c) The information furnished in Parts A and B is to the best of my knowledge and belief true and correct. ☐
d) A medical practitioner has not certified the cause of death as, one was not available to do so. ☐

Was the deceased a female person known to be pregnant? ☐ Yes ☐ No ☐ Don't know

I, the undersigned, hereby declare under oath that the information submitted in this form and supporting documents are to the best of knowledge and belief true and correct. I understand that a false statement is punishable under section 31 of the Births and Deaths Registration Act 51 of 1992.

Date signed Y Y Y Y M M D D

Signature _____ Place signed _____

E. PARTICULARS OF AUTHORISED PERSON

I, the undersigned, hereby certify that the information provided above is to the best of my knowledge and belief true and correct

Identity number

Date of birth Y Y Y Y M M D D Designation no.

Surname

Forenames

Residential address Street

Town Postal code

Province Telephone number (office)

Cellphone no.

E-mail address:

Left thumbprint of authorised person

Office Stamp

Signature _____ Date signed Y Y Y Y M M D D

F. FORM DELIVERED TO HOME AFFAIRS OFFICE BY

Identity no. (passport if foreigner)

Surname

Forenames

Relationship to the deceased ☐ Parent ☐ Spouse ☐ Child ☐ Other, specify _____

G. FOR OFFICIAL USE ONLY

The information stated above has been verified by **Status** ☐ Approved ☐ Need investigation

Surname

Forenames

Persal no.

Rank

Office stamp

Signature _____ Date signed Y Y Y Y M M D D

Documents included with this application:

☐ Original ID of Deceased
☐ Copy of ID of Authorised Person
☐ Copy of ID document of the informant
☐ Copy of Authorisation Letter issued to Authorised Person

Appendix C: Assessment of the quality of data

The quality of mortality and causes of death data can be affected by the completeness of death registration in a country; the timeliness of registering the death; the timeliness of publishing the statistics on deaths; accuracy of information provided; ill-defined causes of death; and misreporting of causes of death.

Completeness of death registration

Completeness of death registration refers to the proportion of deaths that occurred in a specific period and were covered by the civil registration system of a country. The 2011 census results allowed for the estimation of completeness of deaths covered by the civil registration system for the intercensal period 2007–2011, focusing on adult deaths (15 years and older). The methods used to derive the level of completeness of deaths were the Generalised Growth Balance (GGB) as proposed by Hill (1987), and the Synthetic Extinct Generation method (SEG) by Bennett and Horiuchi (1981, 1984). For the underlying assumptions and method of estimation followed on deriving completeness for the intercensal period 2007–2011, refer to Stats SA (2014).

Overall completeness for adult (15 years and older) death registration was estimated at 94% (Stats SA, 2014) for the 2007–2011 period. This same estimate of completeness will be maintained until the results of the next census are available. As such, it is estimated that 94% of adult deaths are covered in this release. The estimation of the completeness of death registration for ages younger than 15 years is currently being explored.

Timeliness of death registration

Timeliness of death registration refers to the time taken between the date on which a death took place and the date on which it was registered at the Department of Home Affairs (DHA). Timeliness in death registration implies that all deaths are registered within the legally stipulated time allowance (UN, 2014). The Regulations for the Registration of Births and Deaths published in 2014 stipulate that a death must be registered within 72 hours (3 days) of occurrence (Republic of South Africa, 2014).

Table C.1 shows the number of days it took for deaths that took place in 2013 to be registered at DHA offices. About 14,6% deaths that occurred in 2013 were registered within the first day of occurrence. By the end of the first day of death occurrence, a cumulative total of 44,1% of the deaths had been registered and 63,2% by the second day of death occurrence. The proportion of deaths that were registered within the 72 hours prescribed by the Regulations legislative framework was 76,7%. Although the majority of deaths were registered within the prescribed 72 hour period, there still needs to be concerted efforts to minimise the 23,3% of death registrations falling outside the legislative framework period.

Table C.1: Distribution of deaths by the number of days it took to register the death, 2013

Number of days	Number of deaths	Percentage	Cumulative percentage
Within a day of death	66 881	14,6	14,6
1 day	135 694	29,6	44,1
2 days	87 505	19,1	63,2
3 days	61 910	13,5	76,7
4 days	36 643	8,0	84,7
5 days	21 336	4,6	89,3
6 days	12 460	2,7	92,0
7-13 days	21 566	4,7	96,7
14-20 days	3 723	0,8	97,6
21-30 days	2 508	0,5	98,1
31-364 days	8 552	1,9	100,0
1 year+	155	0,0	100,0
Total	**458 933**	**100,0**	

Timeliness of publication of the statistics

Timeliness of publication refers to the mean time from end of reference period to publication. This publication marks the reduction of the period between the end of the reference period (December 2013) and the date of publication of the 2013 results on mortality and causes of death to 11 months. This has reduced from 20 months it took the 2012 statistics to be published and 26 months for the 2011 deaths.

Timeliness of reporting also refers to the extent to which data for previous years are published with data for the year of interest. The data for previous years may reflect deaths that are registered late, as well as deaths that were registered on time but the death notification forms were received by Stats SA for processing much later than they were registered.

Table C.2 shows information on the number of deaths published in September 2014 for the years 1997–2012, with additional forms received during the current 2014 processing phase; and the overall number of deaths for each year as of December 2014. Overall, there were 21 814 additional forms received in the 2014 processing phase for deaths that occurred between 1997 and 2012. Almost half of the additional forms (48,7%), totalling 10 624 were deaths that occurred in 2012.

The distribution of deaths from 1997 to 2013 by age and sex, updated with late registrations or delayed death notification forms processed in 2014 is provided in Appendices D (1997–1999), D.1 (2000–2002), D.2 (2003–2005), D.3 (2006–2008), D.4 (2009–2011) and D.5 (2012–2013).

Table C.2: Number of deaths published in December 2014 and late registrations processed during the 2014 processing phase by year of death, 1997–2012

Year of death	Number of deaths published in September 2014	Additional forms received in the 2014 processing phase	Total number of deaths (by December 2014)
1997	317 236	176	317 412
1998	365 941	183	366 124
1999	381 919	202	382 121
2000	416 483	335	416 818
2001	455 235	421	455 656
2002	502 424	373	502 797
2003	557 152	640	557 792
2004	577 139	684	577 823
2005	598 412	454	598 866
2006	613 198	493	613 691
2007	604 497	951	605 448
2008	595 787	1 229	597 016
2009	580 479	1 545	582 024
2010	548 597	1 328	549 925
2011	512 310	2 176	514 486
2012	480 476	10 624	491 100
Total	**8 107 285**	**21 814**	**8 129 099**

Data confrontation

In order to assess the quality of data, the number of deaths provided in this release was compared with number of deaths from the National Population Register (NPR). While both data sources provide the number of registered deaths, the two sources are different in two ways:

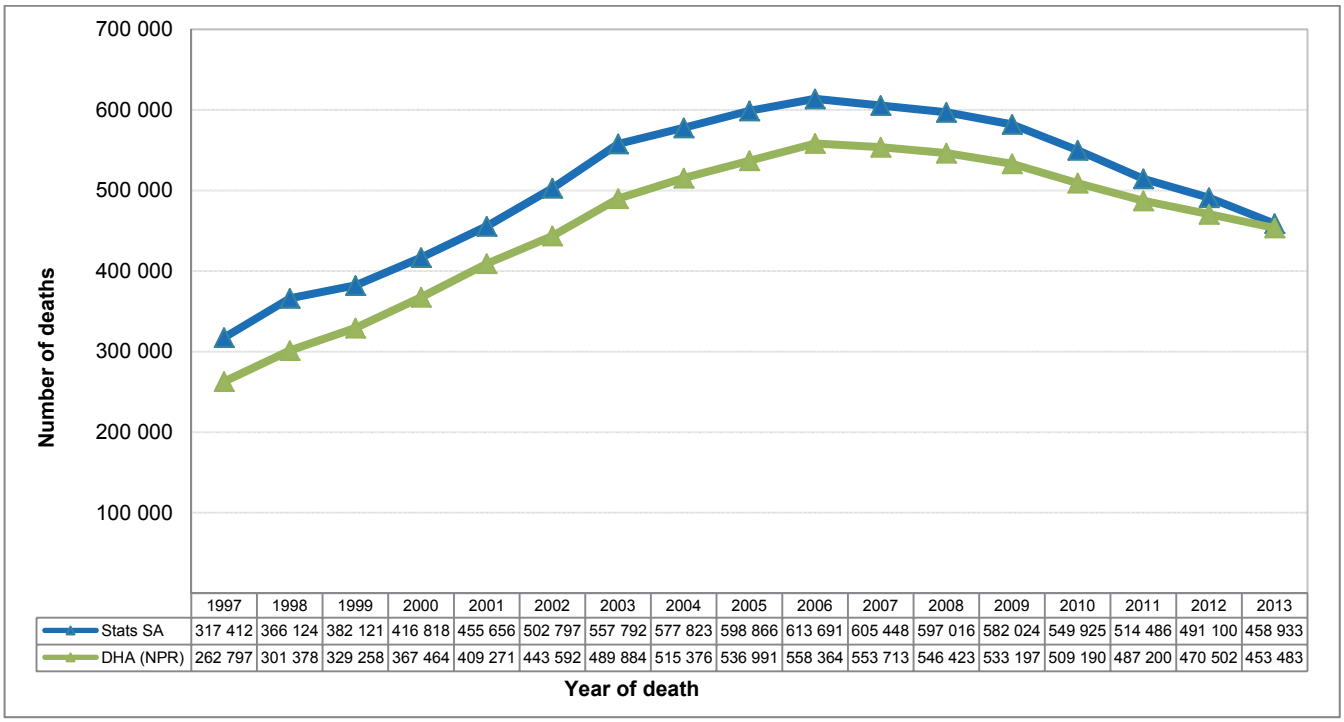
- Data from the civil registration system reported in this release are based on all death occurrences that were registered at DHA and processed by Stats SA. The data cover all registered deaths, including deaths of: South African citizens in the NPR, South African citizens not in the NPR, permanent residents and non-citizens. However, not all forms reach Stats SA in time for processing.

- Data from the NPR are based on death occurrences for South African citizens and permanent residents whose records were already included in the NPR (through birth registration) at the time of death. All registered deaths on the NPR are included.

Figure C.1 shows the distribution of deaths for deaths processed by Stats SA as well as deaths captured in the NPR. The main finding is that the two sources have followed a similar pattern over time: increasing number of deaths during the years 1997 to 2006 and declining deaths thereafter. However, deaths processed by Stats SA remained higher than those on the NPR, which is expected given that Stats SA reports on all registered deaths.

It must be noted that the differences between the death records from the two sources will possibly widen with the capturing of delayed forms which had not been received in time for the processing phase. For example, in the 2012 mortality and causes of death statistical release, 480 476 deaths were processed and published by Stats SA while for the same year 470 444 death records were found on the NPR (Stats SA, 2014). In the current release, the 2012 deaths increased to 491 100 with the processing of additional forms while the DHA (NPR) deaths increased to 470 502, indicating an increase of 2,2% for deaths processed by Stats SA and an increase of 0,01% deaths processed by DHA. This implies that the number of additional forms was higher for Stats SA, indicating that some death notification forms were missed due to delays in the transfer of forms from DHA to Stats SA and late registrations.

Figure C.1: Number of registered deaths by source of data and year of death, 1997–2013*



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Stats SA	317 412	366 124	382 121	416 818	455 656	502 797	557 792	577 823	598 866	613 691	605 448	597 016	582 024	549 925	514 486	491 100	458 933
DHA (NPR)	262 797	301 378	329 258	367 464	409 271	443 592	489 884	515 376	536 991	558 364	553 713	546 423	533 197	509 190	487 200	470 502	453 483

*Data for 1997–2012 have been updated with late registrations / delayed death notification forms processed in 2014.

Quality of causes of death information

Table C.3 provides the assessment of the quality of causes of death data based on the number and percentage distribution of ill-defined causes by sex. An ill-defined cause indicates diagnoses that is vague, non-specific and not detailed enough for disease control and prevention programmes. For both sexes, the highest proportions of ill-defined causes were *symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified* (48,9%) followed by *heart failure* (10,7%) then *essential (primary) hypertension* (6,8%). Although ill-defined causes still help to provide the overall mortality due to broad diseases, they fail to provide a concise picture because they poorly attribute the underlying cause.

Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified accounted for 48,2% and 49,6% of all ill-defined causes for males and females, respectively. The proportion of ill-defined causes assigned to *heart failure* was higher amongst females (11,8%) relative to males (9,6%).The proportion of ill-defined causes assigned to *essential hypertension* was higher amongst females (8,4%) compared to males (5,3%).

The differences in reporting ill-defined causes by sex were minimal. The main differences were noted in the reporting of *essential (primary) hypertension* and *event of undetermined intent*. On the one hand, the reporting of *essential (primary) hypertension* was higher amongst females (8,4%) compared to males (5,3%). On the other hand, reporting of event of *undetermined intent* was higher for males (9,9%) compared to females (2,8%).

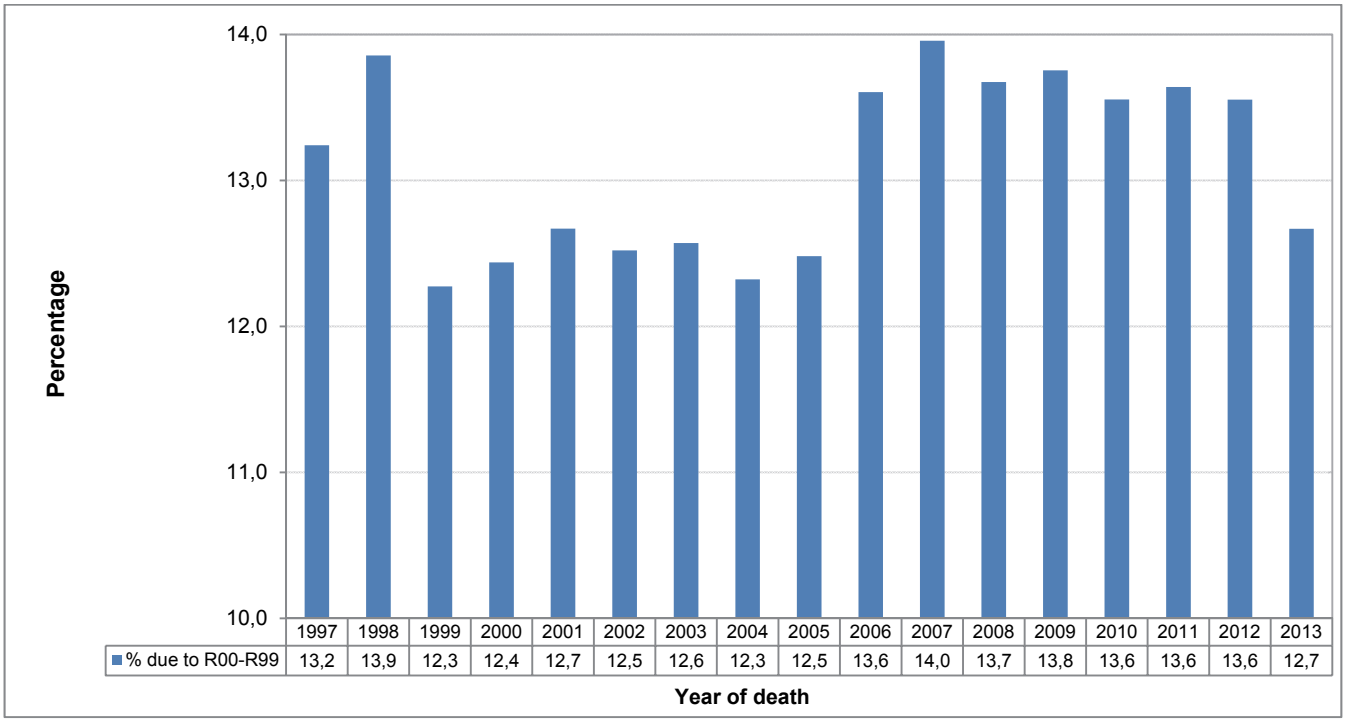
Table C.3: Number and percentage distribution of ill-defined causes of death by sex of the deceased, 2013*

Underlying cause of death (based on ICD-10)	Number			Percentage		
	Male	Female	Both sexes	Male	Female	Both sexes
Streptococcal septicaemia (A40)	1	1	2	0,0	0,0	0,0
Other septicaemia (A41)	2 420	2 894	5 314	4,1	4,9	4,5
Malignant neoplasm of other and ill–defined sites (C76)	182	311	493	0,3	0,5	0,4
Malignant neoplasm without specification of site (C80)	1 484	1 388	2 872	2,5	2,3	2,4
Malignant neoplasm of independent (primary) multiple sites (C97)	272	247	519	0,5	0,4	0,4
Disseminated intravascular coagulation [defibrination syndrome] (D65)	27	51	78	0,0	0,1	0,1
Volume depletion (E86)	750	761	1 511	1,3	1,3	1,3
Essential (primary) hypertension (I10)	3 108	4 982	8 090	5,3	8,4	6,8
Cardiac arrest (I46)	1 456	1 631	3 087	2,5	2,7	2,6
Heart failure (I50)	5 636	7 051	12 687	9,6	11,8	10,7
Complications and ill–defined descriptions of heart disease (I51)	533	530	1 063	0,9	0,9	0,9
Other and unspecified disorders of circulatory system (I99)	21	23	44	0,0	0,0	0,0
Pulmonary oedema (J81)	166	199	365	0,3	0,3	0,3
Respiratory failure, not elsewhere classified (J96)	804	745	1 549	1,4	1,3	1,3
Hepatic failure, not elsewhere classified (K72)	717	594	1 311	1,2	1,0	1,1
Acute renal failure (N17)	467	420	887	0,8	0,7	0,7
Chronic renal failure (N18)	817	763	1 580	1,4	1,3	1,3
Unspecified renal failure (N19)	2 254	2 148	4 402	3,8	3,6	3,7
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	28 292	29 546	57 838	48,2	49,6	48,9
Event of undetermined intent (Y10-Y34)	5 784	1 662	7 446	9,9	2,8	6,3
Total of ill-defined	**58 716**	**59 585**	**118 301**	**100,0**	**100,0**	**100,0**

*Excluding deaths with unspecified sex.

Since the results from Table C.3 show that almost half of all ill-defined causes of death were attributed to *symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified*, it was therefore important to further analyse trends in reporting this group. Figure C.2 shows the percentage distribution of deaths assigned to *symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified* from 1997 to 2013. Generally, the results show that the percentage of deaths due to this group during 1997 to 2013 was between 12% and 14%. The lowest proportion of 12,3% was recorded in 1999 and the highest proportion of 14,0% was recorded in 2007. After 2007, the proportion remained in the range of 13,5%−13,7% up to 2012. In 2013 the proportion of deaths assigned to this group declined to 12,7%.

Figure C.2: Percentage distribution of deaths assigned to symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified by year of death, 1997–2013*



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
% due to R00-R99	13,2	13,9	12,3	12,4	12,7	12,5	12,6	12,3	12,5	13,6	14,0	13,7	13,8	13,6	13,6	13,6	12,7

* Data for 1997–2012 have been updated with late registrations / delayed death notification forms processed in 2014.

Assessment framework for death registration data

The assessment framework proposed by Mahapatra *et* al. (2007) is one among other methods which can be used to assess the quality of death registration data received from civil registration systems. This release adopts this framework to assess the quality of the 2013 data for the category of vital statistics and the category of causes of death statistics. Both categories measure the level of accuracy, relevance and comparability. Additional measures include timeliness and accessibility.

The results are shown in Table C.4 and Table C.5. The general vital statistics and causes of deaths columns evaluate the quality of death registration data in terms of five quality dimensions: level of accuracy, relevance, comparability, timeliness and accessibility.

In terms of the accuracy dimension, Table C.4 provides the proportion of unknown or unspecified information for key variables. The 'Unknown cases' refers to cases where the option Unknown was selected on the death notification form or more than one option was selected on the form or else where the information could not be classified according to specified categories. 'Unspecified cases' refers to missing information for that variable.

Of the 2013 deaths registered at DHA and processed by Stats SA, less than 1% had unknown or unspecified information for age of deceased (0,4%), sex of deceased (0,4%) and province of death occurrence (0,2%). Generally, these three variables have been well reported over time. Province of usual residence of the deceased and province of birth were missing in 1,8% and 17,3% of the forms, respectively.

Incomplete information for population group of the deceased was 13,5% in 2013, down from 15,6% in 2012. This is a notable improvement considering that over the period 1997 to 2010, missing information on this variable was constant at around 25%. Missing information for marital status was 15,9% in 2013. The 2013 results further indicate that occupation (70,9%), industry (53,5%) and pregnancy status (78,3%) remain the three variables with over half of the information classified as unknown or unspecified. In this release, no analyses were undertaken for all variables where more than half of the deaths had unknown or unspecified information. However, a dataset containing unit records on mortality and causes of death 2013, which include variables not covered in this release due to poor reporting, is available on request from Stats SA.

For causes-of-death statistics, the results show that less than half (48,4%) of the deaths occurred within a health care facility in 2013. Based on routine tabulations by sex and 5-year age groups as well as the fact that tabulation of cause-of-death information is provided for the nine provinces and 52 district municipalities in the country, the cause-of-death statistics are regarded as completely relevant. Furthermore, the tools used in coding causes of death for 2013 were similar to those used in previous years, the variables included in causes of death data for 2012 have been consistent over the years and the ICD-10 was used for coding causes of death, thus ensuring that data are comparable over time and with other countries.

Mahapatra et al. (2007) propose that at most 10% of cause-of-death statistics should be assigned to *symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified* categories. The 2013 data show that 12,7% of all deaths were assigned to ill-defined causes. However, despite falling short from the recommended threshold, there is a slight improvement from previous years where ill-defined causes were between 13,5% and 13,7%.

Processing 2013 data on causes of death took nine months and the time from end of reference period to publication was 11 months. Processing 2013 data took a shorter time than the previous years as additional data processing personnel were employed to expedite data processing. Shorter processing time ensures that the mean time from end of reference period to publication is reduced which in turn improves timeliness.

Table C.5 further shows that there is wide accessibility to the statistical release and datasets published on mortality and causes of death. The data published in this release are available for download from the Stats SA website or can be provided on compact disk through contacting Stats SA User Information Services.

Table C.4: Percentage of deaths classified as unknown/unspecified for selected variables, 2013

Variables	Applicable group	Percentage unknown or unspecified
Sex	All	0,4
Age	All	0,4
Province of death occurrence	All	0,2
Province of usual residence of deceased	All	1,8
Population group	All	13,5
Province of birth	All	17,3
Place or institution of death occurrence	All	22,9
Method used to ascertain cause of death	All	29,6
Marital Status	All	15,9
Smoking status	Aged 16 and older	35,5
Education	Aged 6 and older	44,9
Occupation	Aged 15 and older	70,9
Industry	Aged 15 and older (economically active)	53,5
Pregnancy status	Females aged 10–55	78,3

Table C.5: Assessment of the 2013 South African death statistics from civil registration system using the framework proposed by Mahapatra et al. (2007)

General vital statistics		Cause-of-death statistics	
Criteria and indicators	**Measure**	**Criteria and indicators**	**Measure**
Accuracy Completeness of death registration for adults (2007–2011)	94%	**Accuracy** Proportion of deaths that occurred in healthcare facilities	48,4%
Missing data See Table C.4		Proportion of deaths assigned to symptoms and signs of disease not elsewhere classified (R00-R99)	12,7%
Relevance Routine tabulations by sex and 5-year age groups	100%	**Relevance** Routine tabulation by sex and 5-year age groups	100%
Deaths in children under five years tabulated by 0 and 1–4-year age group	100%	Number of cause-of-death tabulation areas	9 provinces and 52 district/metropolitan municipalities
Comparability Stability of key definitions over time	100%	**Comparability** Consistency of cause-specific mortality proportions over consecutive years	100%
Uniformity of definitions across areas	100%	ICD coding for certification and coding of causes of deaths, revision used and code level to which tabulations are published	Coding causes of death using the tenth revision at 4/5-digit level
Timeliness Processing time	9 months		
Time from end of reference period to publication	11 months		
Accessibility Media - number of formats in which data are released	Two: website and compact discs		
Metadata	Published on the web and on compact disc, and available on request		
Availability of user service	Email: info@statssa.gov.za / Tel: 012 310 8600 / Fax 012 310 8500 and 012 310 8495		

Appendix D: Number of deaths by age, sex and year of death, 1997–1999*

Age group	1997				1998				1999			
	Male	Female	Unsp.	Total	Male	Female	Unsp.	Total	Male	Female	Unsp.	Total
0	12 988	11 546	203	**24 737**	14 928	13 255	314	**28 497**	14 732	13 456	438	**28 626**
1-4	4 051	3 650	52	**7 753**	4 860	4 487	96	**9 443**	5 069	4 637	98	**9 804**
5-9	1 706	1 254	17	**2 977**	1 780	1 435	36	**3 251**	1 894	1 507	34	**3 435**
10-14	1 547	1 194	20	**2 761**	1 694	1 288	23	**3 005**	1 650	1 305	23	**2 978**
15-19	3 777	2 478	23	**6 278**	4 108	2 906	63	**7 077**	4 355	3 332	89	**7 776**
20-24	8 180	5 458	52	**13 690**	8 793	6 915	112	**15 820**	8 642	8 298	105	**17 045**
25-29	10 928	7 444	44	**18 416**	13 079	9 872	111	**23 062**	13 891	12 629	141	**26 661**
30-34	11 836	7 196	51	**19 083**	14 372	9 716	130	**24 218**	16 298	12 273	120	**28 691**
35-39	11 982	6 865	52	**18 899**	14 615	8 938	97	**23 650**	16 458	10 819	111	**27 388**
40-44	11 790	6 411	36	**18 237**	13 935	7 929	95	**21 959**	15 212	8 930	91	**24 233**
45-49	12 228	6 368	52	**18 648**	14 193	7 683	89	**21 965**	14 978	8 521	101	**23 600**
50-54	11 304	6 247	30	**17 581**	13 009	7 210	79	**20 298**	13 876	7 761	81	**21 718**
55-59	12 654	7 929	46	**20 629**	13 927	8 876	107	**22 910**	14 067	8 682	84	**22 833**
60-64	11 191	9 291	50	**20 532**	12 430	9 998	60	**22 488**	12 682	10 040	84	**22 806**
65-69	12 469	11 041	45	**23 555**	13 249	12 456	83	**25 788**	12 830	12 314	91	**25 235**
70-74	11 290	10 062	48	**21 400**	12 735	11 791	53	**24 579**	12 855	12 250	71	**25 176**
75-79	11 193	12 336	45	**23 574**	11 416	12 481	87	**23 984**	10 695	11 584	63	**22 342**
80-84	6 600	8 781	32	**15 413**	7 876	11 044	49	**18 969**	7 602	11 320	73	**18 995**
85-89	3 951	6 918	25	**10 894**	4 257	7 806	34	**12 097**	4 451	7 943	51	**12 445**
90+	2 028	4 731	13	**6 772**	2 363	5 560	29	**7 952**	2 210	5 381	30	**7 621**
Unspecified	3 113	2 364	106	**5 583**	2 822	2 095	195	**5 112**	1 491	1 111	111	**2 713**
Total	**176 806**	**139 564**	**1 042**	**317 412**	**200 441**	**163 741**	**1 942**	**366 124**	**205 938**	**174 093**	**2 090**	**382 121**

*Data for 1997–1999 have been updated with late registrations / delayed death notification forms processed in 2014.

Appendix D1: Number of deaths by age, sex and year of death, 2000–2002*

Age group	2000				2001				2002			
	Male	Female	Unsp.	Total	Male	Female	Unsp.	Total	Male	Female	Unsp.	Total
0	15 004	13 528	352	**28 884**	15 477	14 073	307	**29 857**	17 882	16 199	339	**34 420**
1-4	5 386	4 923	86	**10 395**	5 886	5 304	78	**11 268**	6 325	5 689	87	**12 101**
5-9	1 999	1 596	29	**3 624**	2 124	1 707	29	**3 860**	2 402	1 964	17	**4 383**
10-14	1 723	1 338	36	**3 097**	1 749	1 467	22	**3 238**	1 868	1 486	24	**3 378**
15-19	4 321	3 488	72	**7 881**	4 480	3 915	63	**8 458**	4 739	4 292	60	**9 091**
20-24	8 879	9 896	88	**18 863**	8 943	10 947	86	**19 976**	9 579	12 503	112	**22 194**
25-29	15 087	15 749	106	**30 942**	16 866	19 319	110	**36 295**	18 651	23 352	136	**42 139**
30-34	18 502	15 826	110	**34 438**	20 927	18 759	110	**39 796**	23 917	23 559	150	**47 626**
35-39	18 559	13 628	97	**32 284**	21 108	15 885	101	**37 094**	24 094	19 466	128	**43 688**
40-44	17 145	11 034	80	**28 259**	19 358	12 888	95	**32 341**	21 602	15 520	117	**37 239**
45-49	16 130	9 578	80	**25 788**	17 917	10 954	62	**28 933**	19 303	12 671	112	**32 086**
50-54	15 295	9 109	67	**24 471**	16 922	10 150	74	**27 146**	18 627	11 254	102	**29 983**
55-59	13 950	8 875	75	**22 900**	14 578	9 132	66	**23 776**	15 413	10 012	71	**25 496**
60-64	14 250	11 257	68	**25 575**	15 122	12 073	67	**27 262**	16 179	12 709	82	**28 970**
65-69	12 597	12 070	53	**24 720**	13 023	12 810	65	**25 898**	13 753	13 285	65	**27 103**
70-74	13 123	14 144	67	**27 334**	14 050	15 129	60	**29 239**	13 792	15 474	62	**29 328**
75-79	10 353	11 539	48	**21 940**	10 852	12 047	61	**22 960**	11 102	12 836	70	**24 008**
80-84	8 489	12 645	32	**21 166**	9 165	13 916	47	**23 128**	9 543	14 198	60	**23 801**
85-89	4 682	8 230	27	**12 939**	4 580	8 364	31	**12 975**	4 375	8 317	34	**12 726**
90+	2 531	6 528	31	**9 090**	3 026	7 160	28	**10 214**	3 295	7 666	33	**10 994**
Unspecified	1 189	894	145	**2 228**	1 054	787	101	**1 942**	1 139	791	113	**2 043**
Total	**219 194**	**195 875**	**1 749**	**416 818**	**237 207**	**216 786**	**1 663**	**455 656**	**257 580**	**243 243**	**1 974**	**502 797**

*Data for 2000–2002 have been updated with late registrations / delayed death notification forms processed in 2014.

Appendix D2: Number of deaths by age, sex and year of death, 2003–2005*

Age group	2003				2004				2005			
	Male	Female	Unsp.	Total	Male	Female	Unsp.	Total	Male	Female	Unsp.	Total
0	19 964	18 042	435	**38 441**	21 780	19 202	533	**41 515**	24 059	21 944	475	**46 478**
1-4	7 138	6 287	79	**13 504**	8 264	7 634	71	**15 969**	8 222	7 317	80	**15 619**
5-9	2 777	2 201	28	**5 006**	3 190	2 803	13	**6 006**	3 363	2 801	21	**6 185**
10-14	2 001	1 642	25	**3 668**	2 140	1 777	13	**3 930**	2 148	1 858	17	**4 023**
15-19	4 839	4 560	70	**9 469**	4 686	4 622	42	**9 350**	4 773	4 546	53	**9 372**
20-24	10 349	14 193	105	**24 647**	10 372	15 090	78	**25 540**	10 491	14 880	90	**25 461**
25-29	20 033	26 261	151	**46 445**	19 822	27 582	112	**47 516**	19 325	27 276	108	**46 709**
30-34	27 518	28 152	144	**55 814**	28 461	30 665	79	**59 205**	28 812	31 283	107	**60 202**
35-39	26 450	22 674	113	**49 237**	28 236	25 175	88	**53 499**	29 422	26 271	101	**55 794**
40-44	24 755	18 449	121	**43 325**	26 492	20 578	69	**47 139**	27 483	21 479	86	**49 048**
45-49	22 054	14 483	90	**36 627**	23 101	16 260	65	**39 426**	24 448	17 387	79	**41 914**
50-54	20 603	12 884	68	**33 555**	21 122	14 105	47	**35 274**	21 519	14 958	57	**36 534**
55-59	17 212	10 989	49	**28 250**	18 071	12 030	33	**30 134**	19 701	13 311	47	**33 059**
60-64	17 392	13 306	57	**30 755**	16 980	13 399	31	**30 410**	16 842	13 247	34	**30 123**
65-69	14 670	13 891	53	**28 614**	15 214	13 805	26	**29 045**	16 369	15 182	37	**31 588**
70-74	14 475	16 386	57	**30 918**	13 444	15 427	26	**28 897**	12 911	15 080	34	**28 025**
75-79	12 073	14 120	56	**26 249**	11 811	14 083	15	**25 909**	12 217	15 913	35	**28 165**
80-84	9 448	13 703	39	**23 190**	8 650	11 960	21	**20 631**	8 434	11 836	21	**20 291**
85-89	5 437	10 201	37	**15 675**	5 038	9 476	19	**14 533**	5 449	10 342	17	**15 808**
90+	3 381	8 152	18	**11 551**	3 289	7 481	14	**10 784**	3 287	7 886	15	**11 188**
Unspecified	1 680	957	215	**2 852**	1 935	930	246	**3 111**	1 976	1 081	223	**3 280**
Total	**284 249**	**271 533**	**2 010**	**557 792**	**292 098**	**284 084**	**1 641**	**577 823**	**301 251**	**295 878**	**1 737**	**598 866**

*Data for 2003–2005 have been updated with late registrations / delayed death notification forms processed in 2014.

Appendix D3: Number of deaths by age, sex and year of death, 2006–2008*

Age group	2006				2007				2008			
	Male	Female	Unsp.	Total	Male	Female	Unsp.	Total	Male	Female	Unsp.	Total
0	25 503	22 105	725	**48 333**	24 862	21 703	414	**46 979**	24 128	21 429	299	**45 856**
1-4	8 397	7 583	117	**16 097**	7 835	7 045	47	**14 927**	8 218	7 211	31	**15 460**
5-9	3 028	2 553	17	**5 598**	2 879	2 502	4	**5 385**	2 734	2 310	7	**5 051**
10-14	2 387	1 917	15	**4 319**	2 249	1 908	2	**4 159**	2 233	1 892	2	**4 127**
15-19	4 850	4 602	39	**9 491**	4 891	4 214	15	**9 120**	4 863	4 134	26	**9 023**
20-24	10 876	14 827	98	**25 801**	10 938	13 780	52	**24 770**	10 735	12 928	43	**23 706**
25-29	19 017	26 198	85	**45 300**	18 538	24 651	69	**43 258**	18 492	23 596	48	**42 136**
30-34	28 908	31 063	96	**60 067**	28 433	29 196	69	**57 698**	26 873	27 330	56	**54 259**
35-39	29 510	26 127	79	**55 716**	29 466	24 937	50	**54 453**	29 163	24 435	48	**53 646**
40-44	28 136	21 883	79	**50 098**	27 150	21 246	49	**48 445**	26 140	20 272	31	**46 443**
45-49	25 171	17 973	45	**43 189**	24 924	17 945	43	**42 912**	24 856	17 594	31	**42 481**
50-54	22 814	15 631	42	**38 487**	22 947	15 677	17	**38 641**	22 803	15 603	21	**38 427**
55-59	20 667	14 198	42	**34 907**	21 468	14 651	23	**36 142**	21 643	14 983	22	**36 648**
60-64	17 080	13 356	26	**30 462**	17 517	13 499	11	**31 027**	17 791	13 936	17	**31 744**
65-69	17 763	15 821	25	**33 609**	17 987	15 864	9	**33 860**	18 099	15 643	12	**33 754**
70-74	13 600	15 611	27	**29 238**	13 845	15 866	8	**29 719**	14 180	15 346	2	**29 528**
75-79	12 735	17 027	25	**29 787**	12 610	17 098	4	**29 712**	12 602	17 232	4	**29 838**
80-84	8 957	12 352	21	**21 330**	8 922	12 945	4	**21 871**	9 052	13 882	2	**22 936**
85-89	6 152	12 034	12	**18 198**	6 371	12 223	2	**18 596**	5 995	11 221	1	**17 217**
90+	3 566	8 718	9	**12 293**	3 686	8 800	12	**12 498**	3 989	9 564	27	**13 580**
Unspecified	868	357	146	**1 371**	821	344	111	**1 276**	742	261	153	**1 156**
Total	**309 985**	**301 936**	**1 770**	**613 691**	**308 339**	**296 094**	**1 015**	**605 448**	**305 331**	**290 802**	**883**	**597 016**

*Data for 2006–2008 have been updated with late registrations / delayed death notification forms processed in 2014.

Appendix D4: Number of deaths by age, sex and year of death, 2009–2011*

Age group	2009				2010				2011			
	Male	Female	Unsp.	Total	Male	Female	Unsp.	Total	Male	Female	Unsp.	Total
0	21 018	17 752	460	**39 230**	18 321	16 117	381	**34 819**	14 888	13 187	499	**28 574**
1-4	6 662	6 087	31	**12 780**	7 028	6 116	44	**13 188**	5 326	4 772	46	**10 144**
5-9	2 363	2 039	6	**4 408**	2 552	2 114	5	**4 671**	2 356	2 035	9	**4 400**
10-14	2 380	2 067	4	**4 451**	2 438	2 120	3	**4 561**	2 100	1 798	5	**3 903**
15-19	4 676	4 142	25	**8 843**	4 419	3 972	18	**8 409**	4 124	3 559	25	**7 708**
20-24	9 984	11 810	54	**21 848**	9 429	10 690	34	**20 153**	8 585	8 904	83	**17 572**
25-29	17 744	21 682	68	**39 494**	16 493	19 505	62	**36 060**	14 968	16 146	145	**31 259**
30-34	24 981	24 199	80	**49 260**	22 429	21 426	71	**43 926**	19 641	17 795	140	**37 576**
35-39	27 651	22 385	55	**50 091**	24 772	20 388	52	**45 212**	22 469	17 491	114	**40 074**
40-44	25 153	19 177	52	**44 382**	23 328	17 639	47	**41 014**	20 919	15 497	99	**36 515**
45-49	24 336	17 347	43	**41 726**	22 900	16 360	57	**39 317**	20 968	14 928	68	**35 964**
50-54	22 815	15 582	39	**38 436**	21 993	15 213	31	**37 237**	21 104	14 356	73	**35 533**
55-59	21 769	15 122	29	**36 920**	20 944	14 323	33	**35 300**	20 379	14 233	54	**34 666**
60-64	19 205	14 390	20	**33 615**	20 082	14 800	29	**34 911**	20 414	14 951	58	**35 423**
65-69	18 198	15 715	15	**33 928**	17 281	14 596	21	**31 898**	16 988	14 277	26	**31 291**
70-74	15 169	15 944	17	**31 130**	15 843	16 679	15	**32 537**	16 536	16 828	21	**33 385**
75-79	12 730	17 782	8	**30 520**	11 767	16 123	8	**27 898**	11 705	16 492	18	**28 215**
80-84	9 787	15 116	9	**24 912**	9 930	16 218	11	**26 159**	9 962	16 736	14	**26 712**
85-89	6 145	11 222	2	**17 369**	5 765	10 501	5	**16 271**	5 989	11 174	13	**17 176**
90+	5 249	11 662	1	**16 912**	4 086	10 728	9	**14 823**	4 380	11 408	7	**15 795**
Unspecified	1 198	373	198	**1 769**	985	257	319	**1 561**	1 368	642	591	**2 601**
Total	**299 213**	**281 595**	**1 216**	**582 024**	**282 785**	**265 885**	**1 255**	**549 925**	**265 169**	**247 209**	**2 108**	**514 486**

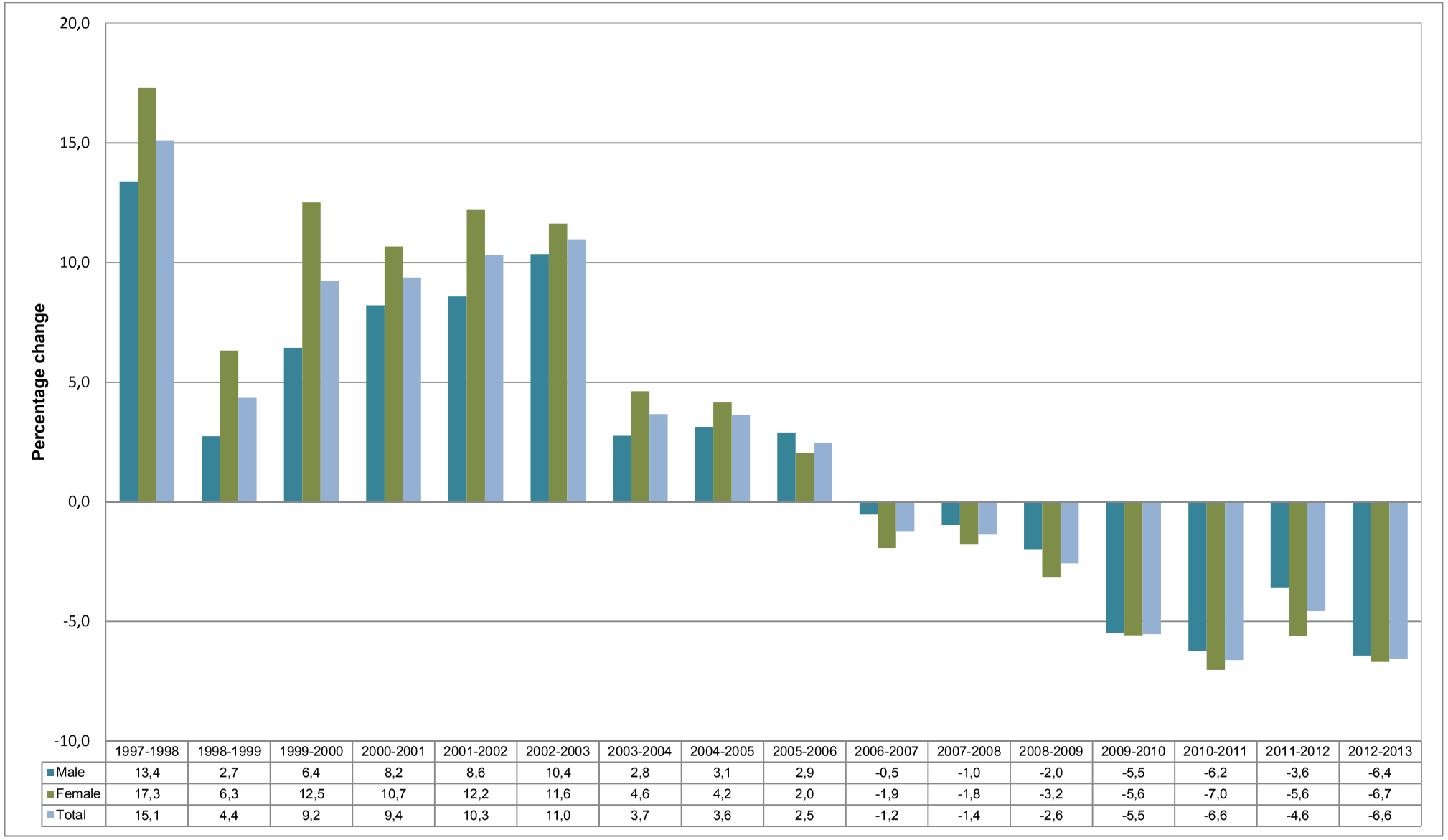
*Data for 2009–2011 have been updated with late registrations / delayed death notification forms processed in 2014.

Appendix D5: Number of deaths by age, sex and year of death, 2012–2013

Age group	2012				2013			
	Male	Female	Unsp.	Total	Male	Female	Unsp.	Total
0	14 256	12 275	524	**27 055**	13 574	11 918	501	**25 993**
1-4	5 568	4 940	48	**10 556**	4 819	4 217	65	**9 101**
5-9	2 638	2 227	4	**4 869**	1 855	1 515	12	**3 382**
10-14	2 241	1 898	4	**4 143**	1 779	1 476	6	**3 261**
15-19	4 101	3 405	19	**7 525**	4 056	2 981	29	**7 066**
20-24	8 388	7 786	83	**16 257**	7 977	6 827	67	**14 871**
25-29	14 566	14 171	123	**28 860**	13 027	11 907	134	**25 068**
30-34	18 058	16 072	153	**34 283**	16 731	13 938	148	**30 817**
35-39	20 618	15 633	114	**36 365**	18 217	13 568	128	**31 913**
40-44	19 693	14 003	95	**33 791**	18 433	12 935	112	**31 480**
45-49	19 177	13 602	84	**32 863**	17 690	12 557	77	**30 324**
50-54	19 777	13 653	69	**33 499**	18 643	12 990	72	**31 705**
55-59	19 895	13 442	51	**33 388**	18 792	13 036	51	**31 879**
60-64	20 105	14 359	30	**34 494**	19 654	14 223	46	**33 923**
65-69	16 954	13 844	23	**30 821**	16 157	13 586	33	**29 776**
70-74	16 157	16 300	14	**32 471**	15 748	15 889	19	**31 656**
75-79	11 961	16 279	18	**28 258**	11 919	15 440	22	**27 381**
80-84	9 924	16 673	11	**26 608**	9 336	16 202	14	**25 552**
85-89	5 773	11 096	10	**16 879**	5 821	11 464	12	**17 297**
90+	4 285	10 969	7	**15 261**	4 023	10 671	11	**14 705**
Unspecified	1 478	728	648	**2 854**	937	407	439	**1 783**
Total	**255 613**	**233 355**	**2 132**	**491 100**	**239 188**	**217 747**	**1 998**	**458 933**

*Data for 2012 have been updated with late registrations / delayed death notification forms processed in 2014.

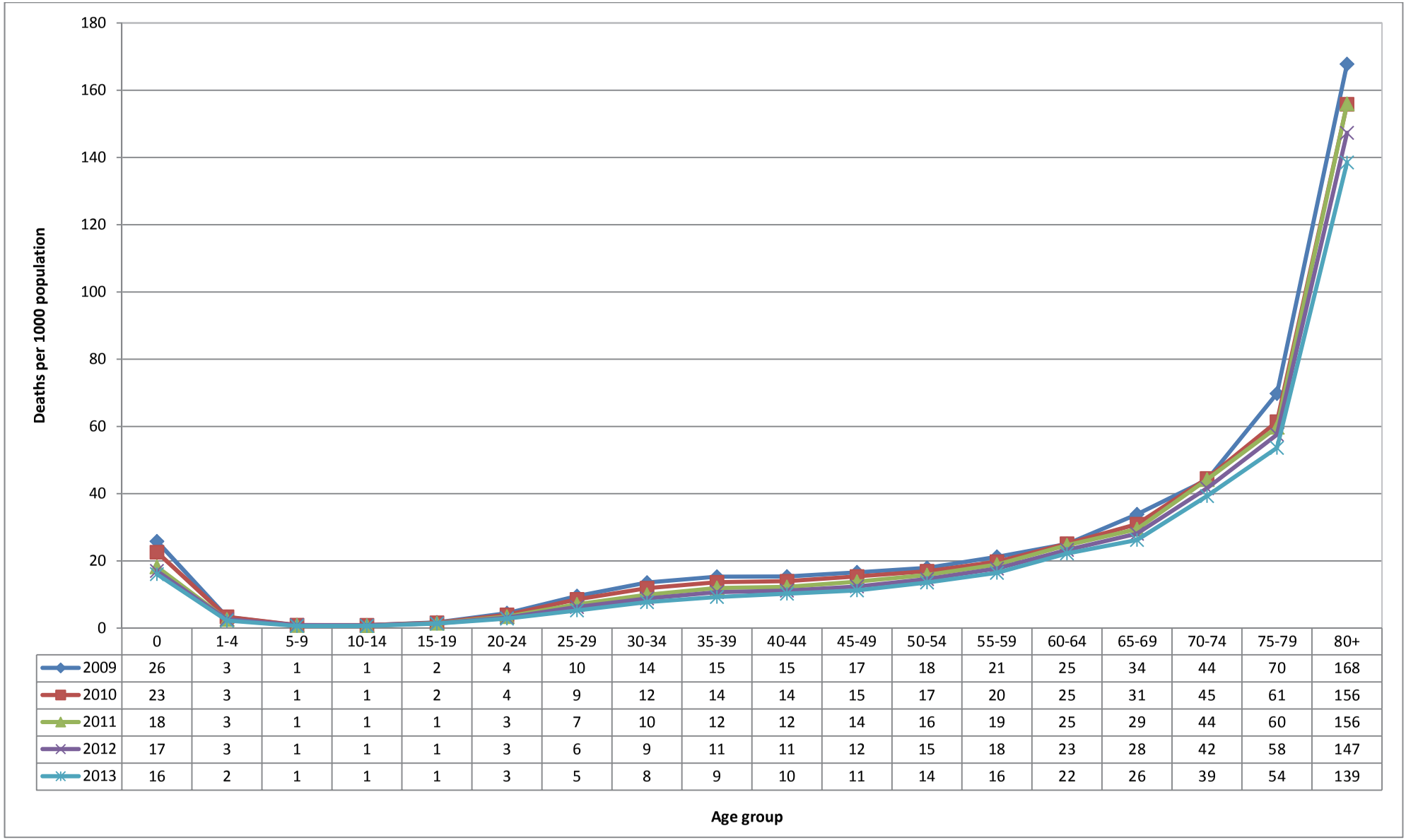
Appendix E: Year-to-year annual percentage changes in number of deaths by sex, 1997–2013*



	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
Male	13,4	2,7	6,4	8,2	8,6	10,4	2,8	3,1	2,9	-0,5	-1,0	-2,0	-5,5	-6,2	-3,6	-6,4
Female	17,3	6,3	12,5	10,7	12,2	11,6	4,6	4,2	2,0	-1,9	-1,8	-3,2	-5,6	-7,0	-5,6	-6,7
Total	15,1	4,4	9,2	9,4	10,3	11,0	3,7	3,6	2,5	-1,2	-1,4	-2,6	-5,5	-6,6	-4,6	-6,6

*(1) Data for 1997–2012 have been updated with late registrations / delayed death notification forms processed in 2014.
(2) Excluding deaths with unspecified sex.

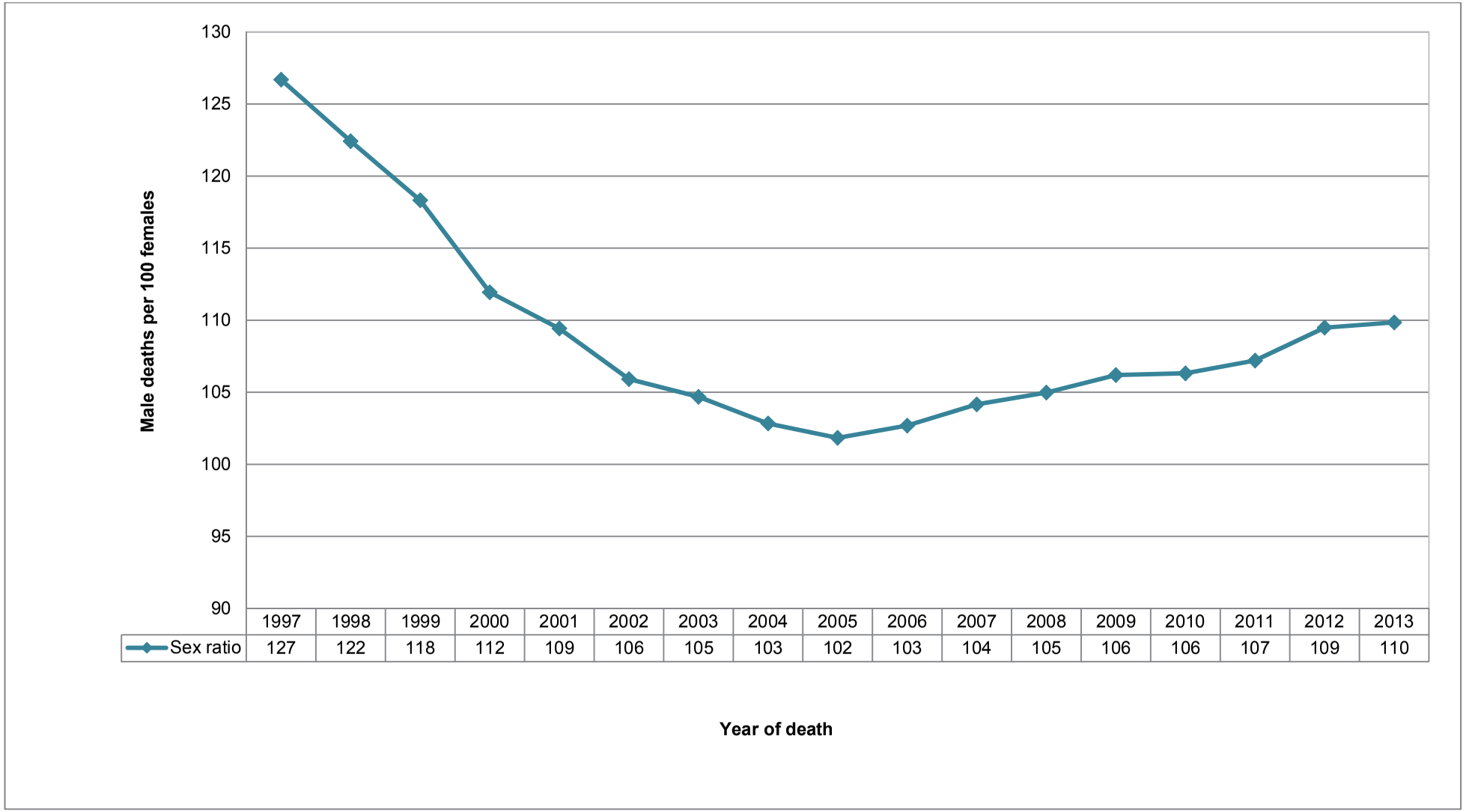
Appendix F: Age specific death rates (ASDR) by year of death, 2009–2013*



	0	1-4	5-9	10-14	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+
2009	26	3	1	1	2	4	10	14	15	15	17	18	21	25	34	44	70	168
2010	23	3	1	1	2	4	9	12	14	14	15	17	20	25	31	45	61	156
2011	18	3	1	1	1	3	7	10	12	12	14	16	19	25	29	44	60	156
2012	17	3	1	1	1	3	6	9	11	11	12	15	18	23	28	42	58	147
2013	16	2	1	1	1	3	5	8	9	10	11	14	16	22	26	39	54	139

*(1) Data for 2009–2012 have been updated with late registrations / delayed death notification forms processed in 2014.
(2) Excluding deaths with unspecified sex.

Appendix G: Sex ratios at death by year of death, 1997–2013*



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sex ratio	127	122	118	112	109	106	105	103	102	103	104	105	106	106	107	109	110

*(1) Data for 1997–2012 have been updated with late registrations / delayed death notification forms processed in 2014.
(2) Excluding deaths with unspecified sex.

Appendix H: Number of deaths by province of death occurrence and province of usual residence of the deceased, 2013

Province of death occurrence	Province of usual residence of deceased											
	Western Cape	Eastern Cape	Northern Cape	Free State	KwaZulu-Natal	North West	Gauteng	Mpu-malanga	Limpopo	Foreign	Unspecified	Total
Western Cape	43 384	392	133	83	520	102	290	107	160	47	789	**46 007**
Eastern Cape	286	59 597	93	133	1 346	85	717	285	133	65	1 195	**63 935**
Northern Cape	123	67	12 596	172	45	277	82	36	43	19	239	**13 699**
Free State	79	214	241	31 255	137	431	383	68	90	193	291	**33 382**
KwaZulu-Natal	241	1 537	35	189	79 793	94	565	446	139	91	1 063	**84 193**
North West	54	114	233	309	60	31 966	1 264	89	298	84	1 060	**35 531**
Gauteng	225	402	78	664	683	2 153	88 440	1 534	1 272	307	1 837	**97 595**
Mpumalanga	49	127	21	99	318	96	711	31 940	838	202	419	**34 820**
Limpopo	51	129	58	77	225	294	597	935	44 154	226	803	**47 549**
Foreign	29	8	8	58	22	17	179	22	21	69	102	**535**
Unspecified	87	92	33	48	317	186	195	213	235	13	268	**1 687**
Total	**44 608**	**62 679**	**13 529**	**33 087**	**83 466**	**35 701**	**93 423**	**35 675**	**47 383**	**1 316**	**8 066**	**458 933**

Appendix H1: Percentage distribution of deaths by province of death occurrence and province of usual residence of the deceased, 2013

Province of death occurrence	Province of usual residence of deceased											
	Western Cape	Eastern Cape	Northern Cape	Free State	KwaZulu-Natal	North West	Gauteng	Mpu-malanga	Limpopo	Foreign	Unspecified	Total
Western Cape	94,3	0,9	0,3	0,2	1,1	0,2	0,6	0,2	0,3	0,1	1,7	**100,0**
Eastern Cape	0,4	93,2	0,1	0,2	2,1	0,1	1,1	0,4	0,2	0,1	1,9	**100,0**
Northern Cape	0,9	0,5	91,9	1,3	0,3	2,0	0,6	0,3	0,3	0,1	1,7	**100,0**
Free State	0,2	0,6	0,7	93,6	0,4	1,3	1,1	0,2	0,3	0,6	0,9	**100,0**
KwaZulu-Natal	0,3	1,8	0,0	0,2	94,8	0,1	0,7	0,5	0,2	0,1	1,3	**100,0**
North West	0,2	0,3	0,7	0,9	0,2	90,0	3,6	0,3	0,8	0,2	3,0	**100,0**
Gauteng	0,2	0,4	0,1	0,7	0,7	2,2	90,6	1,6	1,3	0,3	1,9	**100,0**
Mpumalanga	0,1	0,4	0,1	0,3	0,9	0,3	2,0	91,7	2,4	0,6	1,2	**100,0**
Limpopo	0,1	0,3	0,1	0,2	0,5	0,6	1,3	2,0	92,9	0,5	1,7	**100,0**
Foreign	5,4	1,5	1,5	10,8	4,1	3,2	33,5	4,1	3,9	12,9	19,1	**100,0**
Unspecified	5,2	5,5	2,0	2,8	18,8	11,0	11,6	12,6	13,9	0,8	15,9	**100,0**

Appendix I: Number of deaths by age, province and district municipality of death occurrence, 2013*

Province of death occurrence	District municipality of death occurrence	Age						
		0	1-14	15-44	45-64	65+	Unsp.	Total
Western Cape	Cape Winelands	202	91	1 468	2 056	2 506	12	**6 335**
	Central Karoo	27	20	164	263	216	3	**693**
	City of Cape Town	1 211	548	7 328	8 191	10 861	71	**28 210**
	Eden	193	71	980	1 600	2 151	15	**5 010**
	Overberg	69	25	432	649	932	12	**2 119**
	West Coast	126	44	744	1 092	1 286	9	**3 301**
	Unspecified	12	3	75	103	146		**339**
	Total	**1 840**	**802**	**11 191**	**13 954**	**18 098**	**122**	**46 007**
Eastern Cape	Alfred Nzo	255	258	1 897	1 465	2 020	7	**5 902**
	Amathole	331	367	3 515	3 183	4 906	47	**12 349**
	Buffalo City	243	203	2 380	2 361	2 844	12	**8 043**
	Cacadu	121	69	1 055	1 229	1 436	8	**3 918**
	Chris Hani	332	241	2 608	2 409	3 150	20	**8 760**
	Joe Gqabi	166	134	1 328	1 194	1 652	14	**4 488**
	Nelson Mandela Bay	323	112	1 926	2 176	2 448	12	**6 997**
	O. R. Tambo	398	636	4 987	3 025	3 868	7	**12 921**
	Unspecified	10	22	154	132	238	1	**557**
	Total	**2 179**	**2 042**	**19 850**	**17 174**	**22 562**	**128**	**63 935**
Northern Cape	Frances Baard	207	123	1 011	1 177	1 098	2	**3 618**
	John Taolo Gaetsewe	317	118	771	677	639	3	**2 525**
	Namakwa	38	12	214	321	448	1	**1 034**
	Pixley ka Seme	213	112	1 052	1 222	1 003	7	**3 609**
	Siyanda	207	104	810	891	756	3	**2 771**
	Unspecified	11	10	35	45	41		**142**
	Total	**993**	**479**	**3 893**	**4 333**	**3 985**	**16**	**13 699**
Free State	Fezile Dabi	313	136	1 453	1 535	1 647	12	**5 096**
	Lejweleputswa	539	266	2 198	2 230	1 962	15	**7 210**
	Mangaung	474	218	2 703	2 679	2 857	37	**8 968**
	Thabo Mofutsanyane	738	349	2 896	2 610	2 580	46	**9 219**
	Xhariep	120	73	740	819	872	8	**2 632**
	Unspecified	16	12	66	78	84	1	**257**
	Total	**2 200**	**1 054**	**10 056**	**9 951**	**10 002**	**119**	**33 382**
KwaZulu-Natal	Amajuba	301	162	1 759	1 449	1 322	18	**5 011**
	eThekwini	823	505	5 619	4 735	5 201	101	**16 984**
	iLembe	257	204	1 815	1 225	1 404	34	**4 939**
	Sisonke	343	248	2 033	1 514	1 588	24	**5 750**
	Ugu	414	367	3 054	2 092	2 931	35	**8 893**
	uMgungundlovu	429	275	3 449	2 900	3 432	12	**10 497**
	uMkhanyakude	266	225	1 601	952	1 301	12	**4 357**
	uMzinyathi	344	231	1 470	1 145	1 418	24	**4 632**
	uThukela	411	270	2 326	1 763	1 893	18	**6 681**
	uThungulu	703	319	2 836	2 034	2 038	39	**7 969**
	Zululand	508	355	2 367	1 529	1 752	33	**6 544**
	Unspecified	74	116	632	445	664	5	**1 936**
	Total	**4 873**	**3 277**	**28 961**	**21 783**	**24 944**	**355**	**84 193**

*Excluding deaths with unspecified province of death occurrence

.

Appendix I: Number of deaths by age, province and district municipality of death occurrence, 2013* (concluded)

Province of death occurrence	District municipality of death occurrence	Age						
		0	1-14	15-44	45-64	65+	Unsp.	Total
North West	Bojanala	886	455	3 877	3 472	3 894	49	**12 633**
	Dr Kenneth Kaunda	525	274	2 245	2 429	2 252	30	**7 755**
	Dr Ruth Segomotsi Mompati	498	239	1 631	1 480	1 639	7	**5 494**
	Ngaka Modiri Molema	735	363	2 791	2 557	2 657	29	**9 132**
	Unspecified	29	26	172	142	146	2	**517**
	Total	**2 673**	**1 357**	**10 716**	**10 080**	**10 588**	**117**	**35 531**
Gauteng	City of Johannesburg	1 864	785	8 952	8 422	9 121	324	**29 468**
	City of Tshwane	1 104	594	5 643	5 983	7 279	50	**20 653**
	Ekurhuleni	1 873	712	8 729	7 667	6 944	120	**26 045**
	Sedibeng	628	266	3 099	3 194	3 254	22	**10 463**
	West Rand	611	274	3 017	2 842	2 917	60	**9 721**
	Unspecified	44	51	445	342	341	22	**1 245**
	Total	**6 124**	**2 682**	**29 885**	**28 450**	**29 856**	**598**	**97 595**
Mpumalanga	Ehlanzeni	648	718	5 412	3 694	3 784	70	**14 326**
	Gert Sibande	715	367	3 472	2 617	2 245	27	**9 443**
	Nkangala	534	348	3 438	2 998	2 870	43	**10 231**
	Unspecified	25	59	278	193	261	4	**820**
	Total	**1 922**	**1 492**	**12 600**	**9 502**	**9 160**	**144**	**34 820**
	Capricorn	859	648	3 450	3 301	4 350	14	**12 622**
	Greater Sekhukhune	463	445	2 878	2 384	3 464	20	**9 654**
	Mopani	666	502	2 634	2 289	2 923	13	**9 027**
	Vhembe	646	539	2 419	2 297	3 465	54	**9 420**
	Waterberg	380	219	1 597	1 399	1 627	19	**5 241**
	Unspecified	80	103	428	348	622	4	**1 585**
	Total	**3 094**	**2 456**	**13 406**	**12 018**	**16 451**	**124**	**47 549**
Foreign	**Total**	**5**	**13**	**170**	**167**	**177**	**3**	**535**

*Excluding deaths with unspecified province of death occurrence.

Appendix I1: Percentage distribution of deaths by age, province and district/metropolitan municipality of death occurrence, 2013*

Province of death occurrence	District municipality of death occurrence	Age						
		0	1-14	15-44	45-64	65+	Unsp.	Total
Western Cape	Cape Winelands	3,2	1,4	23,2	32,5	39,6	0,2	**100,0**
	Central Karoo	3,9	2,9	23,7	38,0	31,2	0,4	**100,0**
	City of Cape Town	4,3	1,9	26,0	29,0	38,5	0,3	**100,0**
	Eden	3,9	1,4	19,6	31,9	42,9	0,3	**100,0**
	Overberg	3,3	1,2	20,4	30,6	44,0	0,6	**100,0**
	West Coast	3,8	1,3	22,5	33,1	39,0	0,3	**100,0**
	Unspecified	3,5	0,9	22,1	30,4	43,1	0,0	**100,0**
	Total	**4,0**	**1,7**	**24,3**	**30,3**	**39,3**	**0,3**	100,0
Eastern Cape	Alfred Nzo	4,3	4,4	32,1	24,8	34,2	0,1	**100,0**
	Amathole	2,7	3,0	28,5	25,8	39,7	0,4	**100,0**
	Buffalo City	3,0	2,5	29,6	29,4	35,4	0,1	**100,0**
	Cacadu	3,1	1,8	26,9	31,4	36,7	0,2	**100,0**
	Chris Hani	3,8	2,8	29,8	27,5	36,0	0,2	**100,0**
	Joe Gqabi	3,7	3,0	29,6	26,6	36,8	0,3	**100,0**
	Nelson Mandela Bay	4,6	1,6	27,5	31,1	35,0	0,2	**100,0**
	O.R.Tambo	3,1	4,9	38,6	23,4	29,9	0,1	**100,0**
	Unspecified	1,8	3,9	27,6	23,7	42,7	0,2	**100,0**
	Total	**3,4**	**3,2**	**31,0**	**26,9**	**35,3**	**0,2**	100,0
Northern Cape	Frances Baard	5,7	3,4	27,9	32,5	30,3	0,1	**100,0**
	John Taolo Gaetsewe	12,6	4,7	30,5	26,8	25,3	0,1	**100,0**
	Namakwa	3,7	1,2	20,7	31,0	43,3	0,1	**100,0**
	Pixley ka Seme	5,9	3,1	29,1	33,9	27,8	0,2	**100,0**
	Siyanda	7,5	3,8	29,2	32,2	27,3	0,1	**100,0**
	Unspecified	7,7	7,0	24,6	31,7	28,9	0,0	**100,0**
	Total	**7,3**	**3,5**	**28,4**	**31,6**	**29,1**	**0,1**	100,0
Free State	Fezile Dabi	6,1	2,7	28,5	30,1	32,3	0,2	**100,0**
	Lejweleputswa	7,5	3,7	30,5	30,9	27,2	0,2	**100,0**
	Mangaung	5,3	2,4	30,1	29,9	31,9	0,4	**100,0**
	Thabo Mofutsanyane	8,0	3,8	31,4	28,3	28,0	0,5	**100,0**
	Xhariep	4,6	2,8	28,1	31,1	33,1	0,3	**100,0**
	Unspecified	6,2	4,7	25,7	30,4	32,7	0,4	**100,0**
	Total	**6,6**	**3,2**	**30,1**	**29,8**	**30,0**	**0,4**	100,0
KwaZulu-Natal	Amajuba	6,0	3,2	35,1	28,9	26,4	0,4	**100,0**
	eThekwini	4,8	3,0	33,1	27,9	30,6	0,6	**100,0**
	iLembe	5,2	4,1	36,7	24,8	28,4	0,7	**100,0**
	Sisonke	6,0	4,3	35,4	26,3	27,6	0,4	**100,0**
	Ugu	4,7	4,1	34,3	23,5	33,0	0,4	**100,0**
	uMgungundlovu	4,1	2,6	32,9	27,6	32,7	0,1	**100,0**
	uMkhanyakude	6,1	5,2	36,7	21,8	29,9	0,3	**100,0**
	uMzinyathi	7,4	5,0	31,7	24,7	30,6	0,5	**100,0**
	uThukela	6,2	4,0	34,8	26,4	28,3	0,3	**100,0**
	uThungulu	8,8	4,0	35,6	25,5	25,6	0,5	**100,0**
	Zululand	7,8	5,4	36,2	23,4	26,8	0,5	**100,0**
	Unspecified	3,8	6,0	32,6	23,0	34,3	0,3	**100,0**
	Total	**5,8**	**3,9**	**34,4**	**25,9**	**29,6**	**0,4**	100,0

*Excluding deaths with unspecified province of death occurrence.

Appendix I1: Percentage distribution of deaths by age, province and district/metropolitan municipality of death occurrence, 2013* (concluded)

Province of death occurrence	District municipality of death occurrence	Age						
		0	1-14	15-44	45-64	65+	Unsp.	Total
North West	Bojanala	7,0	3,6	30,7	27,5	30,8	0,4	**100,0**
	Dr Kenneth Kaunda	6,8	3,5	28,9	31,3	29,0	0,4	**100,0**
	Dr Ruth Segomotsi Mompati	9,1	4,4	29,7	26,9	29,8	0,1	**100,0**
	Ngaka Modiri Molema	8,0	4,0	30,6	28,0	29,1	0,3	**100,0**
	Unspecified	5,6	5,0	33,3	27,5	28,2	0,4	**100,0**
	Total	**7,5**	**3,8**	**30,2**	**28,4**	**29,8**	**0,3**	100,0
Gauteng	City of Johannesburg	6,3	2,7	30,4	28,6	31,0	1,1	**100,0**
	City of Tshwane	5,3	2,9	27,3	29,0	35,2	0,2	**100,0**
	Ekurhuleni	7,2	2,7	33,5	29,4	26,7	0,5	**100,0**
	Sedibeng	6,0	2,5	29,6	30,5	31,1	0,2	**100,0**
	West Rand	6,3	2,8	31,0	29,2	30,0	0,6	**100,0**
	Unspecified	3,5	4,1	35,7	27,5	27,4	1,8	**100,0**
	Total	**6,3**	**2,7**	**30,6**	**29,2**	**30,6**	**0,6**	100,0
Mpumalanga	Ehlanzeni	4,5	5,0	37,8	25,8	26,4	0,5	**100,0**
	Gert Sibande	7,6	3,9	36,8	27,7	23,8	0,3	**100,0**
	Nkangala	5,2	3,4	33,6	29,3	28,1	0,4	**100,0**
	Unspecified	3,0	7,2	33,9	23,5	31,8	0,5	**100,0**
	Total	**5,5**	**4,3**	**36,2**	**27,3**	**26,3**	**0,4**	100,0
Limpopo	Capricorn	6,8	5,1	27,3	26,2	34,5	0,1	**100,0**
	Greater Sekhukhune	4,8	4,6	29,8	24,7	35,9	0,2	**100,0**
	Mopani	7,4	5,6	29,2	25,4	32,4	0,1	**100,0**
	Vhembe	6,9	5,7	25,7	24,4	36,8	0,6	**100,0**
	Waterberg	7,3	4,2	30,5	26,7	31,0	0,4	**100,0**
	Unspecified	5,0	6,5	27,0	22,0	39,2	0,3	**100,0**
	Total	**6,5**	**5,2**	**28,2**	**25,3**	**34,6**	**0,3**	100,0
Foreign	**Total**	**0,9**	**2,4**	**31,8**	**31,2**	**33,1**	**0,6**	100,0

*Excluding deaths with unspecified province of death occurrence.

Appendix J: Number of deaths by sex, province and district/metropolitan municipality of death occurrence, 2013*

Province of death occurrence	District municipality of death occurrence	Sex				Sex ratio at death**
		Male	Female	Unspecified	Total	
Western Cape	Cape Winelands	3 537	2 780	18	6 335	127
	Central Karoo	370	322	1	693	115
	City of Cape Town	15 632	12 492	86	28 210	125
	Eden	2 760	2 240	10	5 010	123
	Overberg	1 206	911	2	2 119	132
	West Coast	1 880	1 414	7	3 301	133
	Unspecified	181	157	1	339	115
	Total	**25 566**	**20 316**	**125**	**46 007**	**126**
Eastern Cape	Alfred Nzo	2 917	2 971	14	5 902	98
	Amathole	6 395	5 909	45	12 349	108
	Buffalo City	4 144	3 876	23	8 043	107
	Cacadu	2 035	1 880	3	3 918	108
	Chris Hani	4 571	4 173	16	8 760	110
	Joe Gqabi	2 295	2 179	14	4 488	105
	Nelson Mandela Bay	3 675	3 310	12	6 997	111
	O.R.Tambo	6 489	6 396	36	12 921	101
	Unspecified	271	286		557	95
	Total	**32 792**	**30 980**	**163**	**63 935**	**106**
Northern Cape	Frances Baard	1 883	1 719	16	3 618	110
	John Taolo Gaetsewe	1 390	1 133	2	2 525	123
	Namakwa	581	453		1 034	128
	Pixley ka Seme	1 909	1 687	13	3 609	113
	Siyanda	1 486	1 267	18	2 771	117
	Unspecified	73	69		142	106
	Total	**7 322**	**6 328**	**49**	**13 699**	**116**
Free State	Fezile Dabi	2 724	2 357	15	5 096	116
	Lejweleputswa	3 817	3 370	23	7 210	113
	Mangaung	4 621	4 295	52	8 968	108
	Thabo Mofutsanyane	4 725	4 464	30	9 219	106
	Xhariep	1 403	1 224	5	2 632	115
	Unspecified	137	120		257	114
	Total	**17 427**	**15 830**	**125**	**33 382**	**110**
KwaZulu-Natal	Amajuba	2 566	2 430	15	5 011	106
	eThekwini	8 863	8 077	44	16 984	110
	iLembe	2 506	2 406	27	4 939	104
	Sisonke	2 846	2 887	17	5 750	99
	Ugu	4 515	4 348	30	8 893	104
	uMgungundlovu	5 368	5 103	26	10 497	105
	uMkhanyakude	2 160	2 163	34	4 357	100
	uMzinyathi	2 301	2 316	15	4 632	99
	uThukela	3 444	3 226	11	6 681	107
	uThungulu	4 082	3 860	27	7 969	106
	Zululand	3 279	3 238	27	6 544	101
	Unspecified	1 003	927	6	1 936	108
	Total	**42 933**	**40 981**	**279**	**84 193**	**105**

*Excluding deaths with unspecified province of death occurrence. ** Male deaths per 100 female deaths.

Appendix J: Number of deaths by sex, province and district/metropolitan municipality of death occurrence, 2013* (concluded)

Province of death occurrence	District municipality of death occurrence	Sex				Sex ratio at death**
		Male	Female	Unspecified	Total	
North West	Bojanala	6 741	5 834	58	12 633	116
	Dr Kenneth Kaunda	4 173	3 548	34	7 755	118
	Dr Ruth Segomotsi Mompati	2 838	2 642	14	5 494	107
	Ngaka Modiri Molema	4 739	4 354	39	9 132	109
	Unspecified	297	218	2	517	136
	Total	**18 788**	**16 596**	**147**	**35 531**	**113**
Gauteng	City of Johannesburg	15 283	13 794	391	29 468	111
	City of Tshwane	10 738	9 819	96	20 653	109
	Ekurhuleni	13 770	12 124	151	26 045	114
	West Rand	5 321	4 297	103	9 721	124
	Sedibeng	5 532	4 894	37	10 463	113
	Unspecified	683	541	21	1 245	126
	Total	**51 327**	**45 469**	**799**	**97 595**	**113**
Mpumalanga	Ehlanzeni	7 397	6 858	71	14 326	108
	Gert Sibande	5 022	4 385	36	9 443	115
	Nkangala	5 423	4 773	35	10 231	114
	Unspecified	438	380	2	820	115
	Total	**18 280**	**16 396**	**144**	**34 820**	**111**
Limpopo	Capricorn	6 402	6 187	33	12 622	103
	Greater Sekhukhune	4 663	4 964	27	9 654	94
	Mopani	4 495	4 519	13	9 027	99
	Vhembe	4 520	4 875	25	9 420	93
	Waterberg	2 687	2 538	16	5 241	106
	Unspecified	770	813	2	1 585	95
	Total	**23 537**	**23 896**	**116**	**47 549**	**98**
Foreign	**Total**	**349**	**184**	**2**	**535**	**190**

*Excluding deaths with unspecified province of death occurrence. ** Male deaths per 100 female deaths.

Appendix K: Distribution of deaths by broad groups of all underlying causes of death, 2013

Causes of death (based on the 10th revision, International Classification of Disease, 1992)	Number	Percentage
All causes	**458 933**	**100,0**
Ill-defined and unknown causes of mortality (R95-R99)	55 407	12,1
Tuberculosis (A15-A19)	40 542	8,8
Other external causes of accidental injury (W00-X59)	26 608	5,8
Influenza and pneumonia (J09-J18)	23 727	5,2
Human immunodeficiency virus [HIV] disease (B20-B24)	23 203	5,1
Cerebrovascular diseases (I60-I69)	22 463	4,9
Diabetes mellitus (E10-E14)	22 196	4,8
Other forms of heart disease (I30-I52)	21 104	4,6
Hypertensive diseases (I10-I15)	16 754	3,7
Intestinal infectious diseases (A00-A09)	15 782	3,4
Other viral diseases (B25-B34)	13 614	3,0
Chronic lower respiratory diseases (J40-J47)	12 035	2,6
Ischaemic heart diseases (I20-I25)	11 082	2,4
Malignant neoplasms of digestive organs (C15-C26)	9 372	2,0
Certain disorders involving the immune mechanism (D80-D89)	7 634	1,7
Event of undetermined intent (Y10-Y34)	7 557	1,6
Renal failure (N17-N19)	6 885	1,5
Transport accidents (V01-V99)	5 698	1,2
Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	5 634	1,2
Other bacterial diseases (A30-A49)	5 463	1,2
Other acute lower respiratory infections (J20-J22)	5 308	1,2
Assault (X85-Y09)	5 019	1,1
Malignant neoplasms of female genital organs (C51-C58)	4 457	1,0
Inflammatory diseases of the central nervous system (G00-G09)	4 449	1,0
Diseases of liver (K70-K77)	4 131	0,9
Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	3 800	0,8
Other diseases of the respiratory system (J95-J99)	3 627	0,8
Malignant neoplasms of ill-defined, secondary and unspecified sites (C76-C80)	3 421	0,7
Episodic and paroxysmal disorders (G40-G47)	3 261	0,7
Metabolic disorders (E70-E90)	3 124	0,7
Malignant neoplasms of breast (C50)	3 117	0,7
Malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue (C81-C96)	2 812	0,6
Malignant neoplasms of male genital organs (C60-C63)	2 760	0,6
General symptoms and signs (R50-R69)	2 641	0,6
Protozoal diseases (B50-B64)	2 516	0,5
Pulmonary heart disease and diseases of pulmonary circulation (I26-I28)	2 474	0,5
Diseases of oesophagus, stomach and duodenum (K20-K31)	2 144	0,5
Aplastic and other anaemias (D60-D64)	2 130	0,5
Complications of medical and surgical care (Y40-Y84)	1 709	0,4
Malnutrition (E40-E46)	1 613	0,4
Noninfective enteritis and colitis (K50-K52)	1 552	0,3
Disorders related to length of gestation and fetal growth (P05-P08)	1 484	0,3
Other diseases of intestines (K55-K63)	1 474	0,3
Other respiratory diseases principally affecting the interstitium (J80-J84)	1 401	0,3
Other disorders originating in the perinatal period (P90-P96)	1 396	0,3

Appendix K: Distribution of deaths by broad groups of all underlying causes of death, 2013 (continued)

Causes of death (based on the 10th revision, International Classification of Disease, 1992)	Number	Percentage
All causes	**458 933**	**100,0**
Diseases of arteries, arterioles and capillaries (I70-I79)	1 389	0,3
Malignant neoplasms of mesothelial and soft tissue (C45-C49)	1 250	0,3
Other disorders of glucose regulation and pancreatic internal secretion (E15-E16)	1 189	0,3
Malignant neoplasms of lip, oral cavity and pharynx (C00-C14)	1 116	0,2
Organic, including symptomatic, mental disorders (F00-F09)	1 116	0,2
Neoplasms of uncertain or unknown behaviour (D37-D48)	1 115	0,2
Infections specific to the perinatal period (P35-P39)	1 094	0,2
Other diseases of the digestive system (K90-K93)	1 062	0,2
Disorders of gallbladder, biliary tract and pancreas (K80-K87)	954	0,2
Other disorders of the nervous system (G90-G99)	945	0,2
Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	892	0,2
Malignant neoplasms of urinary tract (C64-C68)	869	0,2
Mycoses (B35-B49)	811	0,2
Other degenerative diseases of the nervous system (G30-G32)	800	0,2
Sequelae of infectious and parasitic diseases (B90-B94)	732	0,2
Cerebral palsy and other paralytic syndromes (G80-G83)	725	0,2
Lung diseases due to external agents (J60-J70)	713	0,2
Arthropathies (M00-M25)	660	0,1
Diseases of veins, lymphatic vessels and lymph nodes, not elsewhere classified (I80-I89)	653	0,1
Malignant neoplasms of skin (C43-C44)	607	0,1
Congenital malformations of the circulatory system (Q20-Q28)	599	0,1
Intentional self-harm (X60-X84)	592	0,1
Malignant neoplasms of independent (primary) multiple sites (C97)	520	0,1
Malignant neoplasms of eye, brain and other parts of central nervous system (C69-C72)	519	0,1
Other disorders of kidney and ureter (N25-N29)	435	0,1
Haemorrhagic and haematological disorders of fetus and new-born (P50-P61)	427	0,1
Coagulation defects, purpura and other haemorrhagic conditions (D65-D69)	405	0,1
Mental and behavioural disorders due to psychoactive substance use (F10-F19)	401	0,1
Systemic connective tissue disorders (M30-M36)	387	0,1
Other congenital malformations (Q80-Q89)	385	0,1
Other diseases of pleura (J90-J94)	380	0,1
Infections of the skin and subcutaneous tissue (L00-L08)	378	0,1
Disorders of thyroid gland (E00-E07)	350	0,1
Obesity and other hyperalimentation (E65-E68)	341	0,1
Other diseases of urinary system (N30-N39)	340	0,1
Chronic rheumatic heart diseases (I05-I09)	335	0,1
Viral hepatitis (B15-B19)	319	0,1
Other obstetric conditions, not elsewhere classified (O95-O99)	312	0,1
Extrapyramidal and movement disorders (G20-G26)	307	0,1
Diseases of male genital organs (N40-N51)	307	0,1
Soft tissue disorders (M60-M79)	301	0,1
Glomerular diseases (N00-N08)	300	0,1
Other disorders of the skin and subcutaneous tissue (L80-L99)	290	0,1
Digestive system disorders of fetus and new-born (P75-P78)	290	0,1
Congenital malformations of the nervous system (Q00-Q07)	288	0,1

Appendix K: Distribution of deaths by broad groups of all underlying causes of death, 2013 (continued)

Causes of death (based on the 10th revision, International Classification of Disease, 1992)	Number	Percentage
All causes	**458 933**	**100,0**
Chromosomal abnormalities, not elsewhere classified (Q90-Q99)	283	0,1
Renal tubulo-interstitial diseases (N10-N16)	260	0,1
Suppurative and necrotic conditions of lower respiratory tract (J85-J86)	236	0,1
Viral infections characterized by skin and mucous membrane lesions (B00-B09)	225	0,0
Schizophrenia, schizotypal and delusional disorders (F20-F29)	221	0,0
Hernia (K40-K46)	215	0,0
Systemic atrophies primarily affecting the central nervous system (G10-G13)	192	0,0
Diseases of peritoneum (K65-K67)	191	0,0
Oedema, proteinuria and hypertensive disorders in pregnancy, childbirth and the puerperium (O10-O16)	183	0,0
Other and unspecified disorders of the circulatory system (I95-I99)	182	0,0
Benign neoplasms (D10-D36)	175	0,0
Acute upper respiratory infections (J00-J06)	174	0,0
Noninflammatory disorders of female genital tract (N80-N98)	151	0,0
Viral infections of the central nervous system (A80-A89)	148	0,0
Polyneuropathies and other disorders of the peripheral nervous system (G60-G64)	146	0,0
Malignant neoplasms of thyroid and other endocrine glands (C73-C75)	139	0,0
Other congenital malformations of the digestive system (Q38-Q45)	138	0,0
Malignant neoplasms of bone and articular cartilage (C40-C41)	133	0,0
Complications predominantly related to the puerperium (O85-O92)	124	0,0
Diseases of appendix (K35-K38)	118	0,0
Complications of labour and delivery (O60-O75)	118	0,0
Congenital malformations and deformations of the musculoskeletal system (Q65-Q79)	112	0,0
Other infectious diseases (B99)	108	0,0
Osteopathies and chondropathies (M80-M94)	108	0,0
Pregnancy with abortive outcome (O00-O08)	107	0,0
Urticaria and erythema (L50-L54)	99	0,0
Helminthiases (B65-B83)	96	0,0
Disorders of other endocrine glands (E20-E35)	95	0,0
Other diseases of upper respiratory tract (J30-J39)	94	0,0
Inflammatory diseases of female pelvic organs (N70-N77)	93	0,0
Infections with a predominantly sexual mode of transmission (A50-A64)	88	0,0
Diseases of myoneural junction and muscle (G70-G73)	88	0,0
Conditions involving the integument and temperature regulation of fetus and new-born (P80-P83)	87	0,0
Congenital malformations of the urinary system (Q60-Q64)	82	0,0
Nutritional anaemias (D50-D53)	76	0,0
Diseases of oral cavity, salivary glands and jaws (K00-K14)	73	0,0
Other nutritional deficiencies (E50-E64)	66	0,0
Other diseases of blood and blood-forming organs (D70-D77)	64	0,0
Demyelinating diseases of the central nervous system (G35-G37)	63	0,0
Congenital malformations of the respiratory system (Q30-Q34)	63	0,0
Other maternal disorders predominantly related to pregnancy (O20-O29)	59	0,0
Dorsopathies (M40-M54)	57	0,0
Symptoms and signs involving the circulatory and respiratory systems (R00-R09)	57	0,0
Diseases of middle ear and mastoid (H65-H75)	55	0,0
Haemolytic anaemias (D55-D59)	48	0,0
Maternal care related to the fetus and amniotic cavity and possible delivery problems (O30-O48)	43	0,0
Sequelae of external causes of morbidity and mortality (Y85-Y89)	34	0,0
Dermatitis and eczema (L20-L30)	33	0,0

Appendix K: Distribution of deaths by broad groups of all underlying causes of death, 2013 (concluded)

Causes of death (based on the 10th revision, International Classification of Disease, 1992)	Number	Percentage
Total	**458 933**	**100,0**
Acute rheumatic fever (I00-I02)	32	0,0
Nerve, nerve root and plexus disorders (G50-G59)	22	0,0
Arthropod-borne viral fevers and viral haemorrhagic fevers (A90-A99)	21	0,0
Transitory endocrine and metabolic disorders specific to fetus and new-born (P70-P74)	21	0,0
Bullous disorders (L10-L14)	20	0,0
Unspecified mental disorder (F99)	19	0,0
In situ neoplasms (D00-D09)	18	0,0
Birth trauma (P10-P15)	17	0,0
Other spirochaetal diseases (A65-A69)	14	0,0
Abnormal findings on examination of other body fluids, substances and tissues, without diagnosis (R83-R89)	14	0,0
Disorders of breast (N60-N64)	13	0,0
Symptoms and signs involving the digestive system and abdomen (R10-R19)	12	0,0
Certain zoonotic bacterial diseases (A20-A28)	10	0,0
Rickettsioses (A75-A79)	10	0,0
Urolithiasis (N20-N23)	10	0,0
Neurotic, stress-related and somatoform disorders (F40-F48)	9	0,0
Mood [affective] disorders (F30-F39)	8	0,0
Behavioural syndromes associated with physiological disturbances and physical factors (F50-F59)	8	0,0
Cleft lip and cleft palate (Q35-Q37)	8	0,0
Congenital malformations of eye, ear, face and neck (Q10-Q18)	6	0,0
Abnormal findings on diagnostic imaging and in function studies, without diagnosis (R90-R94)	6	0,0
Visual disturbances and blindness (H53-H54)	5	0,0
Abnormal findings on examination of blood, without diagnosis (R70-R79)	5	0,0
Pediculosis, acariasis and other infestations (B85-B89)	4	0,0
Disorders of conjunctiva (H10-H13)	4	0,0
Disorders of sclera, cornea, iris and ciliary body (H15-H22)	4	0,0
Papulosquamous disorders (L40-L45)	3	0,0
Disorders of skin appendages (L60-L75)	3	0,0
Other diseases caused by chlamydiae (A70-A74)	2	0,0
Disorders of adult personality and behaviour (F60-F69)	2	0,0
Mental retardation (F70-F79)	2	0,0
Disorders of ocular muscles, binocular movement, accommodation and refraction (H49-H52)	2	0,0
Congenital malformations of genital organs (Q50-Q56)	2	0,0
Symptoms and signs involving the nervous and musculoskeletal systems (R25-R29)	2	0,0
Symptoms and signs involving the urinary system (R30-R39)	2	0,0
Symptoms and signs involving speech and voice (R47-R49)	2	0,0
Legal intervention and operations of war (Y35-Y36)	2	0,0
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence (F90-F98)	1	0,0
Disorders of eyelid, lacrimal system and orbit (H00-H06)	1	0,0
Glaucoma (H40-H42)	1	0,0
Other disorders of eye and adnexa (H55-H59)	1	0,0
Diseases of external ear (H60-H62)	1	0,0
Diseases of inner ear (H80-H83)	1	0,0
Other disorders of ear (H90-H95)	1	0,0
Symptoms and signs involving the skin and subcutaneous tissue (R20-R23)	1	0,0
Symptoms and signs involving cognition, perception, emotional state and behaviour (R40-R46)	1	0,0

Appendix L: Detailed description of the broad groups of natural causes of death which were among the ten leading causes in 2013

Causes of death (based on ICD-10)		Number	Percentage
	Intestinal infectious diseases (A00-A09)		
A01	Typhoid and paratyphoid fevers (A01)	3	0,0
A02	Other salmonella infections(A02)	21	0,1
A03	Shigellosis (A03)	9	0,1
A04	Other bacterial intestinal infections (A04)	22	0,1
A05	Other bacterial foodborne intoxications (A05)	1	0,0
A06	Amoebiasis (A06)	15	0,1
A07	Other protozoal intestinal diseases (A07)	19	0,1
A08	Viral and other specified intestinal infections (A08)	22	0,1
A09	Diarrhoea and gastroenteritis of presumed infectious origin (A09)	15 670	99,3
Total		**15 782**	**100,0**
	Tuberculosis (A15-A19)		
A16	Respiratory tuberculosis, not confirmed bacteriologically or histologically (A16)	31 919	78,7
A17	Tuberculosis of nervous system (A17)	2 305	5,7
A18	Tuberculosis of other organs (A18)	1 359	3,4
A19	Miliary tuberculosis (A19)	4 219	10,4
	Drug-resistant tuberculosis		
U51	Multidrug-resistant tuberculosis (U51)	662	1,6
U52	Extensively drug-resistant tuberculosis (U52)	78	0,2
Total		**40 542**	**100,0**
	Human immunodeficiency virus [HIV] disease (B20-B24)		
B20	Human immunodeficiency virus (HIV) disease resulting in infectious and parasitic diseases (B20)	15 153	65,3
B21	Human immunodeficiency virus (HIV) disease resulting in malignant neoplasms (B21)	734	3,2
B22	Human immunodeficiency virus (HIV) disease resulting in other specified diseases (B22)	1 366	5,9
B23	Human immunodeficiency virus (HIV) disease resulting in other conditions (B23)	3 419	14,7
B24	Unspecified human immunodeficiency virus (HIV) disease (B24)	2 531	10,9
Total		**23 203**	**100,0**
	Other viral diseases (B25-B34)		
B25	Cytomegaloviral disease (B25)	65	0,5
B26	Mumps (B26)	2	0,0
B27	Infectious mononucleosis (B27)	4	0,0
B30	Viral conjunctivitis (B30)	1	0,0
B33	Other viral diseases, not elsewhere classified (B33)	13 437	98,7
B34	Viral infection of unspecified site (B34)	105	0,8
Total		**13 614**	**100,0**
	Diabetes mellitus (E10-E14)		
E10	Insulin-dependent diabetes mellitus (E10)	254	1,1
E11	Non-insulin-dependent diabetes mellitus (E11)	1 427	6,4
E12	Malnutrition-related diabetes mellitus (E12)	16	0,1
E13	Other specified diabetes mellitus (E13)	1	0,0
E14	Unspecified diabetes mellitus (E14)	20 498	92,4
Total		**22 196**	**100,0**

Appendix L: Detailed description of the broad groups of natural causes of death which were among the ten leading causes in 2013 (continued)

Causes of death (based on ICD-10)		Number	Percentage
	Hypertensive diseases (I10-I15)		
I10	Essential (primary) hypertension (I10)	8 098	48,3
I11	Hypertensive heart disease (I11)	6 678	39,9
I12	Hypertensive renal disease (I12)	1 555	9,3
I13	Hypertensive heart and renal disease (I13)	423	2,5
Total		**16 754**	**100**
	Other forms of heart disease (I30-I52)		
I30	Acute pericarditis (I30)	10	0,1
I31	Other diseases of pericardium (I31)	113	0,5
I33	Acute and subacute endocarditis (I33)	47	0,2
I34	Nonrheumatic mitral valve disorders (I34)	85	0,4
I35	Nonrheumatic aortic valve disorders (I35)	220	1,0
I36	Nonrheumatic tricuspid valve disorders (I36)	2	0,0
I37	Pulmonary valve disorders (I37)	3	0,0
I38	Endocarditis, valve unspecified (I38)	163	0,8
I40	Acute myocarditis (I40)	24	0,1
I42	Cardiomyopathy (I42)	2 750	13,0
I44	Atrioventricular and left bundle-branch block (I44)	32	0,2
I45	Other conduction disorders (I45)	58	0,3
I46	Cardiac arrest (I46)	3 101	14,7
I47	Paroxysmal tachycardia (I47)	13	0,1
I48	Atrial fibrillation and flutter (I48)	449	2,1
I49	Other cardiac arrhythmias (I49)	255	1,2
I50	Heart failure (I50)	12 713	60,2
I51	Complications and ill-defined descriptions of heart disease (I51)	1 066	5,1
Total		**21 104**	**100,0**
	Cerebrovascular diseases (I60-I69)		
I60	Subarachnoid haemorrhage (I60)	360	1,6
I61	Intracerebral haemorrhage (I61)	1 508	6,7
I62	Other nontraumatic intracranial haemorrhage (I62)	739	3,3
I63	Cerebral infarction (I63)	478	2,1
I64	Stroke, not specified as haemorrhage or infarction (I64)	18 512	82,4
I67	Other cerebrovascular diseases (I67)	585	2,6
I69	Sequelae of cerebrovascular disease (I69)	281	1,3
Total		**22 463**	**100,0**
	Influenza and pneumonia (J09-J18)		
J09	Influenza due to identified avian influenza virus (J09)	2	0,01
J10	Influenza due to identified influenza virus (J10)	43	0,2
J11	Influenza, virus not identified (J11)	453	1,9
J12	Viral pneumonia, not elsewhere classified (J12)	25	0,1
J13	Pneumonia due to Streptococcus pneumoniae (J13)	6	0,0
J15	Bacterial pneumonia, not elsewhere classified (J15)	79	0,3
J18	Pneumonia, organism unspecified (J18)	23 119	97,4
Total		**23 727**	**100,0**

Appendix L: Detailed description of the broad groups of natural causes of death which were among the ten leading causes in 2013 (concluded)

Causes of death (based on ICD-10)		Number	Percentage
	Chronic lower respiratory diseases (J40-J47)		
J40	Bronchitis, not specified as acute or chronic (J40)	409	3,4
J41	Simple and mucopurulent chronic bronchitis (J41)	2	0,0
J42	Unspecified chronic bronchitis (J42)	258	2,1
J43	Emphysema (J43)	786	6,5
J44	Other chronic obstructive pulmonary disease (J44)	6 603	54,9
J45	Asthma (J45)	3 126	26,0
J46	Status asthmaticus (J46)	684	5,7
J47	Bronchiectasis (J47)	167	1,4
Total		**12 035**	**100,0**

Appendix M: The ten leading underlying natural causes of death by age and sex: South Africa, 2013

	South Africa, both sexes, all ages	No.	%
1	Tuberculosis (A15-A19)*	40 542	8,8
2	Influenza and pneumonia (J09-J18)	23 727	5,2
3	Human immunodeficiency virus [HIV] disease (B20-B24)	23 203	5,1
4	Cerebrovascular diseases (I60-I69)	22 463	4,9
5	Diabetes mellitus (E10-E14)	22 196	4,8
6	Other forms of heart disease (I30-I52)	21 104	4,6
7	Hypertensive diseases (I10-I15)	16 754	3,7
8	Intestinal infectious diseases (A00-A09)	15 782	3,4
9	Other viral diseases (B25-B34)	13 614	3,0
10	Chronic lower respiratory diseases (J40-J47)	12 035	2,6
	Other natural causes	200294	43,6
	Non-natural causes	47 219	10,3
	All causes	**458 933**	**100,0**

	South Africa, males, all ages	No.	%
1	Tuberculosis (A15-A19)*	23 791	9,9
2	Influenza and pneumonia (J09-J18)	12 133	5,1
3	Human immunodeficiency virus [HIV] disease (B20-B24)	11 643	4,9
4	Other forms of heart disease (I30-I52)	9 651	4,0
5	Cerebrovascular diseases (I60-I69)	9 518	4,0
6	Diabetes mellitus (E10-E14)	8 699	3,6
7	Intestinal infectious diseases (A00-A09)	7 441	3,1
8	Chronic lower respiratory diseases (J40-J47)	7 262	3,0
9	Other viral diseases (B25-B34)	6 459	2,7
10	Hypertensive diseases (I10-I15)	6 352	2,7
	Other natural causes	100 527	42,0
	Non-natural causes	35 712	14,9
	All causes	**239 188**	**100,0**

	South Africa, females, all ages	No.	%
1	Tuberculosis (A15-A19)*	16 582	7,6
2	Diabetes mellitus (E10-E14)	13 484	6,2
3	Cerebrovascular diseases (I60-I69)	12 920	5,9
4	Human immunodeficiency virus [HIV] disease (B20-B24)	11 481	5,3
5	Influenza and pneumonia (J09-J18)	11 480	5,3
6	Other forms of heart disease (I30-I52)	11 399	5,2
7	Hypertensive diseases (I10-I15)	10 388	4,8
8	Intestinal infectious diseases (A00-A09)	8 259	3,8
9	Other viral diseases (B25-B34)	7 102	3,3
10	Chronic lower respiratory diseases (J40-J47)	4 757	2,2
	Other natural causes	98 786	45,4
	Non-natural causes	11 109	5,1
	All causes	**217 747**	**100,0**

	South Africa, both sexes, 0	No.	%
1	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	3 727	14,3
2	Intestinal infectious diseases (A00-A09)	3 591	13,8
3	Influenza and pneumonia (J09-J18)	2 343	9,0
4	Disorders related to length of gestation and fetal growth (P05-P08)	1 422	5,5
5	Other disorders originating in the perinatal period (P90-P96)	1 346	5,2
6	Infections specific to the perinatal period (P35-P39)	1 085	4,2
7	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	833	3,2
8	Malnutrition (E40-E46)	701	2,7
9	Other acute lower respiratory infections (J20-J22)	513	2,0
10	Other viral diseases (B25-B34)	466	1,8
	Other natural causes	9 097	35,0
	Non-natural causes	869	3,3
	All causes	**25 993**	**100,0**

	South Africa, males, 0	No.	%
1	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	2 006	14,8
2	Intestinal infectious diseases (A00-A09)	1 866	13,7
3	Influenza and pneumonia (J09-J18)	1 172	8,6
4	Disorders related to length of gestation and fetal growth (P05-P08)	741	5,5
5	Other disorders originating in the perinatal period (P90-P96)	733	5,4
6	Infections specific to the perinatal period (P35-P39)	579	4,3
7	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	450	3,3
8	Malnutrition (E40-E46)	391	2,9
9	Other viral diseases (B25-B34)	249	1,8
10	Other acute lower respiratory infections (J20-J22)	246	1,8
	Other natural causes	4 660	34,3
	Non-natural causes	481	3,5
	All causes	**13 574**	**100,0**

	South Africa, females, 0	No.	%
1	Intestinal infectious diseases (A00-A09)	1 686	14,1
2	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	1 617	13,6
3	Influenza and pneumonia (J09-J18)	1 142	9,6
4	Disorders related to length of gestation and fetal growth (P05-P08)	652	5,5
5	Other disorders originating in the perinatal period (P90-P96)	549	4,6
6	Infections specific to the perinatal period (P35-P39)	484	4,1
7	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	355	3,0
8	Malnutrition (E40-E46)	303	2,5
9	Other acute lower respiratory infections (J20-J22)	259	2,2
10	Other viral diseases (B25-B34)	210	1,8
	Other natural causes	4 282	35,9
	Non-natural causes	379	3,2
	All causes	**11 918**	**100,0**

	South Africa both sexes, 1-14	No.	%
1	Intestinal infectious diseases (A00-A09)	1 946	12,4
2	Influenza and pneumonia (J09-J18)	1 244	7,9
3	Tuberculosis (A15-A19)*	754	4,8
4	Malnutrition (E40-E46)	636	4,0
5	Human immunodeficiency virus [HIV] disease (B20-B24)	460	2,9
6	Other viral diseases (B25-B34)	343	2,2
7	Inflammatory diseases of the central nervous system (G00-G09)	336	2,1
8	Other forms of heart disease (I30-I52)	297	1,9
9	Other acute lower respiratory infections (J20-J22)	260	1,7
10	Cerebral palsy and other paralytic syndromes (G80-G83)	234	1,5
	Other natural causes	5 703	36,2
	Non-natural causes	3 531	22,4
	All causes	**15 744**	**100,0**

	South Africa, males, 1-14	No.	%
1	Intestinal infectious diseases (A00-A09)	1 009	11,9
2	Influenza and pneumonia (J09-J18)	651	7,7
3	Tuberculosis (A15-A19)*	389	4,6
4	Malnutrition (E40-E46)	334	4,0
5	Human immunodeficiency virus [HIV] disease (B20-B24)	223	2,6
6	Other viral diseases (B25-B34)	179	2,1
7	Inflammatory diseases of the central nervous system (G00-G09)	174	2,1
8	Other forms of heart disease (I30-I52)	143	1,7
9	Other acute lower respiratory infections (J20-J22)	139	1,6
10	Cerebral palsy and other paralytic syndromes (G80-G83)	130	1,5
	Other natural causes	2 959	35,0
	Non-natural causes	2 123	25,1
	All causes	**8 453**	**100,0**

	South Africa, females, 1-14	No.	%
	Intestinal infectious diseases (A00-A09)	925	12,8
	Influenza and pneumonia (J09-J18)	588	8,2
	Tuberculosis (A15-A19)*	362	5,0
	Malnutrition (E40-E46)	300	4,2
	Human immunodeficiency virus [HIV] disease (B20-B24)	235	3,3
	Other viral diseases (B25-B34)	163	2,3
	Inflammatory diseases of the central nervous system (G00-G09)	161	2,2
	Other forms of heart disease (I30-I52)	154	2,1
	Other acute lower respiratory infections (J20-J22)	119	1,7
	Cerebral palsy and other paralytic syndromes (G80-G83)	103	1,4
	Other natural causes	2 707	37,6
	Non-natural causes	1 391	19,3
	All causes	**7 208**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix M: The ten leading underlying natural causes of death by age and sex: South Africa, 2013 (concluded)

	South Africa, both sexes, 15-44	No.	%
1	Tuberculosis (A15-A19)*	21 521	15,2
2	Human immunodeficiency virus [HIV] disease (B20-B24)	15 201	10,8
3	Other viral diseases (B25-B34)	8 501	6,0
4	Influenza and pneumonia (J09-J18)	7 274	5,2
5	Certain disorders involving the immune mechanism (D80-D89)	4 692	3,3
6	Intestinal infectious diseases (A00-A09)	3 946	2,8
7	Other forms of heart disease (I30-I52)	3 102	2,2
8	Inflammatory diseases of the central nervous system (G00-G09)	2 361	1,7
9	Cerebrovascular diseases (I60-I69)	1 911	1,4
10	Protozoal diseases (B50-B64)	1 666	1,2
	Other natural causes	41 548	29,4
	Non-natural causes	29 492	20,9
	All causes	**141 215**	**100,0**

	South Africa, males, all ages, 15-44	No.	%
1	Tuberculosis (A15-A19)*	11 424	14,6
2	Human immunodeficiency virus [HIV] disease (B20-B24)	7 220	9,2
3	Other viral diseases (B25-B34)	3 739	4,8
4	Influenza and pneumonia (J09-J18)	3 377	4,3
5	Certain disorders involving the immune mechanism (D80-D89)	2 120	2,7
6	Intestinal infectious diseases (A00-A09)	1 778	2,3
7	Other forms of heart disease (I30-I52)	1 544	2,0
8	Inflammatory diseases of the central nervous system (G00-G09)	1 210	1,5
9	Cerebrovascular diseases (I60-I69)	945	1,2
10	Episodic and paroxysmal disorders (G40-G47)	883	1,1
	Other natural causes	20 000	25,5
	Non-natural causes	24 201	30,9
	All causes	**78 441**	**100,0**

	South Africa, females, all ages, 15-44	No.	%
1	Tuberculosis (A15-A19)*	10 003	16,1
2	Human immunodeficiency virus [HIV] disease (B20-B24)	7 927	12,8
3	Other viral diseases (B25-B34)	4 736	7,6
4	Influenza and pneumonia (J09-J18)	3 860	6,2
5	Certain disorders involving the immune mechanism (D80-D89)	2 556	4,1
6	Intestinal infectious diseases (A00-A09)	2 151	3,5
7	Other forms of heart disease (I30-I52)	1 543	2,5
8	Inflammatory diseases of the central nervous system (G00-G09)	1 147	1,8
9	Protozoal diseases (B50-B64)	980	1,6
10	Cerebrovascular diseases (I60-I69)	960	1,5
	Other natural causes	21 177	34,1
	Non-natural causes	5 116	8,2
	All causes	**62 156**	**100,0**

	All provinces, both sexes, 45-64	No.	%
1	Tuberculosis (A15-A19)*	13 380	10,5
2	Diabetes mellitus (E10-E14)	8 265	6,5
3	Cerebrovascular diseases (I60-I69)	6 662	5,2
4	Human immunodeficiency virus [HIV] disease (B20-B24)	6 361	5,0
5	Influenza and pneumonia (J09-J18)	6 032	4,7
6	Other forms of heart disease (I30-I52)	5 813	4,5
7	Hypertensive diseases (I10-I15)	4 813	3,8
8	Chronic lower respiratory diseases (J40-J47)	4 397	3,4
9	Malignant neoplasms of digestive organs (C15-C26)	3 795	3,0
10	Other viral diseases (B25-B34)	3 759	2,9
	Other natural causes	55 934	43,8
	Non-natural causes	8 620	6,7
	All causes	**127 831**	**100,0**

	South Africa males, 45-64	No.	%
1	Tuberculosis (A15-A19)*	9 006	12,0
2	Influenza and pneumonia (J09-J18)	3 805	5,1
3	Human immunodeficiency virus [HIV] disease (B20-B24)	3 602	4,8
4	Diabetes mellitus (E10-E14)	3 596	4,8
5	Cerebrovascular diseases (I60-I69)	3 557	4,8
6	Other forms of heart disease (I30-I52)	3 242	4,3
7	Chronic lower respiratory diseases (J40-J47)	2 968	4,0
8	Ischaemic heart diseases (I20-I25)	2 455	3,3
9	Malignant neoplasms of digestive organs (C15-C26)	2 396	3,2
10	Hypertensive diseases (I10-I15)	2 259	3,0
	Other natural causes	31 387	42,0
	Non-natural causes	6 506	8,7
	All causes	**74 779**	**100,0**

	South Africa, females, 45-64	No.	%
1	Diabetes mellitus (E10-E14)	4 663	8,8
2	Tuberculosis (A15-A19)*	4 335	8,2
3	Cerebrovascular diseases (I60-I69)	3 098	5,9
4	Human immunodeficiency virus [HIV] disease (B20-B24)	2 750	5,2
5	Other forms of heart disease (I30-I52)	2 554	4,8
6	Hypertensive diseases (I10-I15)	2 548	4,8
7	Influenza and pneumonia (J09-J18)	2 209	4,2
8	Malignant neoplasms of female genital organs (C51-C58)	1 979	3,7
9	Other viral diseases (B25-B34)	1 704	3,2
10	Chronic lower respiratory diseases (J40-J47)	1 425	2,7
	Other natural causes	23 440	44,4
	Non-natural causes	2 101	4,0
	All causes	**52 806**	**100,0**

	All provinces, both sexes, 65+	No.	%
1	Cerebrovascular diseases (I60-I69)	13 778	9,4
2	Diabetes mellitus (E10-E14)	12 415	8,5
3	Other forms of heart disease (I30-I52)	11 664	8,0
4	Hypertensive diseases (I10-I15)	10 833	7,4
5	Influenza and pneumonia (J09-J18)	6 749	4,6
6	Ischaemic heart diseases (I20-I25)	6 678	4,6
7	Chronic lower respiratory diseases (J40-J47)	6 332	4,3
8	Malignant neoplasms of digestive organs (C15-C26)	4 710	3,2
9	Tuberculosis (A15-A19)*	4 491	3,1
10	Intestinal infectious diseases (A00-A09)	3 352	2,3
	Other natural causes	61 132	41,8
	Non-natural causes	4 233	2,9
	All causes	**146 367**	**100,0**

	South Africa, males, 65+	No.	%
1	Cerebrovascular diseases (I60-I69)	4 951	7,9
2	Other forms of heart disease (I30-I52)	4 608	7,3
3	Diabetes mellitus (E10-E14)	4 400	7,0
4	Chronic lower respiratory diseases (J40-J47)	3 614	5,7
5	Hypertensive diseases (I10-I15)	3 580	5,7
6	Ischaemic heart diseases (I20-I25)	3 355	5,3
7	Influenza and pneumonia (J09-J18)	3 082	4,9
8	Tuberculosis (A15-A19)*	2 729	4,3
9	Malignant neoplasms of digestive organs (C15-C26)	2 467	3,9
10	Malignant neoplasms of male genital organs (C60-C63)	2 174	3,5
	Other natural causes	25 892	41,1
	Non-natural causes	2 152	3,4
	All causes	**63 004**	**100,0**

	South Africa, females, 65+	No.	%
1	Cerebrovascular diseases (I60-I69)	8 822	10,6
2	Diabetes mellitus (E10-E14)	8 009	9,6
3	Hypertensive diseases (I10-I15)	7 248	8,7
4	Other forms of heart disease (I30-I52)	7 044	8,5
5	Influenza and pneumonia (J09-J18)	3 664	4,4
6	Ischaemic heart diseases (I20-I25)	3 316	4,0
7	Chronic lower respiratory diseases (J40-J47)	2 713	3,3
8	Malignant neoplasms of digestive organs (C15-C26)	2 241	2,7
9	Intestinal infectious diseases (A00-A09)	2 140	2,6
10	Tuberculosis (A15-A19)*	1 759	2,1
	Other natural causes	34 219	41,1
	Non-natural causes	2 077	2,5
	All causes	**83 252**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix M1: The ten leading underlying natural causes of death by age and sex: Western Cape, 2013

	Western Cape, both sexes, all ages	No.	%
1	Diabetes mellitus (E10-E14)	3 174	6,9
2	Ischaemic heart diseases (I20-I25)	2 767	6,0
3	Human immunodeficiency virus [HIV] disease (B20-B24)	2 745	6,0
4	Tuberculosis (A15-A19)*	2 643	5,7
5	Cerebrovascular diseases (I60-I69)	2 582	5,6
6	Chronic lower respiratory diseases (J40-J47)	2 184	4,7
7	Malignant neoplasms of digestive organs (C15-C26)	2 074	4,5
8	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	2 063	4,5
9	Hypertensive diseases (I10-I15)	1 684	3,7
10	Other forms of heart disease (I30-I52)	1 442	3,1
	Other natural causes	16 753	36,4
	Non-natural causes	5 896	12,8
	All causes	**46 007**	**100,0**

	Western Cape, males, all ages	No.	%
1	Tuberculosis (A15-A19)*	1 685	6,6
2	Ischaemic heart diseases (I20-I25)	1 627	6,4
3	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	1 340	5,2
4	Human immunodeficiency virus [HIV] disease (B20-B24)	1 331	5,2
5	Diabetes mellitus (E10-E14)	1 322	5,2
6	Chronic lower respiratory diseases (J40-J47)	1 311	5,1
7	Malignant neoplasms of digestive organs (C15-C26)	1 186	4,6
8	Cerebrovascular diseases (I60-I69)	1 183	4,6
9	Other forms of heart disease (I30-I52)	714	2,8
10	Hypertensive diseases (I10-I15)	709	2,8
	Other natural causes	8 405	32,9
	Non-natural causes	4 753	18,6
	All causes	**25 566**	**100,0**

	Western Cape, females, all ages	No.	%
1	Diabetes mellitus (E10-E14)	1 852	9,1
2	Human immunodeficiency virus [HIV] disease (B20-B24)	1 403	6,9
3	Cerebrovascular diseases (I60-I69)	1 399	6,9
4	Ischaemic heart diseases (I20-I25)	1 137	5,6
5	Hypertensive diseases (I10-I15)	974	4,8
6	Tuberculosis (A15-A19)*	949	4,7
7	Malignant neoplasms of digestive organs (C15-C26)	888	4,4
8	Chronic lower respiratory diseases (J40-J47)	872	4,3
9	Other forms of heart disease (I30-I52)	726	3,6
10	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	722	3,6
	Other natural causes	8 278	40,7
	Non-natural causes	1 116	5,5
	All causes	**20 316**	**100,0**

	Western Cape, both sexes, Age 0	No.	%
1	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	216	11,7
2	Disorders related to length of gestation and fetal growth (P05-P08)	166	9,0
3	Other disorders originating in the perinatal period (P90-P96)	154	8,4
4	Intestinal infectious diseases (A00-A09)	119	6,5
5	Infections specific to the perinatal period (P35-P39)	103	5,6
6	Influenza and pneumonia (J09-J18)	89	4,8
7	Other acute lower respiratory infections (J20-J22)	74	4,0
8	Congenital malformations of the circulatory system (Q20-Q28)	72	3,9
9	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	71	3,9
10	Other diseases of the respiratory system (J95-J99)	54	2,9
	Other natural causes	682	37,1
	Non-natural causes	40	2,2
	All causes	**1 840**	**100,0**

	Western Cape, males, Age 0	No.	%
1	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	115	12,1
2	Disorders related to length of gestation and fetal growth (P05-P08)	90	9,5
3	Other disorders originating in the perinatal period (P90-P96)	88	9,3
4	Intestinal infectious diseases (A00-A09)	53	5,6
5	Infections specific to the perinatal period (P35-P39)	47	5,0
6	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	41	4,3
7	Influenza and pneumonia (J09-J18)	40	4,2
8	Congenital malformations of the circulatory system (Q20-Q28)	35	3,7
9	Other acute lower respiratory infections (J20-J22)	32	3,4
10	Other diseases of the respiratory system (J95-J99)	28	3,0
	Other natural causes	361	38,1
	Non-natural causes	17	1,8
	All causes	**947**	**100,0**

	Western Cape, females, Age 0	No.	%
1	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	95	11,1
2	Disorders related to length of gestation and fetal growth (P05-P08)	70	8,2
3	Intestinal infectious diseases (A00-A09)	66	7,7
4	Other disorders originating in the perinatal period (P90-P96)	60	7,0
5	Infections specific to the perinatal period (P35-P39)	55	6,4
6	Influenza and pneumonia (J09-J18)	48	5,6
7	Other acute lower respiratory infections (J20-J22)	40	4,7
8	Congenital malformations of the circulatory system (Q20-Q28)	37	4,3
9	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	28	3,3
10	Other diseases of the respiratory system (J95-J99)	25	2,9
	Other natural causes	311	36,2
	Non-natural causes	23	2,7
	All causes	**858**	**100,0**

	Western Cape, both sexes, 1–14	No.	%
1	Intestinal infectious diseases (A00-A09)	44	5,5
2	Cerebral palsy and other paralytic syndromes (G80-G83)	36	4,5
3	Other forms of heart disease (I30-I52)	29	3,6
4	Influenza and pneumonia (J09-J18)	29	3,6
5	Human immunodeficiency virus [HIV] disease (B20-B24)	24	3,0
6	Tuberculosis (A15-A19)*	17	2,1
7	Other bacterial diseases (A30-A49)	17	2,1
8	Malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue (C81-C96)	13	1,6
9	Malnutrition (E40-E46)	12	1,5
10	Inflammatory diseases of the central nervous system (G00-G09)	12	1,5
	Other natural causes	254	31,7
	Non-natural causes	315	39,3
	All causes	**802**	**100,0**

	Western Cape, males, 1–14	No.	%
1	Intestinal infectious diseases (A00-A09)	27	5,8
2	Cerebral palsy and other paralytic syndromes (G80-G83)	19	4,1
3	Human immunodeficiency virus [HIV] disease (B20-B24)	16	3,4
4	Other forms of heart disease (I30-I52)	13	2,8
5	Influenza and pneumonia (J09-J18)	13	2,8
6	Other bacterial diseases (A30-A49)	7	1,5
7	Malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue (C81-C96)	7	1,5
8	Other disorders of the nervous system (G90-G99)	7	1,5
9	Chronic lower respiratory diseases (J40-J47)	7	1,5
10	Malnutrition (E40-E46)	6	1,3
	Other natural causes	131	28,2
	Non-natural causes	211	45,5
	All causes	**464**	**100,0**

	Western Cape, females, 1–14	No.	%
1	Intestinal infectious diseases (A00-A09)	17	5,1
2	Cerebral palsy and other paralytic syndromes (G80-G83)	16	4,8
3	Other forms of heart disease (I30-I52)	16	4,8
4	Influenza and pneumonia (J09-J18)	16	4,8
5	Tuberculosis (A15-A19)*	12	3,6
6	Other bacterial diseases (A30-A49)	10	3,0
7	Congenital malformations of the circulatory system (Q20-Q28)	9	2,7
8	Human immunodeficiency virus [HIV] disease (B20-B24)	8	2,4
9	Malnutrition (E40-E46)	6	1,8
10	Inflammatory diseases of the central nervous system (G00-G09)	6	1,8
	Other natural causes	116	34,5
	Non-natural causes	104	31,0
	All causes	**336**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix M1: The ten leading underlying natural causes of death by age and sex: Western Cape, 2013 (concluded)

	Western Cape, both sexes, 15–44	No.	%
1	Human immunodeficiency virus [HIV] disease (B20-B24)	1 897	17,0
2	Tuberculosis (A15-A19)*	1 237	11,1
3	Other viral diseases (B25-B34)	211	1,9
4	Cerebrovascular diseases (I60-I69)	187	1,7
5	Influenza and pneumonia (J09-J18)	168	1,5
6	Other forms of heart disease (I30-I52)	156	1,4
7	Malignant neoplasms of digestive organs (C15-C26)	152	1,4
8	Ischaemic heart diseases (I20-I25)	148	1,3
9	Diabetes mellitus (E10-E14)	144	1,3
10	Chronic lower respiratory diseases (J40-J47)	140	1,3
	Other natural causes	2 780	24,8
	Non-natural causes	3 971	35,5
	All causes	**11 191**	**100,0**

	Western Cape, males, 15–44	No.	%
1	Human immunodeficiency virus [HIV] disease (B20-B24)	882	12,2
2	Tuberculosis (A15-A19)*	725	10,0
3	Ischaemic heart diseases (I20-I25)	109	1,5
4	Other viral diseases (B25-B34)	106	1,5
5	Cerebrovascular diseases (I60-I69)	103	1,4
6	Malignant neoplasms of digestive organs (C15-C26)	94	1,3
7	Other forms of heart disease (I30-I52)	93	1,3
8	Chronic lower respiratory diseases (J40-J47)	91	1,3
9	Influenza and pneumonia (J09-J18)	85	1,2
10	Episodic and paroxysmal disorders (G40-G47)	72	1,0
	Other natural causes	1 430	19,7
	Non-natural causes	3 454	47,7
	All causes	**7 244**	**100,0**

	Western Cape, females, 15–44	No.	%
1	Human immunodeficiency virus [HIV] disease (B20-B24)	1 008	25,9
2	Tuberculosis (A15-A19)*	507	13,0
3	Other viral diseases (B25-B34)	105	2,7
4	Malignant neoplasms of breast (C50)	93	2,4
5	Cerebrovascular diseases (I60-I69)	84	2,2
6	Influenza and pneumonia (J09-J18)	81	2,1
7	Malignant neoplasms of female genital organs (C51-C58)	75	1,9
8	Diabetes mellitus (E10-E14)	73	1,9
9	Other forms of heart disease (I30-I52)	63	1,6
10	Malignant neoplasms of digestive organs (C15-C26)	58	1,5
	Other natural causes	1 257	32,2
	Non-natural causes	495	12,7
	All causes	**3 899**	**100,0**

	Western Cape, both sexes, 45–64	No.	%
1	Diabetes mellitus (E10-E14)	1 204	8,6
2	Tuberculosis (A15-A19)*	1 070	7,7
3	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	1 027	7,4
4	Chronic lower respiratory diseases (J40-J47)	912	6,5
5	Ischaemic heart diseases (I20-I25)	848	6,1
6	Malignant neoplasms of digestive organs (C15-C26)	816	5,8
7	Cerebrovascular diseases (I60-I69)	746	5,3
8	Human immunodeficiency virus [HIV] disease (B20-B24)	724	5,2
9	Hypertensive diseases (I10-I15)	499	3,6
10	Other forms of heart disease (I30-I52)	330	2,4
	Other natural causes	4 766	34,2
	Non-natural causes	1 012	7,3
	All causes	**13 954**	**100,0**

	Western Cape, males, 45–64	No.	%
1	Tuberculosis (A15-A19)*	749	9,0
2	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	722	8,7
3	Ischaemic heart diseases (I20-I25)	600	7,2
4	Chronic lower respiratory diseases (J40-J47)	580	7,0
5	Diabetes mellitus (E10-E14)	538	6,5
6	Malignant neoplasms of digestive organs (C15-C26)	505	6,1
7	Cerebrovascular diseases (I60-I69)	417	5,0
8	Human immunodeficiency virus [HIV] disease (B20-B24)	388	4,7
9	Hypertensive diseases (I10-I15)	246	3,0
10	Other forms of heart disease (I30-I52)	202	2,4
	Other natural causes	2 612	31,4
	Non-natural causes	767	9,2
	All causes	**8 326**	**100,0**

	Western Cape, females, 45–64	No.	%
1	Diabetes mellitus (E10-E14)	666	11,9
2	Human immunodeficiency virus [HIV] disease (B20-B24)	333	5,9
3	Chronic lower respiratory diseases (J40-J47)	331	5,9
4	Cerebrovascular diseases (I60-I69)	329	5,9
5	Tuberculosis (A15-A19)*	317	5,7
6	Malignant neoplasms of digestive organs (C15-C26)	311	5,5
7	Malignant neoplasms of breast (C50)	307	5,5
8	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	304	5,4
9	Hypertensive diseases (I10-I15)	253	4,5
10	Ischaemic heart diseases (I20-I25)	247	4,4
	Other natural causes	1 967	35,1
	Non-natural causes	244	4,4
	All causes	**5 609**	**100,0**

	Western Cape, both sexes, 65+	No.	%
1	Diabetes mellitus (E10-E14)	1 824	10,1
2	Ischaemic heart diseases (I20-I25)	1 770	9,8
3	Cerebrovascular diseases (I60-I69)	1 644	9,1
4	Chronic lower respiratory diseases (J40-J47)	1 122	6,2
5	Malignant neoplasms of digestive organs (C15-C26)	1 105	6,1
6	Hypertensive diseases (I10-I15)	1 084	6,0
7	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	950	5,2
8	Other forms of heart disease (I30-I52)	920	5,1
9	Influenza and pneumonia (J09-J18)	500	2,8
10	Malignant neoplasms of male genital organs (C60-C63)	425	2,3
	Other natural causes	6 224	34,4
	Non-natural causes	530	2,9
	All causes	**18 098**	**100,0**

	Western Cape, males, 65+	No.	%
1	Ischaemic heart diseases (I20-I25)	917	10,8
2	Diabetes mellitus (E10-E14)	713	8,4
3	Cerebrovascular diseases (I60-I69)	660	7,8
4	Chronic lower respiratory diseases (J40-J47)	632	7,4
5	Malignant neoplasms of digestive organs (C15-C26)	587	6,9
6	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	559	6,6
7	Malignant neoplasms of male genital organs (C60-C63)	425	5,0
8	Other forms of heart disease (I30-I52)	405	4,8
9	Hypertensive diseases (I10-I15)	403	4,7
10	Influenza and pneumonia (J09-J18)	219	2,6
	Other natural causes	2 703	31,8
	Non-natural causes	284	3,3
	All causes	**8 507**	**100,0**

	Western Cape, females, 65+	No.	%
1	Diabetes mellitus (E10-E14)	1 111	11,6
2	Cerebrovascular diseases (I60-I69)	984	10,3
3	Ischaemic heart diseases (I20-I25)	851	8,9
4	Hypertensive diseases (I10-I15)	681	7,1
5	Malignant neoplasms of digestive organs (C15-C26)	518	5,4
6	Other forms of heart disease (I30-I52)	514	5,4
7	Chronic lower respiratory diseases (J40-J47)	490	5,1
8	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	391	4,1
9	Malignant neoplasms of breast (C50)	301	3,1
10	Influenza and pneumonia (J09-J18)	281	2,9
	Other natural causes	3 218	33,6
	Non-natural causes	246	2,6
	All causes	**9 586**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix M2: The ten leading underlying natural causes of death by age and sex: Eastern Cape, 2013

	Eastern Cape, both sexes, all ages	No.	%		Eastern Cape, males, all ages	No.	%		Eastern Cape, females, all ages	No.	%
1	Tuberculosis (A15-A19)*	6 272	9,8	1	Tuberculosis (A15-A19)*	3 606	11,0	1	Tuberculosis (A15-A19)*	2 646	8,5
2	Human immunodeficiency virus [HIV] disease (B20-B24)	3 467	5,4	2	Human immunodeficiency virus [HIV] disease (B20-B24)	1 683	5,1	2	Human immunodeficiency virus [HIV] disease (B20-B24)	1 779	5,7
3	Other forms of heart disease (I30-I52)	3 016	4,7	3	Chronic lower respiratory diseases (J40-J47)	1 380	4,2	3	Diabetes mellitus (E10-E14)	1 734	5,6
4	Cerebrovascular diseases (I60-I69)	2 941	4,6	4	Other forms of heart disease (I30-I52)	1 322	4,0	4	Cerebrovascular diseases (I60-I69)	1 704	5,5
5	Diabetes mellitus (E10-E14)	2 734	4,3	5	Cerebrovascular diseases (I60-I69)	1 235	3,8	5	Other forms of heart disease (I30-I52)	1 687	5,4
6	Chronic lower respiratory diseases (J40-J47)	2 399	3,8	6	Influenza and pneumonia (J09-J18)	1 010	3,1	6	Hypertensive diseases (I10-I15)	1 365	4,4
7	Hypertensive diseases (I10-I15)	2 154	3,4	7	Diabetes mellitus (E10-E14)	998	3,0	7	Other viral diseases (B25-B34)	1 100	3,6
8	Influenza and pneumonia (J09-J18)	2 007	3,1	8	Malignant neoplasms of digestive organs (C15-C26)	815	2,5	8	Chronic lower respiratory diseases (J40-J47)	1 015	3,3
9	Other viral diseases (B25-B34)	1 853	2,9	9	Hypertensive diseases (I10-I15)	786	2,4	9	Influenza and pneumonia (J09-J18)	990	3,2
10	Malignant neoplasms of digestive organs (C15-C26)	1 520	2,4	10	Other viral diseases (B25-B34)	747	2,3	10	Intestinal infectious diseases (A00-A09)	782	2,5
	Other natural causes	28 702	44,9		Other natural causes	14 026	42,8		Other natural causes	14 516	46,9
	Non-natural causes	6 870	10,7		Non-natural causes	5 184	15,8		Non-natural causes	1 662	5,4
	All causes	**63 935**	**100,0**		**All causes**	**32 792**	**100,0**		**All causes**	**30 980**	**100,0**
	Eastern Cape, both sexes, Age 0	**No.**	**%**		**Eastern Cape, males, Age 0**	**No.**	**%**		**Eastern Cape, females, Age 0**	**No.**	**%**
1	Intestinal infectious diseases (A00-A09)	310	14,2	1	Intestinal infectious diseases (A00-A09)	165	14,7	1	Intestinal infectious diseases (A00-A09)	143	13,8
2	Influenza and pneumonia (J09-J18)	223	10,2	2	Influenza and pneumonia (J09-J18)	106	9,5	2	Influenza and pneumonia (J09-J18)	114	11,0
3	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	196	9,0	3	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	105	9,4	3	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	90	8,7
4	Other disorders originating in the perinatal period (P90-P96)	120	5,5	4	Other disorders originating in the perinatal period (P90-P96)	64	5,7	4	Other disorders originating in the perinatal period (P90-P96)	53	5,1
5	Disorders related to length of gestation and fetal growth (P05-P08)	97	4,5	5	Malnutrition (E40-E46)	48	4,3	5	Disorders related to length of gestation and fetal growth (P05-P08)	49	4,7
6	Malnutrition (E40-E46)	82	3,8	6	Disorders related to length of gestation and fetal growth (P05-P08)	46	4,1	6	Malnutrition (E40-E46)	33	3,2
7	Infections specific to the perinatal period (P35-P39)	57	2,6	7	Infections specific to the perinatal period (P35-P39)	36	3,2	7	Other viral diseases (B25-B34)	25	2,4
8	Other acute lower respiratory infections (J20-J22)	51	2,3	8	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	27	2,4	8	Other acute lower respiratory infections (J20-J22)	25	2,4
9	Other bacterial diseases (A30-A49)	45	2,1	9	Other bacterial diseases (A30-A49)	26	2,3	9	Infections specific to the perinatal period (P35-P39)	20	1,9
10	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	45	2,1	10	Other acute lower respiratory infections (J20-J22)	25	2,2	10	Other bacterial diseases (A30-A49)	19	1,8
	Other natural causes	865	39,7		Other natural causes	417	37,2		Other natural causes	430	41,6
	Non-natural causes	88	4,0		Non-natural causes	55	4,9		Non-natural causes	33	3,2
	All causes	**2 179**	**100,0**		**All causes**	**1 120**	**100,0**		**All causes**	**1 034**	**100,0**
	Eastern Cape, both sexes, 1–14	**No.**	**%**		**Eastern Cape, males, 1–14**	**No.**	**%**		**Eastern Cape, females, 1–14**	**No.**	**%**
1	Intestinal infectious diseases (A00-A09)	168	8,2	1	Intestinal infectious diseases (A00-A09)	83	7,4	1	Intestinal infectious diseases (A00-A09)	85	9,4
2	Tuberculosis (A15-A19)*	101	4,9	2	Tuberculosis (A15-A19)*	55	4,9	2	Tuberculosis (A15-A19)*	45	5,0
3	Influenza and pneumonia (J09-J18)	94	4,6	3	Influenza and pneumonia (J09-J18)	51	4,5	3	Influenza and pneumonia (J09-J18)	43	4,7
4	Malnutrition (E40-E46)	59	2,9	4	Human immunodeficiency virus [HIV] disease (B20-B24)	27	2,4	4	Malnutrition (E40-E46)	33	3,6
5	Human immunodeficiency virus [HIV] disease (B20-B24)	51	2,5	5	Malnutrition (E40-E46)	26	2,3	5	Human immunodeficiency virus [HIV] disease (B20-B24)	24	2,6
6	Episodic and paroxysmal disorders (G40-G47)	46	2,3	6	Episodic and paroxysmal disorders (G40-G47)	22	1,9	6	Episodic and paroxysmal disorders (G40-G47)	24	2,6
7	Other viral diseases (B25-B34)	38	1,9	7	Other viral diseases (B25-B34)	20	1,8	7	Other viral diseases (B25-B34)	18	2,0
8	Inflammatory diseases of the central nervous system (G00-G09)	34	1,7	8	Cerebral palsy and other paralytic syndromes (G80-G83)	20	1,8	8	Other forms of heart disease (I30-I52)	18	2,0
9	Other forms of heart disease (I30-I52)	30	1,5	9	Inflammatory diseases of the central nervous system (G00-G09)	19	1,7	9	Inflammatory diseases of the central nervous system (G00-G09)	15	1,7
10	Cerebral palsy and other paralytic syndromes (G80-G83)	28	1,4	10	Chronic lower respiratory diseases (J40-J47)	14	1,2	10	Other bacterial diseases (A30-A49)	11	1,2
	Other natural causes	869	42,6		Other natural causes	453	40,1		Other natural causes	407	44,9
	Non-natural causes	524	25,7		Non-natural causes	339	30,0		Non-natural causes	183	20,2
	All causes	**2 042**	**100,0**		**All causes**	**1 129**	**100,0**		**All causes**	**906**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix M2: The ten leading underlying natural causes of death by age and sex: Eastern Cape, 2013 (concluded)

	Eastern Cape, both sexes, 15–44	No.	%		Eastern Cape, males, 15–44	No.	%		Eastern Cape, females, 15–44	No.	%
1	Tuberculosis (A15-A19)*	3 017	15,2	1	Tuberculosis (A15-A19)*	1 512	14,0	1	Tuberculosis (A15-A19)*	1 493	16,7
2	Human immunodeficiency virus [HIV] disease (B20-B24)	2 368	11,9	2	Human immunodeficiency virus [HIV] disease (B20-B24)	1 089	10,1	2	Human immunodeficiency virus [HIV] disease (B20-B24)	1 274	14,2
3	Other viral diseases (B25-B34)	1 240	6,2	3	Other viral diseases (B25-B34)	456	4,2	3	Other viral diseases (B25-B34)	778	8,7
4	Certain disorders involving the immune mechanism (D80-D89)	691	3,5	4	Certain disorders involving the immune mechanism (D80-D89)	287	2,7	4	Certain disorders involving the immune mechanism (D80-D89)	404	4,5
5	Influenza and pneumonia (J09-J18)	496	2,5	5	Influenza and pneumonia (J09-J18)	238	2,2	5	Influenza and pneumonia (J09-J18)	258	2,9
6	Intestinal infectious diseases (A00-A09)	407	2,1	6	Other forms of heart disease (I30-I52)	199	1,8	6	Intestinal infectious diseases (A00-A09)	220	2,5
7	Other forms of heart disease (I30-I52)	395	2,0	7	Episodic and paroxysmal disorders (G40-G47)	191	1,8	7	Other forms of heart disease (I30-I52)	196	2,2
8	Episodic and paroxysmal disorders (G40-G47)	282	1,4	8	Intestinal infectious diseases (A00-A09)	186	1,7	8	Inflammatory diseases of the central nervous system (G00-G09)	130	1,4
9	Inflammatory diseases of the central nervous system (G00-G09)	249	1,3	9	Inflammatory diseases of the central nervous system (G00-G09)	119	1,1	9	Diabetes mellitus (E10-E14)	103	1,1
10	Chronic lower respiratory diseases (J40-J47)	214	1,1	10	Chronic lower respiratory diseases (J40-J47)	119	1,1	10	Cerebrovascular diseases (I60-I69)	99	1,1
	Other natural causes	6 117	30,8		Other natural causes	2 840	26,3		Other natural causes	3 231	36,0
	Non-natural causes	4 374	22,0		Non-natural causes	3 581	33,1		Non-natural causes	780	8,7
	All causes	**19 850**	**100,0**		**All causes**	**10 817**	**100,0**		**All causes**	**8 966**	**100,0**
	Eastern Cape, both sexes, 45–64	**No.**	**%**		**Eastern Cape, males, 45–64**	**No.**	**%**		**Eastern Cape, females, 45–64**	**No.**	**%**
1	Tuberculosis (A15-A19)*	2 043	11,9	1	Tuberculosis (A15-A19)*	1 398	14,1	1	Tuberculosis (A15-A19)*	640	8,9
2	Diabetes mellitus (E10-E14)	996	5,8	2	Human immunodeficiency virus [HIV] disease (B20-B24)	498	5,0	2	Diabetes mellitus (E10-E14)	621	8,6
3	Human immunodeficiency virus [HIV] disease (B20-B24)	903	5,3	3	Chronic lower respiratory diseases (J40-J47)	498	5,0	3	Human immunodeficiency virus [HIV] disease (B20-B24)	405	5,6
4	Cerebrovascular diseases (I60-I69)	810	4,7	4	Cerebrovascular diseases (I60-I69)	432	4,3	4	Cerebrovascular diseases (I60-I69)	378	5,2
5	Other forms of heart disease (I30-I52)	788	4,6	5	Other forms of heart disease (I30-I52)	426	4,3	5	Other forms of heart disease (I30-I52)	361	5,0
6	Chronic lower respiratory diseases (J40-J47)	753	4,4	6	Diabetes mellitus (E10-E14)	375	3,8	6	Hypertensive diseases (I10-I15)	311	4,3
7	Malignant neoplasms of digestive organs (C15-C26)	564	3,3	7	Malignant neoplasms of digestive organs (C15-C26)	338	3,4	7	Chronic lower respiratory diseases (J40-J47)	254	3,5
8	Hypertensive diseases (I10-I15)	554	3,2	8	Influenza and pneumonia (J09-J18)	284	2,9	8	Other viral diseases (B25-B34)	248	3,4
9	Other viral diseases (B25-B34)	476	2,8	9	Hypertensive diseases (I10-I15)	241	2,4	9	Malignant neoplasms of digestive organs (C15-C26)	226	3,1
10	Influenza and pneumonia (J09-J18)	462	2,7	10	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	238	2,4	10	Malignant neoplasms of female genital organs (C51-C58)	210	2,9
	Other natural causes	7 608	44,3		Other natural causes	4 324	43,5		Other natural causes	3 225	44,7
	Non-natural causes	1 217	7,1		Non-natural causes	883	8,9		Non-natural causes	334	4,6
	All causes	**17 174**	**100,0**		**All causes**	**9 935**	**100,0**		**All causes**	**7 213**	**100,0**
	Eastern Cape, both sexes, 65+	**No.**	**%**		**Eastern Cape, males, 65+**	**No.**	**%**		**Eastern Cape, females, 65+**	**No.**	**%**
1	Cerebrovascular diseases (I60-I69)	1 916	8,5	1	Chronic lower respiratory diseases (J40-J47)	744	7,7	1	Cerebrovascular diseases (I60-I69)	1 223	9,5
2	Other forms of heart disease (I30-I52)	1 783	7,9	2	Cerebrovascular diseases (I60-I69)	692	7,1	2	Other forms of heart disease (I30-I52)	1 108	8,6
3	Diabetes mellitus (E10-E14)	1 569	7,0	3	Other forms of heart disease (I30-I52)	671	6,9	3	Diabetes mellitus (E10-E14)	1 009	7,9
4	Hypertensive diseases (I10-I15)	1 480	6,6	4	Tuberculosis (A15-A19)*	623	6,4	4	Hypertensive diseases (I10-I15)	985	7,7
5	Chronic lower respiratory diseases (J40-J47)	1 398	6,2	5	Diabetes mellitus (E10-E14)	558	5,7	5	Chronic lower respiratory diseases (J40-J47)	654	5,1
6	Tuberculosis (A15-A19)*	1 082	4,8	6	Hypertensive diseases (I10-I15)	495	5,1	6	Tuberculosis (A15-A19)*	458	3,6
7	Malignant neoplasms of digestive organs (C15-C26)	830	3,7	7	Malignant neoplasms of digestive organs (C15-C26)	392	4,0	7	Malignant neoplasms of digestive organs (C15-C26)	438	3,4
8	Influenza and pneumonia (J09-J18)	727	3,2	8	Influenza and pneumonia (J09-J18)	329	3,4	8	Influenza and pneumonia (J09-J18)	398	3,1
9	Ischaemic heart diseases (I20-I25)	504	2,2	9	Malignant neoplasms of male genital organs (C60-C63)	260	2,7	9	Ischaemic heart diseases (I20-I25)	254	2,0
10	Other diseases of the respiratory system (J95-J99)	363	1,6	10	Ischaemic heart diseases (I20-I25)	250	2,6	10	Intestinal infectious diseases (A00-A09)	225	1,8
	Other natural causes	10 262	45,5		Other natural causes	4 391	45,2		Other natural causes	5 742	44,8
	Non-natural causes	648	2,9		Non-natural causes	316	3,3		Non-natural causes	332	2,6
	All causes	**22 562**	**100,0**		**All causes**	**9 721**	**100,0**		**All causes**	**12 826**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix M3: The ten leading underlying natural causes of death by age and sex: Northern Cape, 2013

	Northern Cape, both sexes, all ages	No.	%		Northern Cape, males, all ages	No.	%		Northern Cape, females, all ages	No.	%
1	Human immunodeficiency virus [HIV] disease (B20-B24)	1 187	8,7	1	Tuberculosis (A15-A19)*	625	8,5	1	Human immunodeficiency virus [HIV] disease (B20-B24)	609	9,6
2	Tuberculosis (A15-A19)*	1 061	7,7	2	Human immunodeficiency virus [HIV] disease (B20-B24)	578	7,9	2	Tuberculosis (A15-A19)*	431	6,8
3	Cerebrovascular diseases (I60-I69)	636	4,6	3	Influenza and pneumonia (J09-J18)	347	4,7	3	Hypertensive diseases (I10-I15)	409	6,5
4	Hypertensive diseases (I10-I15)	621	4,5	4	Chronic lower respiratory diseases (J40-J47)	327	4,5	4	Cerebrovascular diseases (I60-I69)	363	5,7
5	Influenza and pneumonia (J09-J18)	600	4,4	5	Cerebrovascular diseases (I60-I69)	272	3,7	5	Diabetes mellitus (E10-E14)	320	5,1
6	Chronic lower respiratory diseases (J40-J47)	546	4,0	6	Ischaemic heart diseases (I20-I25)	222	3,0	6	Influenza and pneumonia (J09-J18)	252	4,0
7	Diabetes mellitus (E10-E14)	522	3,8	7	Hypertensive diseases (I10-I15)	212	2,9	7	Other forms of heart disease (I30-I52)	234	3,7
8	Other forms of heart disease (I30-I52)	446	3,3	8	Other forms of heart disease (I30-I52)	212	2,9	8	Chronic lower respiratory diseases (J40-J47)	218	3,4
9	Ischaemic heart diseases (I20-I25)	423	3,1	9	Diabetes mellitus (E10-E14)	202	2,8	9	Intestinal infectious diseases (A00-A09)	201	3,2
10	Intestinal infectious diseases (A00-A09)	378	2,8	10	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	180	2,5	10	Ischaemic heart diseases (I20-I25)	200	3,2
	Other natural causes	5 742	41,9		Other natural causes	3 021	41,3		Other natural causes	2 691	42,5
	Non-natural causes	1 537	11,2		Non-natural causes	1 124	15,4		Non-natural causes	400	6,3
	All causes	**13 699**	**100,0**		**All causes**	**7 322**	**100,0**		**All causes**	**6 328**	**100,0**
	Northern Cape, both sexes, Age 0	**No.**	**%**		**Northern Cape, males, Age 0**	**No.**	**%**		**Northern Cape, females, Age 0**	**No.**	**%**
1	Intestinal infectious diseases (A00-A09)	136	13,7	1	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	65	12,4	1	Intestinal infectious diseases (A00-A09)	71	15,7
2	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	120	12,1	2	Intestinal infectious diseases (A00-A09)	62	11,8	2	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	51	11,3
3	Disorders related to length of gestation and fetal growth (P05-P08)	79	8,0	3	Influenza and pneumonia (J09-J18)	51	9,7	3	Disorders related to length of gestation and fetal growth (P05-P08)	33	7,3
4	Influenza and pneumonia (J09-J18)	75	7,6	4	Disorders related to length of gestation and fetal growth (P05-P08)	44	8,4	4	Other disorders originating in the perinatal period (P90-P96)	30	6,6
5	Other disorders originating in the perinatal period (P90-P96)	68	6,8	5	Other disorders originating in the perinatal period (P90-P96)	36	6,8	5	Influenza and pneumonia (J09-J18)	24	5,3
6	Human immunodeficiency virus [HIV] disease (B20-B24)	50	5,0	6	Human immunodeficiency virus [HIV] disease (B20-B24)	28	5,3	6	Human immunodeficiency virus [HIV] disease (B20-B24)	22	4,9
7	Malnutrition (E40-E46)	36	3,6	7	Malnutrition (E40-E46)	18	3,4	7	Malnutrition (E40-E46)	18	4,0
8	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	29	2,9	8	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	18	3,4	8	Other bacterial diseases (A30-A49)	11	2,4
9	Infections specific to the perinatal period (P35-P39)	27	2,7	9	Infections specific to the perinatal period (P35-P39)	15	2,9	9	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	11	2,4
10	Other acute lower respiratory infections (J20-J22)	20	2,0	10	Haemorrhagic and haematological disorders of fetus and new-born (P50-P61)	11	2,1	10	Infections specific to the perinatal period (P35-P39)	11	2,4
	Other natural causes	311	31,3		Other natural causes	163	31,0		Other natural causes	144	31,8
	Non-natural causes	42	4,2		Non-natural causes	15	2,9		Non-natural causes	27	6,0
	All causes	**993**	**100,0**		**All causes**	**526**	**100,0**		**All causes**	**453**	**100,0**
	Northern Cape, both sexes, 1–14	**No.**	**%**		**Northern Cape, males, 1–14**	**No.**	**%**		**Northern Cape, females, 1–14**	**No.**	**%**
1	Intestinal infectious diseases (A00-A09)	64	13,4	1	Intestinal infectious diseases (A00-A09)	33	12,4	1	Intestinal infectious diseases (A00-A09)	30	14,2
2	Malnutrition (E40-E46)	38	7,9	2	Malnutrition (E40-E46)	22	8,3	2	Human immunodeficiency virus [HIV] disease (B20-B24)	18	8,5
3	Human immunodeficiency virus [HIV] disease (B20-B24)	31	6,5	3	Human immunodeficiency virus [HIV] disease (B20-B24)	13	4,9	3	Malnutrition (E40-E46)	16	7,6
4	Influenza and pneumonia (J09-J18)	23	4,8	4	Influenza and pneumonia (J09-J18)	13	4,9	4	Tuberculosis (A15-A19)*	13	6,2
5	Tuberculosis (A15-A19)*	22	4,6	5	Tuberculosis (A15-A19)*	9	3,4	5	Influenza and pneumonia (J09-J18)	10	4,7
6	Other viral diseases (B25-B34)	11	2,3	6	Cerebral palsy and other paralytic syndromes (G80-G83)	8	3,0	6	Other viral diseases (B25-B34)	6	2,8
7	Other forms of heart disease (I30-I52)	10	2,1	7	Certain disorders involving the immune mechanism (D80-D89)	6	2,3	7	Metabolic disorders (E70-E90)	5	2,4
8	Episodic and paroxysmal disorders (G40-G47)	9	1,9	8	Other forms of heart disease (I30-I52)	6	2,3	8	Episodic and paroxysmal disorders (G40-G47)	5	2,4
9	Metabolic disorders (E70-E90)	8	1,7	9	Other viral diseases (B25-B34)	5	1,9	9	Other bacterial diseases (A30-A49)	4	1,9
10	Cerebral palsy and other paralytic syndromes (G80-G83)	8	1,7	10	Episodic and paroxysmal disorders (G40-G47)	4	1,5	10	Inflammatory diseases of the central nervous system (G00-G09)	4	1,9
	Other natural causes	141	29,4		Other natural causes	87	32,7		Other natural causes	47	22,3
	Non-natural causes	114	23,8		Non-natural causes	60	22,6		Non-natural causes	53	25,1
	All causes	**479**	**100,0**		**All causes**	**266**	**100,0**		**All causes**	**211**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix M3: The ten leading underlying natural causes of death by age and sex: Northern Cape, 2013 (concluded)

	Northern Cape, both sexes, 15–44	No.	%		Northern Cape, males, 15–44	No.	%		Northern Cape, females, 15–44	No.	%
1	Human immunodeficiency virus [HIV] disease (B20-B24)	742	19,1	1	Human immunodeficiency virus [HIV] disease (B20-B24)	326	14,8	1	Human immunodeficiency virus [HIV] disease (B20-B24)	416	25,0
2	Tuberculosis (A15-A19)*	488	12,5	2	Tuberculosis (A15-A19)*	265	12,0	2	Tuberculosis (A15-A19)*	219	13,1
3	Other viral diseases (B25-B34)	169	4,3	3	Certain disorders involving the immune mechanism (D80-D89)	73	3,3	3	Other viral diseases (B25-B34)	100	6,0
4	Certain disorders involving the immune mechanism (D80-D89)	163	4,2	4	Influenza and pneumonia (J09-J18)	71	3,2	4	Certain disorders involving the immune mechanism (D80-D89)	90	5,4
5	Influenza and pneumonia (J09-J18)	140	3,6	5	Other viral diseases (B25-B34)	68	3,1	5	Influenza and pneumonia (J09-J18)	68	4,1
6	Intestinal infectious diseases (A00-A09)	59	1,5	6	Episodic and paroxysmal disorders (G40-G47)	36	1,6	6	Intestinal infectious diseases (A00-A09)	28	1,7
7	Cerebrovascular diseases (I60-I69)	53	1,4	7	Intestinal infectious diseases (A00-A09)	31	1,4	7	Cerebrovascular diseases (I60-I69)	26	1,6
8	Other forms of heart disease (I30-I52)	49	1,3	8	Other forms of heart disease (I30-I52)	26	1,2	8	Other forms of heart disease (I30-I52)	23	1,4
9	Episodic and paroxysmal disorders (G40-G47)	46	1,2	9	Cerebrovascular diseases (I60-I69)	26	1,2	9	Malignant neoplasms of female genital organs (C51-C58)	22	1,3
10	Chronic lower respiratory diseases (J40-J47)	41	1,1	10	Chronic lower respiratory diseases (J40-J47)	21	1,0	10	Chronic lower respiratory diseases (J40-J47)	20	1,2
	Other natural causes	991	25,5		Other natural causes	501	22,7		Other natural causes	473	28,4
	Non-natural causes	952	24,5		Non-natural causes	760	34,5		Non-natural causes	181	10,9
	All causes	**3 893**	**100,0**		**All causes**	**2 204**	**100,0**		**All causes**	**1 666**	**100,0**
	Northern Cape, both sexes, 45–64	**No.**	**%**		**Northern Cape, males, 45–64**	**No.**	**%**		**Northern Cape, females, 45–64**	**No.**	**%**
1	Tuberculosis (A15-A19)*	428	9,9	1	Tuberculosis (A15-A19)*	270	10,9	1	Tuberculosis (A15-A19)*	157	8,5
2	Human immunodeficiency virus [HIV] disease (B20-B24)	328	7,6	2	Human immunodeficiency virus [HIV] disease (B20-B24)	191	7,7	2	Human immunodeficiency virus [HIV] disease (B20-B24)	137	7,4
3	Chronic lower respiratory diseases (J40-J47)	254	5,9	3	Chronic lower respiratory diseases (J40-J47)	165	6,6	3	Diabetes mellitus (E10-E14)	124	6,7
4	Cerebrovascular diseases (I60-I69)	230	5,3	4	Influenza and pneumonia (J09-J18)	120	4,8	4	Cerebrovascular diseases (I60-I69)	118	6,4
5	Hypertensive diseases (I10-I15)	208	4,8	5	Cerebrovascular diseases (I60-I69)	112	4,5	5	Hypertensive diseases (I10-I15)	115	6,2
6	Diabetes mellitus (E10-E14)	196	4,5	6	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	107	4,3	6	Chronic lower respiratory diseases (J40-J47)	89	4,8
7	Influenza and pneumonia (J09-J18)	190	4,4	7	Ischaemic heart diseases (I20-I25)	98	3,9	7	Malignant neoplasms of female genital organs (C51-C58)	70	3,8
8	Ischaemic heart diseases (I20-I25)	166	3,8	8	Hypertensive diseases (I10-I15)	93	3,7	8	Influenza and pneumonia (J09-J18)	70	3,8
9	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	142	3,3	9	Malignant neoplasms of digestive organs (C15-C26)	74	3,0	9	Ischaemic heart diseases (I20-I25)	68	3,7
10	Other forms of heart disease (I30-I52)	129	3,0	10	Diabetes mellitus (E10-E14)	72	2,9	10	Other forms of heart disease (I30-I52)	65	3,5
	Other natural causes	1 759	40,6		Other natural causes	961	38,7		Other natural causes	749	40,6
	Non-natural causes	303	7,0		Non-natural causes	221	8,9		Non-natural causes	82	4,4
	All causes	**4 333**	**100,0**		**All causes**	**2 484**	**100,0**		**All causes**	**1 844**	**100,0**
	Northern Cape, both sexes, 65+	**No.**	**%**		**Northern Cape, males, 65+**	**No.**	**%**		**Northern Cape, females, 65+**	**No.**	**%**
1	Hypertensive diseases (I10-I15)	382	9,6	1	Chronic lower respiratory diseases (J40-J47)	141	7,7	1	Hypertensive diseases (I10-I15)	276	12,8
2	Cerebrovascular diseases (I60-I69)	353	8,9	2	Cerebrovascular diseases (I60-I69)	134	7,3	2	Cerebrovascular diseases (I60-I69)	219	10,2
3	Diabetes mellitus (E10-E14)	287	7,2	3	Other forms of heart disease (I30-I52)	115	6,3	3	Diabetes mellitus (E10-E14)	177	8,2
4	Other forms of heart disease (I30-I52)	253	6,3	4	Diabetes mellitus (E10-E14)	110	6,0	4	Other forms of heart disease (I30-I52)	138	6,4
5	Chronic lower respiratory diseases (J40-J47)	251	6,3	5	Ischaemic heart diseases (I20-I25)	110	6,0	5	Ischaemic heart diseases (I20-I25)	122	5,7
6	Ischaemic heart diseases (I20-I25)	232	5,8	6	Hypertensive diseases (I10-I15)	106	5,8	6	Chronic lower respiratory diseases (J40-J47)	109	5,1
7	Influenza and pneumonia (J09-J18)	171	4,3	7	Influenza and pneumonia (J09-J18)	91	5,0	7	Influenza and pneumonia (J09-J18)	80	3,7
8	Malignant neoplasms of digestive organs (C15-C26)	130	3,3	8	Tuberculosis (A15-A19)*	77	4,2	8	Malignant neoplasms of digestive organs (C15-C26)	58	2,7
9	Tuberculosis (A15-A19)*	116	2,9	9	Malignant neoplasms of digestive organs (C15-C26)	72	3,9	9	Malignant neoplasms of female genital organs (C51-C58)	45	2,1
10	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	103	2,6	10	Malignant neoplasms of male genital organs (C60-C63)	71	3,9	10	Intestinal infectious diseases (A00-A09)	41	1,9
	Other natural causes	1 584	39,7		Other natural causes	739	40,3		Other natural causes	829	38,6
	Non-natural causes	123	3,1		Non-natural causes	67	3,7		Non-natural causes	56	2,6
	All causes	**3 985**	**100,0**		**All causes**	**1 833**	**100,0**		**All causes**	**2 150**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix M4: The ten leading underlying natural causes of death by age and sex: Free State, 2013

	Free State, both sexes, all ages	No.	%		Free State, males, all ages	No.	%		Free State, females, all ages	No.	%
1	Tuberculosis (A15-A19)*	2 843	8,5	1	Tuberculosis (A15-A19)*	1 716	9,8	1	Tuberculosis (A15-A19)*	1 118	7,1
2	Influenza and pneumonia (J09-J18)	2 455	7,4	2	Influenza and pneumonia (J09-J18)	1 352	7,8	2	Influenza and pneumonia (J09-J18)	1 096	6,9
3	Cerebrovascular diseases (I60-I69)	1 732	5,2	3	Other forms of heart disease (I30-I52)	742	4,3	3	Cerebrovascular diseases (I60-I69)	993	6,3
4	Other forms of heart disease (I30-I52)	1 724	5,2	4	Cerebrovascular diseases (I60-I69)	738	4,2	4	Other forms of heart disease (I30-I52)	976	6,2
5	Intestinal infectious diseases (A00-A09)	1 374	4,1	5	Human immunodeficiency virus [HIV] disease (B20-B24)	667	3,8	5	Diabetes mellitus (E10-E14)	880	5,6
6	Diabetes mellitus (E10-E14)	1 366	4,1	6	Intestinal infectious diseases (A00-A09)	654	3,8	6	Hypertensive diseases (I10-I15)	789	5,0
7	Hypertensive diseases (I10-I15)	1 331	4,0	7	Hypertensive diseases (I10-I15)	542	3,1	7	Intestinal infectious diseases (A00-A09)	713	4,5
8	Human immunodeficiency virus [HIV] disease (B20-B24)	1 193	3,6	8	Chronic lower respiratory diseases (J40-J47)	506	2,9	8	Other viral diseases (B25-B34)	547	3,5
9	Other viral diseases (B25-B34)	976	2,9	9	Diabetes mellitus (E10-E14)	486	2,8	9	Human immunodeficiency virus [HIV] disease (B20-B24)	522	3,3
10	Certain disorders involving the immune mechanism (D80-D89)	849	2,5	10	Other viral diseases (B25-B34)	424	2,4	10	Certain disorders involving the immune mechanism (D80-D89)	430	2,7
	Other natural causes	14 363	43,0		Other natural causes	7 219	41,4		Other natural causes	6 984	44,1
	Non-natural causes	3 176	9,5		Non-natural causes	2 381	13,7		Non-natural causes	782	4,9
	All causes	**33 382**	**100,0**		**All causes**	**17 427**	**100,0**		**All causes**	**15 830**	**100,0**
	Free State, both sexes, Age 0	**No.**	**%**		**Free State, males, Age 0**	**No.**	**%**		**Free State, females, Age 0**	**No.**	**%**
1	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	339	15,4	1	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	182	15,8	1	Intestinal infectious diseases (A00-A09)	153	15,1
2	Intestinal infectious diseases (A00-A09)	335	15,2	2	Intestinal infectious diseases (A00-A09)	180	15,6	2	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	149	14,7
3	Influenza and pneumonia (J09-J18)	242	11,0	3	Influenza and pneumonia (J09-J18)	125	10,9	3	Influenza and pneumonia (J09-J18)	115	11,4
4	Malnutrition (E40-E46)	119	5,4	4	Malnutrition (E40-E46)	77	6,7	4	Disorders related to length of gestation and fetal growth (P05-P08)	46	4,5
5	Other disorders originating in the perinatal period (P90-P96)	101	4,6	5	Other disorders originating in the perinatal period (P90-P96)	62	5,4	5	Infections specific to the perinatal period (P35-P39)	42	4,2
6	Disorders related to length of gestation and fetal growth (P05-P08)	99	4,5	6	Disorders related to length of gestation and fetal growth (P05-P08)	51	4,4	6	Malnutrition (E40-E46)	40	4,0
7	Infections specific to the perinatal period (P35-P39)	79	3,6	7	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	38	3,3	7	Other disorders originating in the perinatal period (P90-P96)	35	3,5
8	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	68	3,1	8	Infections specific to the perinatal period (P35-P39)	33	2,9	8	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	29	2,9
9	Other viral diseases (B25-B34)	37	1,7	9	Human immunodeficiency virus [HIV] disease (B20-B24)	19	1,6	9	Other viral diseases (B25-B34)	19	1,9
10	Haemorrhagic and haematological disorders of fetus and new-born (P50-P61)	37	1,7	10	Haemorrhagic and haematological disorders of fetus and new-born (P50-P61)	19	1,6	10	Haemorrhagic and haematological disorders of fetus and new-born (P50-P61)	18	1,8
	Other natural causes	679	30,9		Other natural causes	331	28,7		Other natural causes	336	33,2
	Non-natural causes	65	3,0		Non-natural causes	35	3,0		Non-natural causes	30	3,0
	All causes	**2 200**	**100,0**		**All causes**	**1 152**	**100,0**		**All causes**	**1 012**	**100,0**
	Free State, both sexes, 1–14	**No.**	**%**		**Free State, males, 1–14**	**No.**	**%**		**Free State, females, 1–14**	**No.**	**%**
1	Intestinal infectious diseases (A00-A09)	177	16,8	1	Intestinal infectious diseases (A00-A09)	83	15,2	1	Intestinal infectious diseases (A00-A09)	92	18,4
2	Influenza and pneumonia (J09-J18)	101	9,6	2	Influenza and pneumonia (J09-J18)	47	8,6	2	Influenza and pneumonia (J09-J18)	54	10,8
3	Malnutrition (E40-E46)	68	6,5	3	Malnutrition (E40-E46)	37	6,8	3	Malnutrition (E40-E46)	31	6,2
4	Tuberculosis (A15-A19)*	48	4,6	4	Tuberculosis (A15-A19)*	23	4,2	4	Tuberculosis (A15-A19)*	24	4,8
5	Human immunodeficiency virus [HIV] disease (B20-B24)	29	2,8	5	Human immunodeficiency virus [HIV] disease (B20-B24)	13	2,4	5	Human immunodeficiency virus [HIV] disease (B20-B24)	15	3,0
6	Other viral diseases (B25-B34)	24	2,3	6	Other viral diseases (B25-B34)	12	2,2	6	Other viral diseases (B25-B34)	12	2,4
7	Other acute lower respiratory infections (J20-J22)	22	2,1	7	Cerebral palsy and other paralytic syndromes (G80-G83)	12	2,2	7	Other acute lower respiratory infections (J20-J22)	12	2,4
8	Cerebral palsy and other paralytic syndromes (G80-G83)	19	1,8	8	Other acute lower respiratory infections (J20-J22)	10	1,8	8	Other forms of heart disease (I30-I52)	11	2,2
9	Other forms of heart disease (I30-I52)	17	1,6	9	Inflammatory diseases of the central nervous system (G00-G09)	8	1,5	9	Certain disorders involving the immune mechanism (D80-D89)	8	1,6
10	Certain disorders involving the immune mechanism (D80-D89)	15	1,4	10	Malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue (C81-C96)	7	1,3	10	Inflammatory diseases of the central nervous system (G00-G09)	7	1,4
	Other natural causes	323	30,6		Other natural causes	172	31,5		Other natural causes	147	29,3
	Non-natural causes	211	20,0		Non-natural causes	122	22,3		Non-natural causes	88	17,6
	All causes	**1 054**	**100,0**		**All causes**	**546**	**100,0**		**All causes**	**501**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*

Appendix M4: The ten leading underlying natural causes of death by age and sex: Free State, 2013 (Concluded)

	Free State, both sexes, 15–44	No.	%
1	Tuberculosis (A15-A19)*	1 485	14,8
2	Human immunodeficiency virus [HIV] disease (B20-B24)	737	7,3
3	Influenza and pneumonia (J09-J18)	706	7,0
4	Other viral diseases (B25-B34)	569	5,7
5	Certain disorders involving the immune mechanism (D80-D89)	500	5,0
6	Intestinal infectious diseases (A00-A09)	313	3,1
7	Other forms of heart disease (I30-I52)	236	2,3
8	Cerebrovascular diseases (I60-I69)	168	1,7
9	Renal failure (N17-N19)	164	1,6
10	Protozoal diseases (B50-B64)	154	1,5
	Other natural causes	3 017	30,0
	Non-natural causes	2 007	20,0
	All causes	**10 056**	**100,0**

	Free State, males, 15–44	No.	%
1	Tuberculosis (A15-A19)*	829	14,6
2	Human immunodeficiency virus [HIV] disease (B20-B24)	399	7,0
3	Influenza and pneumonia (J09-J18)	350	6,2
4	Certain disorders involving the immune mechanism (D80-D89)	230	4,1
5	Other viral diseases (B25-B34)	225	4,0
6	Intestinal infectious diseases (A00-A09)	140	2,5
7	Other forms of heart disease (I30-I52)	120	2,1
8	Cerebrovascular diseases (I60-I69)	99	1,7
9	Renal failure (N17-N19)	87	1,5
10	Inflammatory diseases of the central nervous system (G00-G09)	78	1,4
	Other natural causes	1 482	26,2
	Non-natural causes	1 623	28,7
	All causes	**5 662**	**100,0**

	Free State, females, 15–44	No.	%
1	Tuberculosis (A15-A19)*	652	15,0
2	Influenza and pneumonia (J09-J18)	353	8,1
3	Other viral diseases (B25-B34)	343	7,9
4	Human immunodeficiency virus [HIV] disease (B20-B24)	336	7,7
5	Certain disorders involving the immune mechanism (D80-D89)	270	6,2
6	Intestinal infectious diseases (A00-A09)	170	3,9
7	Other forms of heart disease (I30-I52)	114	2,6
8	Protozoal diseases (B50-B64)	88	2,0
9	Malignant neoplasms of female genital organs (C51-C58)	76	1,7
10	Renal failure (N17-N19)	76	1,7
	Other natural causes	1 500	34,4
	Non-natural causes	381	8,7
	All causes	**4 359**	**100,0**

	Free State, both sexes, 45–64	No.	%
1	Tuberculosis (A15-A19)*	1 020	10,3
2	Influenza and pneumonia (J09-J18)	741	7,4
3	Cerebrovascular diseases (I60-I69)	580	5,8
4	Other forms of heart disease (I30-I52)	534	5,4
5	Diabetes mellitus (E10-E14)	497	5,0
6	Hypertensive diseases (I10-I15)	420	4,2
7	Human immunodeficiency virus [HIV] disease (B20-B24)	352	3,5
8	Other viral diseases (B25-B34)	310	3,1
9	Chronic lower respiratory diseases (J40-J47)	305	3,1
10	Certain disorders involving the immune mechanism (D80-D89)	280	2,8
	Other natural causes	4 317	43,4
	Non-natural causes	595	6,0
	All causes	**9 951**	**100,0**

	Free State, males, 45–64	No.	%
1	Tuberculosis (A15-A19)*	669	11,6
2	Influenza and pneumonia (J09-J18)	485	8,4
3	Cerebrovascular diseases (I60-I69)	299	5,2
4	Other forms of heart disease (I30-I52)	292	5,1
5	Chronic lower respiratory diseases (J40-J47)	220	3,8
6	Human immunodeficiency virus [HIV] disease (B20-B24)	213	3,7
7	Hypertensive diseases (I10-I15)	211	3,7
8	Diabetes mellitus (E10-E14)	190	3,3
9	Malignant neoplasms of digestive organs (C15-C26)	178	3,1
10	Ischaemic heart diseases (I20-I25)	158	2,7
	Other natural causes	2 392	41,6
	Non-natural causes	440	7,7
	All causes	**5 747**	**100,0**

	Free State, females, 45–64	No.	%
1	Tuberculosis (A15-A19)*	348	8,3
2	Diabetes mellitus (E10-E14)	307	7,3
3	Cerebrovascular diseases (I60-I69)	280	6,7
4	Influenza and pneumonia (J09-J18)	255	6,1
5	Other forms of heart disease (I30-I52)	240	5,7
6	Hypertensive diseases (I10-I15)	209	5,0
7	Other viral diseases (B25-B34)	152	3,6
8	Malignant neoplasms of female genital organs (C51-C58)	140	3,3
9	Human immunodeficiency virus [HIV] disease (B20-B24)	139	3,3
10	Certain disorders involving the immune mechanism (D80-D89)	125	3,0
	Other natural causes	1 833	43,8
	Non-natural causes	154	3,7
	All causes	**4 182**	**100,0**

	Free State, both sexes, 65+	No.	%
1	Cerebrovascular diseases (I60-I69)	974	9,7
2	Other forms of heart disease (I30-I52)	923	9,2
3	Hypertensive diseases (I10-I15)	806	8,1
4	Diabetes mellitus (E10-E14)	748	7,5
5	Influenza and pneumonia (J09-J18)	658	6,6
6	Ischaemic heart diseases (I20-I25)	446	4,5
7	Chronic lower respiratory diseases (J40-J47)	416	4,2
8	Intestinal infectious diseases (A00-A09)	277	2,8
9	Tuberculosis (A15-A19)*	269	2,7
10	Malignant neoplasms of digestive organs (C15-C26)	267	2,7
	Other natural causes	3 947	39,5
	Non-natural causes	271	2,7
	All causes	**10 002**	**100,0**

	Free State, males, 65+	No.	%
1	Influenza and pneumonia (J09-J18)	342	8,0
2	Cerebrovascular diseases (I60-I69)	332	7,8
3	Other forms of heart disease (I30-I52)	315	7,4
4	Hypertensive diseases (I10-I15)	280	6,6
5	Diabetes mellitus (E10-E14)	248	5,8
6	Chronic lower respiratory diseases (J40-J47)	243	5,7
7	Ischaemic heart diseases (I20-I25)	216	5,1
8	Tuberculosis (A15-A19)*	185	4,3
9	Malignant neoplasms of male genital organs (C60-C63)	153	3,6
10	Malignant neoplasms of digestive organs (C15-C26)	133	3,1
	Other natural causes	1 669	39,2
	Non-natural causes	147	3,4
	All causes	**4 263**	**100,0**

	Free State, females, 65+	No.	%
1	Cerebrovascular diseases (I60-I69)	642	11,2
2	Other forms of heart disease (I30-I52)	606	10,6
3	Hypertensive diseases (I10-I15)	526	9,2
4	Diabetes mellitus (E10-E14)	500	8,7
5	Influenza and pneumonia (J09-J18)	316	5,5
6	Ischaemic heart diseases (I20-I25)	228	4,0
7	Chronic lower respiratory diseases (J40-J47)	173	3,0
8	Intestinal infectious diseases (A00-A09)	172	3,0
9	Malignant neoplasms of digestive organs (C15-C26)	133	2,3
10	Malignant neoplasms of female genital organs (C51-C58)	124	2,2
	Other natural causes	2 187	38,2
	Non-natural causes	124	2,2
	All causes	**5 731**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*

Appendix M5: The ten leading underlying natural causes of death by age and sex: KwaZulu-Natal, 2013

	KwaZulu-Natal, both sexes, all ages	No.	%		KwaZulu-Natal, males, all ages	No.	%		KwaZulu-Natal, females, all ages	No.	%
1	Tuberculosis (A15-A19)*	10 007	11,9	1	Tuberculosis (A15-A19)*	5 823	13,6	1	Tuberculosis (A15-A19)*	4 156	10,1
2	Human immunodeficiency virus [HIV] disease (B20-B24)	6 117	7,3	2	Human immunodeficiency virus [HIV] disease (B20-B24)	3 079	7,2	2	Diabetes mellitus (E10-E14)	3 099	7,6
3	Cerebrovascular diseases (I60-I69)	4 857	5,8	3	Cerebrovascular diseases (I60-I69)	1 852	4,3	3	Human immunodeficiency virus [HIV] disease (B20-B24)	3 021	7,4
4	Diabetes mellitus (E10-E14)	4 796	5,7	4	Diabetes mellitus (E10-E14)	1 695	3,9	4	Cerebrovascular diseases (I60-I69)	3 001	7,3
5	Other forms of heart disease (I30-I52)	3 714	4,4	5	Influenza and pneumonia (J09-J18)	1 638	3,8	5	Other forms of heart disease (I30-I52)	2 107	5,1
6	Intestinal infectious diseases (A00-A09)	3 362	4,0	6	Intestinal infectious diseases (A00-A09)	1 605	3,7	6	Hypertensive diseases (I10-I15)	1 874	4,6
7	Influenza and pneumonia (J09-J18)	3 213	3,8	7	Other forms of heart disease (I30-I52)	1 603	3,7	7	Intestinal infectious diseases (A00-A09)	1 740	4,2
8	Other viral diseases (B25-B34)	3 123	3,7	8	Other viral diseases (B25-B34)	1 571	3,7	8	Influenza and pneumonia (J09-J18)	1 573	3,8
9	Hypertensive diseases (I10-I15)	2 855	3,4	9	Ischaemic heart diseases (I20-I25)	1 004	2,3	9	Other viral diseases (B25-B34)	1 544	3,8
10	Ischaemic heart diseases (I20-I25)	1 813	2,2	10	Hypertensive diseases (I10-I15)	978	2,3	10	Malignant neoplasms of female genital organs (C51-C58)	909	2,2
	Other natural causes	31 745	37,7		Other natural causes	15 621	36,4		Other natural causes	15 874	38,7
	Non-natural causes	8 591	10,2		Non-natural causes	6 464	15,1		Non-natural causes	2 083	5,1
	All causes	**84 193**	**100,0**		**All causes**	**42 933**	**100,0**		**All causes**	**40 981**	**100,0**
	KwaZulu-Natal, both sexes, Age 0	**No.**	**%**		**KwaZulu-Natal, males, Age 0**	**No.**	**%**		**KwaZulu-Natal, females, Age 0**	**No.**	**%**
1	Intestinal infectious diseases (A00-A09)	798	16,4	1	Intestinal infectious diseases (A00-A09)	402	15,5	1	Intestinal infectious diseases (A00-A09)	387	17,9
2	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	677	13,9	2	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	368	14,1	2	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	284	13,1
3	Influenza and pneumonia (J09-J18)	379	7,8	3	Disorders related to length of gestation and fetal growth (P05-P08)	194	7,5	3	Influenza and pneumonia (J09-J18)	188	8,7
4	Disorders related to length of gestation and fetal growth (P05-P08)	365	7,5	4	Influenza and pneumonia (J09-J18)	190	7,3	4	Disorders related to length of gestation and fetal growth (P05-P08)	162	7,5
5	Other disorders originating in the perinatal period (P90-P96)	245	5,0	5	Other disorders originating in the perinatal period (P90-P96)	139	5,3	5	Other disorders originating in the perinatal period (P90-P96)	90	4,2
6	Infections specific to the perinatal period (P35-P39)	221	4,5	6	Infections specific to the perinatal period (P35-P39)	131	5,0	6	Infections specific to the perinatal period (P35-P39)	85	3,9
7	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	216	4,4	7	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	121	4,7	7	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	84	3,9
8	Malnutrition (E40-E46)	148	3,0	8	Malnutrition (E40-E46)	79	3,0	8	Malnutrition (E40-E46)	66	3,1
9	Other viral diseases (B25-B34)	112	2,3	9	Other viral diseases (B25-B34)	68	2,6	9	Human immunodeficiency virus [HIV] disease (B20-B24)	49	2,3
10	Human immunodeficiency virus [HIV] disease (B20-B24)	104	2,1	10	Human immunodeficiency virus [HIV] disease (B20-B24)	54	2,1	10	Other viral diseases (B25-B34)	42	1,9
	Other natural causes	1 434	29,4		Other natural causes	753	29,0		Other natural causes	658	30,4
	Non-natural causes	174	3,6		Non-natural causes	102	3,9		Non-natural causes	66	3,1
	All causes	**4 873**	**100,0**		**All causes**	**2 601**	**100,0**		**All causes**	**2 161**	**100,0**
	KwaZulu-Natal, both sexes, 1–14	**No.**	**%**		**KwaZulu-Natal, males, 1–14**	**No.**	**%**		**KwaZulu-Natal, females, 1–14**	**No.**	**%**
1	Intestinal infectious diseases (A00-A09)	415	12,7	1	Intestinal infectious diseases (A00-A09)	239	13,7	1	Intestinal infectious diseases (A00-A09)	173	11,3
2	Influenza and pneumonia (J09-J18)	214	6,5	2	Influenza and pneumonia (J09-J18)	108	6,2	2	Influenza and pneumonia (J09-J18)	106	6,9
3	Tuberculosis (A15-A19)*	194	5,9	3	Tuberculosis (A15-A19)*	93	5,3	3	Tuberculosis (A15-A19)*	101	6,6
4	Human immunodeficiency virus [HIV] disease (B20-B24)	149	4,5	4	Human immunodeficiency virus [HIV] disease (B20-B24)	71	4,1	4	Human immunodeficiency virus [HIV] disease (B20-B24)	77	5,0
5	Other viral diseases (B25-B34)	94	2,9	5	Other viral diseases (B25-B34)	54	3,1	5	Malnutrition (E40-E46)	45	2,9
6	Malnutrition (E40-E46)	94	2,9	6	Malnutrition (E40-E46)	49	2,8	6	Other viral diseases (B25-B34)	39	2,6
7	Inflammatory diseases of the central nervous system (G00-G09)	70	2,1	7	Inflammatory diseases of the central nervous system (G00-G09)	37	2,1	7	Cerebral palsy and other paralytic syndromes (G80-G83)	33	2,2
8	Cerebral palsy and other paralytic syndromes (G80-G83)	58	1,8	8	Episodic and paroxysmal disorders (G40-G47)	34	2,0	8	Inflammatory diseases of the central nervous system (G00-G09)	32	2,1
9	Other forms of heart disease (I30-I52)	58	1,8	9	Other forms of heart disease (I30-I52)	26	1,5	9	Other forms of heart disease (I30-I52)	32	2,1
10	Episodic and paroxysmal disorders (G40-G47)	56	1,7	10	Cerebral palsy and other paralytic syndromes (G80-G83)	25	1,4	10	Episodic and paroxysmal disorders (G40-G47)	22	1,4
	Other natural causes	1 153	35,2		Other natural causes	575	33,1		Other natural causes	574	37,6
	Non-natural causes	722	22,0		Non-natural causes	428	24,6		Non-natural causes	293	19,2
	All causes	**3 277**	**100,0**		**All causes**	**1 739**	**100,0**		**All causes**	**1 527**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*

Appendix M5: The ten leading underlying natural causes of death by age and sex: KwaZulu-Natal, 2013 (Concluded)

	KwaZulu-Natal, both sexes, 15–44	No.	%
1	Tuberculosis (A15-A19)*	5 780	20,0
2	Human immunodeficiency virus [HIV] disease (B20-B24)	4 172	14,4
3	Other viral diseases (B25-B34)	2 093	7,2
4	Influenza and pneumonia (J09-J18)	949	3,3
5	Intestinal infectious diseases (A00-A09)	870	3,0
6	Certain disorders involving the immune mechanism (D80-D89)	653	2,3
7	Inflammatory diseases of the central nervous system (G00-G09)	543	1,9
8	Other forms of heart disease (I30-I52)	491	1,7
9	Protozoal diseases (B50-B64)	401	1,4
10	Cerebrovascular diseases (I60-I69)	365	1,3
	Other natural causes	7 164	24,7
	Non-natural causes	5 480	18,9
	All causes	**28 961**	**100,0**

	KwaZulu-Natal, males, 15–44	No.	%
1	Tuberculosis (A15-A19)*	3 135	19,3
2	Human immunodeficiency virus [HIV] disease (B20-B24)	2 026	12,5
3	Other viral diseases (B25-B34)	991	6,1
4	Influenza and pneumonia (J09-J18)	477	2,9
5	Intestinal infectious diseases (A00-A09)	414	2,6
6	Certain disorders involving the immune mechanism (D80-D89)	296	1,8
7	Inflammatory diseases of the central nervous system (G00-G09)	268	1,7
8	Other forms of heart disease (I30-I52)	245	1,5
9	Episodic and paroxysmal disorders (G40-G47)	188	1,2
10	Protozoal diseases (B50-B64)	168	1,0
	Other natural causes	3 523	21,7
	Non-natural causes	4 502	27,7
	All causes	**16 233**	**100,0**

	KwaZulu-Natal, females, 15–44	No.	%
1	Tuberculosis (A15-A19)*	2 630	20,8
2	Human immunodeficiency virus [HIV] disease (B20-B24)	2 134	16,9
3	Other viral diseases (B25-B34)	1 099	8,7
4	Influenza and pneumonia (J09-J18)	472	3,7
5	Intestinal infectious diseases (A00-A09)	454	3,6
6	Certain disorders involving the immune mechanism (D80-D89)	356	2,8
7	Inflammatory diseases of the central nervous system (G00-G09)	274	2,2
8	Other forms of heart disease (I30-I52)	245	1,9
9	Protozoal diseases (B50-B64)	233	1,8
10	Malignant neoplasms of female genital organs (C51-C58)	230	1,8
	Other natural causes	3 575	28,2
	Non-natural causes	961	7,6
	All causes	**12 663**	**100,0**

	KwaZulu-Natal, both sexes, 45–64	No.	%
1	Tuberculosis (A15-A19)*	2 855	13,1
2	Diabetes mellitus (E10-E14)	1 801	8,3
3	Human immunodeficiency virus [HIV] disease (B20-B24)	1 482	6,8
4	Cerebrovascular diseases (I60-I69)	1 422	6,5
5	Other forms of heart disease (I30-I52)	983	4,5
6	Hypertensive diseases (I10-I15)	827	3,8
7	Other viral diseases (B25-B34)	718	3,3
8	Influenza and pneumonia (J09-J18)	718	3,3
9	Ischaemic heart diseases (I20-I25)	630	2,9
10	Intestinal infectious diseases (A00-A09)	586	2,7
	Other natural causes	8 371	38,4
	Non-natural causes	1 390	6,4
	All causes	**21 783**	**100,0**

	KwaZulu-Natal, males, 45–64	No.	%
1	Tuberculosis (A15-A19)*	1 934	15,4
2	Human immunodeficiency virus [HIV] disease (B20-B24)	829	6,6
3	Diabetes mellitus (E10-E14)	738	5,9
4	Cerebrovascular diseases (I60-I69)	735	5,8
5	Other forms of heart disease (I30-I52)	537	4,3
6	Influenza and pneumonia (J09-J18)	448	3,6
7	Ischaemic heart diseases (I20-I25)	411	3,3
8	Other viral diseases (B25-B34)	407	3,2
9	Chronic lower respiratory diseases (J40-J47)	398	3,2
10	Hypertensive diseases (I10-I15)	357	2,8
	Other natural causes	4 743	37,7
	Non-natural causes	1 030	8,2
	All causes	**12 567**	**100,0**

	KwaZulu-Natal, females, 45–64	No.	%
1	Diabetes mellitus (E10-E14)	1 062	11,6
2	Tuberculosis (A15-A19)*	917	10,0
3	Cerebrovascular diseases (I60-I69)	684	7,4
4	Human immunodeficiency virus [HIV] disease (B20-B24)	651	7,1
5	Hypertensive diseases (I10-I15)	468	5,1
6	Other forms of heart disease (I30-I52)	445	4,8
7	Malignant neoplasms of female genital organs (C51-C58)	369	4,0
8	Other viral diseases (B25-B34)	310	3,4
9	Influenza and pneumonia (J09-J18)	269	2,9
10	Intestinal infectious diseases (A00-A09)	256	2,8
	Other natural causes	3 398	37,0
	Non-natural causes	359	3,9
	All causes	**9 188**	**100,0**

	KwaZulu-Natal, both sexes, 65+	No.	%
1	Cerebrovascular diseases (I60-I69)	3 045	12,2
2	Diabetes mellitus (E10-E14)	2 747	11,0
3	Other forms of heart disease (I30-I52)	2 147	8,6
4	Hypertensive diseases (I10-I15)	1 868	7,5
5	Ischaemic heart diseases (I20-I25)	1 063	4,3
6	Tuberculosis (A15-A19)*	1 057	4,2
7	Influenza and pneumonia (J09-J18)	943	3,8
8	Chronic lower respiratory diseases (J40-J47)	724	2,9
9	Intestinal infectious diseases (A00-A09)	682	2,7
10	Malignant neoplasms of digestive organs (C15-C26)	625	2,5
	Other natural causes	9 290	37,2
	Non-natural causes	753	3,0
	All causes	**24 944**	**100,0**

	KwaZulu-Natal, males, 65+	No.	%
1	Cerebrovascular diseases (I60-I69)	937	9,8
2	Diabetes mellitus (E10-E14)	832	8,7
3	Other forms of heart disease (I30-I52)	781	8,2
4	Tuberculosis (A15-A19)*	582	6,1
5	Hypertensive diseases (I10-I15)	559	5,8
6	Ischaemic heart diseases (I20-I25)	519	5,4
7	Chronic lower respiratory diseases (J40-J47)	413	4,3
8	Influenza and pneumonia (J09-J18)	409	4,3
9	Malignant neoplasms of digestive organs (C15-C26)	312	3,3
10	Malignant neoplasms of male genital organs (C60-C63)	256	2,7
	Other natural causes	3 623	37,8
	Non-natural causes	354	3,7
	All causes	**9 577**	**100,0**

	KwaZulu-Natal, females, 65+	No.	%
1	Cerebrovascular diseases (I60-I69)	2 108	13,7
2	Diabetes mellitus (E10-E14)	1 914	12,5
3	Other forms of heart disease (I30-I52)	1 365	8,9
4	Hypertensive diseases (I10-I15)	1 308	8,5
5	Ischaemic heart diseases (I20-I25)	544	3,5
6	Influenza and pneumonia (J09-J18)	534	3,5
7	Tuberculosis (A15-A19)*	475	3,1
8	Intestinal infectious diseases (A00-A09)	467	3,0
9	Renal failure (N17-N19)	316	2,1
10	Malignant neoplasms of digestive organs (C15-C26)	313	2,0
	Other natural causes	5 615	36,6
	Non-natural causes	399	2,6
	All causes	**15 358**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*

Appendix M6: The ten leading underlying natural causes of death by age and sex: North West, 2013

	North West, both sexes, all ages	No.	%		North West, males, all ages	No.	%		North West, females, all ages	No.	%
1	Tuberculosis (A15-A19)*	3 097	8,7	1	Tuberculosis (A15-A19)*	1 864	9,9	1	Tuberculosis (A15-A19)*	1 226	7,4
2	Influenza and pneumonia (J09-J18)	2 487	7,0	2	Influenza and pneumonia (J09-J18)	1 289	6,9	2	Influenza and pneumonia (J09-J18)	1 183	7,1
3	Other forms of heart disease (I30-I52)	2 082	5,9	3	Other forms of heart disease (I30-I52)	974	5,2	3	Hypertensive diseases (I10-I15)	1 177	7,1
4	Hypertensive diseases (I10-I15)	1 835	5,2	4	Human immunodeficiency virus [HIV] disease (B20-B24)	913	4,9	4	Other forms of heart disease (I30-I52)	1 103	6,6
5	Human immunodeficiency virus [HIV] disease (B20-B24)	1 706	4,8	5	Cerebrovascular diseases (I60-I69)	794	4,2	5	Diabetes mellitus (E10-E14)	877	5,3
6	Cerebrovascular diseases (I60-I69)	1 644	4,6	6	Intestinal infectious diseases (A00-A09)	714	3,8	6	Cerebrovascular diseases (I60-I69)	849	5,1
7	Intestinal infectious diseases (A00-A09)	1 449	4,1	7	Hypertensive diseases (I10-I15)	657	3,5	7	Human immunodeficiency virus [HIV] disease (B20-B24)	791	4,8
8	Diabetes mellitus (E10-E14)	1 432	4,0	8	Diabetes mellitus (E10-E14)	553	2,9	8	Intestinal infectious diseases (A00-A09)	724	4,4
9	Other viral diseases (B25-B34)	1 151	3,2	9	Other viral diseases (B25-B34)	547	2,9	9	Other viral diseases (B25-B34)	601	3,6
10	Certain disorders involving the immune mechanism (D80-D89)	878	2,5	10	Chronic lower respiratory diseases (J40-J47)	545	2,9	10	Certain disorders involving the immune mechanism (D80-D89)	436	2,6
	Other natural causes	14 778	41,6		Other natural causes	7 642	40,7		Other natural causes	6 949	41,9
	Non-natural causes	2 992	8,4		Non-natural causes	2 296	12,2		Non-natural causes	680	4,1
	All causes	**35 531**	**100,0**		**All causes**	**18 788**	**100,0**		**All causes**	**16 596**	**100,0**
	North West, both sexes, Age 0	**No.**	**%**		**North West, males, Age 0**	**No.**	**%**		**North West, females, Age 0**	**No.**	**%**
1	Intestinal infectious diseases (A00-A09)	488	18,3	1	Intestinal infectious diseases (A00-A09)	270	19,6	1	Intestinal infectious diseases (A00-A09)	212	17,1
2	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	404	15,1	2	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	223	16,2	2	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	168	13,5
3	Influenza and pneumonia (J09-J18)	292	10,9	3	Influenza and pneumonia (J09-J18)	130	9,5	3	Influenza and pneumonia (J09-J18)	155	12,5
4	Other disorders originating in the perinatal period (P90-P96)	141	5,3	4	Other disorders originating in the perinatal period (P90-P96)	73	5,3	4	Disorders related to length of gestation and fetal growth (P05-P08)	65	5,2
5	Disorders related to length of gestation and fetal growth (P05-P08)	128	4,8	5	Disorders related to length of gestation and fetal growth (P05-P08)	62	4,5	5	Other disorders originating in the perinatal period (P90-P96)	57	4,6
6	Infections specific to the perinatal period (P35-P39)	99	3,7	6	Malnutrition (E40-E46)	47	3,4	6	Infections specific to the perinatal period (P35-P39)	51	4,1
7	Malnutrition (E40-E46)	76	2,8	7	Infections specific to the perinatal period (P35-P39)	45	3,3	7	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	36	2,9
8	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	75	2,8	8	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	38	2,8	8	Malnutrition (E40-E46)	29	2,3
9	Other acute lower respiratory infections (J20-J22)	54	2,0	9	Other diseases of the respiratory system (J95-J99)	34	2,5	9	Other acute lower respiratory infections (J20-J22)	27	2,2
10	Other diseases of the respiratory system (J95-J99)	51	1,9	10	Other bacterial diseases (A30-A49)	27	2,0	10	Other bacterial diseases (A30-A49)	22	1,8
	Other natural causes	803	30,0		Other natural causes	397	28,9		Other natural causes	385	31,0
	Non-natural causes	62	2,3		Non-natural causes	29	2,1		Non-natural causes	33	2,7
	All causes	**2 673**	**100,0**		**All causes**	**1 375**	**100,0**		**All causes**	**1 240**	**100,0**
	North West, both sexes, 1–14	**No.**	**%**		**North West, males, 1–14**	**No.**	**%**		**North West, females, 1–14**	**No.**	**%**
1	Intestinal infectious diseases (A00-A09)	249	18,3	1	Intestinal infectious diseases (A00-A09)	124	17,1	1	Intestinal infectious diseases (A00-A09)	121	19,5
2	Influenza and pneumonia (J09-J18)	136	10,0	2	Influenza and pneumonia (J09-J18)	75	10,3	2	Influenza and pneumonia (J09-J18)	61	9,8
3	Malnutrition (E40-E46)	99	7,3	3	Malnutrition (E40-E46)	54	7,4	3	Malnutrition (E40-E46)	44	7,1
4	Tuberculosis (A15-A19)*	74	5,5	4	Tuberculosis (A15-A19)*	34	4,7	4	Tuberculosis (A15-A19)*	39	6,3
5	Human immunodeficiency virus [HIV] disease (B20-B24)	37	2,7	5	Inflammatory diseases of the central nervous system (G00-G09)	19	2,6	5	Human immunodeficiency virus [HIV] disease (B20-B24)	22	3,5
6	Inflammatory diseases of the central nervous system (G00-G09)	34	2,5	6	Other acute lower respiratory infections (J20-J22)	19	2,6	6	Other viral diseases (B25-B34)	18	2,9
7	Other acute lower respiratory infections (J20-J22)	33	2,4	7	Human immunodeficiency virus [HIV] disease (B20-B24)	15	2,1	7	Inflammatory diseases of the central nervous system (G00-G09)	15	2,4
8	Other viral diseases (B25-B34)	31	2,3	8	Other diseases of the respiratory system (J95-J99)	14	1,9	8	Other acute lower respiratory infections (J20-J22)	14	2,3
9	Other diseases of the respiratory system (J95-J99)	21	1,5	9	Other viral diseases (B25-B34)	13	1,8	9	Certain disorders involving the immune mechanism (D80-D89)	10	1,6
10	Certain disorders involving the immune mechanism (D80-D89)	19	1,4	10	Metabolic disorders (E70-E90)	12	1,7	10	Other bacterial diseases (A30-A49)	7	1,1
	Other natural causes	382	28,2		Other natural causes	202	27,8		Other natural causes	174	28,1
	Non-natural causes	242	17,8		Non-natural causes	146	20,1		Non-natural causes	95	15,3
	All causes	**1 357**	**100,0**		**All causes**	**727**	**100,0**		**All causes**	**620**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix M6: The ten leading underlying natural causes of death by age and sex: North West, 2013 (Concluded)

	North West, both sexes, 15–44	No.	%		North West, males, 15–44	No.	%		North West, females, 15–44	No.	%
1	Tuberculosis (A15-A19)*	1 598	14,9	1	Tuberculosis (A15-A19)*	870	15,0	1	Tuberculosis (A15-A19)*	724	14,9
2	Human immunodeficiency virus [HIV] disease (B20-B24)	1 058	9,9	2	Human immunodeficiency virus [HIV] disease (B20-B24)	541	9,3	2	Human immunodeficiency virus [HIV] disease (B20-B24)	516	10,6
3	Influenza and pneumonia (J09-J18)	948	8,8	3	Influenza and pneumonia (J09-J18)	432	7,4	3	Influenza and pneumonia (J09-J18)	512	10,5
4	Other viral diseases (B25-B34)	686	6,4	4	Other viral diseases (B25-B34)	300	5,2	4	Other viral diseases (B25-B34)	385	7,9
5	Certain disorders involving the immune mechanism (D80-D89)	526	4,9	5	Certain disorders involving the immune mechanism (D80-D89)	252	4,3	5	Certain disorders involving the immune mechanism (D80-D89)	274	5,6
6	Other forms of heart disease (I30-I52)	307	2,9	6	Other forms of heart disease (I30-I52)	140	2,4	6	Other forms of heart disease (I30-I52)	164	3,4
7	Intestinal infectious diseases (A00-A09)	261	2,4	7	Intestinal infectious diseases (A00-A09)	125	2,2	7	Intestinal infectious diseases (A00-A09)	136	2,8
8	Other bacterial diseases (A30-A49)	135	1,3	8	Inflammatory diseases of the central nervous system (G00-G09)	76	1,3	8	Other bacterial diseases (A30-A49)	83	1,7
9	Inflammatory diseases of the central nervous system (G00-G09)	133	1,2	9	Cerebrovascular diseases (I60-I69)	68	1,2	9	Aplastic and other anaemias (D60-D64)	72	1,5
10	Cerebrovascular diseases (I60-I69)	132	1,2	10	Episodic and paroxysmal disorders (G40-G47)	67	1,2	10	Other acute lower respiratory infections (J20-J22)	69	1,4
	Other natural causes	3 105	29,0		Other natural causes	1 444	24,9		Other natural causes	1 613	33,1
	Non-natural causes	1 827	17,0		Non-natural causes	1 493	25,7		Non-natural causes	327	6,7
	All causes	**10 716**	**100,0**		**All causes**	**5 808**	**100,0**		**All causes**	**4 875**	**100,0**
	North West, both sexes, 45–64	**No.**	**%**		**North West, males, 45–64**	**No.**	**%**		**North West, females, 45–64**	**No.**	**%**
1	Tuberculosis (A15-A19)*	1 071	10,6	1	Tuberculosis (A15-A19)*	730	12,2	1	Tuberculosis (A15-A19)*	339	8,3
2	Influenza and pneumonia (J09-J18)	649	6,4	2	Influenza and pneumonia (J09-J18)	418	7,0	2	Diabetes mellitus (E10-E14)	292	7,2
3	Other forms of heart disease (I30-I52)	606	6,0	3	Other forms of heart disease (I30-I52)	328	5,5	3	Other forms of heart disease (I30-I52)	278	6,8
4	Human immunodeficiency virus [HIV] disease (B20-B24)	524	5,2	4	Human immunodeficiency virus [HIV] disease (B20-B24)	312	5,2	4	Hypertensive diseases (I10-I15)	253	6,2
5	Diabetes mellitus (E10-E14)	515	5,1	5	Cerebrovascular diseases (I60-I69)	256	4,3	5	Influenza and pneumonia (J09-J18)	227	5,6
6	Hypertensive diseases (I10-I15)	470	4,7	6	Chronic lower respiratory diseases (J40-J47)	237	4,0	6	Human immunodeficiency virus [HIV] disease (B20-B24)	212	5,2
7	Cerebrovascular diseases (I60-I69)	449	4,5	7	Diabetes mellitus (E10-E14)	221	3,7	7	Cerebrovascular diseases (I60-I69)	193	4,7
8	Chronic lower respiratory diseases (J40-J47)	350	3,5	8	Hypertensive diseases (I10-I15)	217	3,6	8	Malignant neoplasms of female genital organs (C51-C58)	166	4,1
9	Other viral diseases (B25-B34)	344	3,4	9	Other viral diseases (B25-B34)	186	3,1	9	Other viral diseases (B25-B34)	157	3,9
10	Certain disorders involving the immune mechanism (D80-D89)	282	2,8	10	Malignant neoplasms of digestive organs (C15-C26)	170	2,8	10	Certain disorders involving the immune mechanism (D80-D89)	126	3,1
	Other natural causes	4 233	42,0		Other natural causes	2 446	40,8		Other natural causes	1 707	42,0
	Non-natural causes	587	5,8		Non-natural causes	468	7,8		Non-natural causes	118	2,9
	All causes	**10 080**	**100,0**		**All causes**	**5 989**	**100,0**		**All causes**	**4 068**	**100,0**
	North West, both sexes, 65+	**No.**	**%**		**North West, males, 65+**	**No.**	**%**		**North West, females, 65+**	**No.**	**%**
1	Hypertensive diseases (I10-I15)	1 249	11,8	1	Other forms of heart disease (I30-I52)	490	10,2	1	Hypertensive diseases (I10-I15)	853	14,8
2	Other forms of heart disease (I30-I52)	1 134	10,7	2	Cerebrovascular diseases (I60-I69)	467	9,7	2	Other forms of heart disease (I30-I52)	643	11,1
3	Cerebrovascular diseases (I60-I69)	1 056	10,0	3	Hypertensive diseases (I10-I15)	395	8,2	3	Cerebrovascular diseases (I60-I69)	588	10,2
4	Diabetes mellitus (E10-E14)	805	7,6	4	Diabetes mellitus (E10-E14)	282	5,9	4	Diabetes mellitus (E10-E14)	523	9,1
5	Influenza and pneumonia (J09-J18)	460	4,3	5	Chronic lower respiratory diseases (J40-J47)	256	5,3	5	Influenza and pneumonia (J09-J18)	228	4,0
6	Chronic lower respiratory diseases (J40-J47)	416	3,9	6	Influenza and pneumonia (J09-J18)	232	4,8	6	Chronic lower respiratory diseases (J40-J47)	160	2,8
7	Tuberculosis (A15-A19)*	321	3,0	7	Tuberculosis (A15-A19)*	208	4,3	7	Ischaemic heart diseases (I20-I25)	158	2,7
8	Ischaemic heart diseases (I20-I25)	304	2,9	8	Malignant neoplasms of male genital organs (C60-C63)	160	3,3	8	Intestinal infectious diseases (A00-A09)	153	2,7
9	Intestinal infectious diseases (A00-A09)	234	2,2	9	Ischaemic heart diseases (I20-I25)	146	3,0	9	Tuberculosis (A15-A19)*	113	2,0
10	Malignant neoplasms of digestive organs (C15-C26)	207	2,0	10	Malignant neoplasms of digestive organs (C15-C26)	116	2,4	10	Malignant neoplasms of female genital organs (C51-C58)	93	1,6
	Other natural causes	4 165	39,3		Other natural causes	1 928	40,1		Other natural causes	2 152	37,3
	Non-natural causes	237	2,2		Non-natural causes	133	2,8		Non-natural causes	103	1,8
	All causes	**10 588**	**100,0**		**All causes**	**4 813**	**100,0**		**All causes**	**5 767**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix M7: The ten leading underlying natural causes of death by age and sex: Gauteng, 2013

	Gauteng, both sexes, all ages	No.	%		Gauteng, males, all ages	No.	%		Gauteng, females, all ages	No.	%
1	Tuberculosis (A15-A19)*	7 142	7,3	1	Tuberculosis (A15-A19)*	4 156	8,1	1	Tuberculosis (A15-A19)*	2 915	6,4
2	Influenza and pneumonia (J09-J18)	5 772	5,9	2	Influenza and pneumonia (J09-J18)	2 921	5,7	2	Influenza and pneumonia (J09-J18)	2 791	6,1
3	Other forms of heart disease (I30-I52)	5 112	5,2	3	Other forms of heart disease (I30-I52)	2 437	4,7	3	Other forms of heart disease (I30-I52)	2 651	5,8
4	Diabetes mellitus (E10-E14)	3 960	4,1	4	Cerebrovascular diseases (I60-I69)	1 812	3,5	4	Diabetes mellitus (E10-E14)	2 246	4,9
5	Cerebrovascular diseases (I60-I69)	3 946	4,0	5	Human immunodeficiency virus [HIV] disease (B20-B24)	1 729	3,4	5	Cerebrovascular diseases (I60-I69)	2 122	4,7
6	Human immunodeficiency virus [HIV] disease (B20-B24)	3 411	3,5	6	Diabetes mellitus (E10-E14)	1 708	3,3	6	Hypertensive diseases (I10-I15)	1 929	4,2
7	Hypertensive diseases (I10-I15)	3 162	3,2	7	Ischaemic heart diseases (I20-I25)	1 652	3,2	7	Human immunodeficiency virus [HIV] disease (B20-B24)	1 658	3,6
8	Ischaemic heart diseases (I20-I25)	2 837	2,9	8	Other viral diseases (B25-B34)	1 358	2,6	8	Other viral diseases (B25-B34)	1 267	2,8
9	Other viral diseases (B25-B34)	2 645	2,7	9	Chronic lower respiratory diseases (J40-J47)	1 338	2,6	9	Intestinal infectious diseases (A00-A09)	1 234	2,7
10	Intestinal infectious diseases (A00-A09)	2 293	2,3	10	Malignant neoplasms of digestive organs (C15-C26)	1 241	2,4	10	Ischaemic heart diseases (I20-I25)	1 178	2,6
	Other natural causes	47 016	48,2		Other natural causes	23 264	45,3		Other natural causes	23 080	50,8
	Non-natural causes	10 299	10,6		Non-natural causes	7 711	15,0		Non-natural causes	2 398	5,3
	All causes	**97 595**	**100,0**		**All causes**	**51 327**	**100,0**		**All causes**	**45 469**	**100,0**
	Gauteng, both sexes, Age 0	**No.**	**%**		**Gauteng, males, Age 0**	**No.**	**%**		**Gauteng, females, Age 0**	**No.**	**%**
1	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	1 051	17,2	1	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	579	18,3	1	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	441	15,7
2	Intestinal infectious diseases (A00-A09)	485	7,9	2	Influenza and pneumonia (J09-J18)	248	7,8	2	Intestinal infectious diseases (A00-A09)	234	8,3
3	Influenza and pneumonia (J09-J18)	460	7,5	3	Intestinal infectious diseases (A00-A09)	243	7,7	3	Influenza and pneumonia (J09-J18)	204	7,3
4	Infections specific to the perinatal period (P35-P39)	378	6,2	4	Infections specific to the perinatal period (P35-P39)	205	6,5	4	Infections specific to the perinatal period (P35-P39)	166	5,9
5	Other disorders originating in the perinatal period (P90-P96)	334	5,5	5	Other disorders originating in the perinatal period (P90-P96)	158	5,0	5	Other disorders originating in the perinatal period (P90-P96)	158	5,6
6	Disorders related to length of gestation and fetal growth (P05-P08)	223	3,6	6	Disorders related to length of gestation and fetal growth (P05-P08)	108	3,4	6	Disorders related to length of gestation and fetal growth (P05-P08)	110	3,9
7	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	194	3,2	7	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	104	3,3	7	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	85	3,0
8	Congenital malformations of the circulatory system (Q20-Q28)	152	2,5	8	Congenital malformations of the circulatory system (Q20-Q28)	80	2,5	8	Congenital malformations of the circulatory system (Q20-Q28)	70	2,5
9	Other acute lower respiratory infections (J20-J22)	125	2,0	9	Haemorrhagic and haematological disorders of fetus and new-born (P50-P61)	75	2,4	9	Other acute lower respiratory infections (J20-J22)	67	2,4
10	Haemorrhagic and haematological disorders of fetus and new-born (P50-P61)	119	1,9	10	Other acute lower respiratory infections (J20-J22)	55	1,7	10	Other bacterial diseases (A30-A49)	56	2,0
	Other natural causes	2 406	39,3		Other natural causes	1 203	37,9		Other natural causes	1 130	40,3
	Non-natural causes	197	3,2		Non-natural causes	112	3,5		Non-natural causes	82	2,9
	All causes	**6 124**	**100,0**		**All causes**	**3 170**	**100,0**		**All causes**	**2 803**	**100,0**
	Gauteng, both sexes, 1–14	**No.**	**%**		**Gauteng, males, 1–14**	**No.**	**%**		**Gauteng, females, 1–14**	**No.**	**%**
1	Intestinal infectious diseases (A00-A09)	211	7,9	1	Intestinal infectious diseases (A00-A09)	98	6,9	1	Intestinal infectious diseases (A00-A09)	111	9,1
2	Influenza and pneumonia (J09-J18)	195	7,3	2	Influenza and pneumonia (J09-J18)	93	6,5	2	Influenza and pneumonia (J09-J18)	97	7,9
3	Tuberculosis (A15-A19)*	98	3,7	3	Tuberculosis (A15-A19)*	52	3,6	3	Tuberculosis (A15-A19)*	46	3,8
4	Malnutrition (E40-E46)	79	2,9	4	Malnutrition (E40-E46)	44	3,1	4	Human immunodeficiency virus [HIV] disease (B20-B24)	34	2,8
5	Other forms of heart disease (I30-I52)	72	2,7	5	Other forms of heart disease (I30-I52)	41	2,9	5	Malnutrition (E40-E46)	34	2,8
6	Other diseases of the respiratory system (J95-J99)	66	2,5	6	Malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue (C81-C96)	35	2,5	6	Other forms of heart disease (I30-I52)	31	2,5
7	Human immunodeficiency virus [HIV] disease (B20-B24)	61	2,3	7	Other diseases of the respiratory system (J95-J99)	34	2,4	7	Other diseases of the respiratory system (J95-J99)	30	2,5
8	Malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue (C81-C96)	53	2,0	8	Other acute lower respiratory infections (J20-J22)	28	2,0	8	Inflammatory diseases of the central nervous system (G00-G09)	23	1,9
9	Other acute lower respiratory infections (J20-J22)	51	1,9	9	Human immunodeficiency virus [HIV] disease (B20-B24)	27	1,9	9	Other acute lower respiratory infections (J20-J22)	22	1,8
10	Other viral diseases (B25-B34)	47	1,8	10	Other viral diseases (B25-B34)	27	1,9	10	Certain disorders involving the immune mechanism (D80-D89)	21	1,7
	Other natural causes	1 090	40,6		Other natural causes	557	39,1		Other natural causes	512	41,8
	Non-natural causes	659	24,6		Non-natural causes	389	27,3		Non-natural causes	263	21,5
	All causes	**2 682**	**100,0**		**All causes**	**1 425**	**100,0**		**All causes**	**1 224**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix M7: The ten leading underlying natural causes of death by age and sex: Gauteng, 2013 (Concluded)

	Gauteng, both sexes, 15–44	No.	%
1	Tuberculosis (A15-A19)*	3 975	13,3
2	Human immunodeficiency virus [HIV] disease (B20-B24)	2 097	7,0
3	Influenza and pneumonia (J09-J18)	1 989	6,7
4	Other viral diseases (B25-B34)	1 612	5,4
5	Certain disorders involving the immune mechanism (D80-D89)	982	3,3
6	Other forms of heart disease (I30-I52)	932	3,1
7	Intestinal infectious diseases (A00-A09)	617	2,1
8	Inflammatory diseases of the central nervous system (G00-G09)	589	2,0
9	Cerebrovascular diseases (I60-I69)	456	1,5
10	Renal failure (N17-N19)	437	1,5
	Other natural causes	9 878	33,1
	Non-natural causes	6 321	21,2
	All causes	**29 885**	**100,0**

	Gauteng, males, 15–44	No.	%
1	Tuberculosis (A15-A19)*	2 144	12,8
2	Human immunodeficiency virus [HIV] disease (B20-B24)	1 005	6,0
3	Influenza and pneumonia (J09-J18)	926	5,5
4	Other viral diseases (B25-B34)	775	4,6
5	Other forms of heart disease (I30-I52)	481	2,9
6	Certain disorders involving the immune mechanism (D80-D89)	438	2,6
7	Inflammatory diseases of the central nervous system (G00-G09)	306	1,8
8	Intestinal infectious diseases (A00-A09)	289	1,7
9	Renal failure (N17-N19)	233	1,4
10	Cerebrovascular diseases (I60-I69)	231	1,4
	Other natural causes	4 835	28,8
	Non-natural causes	5 145	30,6
	All causes	**16 808**	**100,0**

	Gauteng, females, 15–44	No.	%
1	Tuberculosis (A15-A19)*	1 792	14,0
2	Human immunodeficiency virus [HIV] disease (B20-B24)	1 074	8,4
3	Influenza and pneumonia (J09-J18)	1 039	8,1
4	Other viral diseases (B25-B34)	827	6,5
5	Certain disorders involving the immune mechanism (D80-D89)	532	4,2
6	Other forms of heart disease (I30-I52)	443	3,5
7	Intestinal infectious diseases (A00-A09)	324	2,5
8	Inflammatory diseases of the central nervous system (G00-G09)	280	2,2
9	Protozoal diseases (B50-B64)	237	1,9
10	Cerebrovascular diseases (I60-I69)	222	1,7
	Other natural causes	4 939	38,6
	Non-natural causes	1 096	8,6
	All causes	**12 805**	**100,0**

	Gauteng, both sexes, 45–64	No.	%
1	Tuberculosis (A15-A19)*	2 451	8,6
2	Influenza and pneumonia (J09-J18)	1 580	5,6
3	Diabetes mellitus (E10-E14)	1 523	5,4
4	Other forms of heart disease (I30-I52)	1 517	5,3
5	Cerebrovascular diseases (I60-I69)	1 336	4,7
6	Human immunodeficiency virus [HIV] disease (B20-B24)	1 068	3,8
7	Hypertensive diseases (I10-I15)	964	3,4
8	Ischaemic heart diseases (I20-I25)	881	3,1
9	Malignant neoplasms of digestive organs (C15-C26)	855	3,0
10	Other viral diseases (B25-B34)	796	2,8
	Other natural causes	13 511	47,5
	Non-natural causes	1 968	6,9
	All causes	**28 450**	**100,0**

	Gauteng, males, 45–64	No.	%
1	Tuberculosis (A15-A19)*	1 580	9,5
2	Influenza and pneumonia (J09-J18)	960	5,8
3	Other forms of heart disease (I30-I52)	859	5,2
4	Diabetes mellitus (E10-E14)	765	4,6
5	Cerebrovascular diseases (I60-I69)	761	4,6
6	Ischaemic heart diseases (I20-I25)	614	3,7
7	Human immunodeficiency virus [HIV] disease (B20-B24)	602	3,6
8	Malignant neoplasms of digestive organs (C15-C26)	532	3,2
9	Chronic lower respiratory diseases (J40-J47)	519	3,1
10	Hypertensive diseases (I10-I15)	475	2,9
	Other natural causes	7 424	44,8
	Non-natural causes	1 495	9,0
	All causes	**16 586**	**100,0**

	Gauteng, females, 45–64	No.	%
1	Tuberculosis (A15-A19)*	855	7,3
2	Diabetes mellitus (E10-E14)	755	6,4
3	Other forms of heart disease (I30-I52)	647	5,5
4	Influenza and pneumonia (J09-J18)	613	5,2
5	Cerebrovascular diseases (I60-I69)	573	4,9
6	Hypertensive diseases (I10-I15)	487	4,1
7	Human immunodeficiency virus [HIV] disease (B20-B24)	463	3,9
8	Malignant neoplasms of female genital organs (C51-C58)	448	3,8
9	Malignant neoplasms of breast (C50)	370	3,1
10	Other viral diseases (B25-B34)	329	2,8
	Other natural causes	5 762	49,0
	Non-natural causes	464	3,9
	All causes	**11 766**	**100,0**

	Gauteng, both sexes, 65+	No.	%
1	Other forms of heart disease (I30-I52)	2 517	8,4
2	Diabetes mellitus (E10-E14)	2 135	7,2
3	Cerebrovascular diseases (I60-I69)	2 125	7,1
4	Hypertensive diseases (I10-I15)	1 940	6,5
5	Ischaemic heart diseases (I20-I25)	1 752	5,9
6	Influenza and pneumonia (J09-J18)	1 506	5,0
7	Chronic lower respiratory diseases (J40-J47)	1 301	4,4
8	Malignant neoplasms of digestive organs (C15-C26)	1 083	3,6
9	Renal failure (N17-N19)	706	2,4
10	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	578	1,9
	Other natural causes	13 228	44,3
	Non-natural causes	985	3,3
	All causes	**29 856**	**100,0**

	Gauteng, males, 65+	No.	%
1	Other forms of heart disease (I30-I52)	1 019	7,8
2	Ischaemic heart diseases (I20-I25)	902	6,9
3	Cerebrovascular diseases (I60-I69)	804	6,2
4	Diabetes mellitus (E10-E14)	794	6,1
5	Chronic lower respiratory diseases (J40-J47)	722	5,5
6	Influenza and pneumonia (J09-J18)	671	5,1
7	Hypertensive diseases (I10-I15)	626	4,8
8	Malignant neoplasms of digestive organs (C15-C26)	591	4,5
9	Malignant neoplasms of male genital organs (C60-C63)	540	4,1
10	Renal failure (N17-N19)	362	2,8
	Other natural causes	5 534	42,4
	Non-natural causes	501	3,8
	All causes	**13 066**	**100,0**

	Gauteng, females, 65+	No.	%
1	Other forms of heart disease (I30-I52)	1 496	8,9
2	Diabetes mellitus (E10-E14)	1 339	8,0
3	Cerebrovascular diseases (I60-I69)	1 318	7,9
4	Hypertensive diseases (I10-I15)	1 314	7,8
5	Ischaemic heart diseases (I20-I25)	847	5,1
6	Influenza and pneumonia (J09-J18)	832	5,0
7	Chronic lower respiratory diseases (J40-J47)	575	3,4
8	Malignant neoplasms of digestive organs (C15-C26)	492	2,9
9	Malignant neoplasms of breast (C50)	345	2,1
10	Renal failure (N17-N19)	343	2,0
	Other natural causes	7 370	44,0
	Non-natural causes	482	2,9
	All causes	**16 753**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix M8: The ten leading underlying natural causes of death by age and sex: Mpumalanga, 2013

	Mpumalanga, both sexes, all ages	No.	%		Mpumalanga, males, all ages	No.	%		Mpumalanga, females, all ages	No.	%
1	Tuberculosis (A15-A19)*	3 700	10,6	1	Tuberculosis (A15-A19)*	2 119	11,6	1	Tuberculosis (A15-A19)*	1 568	9,6
2	Influenza and pneumonia (J09-J18)	2 037	5,9	2	Influenza and pneumonia (J09-J18)	1 048	5,7	2	Cerebrovascular diseases (I60-I69)	1 049	6,4
3	Intestinal infectious diseases (A00-A09)	1 823	5,2	3	Human immunodeficiency virus [HIV] disease (B20-B24)	927	5,1	3	Influenza and pneumonia (J09-J18)	985	6,0
4	Cerebrovascular diseases (I60-I69)	1 796	5,2	4	Intestinal infectious diseases (A00-A09)	869	4,8	4	Diabetes mellitus (E10-E14)	976	6,0
5	Human immunodeficiency virus [HIV] disease (B20-B24)	1 772	5,1	5	Other viral diseases (B25-B34)	769	4,2	5	Intestinal infectious diseases (A00-A09)	944	5,8
6	Diabetes mellitus (E10-E14)	1 664	4,8	6	Cerebrovascular diseases (I60-I69)	745	4,1	6	Hypertensive diseases (I10-I15)	865	5,3
7	Other viral diseases (B25-B34)	1 530	4,4	7	Diabetes mellitus (E10-E14)	687	3,8	7	Human immunodeficiency virus [HIV] disease (B20-B24)	832	5,1
8	Other forms of heart disease (I30-I52)	1 457	4,2	8	Other forms of heart disease (I30-I52)	671	3,7	8	Other forms of heart disease (I30-I52)	783	4,8
9	Hypertensive diseases (I10-I15)	1 404	4,0	9	Other acute lower respiratory infections (J20-J22)	582	3,2	9	Other viral diseases (B25-B34)	757	4,6
10	Other acute lower respiratory infections (J20-J22)	1 052	3,0	10	Hypertensive diseases (I10-I15)	538	2,9	10	Certain disorders involving the immune mechanism (D80-D89)	508	3,1
	Other natural causes	12 919	37,1		Other natural causes	6 553	35,8		Other natural causes	6 262	38,2
	Non-natural causes	3 666	10,5		Non-natural causes	2 772	15,2		Non-natural causes	867	5,3
	All causes	**34 820**	**100,0**		**All causes**	**18 280**	**100,0**		**All causes**	**16 396**	**100,0**
	Mpumalanga, both sexes, Age 0	**No.**	**%**		**Mpumalanga, males, Age 0**	**No.**	**%**		**Mpumalanga, females, Age 0**	**No.**	**%**
1	Intestinal infectious diseases (A00-A09)	364	18,9	1	Intestinal infectious diseases (A00-A09)	193	19,5	1	Intestinal infectious diseases (A00-A09)	167	18,5
2	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	279	14,5	2	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	135	13,6	2	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	137	15,2
3	Influenza and pneumonia (J09-J18)	197	10,2	3	Influenza and pneumonia (J09-J18)	94	9,5	3	Influenza and pneumonia (J09-J18)	102	11,3
4	Disorders related to length of gestation and fetal growth (P05-P08)	130	6,8	4	Disorders related to length of gestation and fetal growth (P05-P08)	70	7,1	4	Disorders related to length of gestation and fetal growth (P05-P08)	58	6,4
5	Other disorders originating in the perinatal period (P90-P96)	79	4,1	5	Other disorders originating in the perinatal period (P90-P96)	50	5,0	5	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	34	3,8
6	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	64	3,3	6	Malnutrition (E40-E46)	31	3,1	6	Other disorders originating in the perinatal period (P90-P96)	28	3,1
7	Malnutrition (E40-E46)	52	2,7	7	Other viral diseases (B25-B34)	26	2,6	7	Infections specific to the perinatal period (P35-P39)	24	2,7
8	Infections specific to the perinatal period (P35-P39)	47	2,4	8	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	26	2,6	8	Other acute lower respiratory infections (J20-J22)	22	2,4
9	Other acute lower respiratory infections (J20-J22)	46	2,4	9	Other acute lower respiratory infections (J20-J22)	24	2,4	9	Malnutrition (E40-E46)	21	2,3
10	Other viral diseases (B25-B34)	45	2,3	10	Infections specific to the perinatal period (P35-P39)	23	2,3	10	Haemorrhagic and haematological disorders of fetus and new-born (P50-P61)	20	2,2
	Other natural causes	550	28,6		Other natural causes	276	27,9		Other natural causes	263	29,2
	Non-natural causes	69	3,6		Non-natural causes	43	4,3		Non-natural causes	26	2,9
	All causes	**1 922**	**100,0**		**All causes**	**991**	**100,0**		**All causes**	**902**	**100,0**
	Mpumalanga, both sexes, 1–14	**No.**	**%**		**Mpumalanga, males, 1–14**	**No.**	**%**		**Mpumalanga, females, 1–14**	**No.**	**%**
1	Intestinal infectious diseases (A00-A09)	225	15,1	1	Intestinal infectious diseases (A00-A09)	117	14,3	1	Intestinal infectious diseases (A00-A09)	108	16,2
2	Influenza and pneumonia (J09-J18)	146	9,8	2	Influenza and pneumonia (J09-J18)	92	11,2	2	Influenza and pneumonia (J09-J18)	54	8,1
3	Tuberculosis (A15-A19)*	98	6,6	3	Tuberculosis (A15-A19)*	60	7,3	3	Tuberculosis (A15-A19)*	38	5,7
4	Malnutrition (E40-E46)	53	3,6	4	Malnutrition (E40-E46)	34	4,2	4	Human immunodeficiency virus [HIV] disease (B20-B24)	21	3,1
5	Other acute lower respiratory infections (J20-J22)	50	3,4	5	Other acute lower respiratory infections (J20-J22)	31	3,8	5	Other viral diseases (B25-B34)	21	3,1
6	Human immunodeficiency virus [HIV] disease (B20-B24)	42	2,8	6	Human immunodeficiency virus [HIV] disease (B20-B24)	21	2,6	6	Malnutrition (E40-E46)	19	2,8
7	Other viral diseases (B25-B34)	37	2,5	7	Other viral diseases (B25-B34)	16	2,0	7	Inflammatory diseases of the central nervous system (G00-G09)	19	2,8
8	Certain disorders involving the immune mechanism (D80-D89)	34	2,3	8	Certain disorders involving the immune mechanism (D80-D89)	14	1,7	8	Other acute lower respiratory infections (J20-J22)	19	2,8
9	Inflammatory diseases of the central nervous system (G00-G09)	33	2,2	9	Inflammatory diseases of the central nervous system (G00-G09)	14	1,7	9	Certain disorders involving the immune mechanism (D80-D89)	18	2,7
10	Other forms of heart disease (I30-I52)	24	1,6	10	Other forms of heart disease (I30-I52)	14	1,7	10	Chronic lower respiratory diseases (J40-J47)	11	1,6
	Other natural causes	417	27,9		Other natural causes	218	26,6		Other natural causes	195	29,2
	Non-natural causes	333	22,3		Non-natural causes	188	23,0		Non-natural causes	144	21,6
	All causes	**1 492**	**100,0**		**All causes**	**819**	**100,0**		**All causes**	**667**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix M8: The ten leading underlying natural causes of death by age and sex: Mpumalanga, 2013 (Concluded)

	Mpumalanga, both sexes, 15–44	No.	%		Mpumalanga, males, 15–44	No.	%		Mpumalanga, females, 15–44	No.	%
1	Tuberculosis (A15-A19)*	2 051	16,3	1	Tuberculosis (A15-A19)*	1 026	15,3	1	Tuberculosis (A15-A19)*	1 020	17,5
2	Human immunodeficiency virus [HIV] disease (B20-B24)	1 127	8,9	2	Human immunodeficiency virus [HIV] disease (B20-B24)	547	8,1	2	Human immunodeficiency virus [HIV] disease (B20-B24)	572	9,8
3	Other viral diseases (B25-B34)	922	7,3	3	Other viral diseases (B25-B34)	440	6,5	3	Other viral diseases (B25-B34)	481	8,2
4	Influenza and pneumonia (J09-J18)	695	5,5	4	Influenza and pneumonia (J09-J18)	313	4,7	4	Influenza and pneumonia (J09-J18)	381	6,5
5	Certain disorders involving the immune mechanism (D80-D89)	585	4,6	5	Certain disorders involving the immune mechanism (D80-D89)	264	3,9	5	Certain disorders involving the immune mechanism (D80-D89)	318	5,4
6	Intestinal infectious diseases (A00-A09)	527	4,2	6	Intestinal infectious diseases (A00-A09)	226	3,4	6	Intestinal infectious diseases (A00-A09)	299	5,1
7	Other acute lower respiratory infections (J20-J22)	386	3,1	7	Other acute lower respiratory infections (J20-J22)	196	2,9	7	Other acute lower respiratory infections (J20-J22)	190	3,3
8	Other forms of heart disease (I30-I52)	259	2,1	8	Inflammatory diseases of the central nervous system (G00-G09)	143	2,1	8	Other forms of heart disease (I30-I52)	133	2,3
9	Inflammatory diseases of the central nervous system (G00-G09)	252	2,0	9	Other forms of heart disease (I30-I52)	125	1,9	9	Inflammatory diseases of the central nervous system (G00-G09)	109	1,9
10	Other bacterial diseases (A30-A49)	223	1,8	10	Other bacterial diseases (A30-A49)	123	1,8	10	Protozoal diseases (B50-B64)	104	1,8
	Other natural causes	3 305	26,2		Other natural causes	1 499	22,3		Other natural causes	1 797	30,8
	Non-natural causes	2 268	18,0		Non-natural causes	1 821	27,1		Non-natural causes	436	7,5
	All causes	**12 600**	**100,0**		**All causes**	**6 723**	**100,0**		**All causes**	**5 840**	**100,0**
	Mpumalanga, both sexes, 45–64	**No.**	**%**		**Mpumalanga, males, 45–64**	**No.**	**%**		**Mpumalanga, females, 45–64**	**No.**	**%**
1	Tuberculosis (A15-A19)*	1 142	12,0	1	Tuberculosis (A15-A19)*	783	14,0	1	Tuberculosis (A15-A19)*	355	9,1
2	Diabetes mellitus (E10-E14)	614	6,5	2	Influenza and pneumonia (J09-J18)	313	5,6	2	Diabetes mellitus (E10-E14)	335	8,6
3	Influenza and pneumonia (J09-J18)	527	5,5	3	Human immunodeficiency virus [HIV] disease (B20-B24)	303	5,4	3	Cerebrovascular diseases (I60-I69)	265	6,8
4	Cerebrovascular diseases (I60-I69)	521	5,5	4	Diabetes mellitus (E10-E14)	279	5,0	4	Hypertensive diseases (I10-I15)	213	5,5
5	Human immunodeficiency virus [HIV] disease (B20-B24)	505	5,3	5	Cerebrovascular diseases (I60-I69)	256	4,6	5	Influenza and pneumonia (J09-J18)	213	5,5
6	Other viral diseases (B25-B34)	449	4,7	6	Other viral diseases (B25-B34)	245	4,4	6	Human immunodeficiency virus [HIV] disease (B20-B24)	202	5,2
7	Other forms of heart disease (I30-I52)	398	4,2	7	Other forms of heart disease (I30-I52)	232	4,1	7	Other viral diseases (B25-B34)	202	5,2
8	Hypertensive diseases (I10-I15)	384	4,0	8	Intestinal infectious diseases (A00-A09)	204	3,6	8	Other forms of heart disease (I30-I52)	165	4,3
9	Intestinal infectious diseases (A00-A09)	367	3,9	9	Other acute lower respiratory infections (J20-J22)	194	3,5	9	Intestinal infectious diseases (A00-A09)	162	4,2
10	Other acute lower respiratory infections (J20-J22)	323	3,4	10	Hypertensive diseases (I10-I15)	171	3,0	10	Malignant neoplasms of female genital organs (C51-C58)	146	3,8
	Other natural causes	3 572	37,6		Other natural causes	2 078	37,1		Other natural causes	1 473	38,0
	Non-natural causes	700	7,4		Non-natural causes	550	9,8		Non-natural causes	150	3,9
	All causes	**9 502**	**100,0**		**All causes**	**5 608**	**100,0**		**All causes**	**3 881**	**100,0**
	Mpumalanga, both sexes, 65+	**No.**	**%**		**Mpumalanga, males, 65+**	**No.**	**%**		**Mpumalanga, females, 65+**	**No.**	**%**
1	Cerebrovascular diseases (I60-I69)	1 092	11,9	1	Cerebrovascular diseases (I60-I69)	409	10,1	1	Cerebrovascular diseases (I60-I69)	683	13,4
2	Hypertensive diseases (I10-I15)	919	10,0	2	Diabetes mellitus (E10-E14)	330	8,1	2	Hypertensive diseases (I10-I15)	597	11,8
3	Diabetes mellitus (E10-E14)	882	9,6	3	Hypertensive diseases (I10-I15)	321	7,9	3	Diabetes mellitus (E10-E14)	551	10,8
4	Other forms of heart disease (I30-I52)	753	8,2	4	Other forms of heart disease (I30-I52)	285	7,0	4	Other forms of heart disease (I30-I52)	468	9,2
5	Influenza and pneumonia (J09-J18)	466	5,1	5	Tuberculosis (A15-A19)*	234	5,8	5	Influenza and pneumonia (J09-J18)	233	4,6
6	Tuberculosis (A15-A19)*	382	4,2	6	Influenza and pneumonia (J09-J18)	233	5,7	6	Intestinal infectious diseases (A00-A09)	207	4,1
7	Intestinal infectious diseases (A00-A09)	335	3,7	7	Chronic lower respiratory diseases (J40-J47)	171	4,2	7	Ischaemic heart diseases (I20-I25)	159	3,1
8	Ischaemic heart diseases (I20-I25)	325	3,5	8	Ischaemic heart diseases (I20-I25)	166	4,1	8	Tuberculosis (A15-A19)*	148	2,9
9	Chronic lower respiratory diseases (J40-J47)	257	2,8	9	Other acute lower respiratory infections (J20-J22)	137	3,4	9	Other acute lower respiratory infections (J20-J22)	108	2,1
10	Other acute lower respiratory infections (J20-J22)	246	2,7	10	Intestinal infectious diseases (A00-A09)	126	3,1	10	Malignant neoplasms of female genital organs (C51-C58)	99	1,9
	Other natural causes	3 249	35,5		Other natural causes	1 506	37,1		Other natural causes	1 720	33,9
	Non-natural causes	254	2,8		Non-natural causes	146	3,6		Non-natural causes	107	2,1
	All causes	**9 160**	**100,0**		**All causes**	**4 064**	**100,0**		**All causes**	**5 080**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix M9: The ten leading underlying natural causes of death by age and sex: Limpopo, 2013

	Limpopo, both sexes, all ages	No.	%		Limpopo, males, all ages	No.	%		Limpopo, females, all ages	No.	%
1	Influenza and pneumonia (J09-J18)	4 009	8,4	1	Tuberculosis (A15-A19)*	2 122	9,0	1	Influenza and pneumonia (J09-J18)	2 041	8,5
2	Tuberculosis (A15-A19)*	3 653	7,7	2	Influenza and pneumonia (J09-J18)	1 956	8,3	2	Intestinal infectious diseases (A00-A09)	1 641	6,9
3	Intestinal infectious diseases (A00-A09)	3 136	6,6	3	Intestinal infectious diseases (A00-A09)	1 485	6,3	3	Tuberculosis (A15-A19)*	1 525	6,4
4	Diabetes mellitus (E10-E14)	2 472	5,2	4	Diabetes mellitus (E10-E14)	1 013	4,3	4	Diabetes mellitus (E10-E14)	1 459	6,1
5	Cerebrovascular diseases (I60-I69)	2 236	4,7	5	Other forms of heart disease (I30-I52)	925	3,9	5	Cerebrovascular diseases (I60-I69)	1 384	5,8
6	Other forms of heart disease (I30-I52)	1 998	4,2	6	Cerebrovascular diseases (I60-I69)	850	3,6	6	Other forms of heart disease (I30-I52)	1 072	4,5
7	Other viral diseases (B25-B34)	1 637	3,4	7	Other viral diseases (B25-B34)	715	3,0	7	Hypertensive diseases (I10-I15)	955	4,0
8	Hypertensive diseases (I10-I15)	1 635	3,4	8	Human immunodeficiency virus [HIV] disease (B20-B24)	711	3,0	8	Other viral diseases (B25-B34)	918	3,8
9	Human immunodeficiency virus [HIV] disease (B20-B24)	1 552	3,3	9	Hypertensive diseases (I10-I15)	678	2,9	9	Human immunodeficiency virus [HIV] disease (B20-B24)	838	3,5
10	Inflammatory diseases of the central nervous system (G00-G09)	1 133	2,4	10	Chronic lower respiratory diseases (J40-J47)	523	2,2	10	Inflammatory diseases of the central nervous system (G00-G09)	618	2,6
	Other natural causes	20 258	42,6		Other natural causes	9 787	41,6		Other natural causes	10 408	43,6
	Non-natural causes	3 830	8,1		Non-natural causes	2 772	11,8		Non-natural causes	1 037	4,3
	All causes	**47 549**	**100,0**		**All causes**	**23 537**	**100,0**		**All causes**	**23 896**	**100,0**
	Limpopo, both sexes, Age 0	**No.**	**%**		**Limpopo, males, Age 0**	**No.**	**%**		**Limpopo, females, Age 0**	**No.**	**%**
1	Intestinal infectious diseases (A00-A09)	531	17,2	1	Intestinal infectious diseases (A00-A09)	284	17,3	1	Intestinal infectious diseases (A00-A09)	242	17,2
2	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	441	14,3	2	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	233	14,2	2	Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)	201	14,3
3	Influenza and pneumonia (J09-J18)	366	11,8	3	Influenza and pneumonia (J09-J18)	180	10,9	3	Influenza and pneumonia (J09-J18)	180	12,8
4	Disorders related to length of gestation and fetal growth (P05-P08)	135	4,4	4	Disorders related to length of gestation and fetal growth (P05-P08)	76	4,6	4	Disorders related to length of gestation and fetal growth (P05-P08)	59	4,2
5	Other disorders originating in the perinatal period (P90-P96)	100	3,2	5	Other disorders originating in the perinatal period (P90-P96)	62	3,8	5	Malnutrition (E40-E46)	39	2,8
6	Malnutrition (E40-E46)	81	2,6	6	Infections specific to the perinatal period (P35-P39)	44	2,7	6	Other disorders originating in the perinatal period (P90-P96)	35	2,5
7	Inflammatory diseases of the central nervous system (G00-G09)	78	2,5	7	Inflammatory diseases of the central nervous system (G00-G09)	43	2,6	7	Inflammatory diseases of the central nervous system (G00-G09)	33	2,3
8	Infections specific to the perinatal period (P35-P39)	73	2,4	8	Malnutrition (E40-E46)	42	2,6	8	Other viral diseases (B25-B34)	31	2,2
9	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	71	2,3	9	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	37	2,2	9	Fetus and new-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	30	2,1
10	Other viral diseases (B25-B34)	60	1,9	10	Other viral diseases (B25-B34)	28	1,7	10	Infections specific to the perinatal period (P35-P39)	29	2,1
	Other natural causes	1 035	33,5		Other natural causes	549	33,4		Other natural causes	474	33,6
	Non-natural causes	123	4,0		Non-natural causes	67	4,1		Non-natural causes	56	4,0
	All causes	**3 094**	**100,0**		**All causes**	**1 645**	**100,0**		**All causes**	**1 409**	**100,0**
	Limpopo, both sexes, 1–14	**No.**	**%**		**Limpopo, males, 1–14**	**No.**	**%**		**Limpopo, females, 1–14**	**No.**	**%**
1	Intestinal infectious diseases (A00-A09)	381	15,5	1	Intestinal infectious diseases (A00-A09)	198	15,4	1	Intestinal infectious diseases (A00-A09)	183	15,7
2	Influenza and pneumonia (J09-J18)	295	12,0	2	Influenza and pneumonia (J09-J18)	154	12,0	2	Influenza and pneumonia (J09-J18)	141	12,1
3	Malnutrition (E40-E46)	133	5,4	3	Malnutrition (E40-E46)	62	4,8	3	Malnutrition (E40-E46)	71	6,1
4	Tuberculosis (A15-A19)*	102	4,2	4	Tuberculosis (A15-A19)*	58	4,5	4	Tuberculosis (A15-A19)*	44	3,8
5	Inflammatory diseases of the central nervous system (G00-G09)	91	3,7	5	Inflammatory diseases of the central nervous system (G00-G09)	51	4,0	5	Inflammatory diseases of the central nervous system (G00-G09)	40	3,4
6	Other viral diseases (B25-B34)	56	2,3	6	Other viral diseases (B25-B34)	28	2,2	6	Other viral diseases (B25-B34)	28	2,4
7	Other forms of heart disease (I30-I52)	40	1,6	7	Human immunodeficiency virus [HIV] disease (B20-B24)	20	1,6	7	Other forms of heart disease (I30-I52)	24	2,1
8	Human immunodeficiency virus [HIV] disease (B20-B24)	36	1,5	8	Malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue (C81-C96)	17	1,3	8	Other bacterial diseases (A30-A49)	22	1,9
9	Other bacterial diseases (A30-A49)	34	1,4	9	Other forms of heart disease (I30-I52)	16	1,2	9	Other acute lower respiratory infections (J20-J22)	19	1,6
10	Other acute lower respiratory infections (J20-J22)	34	1,4	10	Chronic lower respiratory diseases (J40-J47)	16	1,2	10	Renal failure (N17-N19)	17	1,5
	Other natural causes	872	35,5		Other natural causes	444	34,5		Other natural causes	419	36,0
	Non-natural causes	382	15,6		Non-natural causes	223	17,3		Non-natural causes	156	13,4
	All causes	**2 456**	**100,0**		**All causes**	**1 287**	**100,0**		**All causes**	**1 164**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix M9: The ten leading underlying natural causes of death by age and sex: Limpopo, 2013 (Concluded)

	Limpopo, both sexes, 15−44	No.	%		Limpopo, males, 15−44	No.	%		Limpopo, females, 15−44	No.	%
1	Tuberculosis (A15-A19)*	1 830	13,7	1	Tuberculosis (A15-A19)*	885	13,5	1	Tuberculosis (A15-A19)*	940	13,7
2	Influenza and pneumonia (J09-J18)	1 141	8,5	2	Influenza and pneumonia (J09-J18)	467	7,1	2	Influenza and pneumonia (J09-J18)	673	9,8
3	Other viral diseases (B25-B34)	978	7,3	3	Human immunodeficiency virus [HIV] disease (B20-B24)	390	6,0	3	Other viral diseases (B25-B34)	607	8,9
4	Human immunodeficiency virus [HIV] disease (B20-B24)	969	7,2	4	Other viral diseases (B25-B34)	368	5,6	4	Human immunodeficiency virus [HIV] disease (B20-B24)	578	8,5
5	Intestinal infectious diseases (A00-A09)	823	6,1	5	Intestinal infectious diseases (A00-A09)	339	5,2	5	Intestinal infectious diseases (A00-A09)	481	7,0
6	Certain disorders involving the immune mechanism (D80-D89)	457	3,4	6	Certain disorders involving the immune mechanism (D80-D89)	208	3,2	6	Certain disorders involving the immune mechanism (D80-D89)	249	3,6
7	Inflammatory diseases of the central nervous system (G00-G09)	372	2,8	7	Inflammatory diseases of the central nervous system (G00-G09)	158	2,4	7	Inflammatory diseases of the central nervous system (G00-G09)	214	3,1
8	Other forms of heart disease (I30-I52)	262	2,0	8	Renal failure (N17-N19)	123	1,9	8	Other forms of heart disease (I30-I52)	155	2,3
9	Renal failure (N17-N19)	248	1,8	9	Other forms of heart disease (I30-I52)	107	1,6	9	Renal failure (N17-N19)	125	1,8
10	Diabetes mellitus (E10-E14)	186	1,4	10	Diabetes mellitus (E10-E14)	87	1,3	10	Protozoal diseases (B50-B64)	114	1,7
	Other natural causes	4 044	30,2		Other natural causes	1 733	26,5		Other natural causes	2 287	33,4
	Non-natural causes	2 096	15,6		Non-natural causes	1 669	25,5		Non-natural causes	417	6,1
	All causes	**13 406**	**100,0**		**All causes**	**6 534**	**100,0**		**All causes**	**6 840**	**100,0**
	Limpopo, both sexes, 45–64	**No.**	**%**		**Limpopo, males, 45–64**	**No.**	**%**		**Limpopo, females, 45–64**	**No.**	**%**
1	Tuberculosis (A15-A19)*	1 253	10,4	1	Tuberculosis (A15-A19)*	861	12,0	1	Diabetes mellitus (E10-E14)	488	10,1
2	Influenza and pneumonia (J09-J18)	921	7,7	2	Influenza and pneumonia (J09-J18)	618	8,6	2	Tuberculosis (A15-A19)*	392	8,1
3	Diabetes mellitus (E10-E14)	890	7,4	3	Diabetes mellitus (E10-E14)	402	5,6	3	Influenza and pneumonia (J09-J18)	302	6,2
4	Intestinal infectious diseases (A00-A09)	634	5,3	4	Intestinal infectious diseases (A00-A09)	345	4,8	4	Intestinal infectious diseases (A00-A09)	288	5,9
5	Cerebrovascular diseases (I60-I69)	539	4,5	5	Other forms of heart disease (I30-I52)	289	4,0	5	Cerebrovascular diseases (I60-I69)	262	5,4
6	Other forms of heart disease (I30-I52)	499	4,2	6	Cerebrovascular diseases (I60-I69)	276	3,9	6	Hypertensive diseases (I10-I15)	227	4,7
7	Hypertensive diseases (I10-I15)	466	3,9	7	Human immunodeficiency virus [HIV] disease (B20-B24)	258	3,6	7	Other forms of heart disease (I30-I52)	210	4,3
8	Human immunodeficiency virus [HIV] disease (B20-B24)	460	3,8	8	Other viral diseases (B25-B34)	252	3,5	8	Malignant neoplasms of female genital organs (C51-C58)	207	4,3
9	Other viral diseases (B25-B34)	458	3,8	9	Hypertensive diseases (I10-I15)	239	3,3	9	Other viral diseases (B25-B34)	206	4,2
10	Renal failure (N17-N19)	302	2,5	10	Renal failure (N17-N19)	185	2,6	10	Human immunodeficiency virus [HIV] disease (B20-B24)	201	4,1
	Other natural causes	4 824	40,1		Other natural causes	2 843	39,7		Other natural causes	1 885	38,9
	Non-natural causes	772	6,4		Non-natural causes	590	8,2		Non-natural causes	182	3,8
	All causes	**12 018**	**100,0**		**All causes**	**7 158**	**100,0**		**All causes**	**4 850**	**100,0**
	Limpopo, both sexes, 65+	**No.**	**%**		**Limpopo, males, 65+**	**No.**	**%**		**Limpopo, females, 65+**	**No.**	**%**
1	Cerebrovascular diseases (I60-I69)	1 519	9,2	1	Influenza and pneumonia (J09-J18)	536	7,8	1	Cerebrovascular diseases (I60-I69)	1 022	10,6
2	Diabetes mellitus (E10-E14)	1 375	8,4	2	Diabetes mellitus (E10-E14)	516	7,5	2	Diabetes mellitus (E10-E14)	859	8,9
3	Influenza and pneumonia (J09-J18)	1 280	7,8	3	Other forms of heart disease (I30-I52)	498	7,3	3	Influenza and pneumonia (J09-J18)	744	7,8
4	Other forms of heart disease (I30-I52)	1 168	7,1	4	Cerebrovascular diseases (I60-I69)	497	7,3	4	Hypertensive diseases (I10-I15)	671	7,0
5	Hypertensive diseases (I10-I15)	1 056	6,4	5	Hypertensive diseases (I10-I15)	383	5,6	5	Other forms of heart disease (I30-I52)	669	7,0
6	Intestinal infectious diseases (A00-A09)	766	4,7	6	Intestinal infectious diseases (A00-A09)	319	4,7	6	Intestinal infectious diseases (A00-A09)	446	4,6
7	Tuberculosis (A15-A19)*	431	2,6	7	Tuberculosis (A15-A19)*	296	4,3	7	Inflammatory diseases of the central nervous system (G00-G09)	214	2,2
8	Chronic lower respiratory diseases (J40-J47)	423	2,6	8	Chronic lower respiratory diseases (J40-J47)	280	4,1	8	Renal failure (N17-N19)	204	2,1
9	Renal failure (N17-N19)	382	2,3	9	Malignant neoplasms of male genital organs (C60-C63)	193	2,8	9	Malignant neoplasms of female genital organs (C51-C58)	173	1,8
10	Inflammatory diseases of the central nervous system (G00-G09)	336	2,0	10	Renal failure (N17-N19)	178	2,6	10	Other bacterial diseases (A30-A49)	166	1,7
	Other natural causes	7 305	44,4		Other natural causes	2 953	43,2		Other natural causes	4 214	43,9
	Non-natural causes	410	2,5		Non-natural causes	194	2,8		Non-natural causes	216	2,3
	All causes	**16 451**	**100,0**		**All causes**	**6 843**	**100,0**		**All causes**	**9 598**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix N: Number of deaths by main groups of causes of death and district municipality of death occurrence (Western Cape, Eastern Cape and Northern Cape), 2013

Province of death	District municipality of death occurrence	Certain infectious and parasitic diseases	Neoplasms	Diseases of the blood and immune mechanism	Endocrine, nutritional and metabolic diseases	Diseases of the nervous system	Diseases of the circulatory system	Diseases of the respiratory system	Diseases of the digestive system	Perinatal conditions	Other natural causes	External causes of morbidity and mortality	Total
		A00-B99*	C00-D48	D50-D89	E00-E90	G00-G99	I00-I99	J00-J99	K00-K93	P00-P96	Other	V01-Y98	
Western Cape	Cape Winelands	1 122	1 085	31	466	134	1 240	659	160	70	635	733	6 335
	Central Karoo	123	97	7	44	9	152	84	11	15	49	102	693
	City of Cape Town	4 231	5 166	194	2 352	653	5 372	2 183	712	551	2 898	3 898	28 210
	Eden	838	867	44	397	132	1 169	497	130	99	362	475	5 010
	Overberg	253	426	15	171	46	451	202	54	30	201	270	2 119
	West Coast	561	534	40	276	77	708	342	61	50	274	378	3 301
	Unspecified	42	71	1	32	7	76	23	11	4	32	40	339
	Total	**7 170**	**8 246**	**332**	**3 738**	**1 058**	**9 168**	**3 990**	**1 139**	**819**	**4 451**	**5 896**	**46 007**
Eastern Cape	Alfred Nzo	981	107	66	163	74	408	354	73	59	3 138	479	5 902
	Amathole	2 798	801	186	711	358	2 087	1 718	268	60	1 997	1 365	12 349
	Buffalo City	1 818	991	117	554	212	1 427	873	187	66	844	954	8 043
	Cacadu	878	396	82	246	74	762	377	92	37	580	394	3 918
	Chris Hani	2 124	538	231	562	266	1 535	1 158	217	101	1 133	895	8 760
	Joe Gqabi	798	213	183	204	91	689	380	75	35	1 397	423	4 488
	Nelson Mandela Bay	1 457	853	178	622	179	1 361	617	218	165	710	637	6 997
	O.R Tambo	3 084	519	270	424	255	1 300	734	285	52	4 344	1 654	12 921
	Unspecified	76	30	3	16	13	90	66	6	2	186	69	557
	Total	**14 014**	**4 448**	**1 316**	**3 502**	**1 522**	**9 659**	**6 277**	**1 421**	**577**	**14 329**	**6 870**	**63 935**
Northern Cape	Frances Baard	837	358	125	247	71	612	413	111	72	395	377	3 618
	John Taolo Gaetsewe	663	92	41	94	33	310	217	27	117	711	220	2 525
	Namakwa	139	144	12	66	28	225	142	19	15	96	148	1 034
	Pixley ka Seme	825	355	89	231	82	658	430	100	78	371	390	3 609
	Siyanda	668	260	82	159	54	479	354	67	70	211	367	2 771
	Unspecified	27	3	5	7	1	23	19	1	3	18	35	142
	Total	**3 159**	**1 212**	**354**	**804**	**269**	**2 307**	**1 575**	**325**	**355**	**1 802**	**1 537**	**13 699**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix N1: Number of deaths by main groups of causes of death and district municipality of death occurrence (Free State, KwaZulu-Natal and North West), 2013

Province of death	District municipality of death occurrence	Certain infectious and parasitic diseases	Neoplasms	Diseases of the blood and immune mechanism	Endocrine, nutritional and metabolic diseases	Diseases of the nervous system	Diseases of the circulatory system	Diseases of the respiratory system	Diseases of the digestive system	Perinatal conditions	Other natural causes	External causes of morbidity and mortality	Total
		A00-B99*	C00-D48	D50-D89	E00-E90	G00-G99	I00-I99	J00-J99	K00-K93	P00-P96	Other	V01-Y98	
Free State	Fezile Dabi	1 090	354	179	403	125	1 122	634	155	125	444	465	5 096
	Lejweleputswa	1 517	402	192	421	137	1 174	1 032	213	197	1 153	772	7 210
	Mangaung	1 700	977	276	455	136	1 369	876	211	187	1 917	864	8 968
	Thabo Mofutsanyane	2 308	460	392	678	206	1 745	1 243	274	238	885	790	9 219
	Xhariep	478	236	80	123	49	469	311	66	38	526	256	2 632
	Unspecified	44	12	9	15	5	69	40	3	3	28	29	257
	Total	**7 137**	**2 441**	**1 128**	**2 095**	**658**	**5 948**	**4 136**	**922**	**788**	**4 953**	**3 176**	**33 382**
KwaZulu-Natal	Amajuba	1 552	287	77	345	101	969	601	178	105	375	421	5 011
	eThekwini	3 839	1 517	272	1 258	369	2 856	1 169	405	399	3 026	1 874	16 984
	iLembe	1 771	265	68	389	98	771	302	107	107	512	549	4 939
	Sisonke	1 635	313	175	439	153	749	492	156	158	1 003	477	5 750
	Ugu	2 658	577	165	616	235	1 512	818	202	150	987	973	8 893
	uMgungundlovu	2 527	1 013	151	957	248	1 848	711	310	175	1 514	1 043	10 497
	uMkhanyakude	1 622	291	55	201	96	606	214	121	74	666	411	4 357
	uMzinyathi	1 379	204	44	282	96	731	494	89	146	697	470	4 632
	uThukela	2 205	328	82	424	171	1 348	562	203	116	540	702	6 681
	uThungulu	2 571	453	146	540	197	1 249	521	250	356	863	823	7 969
	Zululand	2 396	268	178	353	178	895	485	161	157	909	564	6 544
	Unspecified	404	70	17	101	44	399	204	32	7	374	284	1 936
	Total	**24 559**	**5 586**	**1 430**	**5 905**	**1 986**	**13 933**	**6 573**	**2 214**	**1 950**	**11 466**	**8 591**	**84 193**
North West	Bojanala	2 739	692	417	785	219	2 392	1 560	292	281	2 064	1 192	12 633
	Dr Kenneth Kaunda	2 046	861	176	404	167	1 235	746	209	197	1 009	705	7 755
	Dr Ruth Segomotsi Mompati	1 458	247	300	299	101	997	810	86	188	641	367	5 494
	Ngaka Modiri Molema	1 896	362	278	508	168	1 692	1 322	195	263	1 810	638	9 132
	Unspecified	63	24	8	31	9	95	60	12	10	115	90	517
	Total	**8 202**	**2 186**	**1 179**	**2 027**	**664**	**6 411**	**4 498**	**794**	**939**	**5 639**	**2 992**	**35 531**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix N2: Number of deaths by main groups of causes of death and district municipality of death occurrence (Gauteng, Mpumalanga and Limpopo), 2013

Province of death	District municipality of death occurrence	Certain infectious and parasitic diseases	Neoplasms	Diseases of the blood and immune mechanism	Endocrine, nutritional and metabolic diseases	Diseases of the nervous system	Diseases of the circulatory system	Diseases of the respiratory system	Diseases of the digestive system	Perinatal conditions	Other natural causes	External causes of morbidity and mortality	Total
		A00-B99*	C00-D48	D50-D89	E00-E90	G00-G99	I00-I99	J00-J99	K00-K93	P00-P96	Other	V01-Y98	
Gauteng	City of Johannesburg	4 860	3 398	581	1 312	602	4 276	2 574	750	753	7 166	3 196	29 468
	City of Tshwane	3 888	2 458	509	1 559	498	4 595	2 191	647	396	2 044	1 868	20 653
	Ekurhuleni	5 429	1 858	616	1 368	714	3 754	2 862	652	810	5 383	2 599	26 045
	Sedibeng	2 045	787	233	653	272	2 126	1 526	312	277	1 099	1 133	10 463
	West Rand	1 696	831	291	484	242	1 645	1 131	268	247	1 688	1 198	9 721
	Unspecified	168	117	23	44	20	171	115	24	8	250	305	1 245
	Total	**18 086**	**9 449**	**2 253**	**5 420**	**2 348**	**16 567**	**10 399**	**2 653**	**2 491**	**17 630**	**10 299**	**97 595**
Mpu-malanga	Ehlanzeni	4 701	873	519	895	398	2 142	1 255	423	259	1 614	1 247	14 326
	Gert Sibande	2 659	393	468	597	214	1 339	1 209	251	229	1 068	1 016	9 443
	Nkangala	2 419	494	279	688	218	1 895	1 483	253	184	1 041	1 277	10 231
	Unspecified	152	24	12	43	20	154	141	19	1	128	126	820
	Total	**9 931**	**1 784**	**1 278**	**2 223**	**850**	**5 530**	**4 088**	**946**	**673**	**3 851**	**3 666**	**34 820**
Limpopo	Capricorn	3 016	964	178	893	293	1 825	1 634	407	246	2 099	1 067	12 622
	Greater Sekhukhune	2 774	385	229	631	284	1 679	1 595	276	119	896	786	9 654
	Mopani	1 968	397	227	598	638	1 064	1 166	264	222	1 886	597	9 027
	Vhembe	1 793	456	223	650	145	869	617	310	178	3 454	725	9 420
	Waterberg	1 321	312	181	351	137	893	654	159	126	620	487	5 241
	Unspecified	259	38	23	48	97	272	249	42	9	380	168	1 585
	Total	**11 131**	**2 552**	**1 061**	**3 171**	**1 594**	**6 602**	**5 915**	**1 458**	**900**	**9 335**	**3 830**	**47 549**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix O: Percentage distribution of deaths by main groups of causes of death and district municipality of death occurrence (Western Cape, Eastern Cape and Northern Cape), 2013

Province of death	District municipality of death occurrence	Certain infectious and parasitic diseases	Neoplasms	Diseases of the blood and immune mechanism	Endocrine, nutritional and metabolic diseases	Diseases of the nervous system	Diseases of the circulatory system	Diseases of the respiratory system	Diseases of the digestive system	Perinatal conditions	Other natural causes	External causes of morbidity and mortality	Total
		A00-B99*	C00-D48	D50-D89	E00-E90	G00-G99	I00-I99	J00-J99	K00-K93	P00-P96	Other	V01-Y98	
Western Cape	Cape Winelands	17,7	17,1	0,5	7,4	2,1	19,6	10,4	2,5	1,1	10,0	11,6	100,0
	Central Karoo	17,7	14,0	1,0	6,3	1,3	21,9	12,1	1,6	2,2	7,1	14,7	100,0
	City of Cape Town	15,0	18,3	0,7	8,3	2,3	19,0	7,7	2,5	2,0	10,3	13,8	100,0
	Eden	16,7	17,3	0,9	7,9	2,6	23,3	9,9	2,6	2,0	7,2	9,5	100,0
	Overberg	11,9	20,1	0,7	8,1	2,2	21,3	9,5	2,5	1,4	9,5	12,7	100,0
	West Coast	17,0	16,2	1,2	8,4	2,3	21,4	10,4	1,8	1,5	8,3	11,5	100,0
	Unspecified	12,4	20,9	0,3	9,4	2,1	22,4	6,8	3,2	1,2	9,4	11,8	100,0
	Total	**15,6**	**17,9**	**0,7**	**8,1**	**2,3**	**19,9**	**8,7**	**2,5**	**1,8**	**9,7**	**12,8**	**100,0**
Eastern Cape	Alfred Nzo	16,6	1,8	1,1	2,8	1,3	6,9	6,0	1,2	1,0	53,2	8,1	100,0
	Amathole	22,7	6,5	1,5	5,8	2,9	16,9	13,9	2,2	0,5	16,2	11,1	100,0
	Buffalo City	22,6	12,3	1,5	6,9	2,6	17,7	10,9	2,3	0,8	10,5	11,9	100,0
	Cacadu	22,4	10,1	2,1	6,3	1,9	19,4	9,6	2,3	0,9	14,8	10,1	100,0
	Chris Hani	24,2	6,1	2,6	6,4	3,0	17,5	13,2	2,5	1,2	12,9	10,2	100,0
	Joe Gqabi	17,8	4,7	4,1	4,5	2,0	15,4	8,5	1,7	0,8	31,1	9,4	100,0
	Nelson Mandela Bay	20,8	12,2	2,5	8,9	2,6	19,5	8,8	3,1	2,4	10,1	9,1	100,0
	O.R Tambo	23,9	4,0	2,1	3,3	2,0	10,1	5,7	2,2	0,4	33,6	12,8	100,0
	Unspecified	13,6	5,4	0,5	2,9	2,3	16,2	11,8	1,1	0,4	33,4	12,4	100,0
	Total	**21,9**	**7,0**	**2,1**	**5,5**	**2,4**	**15,1**	**9,8**	**2,2**	**0,9**	**22,4**	**10,7**	**100,0**
Northern Cape	Frances Baard	23,1	9,9	3,5	6,8	2,0	16,9	11,4	3,1	2,0	10,9	10,4	100,0
	John Taolo Gaetsewe	26,3	3,6	1,6	3,7	1,3	12,3	8,6	1,1	4,6	28,2	8,7	100,0
	Namakwa	13,4	13,9	1,2	6,4	2,7	21,8	13,7	1,8	1,5	9,3	14,3	100,0
	Pixley ka Seme	22,9	9,8	2,5	6,4	2,3	18,2	11,9	2,8	2,2	10,3	10,8	100,0
	Siyanda	24,1	9,4	3,0	5,7	1,9	17,3	12,8	2,4	2,5	7,6	13,2	100,0
	Unspecified	19,0	2,1	3,5	4,9	0,7	16,2	13,4	0,7	2,1	12,7	24,6	100,0
	Total	**23,1**	**8,8**	**2,6**	**5,9**	**2,0**	**16,8**	**11,5**	**2,4**	**2,6**	**13,2**	**11,2**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix O1: Percentage distribution of deaths by main groups of causes of death and district municipality of death occurrence (Free State, KwaZulu-Natal and North West), 2013

Province of death	District municipality of death occurrence	Certain infectious and parasitic diseases	Neoplasms	Diseases of the blood and immune mechanism	Endocrine, nutritional and metabolic diseases	Diseases of the nervous system	Diseases of the circulatory system	Diseases of the respiratory system	Diseases of the digestive system	Perinatal conditions	Other natural causes	External causes of morbidity and mortality	Total
		A00-B99*	C00-D48	D50-D89	E00-E90	G00-G99	I00-I99	J00-J99	K00-K93	P00-P96	Other	V01-Y98	
Free State	Fezile Dabi	21,4	6,9	3,5	7,9	2,5	22,0	12,4	3,0	2,5	8,7	9,1	100,0
	Lejweleputswa	21,0	5,6	2,7	5,8	1,9	16,3	14,3	3,0	2,7	16,0	10,7	100,0
	Mangaung	19,0	10,9	3,1	5,1	1,5	15,3	9,8	2,4	2,1	21,4	9,6	100,0
	Thabo Mofutsanyane	25,0	5,0	4,3	7,4	2,2	18,9	13,5	3,0	2,6	9,6	8,6	100,0
	Xhariep	18,2	9,0	3,0	4,7	1,9	17,8	11,8	2,5	1,4	20,0	9,7	100,0
	Unspecified	17,1	4,7	3,5	5,8	1,9	26,8	15,6	1,2	1,2	10,9	11,3	100,0
	Total	**21,4**	**7,3**	**3,4**	**6,3**	**2,0**	**17,8**	**12,4**	**2,8**	**2,4**	**14,8**	**9,5**	**100,0**
KwaZulu-Natal	Amajuba	31,0	5,7	1,5	6,9	2,0	19,3	12,0	3,6	2,1	7,5	8,4	100,0
	eThekwini	22,6	8,9	1,6	7,4	2,2	16,8	6,9	2,4	2,3	17,8	11,0	100,0
	iLembe	35,9	5,4	1,4	7,9	2,0	15,6	6,1	2,2	2,2	10,4	11,1	100,0
	Sisonke	28,4	5,4	3,0	7,6	2,7	13,0	8,6	2,7	2,7	17,4	8,3	100,0
	Ugu	29,9	6,5	1,9	6,9	2,6	17,0	9,2	2,3	1,7	11,1	10,9	100,0
	uMgungundlovu	24,1	9,7	1,4	9,1	2,4	17,6	6,8	3,0	1,7	14,4	9,9	100,0
	uMkhanyakude	37,2	6,7	1,3	4,6	2,2	13,9	4,9	2,8	1,7	15,3	9,4	100,0
	uMzinyathi	29,8	4,4	0,9	6,1	2,1	15,8	10,7	1,9	3,2	15,0	10,1	100,0
	uThukela	33,0	4,9	1,2	6,3	2,6	20,2	8,4	3,0	1,7	8,1	10,5	100,0
	uThungulu	32,3	5,7	1,8	6,8	2,5	15,7	6,5	3,1	4,5	10,8	10,3	100,0
	Zululand	36,6	4,1	2,7	5,4	2,7	13,7	7,4	2,5	2,4	13,9	8,6	100,0
	Unspecified	20,9	3,6	0,9	5,2	2,3	20,6	10,5	1,7	0,4	19,3	14,7	100,0
	Total	**29,2**	**6,6**	**1,7**	**7,0**	**2,4**	**16,5**	**7,8**	**2,6**	**2,3**	**13,6**	**10,2**	**100,0**
North West	Bojanala	21,7	5,5	3,3	6,2	1,7	18,9	12,3	2,3	2,2	16,3	9,4	100,0
	Dr Kenneth Kaunda	26,4	11,1	2,3	5,2	2,2	15,9	9,6	2,7	2,5	13,0	9,1	100,0
	Dr Ruth Segomotsi Mompati	26,5	4,5	5,5	5,4	1,8	18,1	14,7	1,6	3,4	11,7	6,7	100,0
	Ngaka Modiri Molema	20,8	4,0	3,0	5,6	1,8	18,5	14,5	2,1	2,9	19,8	7,0	100,0
	Unspecified	12,2	4,6	1,5	6,0	1,7	18,4	11,6	2,3	1,9	22,2	17,4	100,0
	Total	**23,1**	**6,2**	**3,3**	**5,7**	**1,9**	**18,0**	**12,7**	**2,2**	**2,6**	**15,9**	**8,4**	**100,0**

*Including deaths due to MDR-TB and XDR-TB.

Appendix O2: Percentage distribution of deaths by main groups of causes of death and district municipality of death occurrence (Gauteng, Mpumalanga and Limpopo), 2013

Province of death	District municipality of death occurrence	Certain infectious and parasitic diseases	Neoplasms	Diseases of the blood and immune mechanism	Endocrine, nutritional and metabolic diseases	Diseases of the nervous system	Diseases of the circulatory system	Diseases of the respiratory system	Diseases of the digestive system	Perinatal conditions	Other natural causes	External causes of morbidity and mortality	Total
		A00-B99*	C00-D48	D50-D89	E00-E90	G00-G99	I00-I99	J00-J99	K00-K93	P00-P96	Other	V01-Y98	
Gauteng	City of Johannesburg	16,5	11,5	2,0	4,5	2,0	14,5	8,7	2,5	2,6	24,3	10,8	100,0
	City of Tshwane	18,8	11,9	2,5	7,5	2,4	22,2	10,6	3,1	1,9	9,9	9,0	100,0
	Ekurhuleni	20,8	7,1	2,4	5,3	2,7	14,4	11,0	2,5	3,1	20,7	10,0	100,0
	Sedibeng	19,5	7,5	2,2	6,2	2,6	20,3	14,6	3,0	2,6	10,5	10,8	100,0
	West Rand	17,4	8,5	3,0	5,0	2,5	16,9	11,6	2,8	2,5	17,4	12,3	100,0
	Unspecified	13,5	9,4	1,8	3,5	1,6	13,7	9,2	1,9	0,6	20,1	24,5	100,0
	Total	**18,5**	**9,7**	**2,3**	**5,6**	**2,4**	**17,0**	**10,7**	**2,7**	**2,6**	**18,1**	**10,6**	**100,0**
Mpu-malanga	Ehlanzeni	32,8	6,1	3,6	6,2	2,8	15,0	8,8	3,0	1,8	11,3	8,7	100,0
	Gert Sibande	28,2	4,2	5,0	6,3	2,3	14,2	12,8	2,7	2,4	11,3	10,8	100,0
	Nkangala	23,6	4,8	2,7	6,7	2,1	18,5	14,5	2,5	1,8	10,2	12,5	100,0
	Unspecified	18,5	2,9	1,5	5,2	2,4	18,8	17,2	2,3	0,1	15,6	15,4	100,0
	Total	**28,5**	**5,1**	**3,7**	**6,4**	**2,4**	**15,9**	**11,7**	**2,7**	**1,9**	**11,1**	**10,5**	**100,0**
Limpopo	Capricorn	23,9	7,6	1,4	7,1	2,3	14,5	12,9	3,2	1,9	16,6	8,5	100,0
	Greater Sekhukhune	28,7	4,0	2,4	6,5	2,9	17,4	16,5	2,9	1,2	9,3	8,1	100,0
	Mopani	21,8	4,4	2,5	6,6	7,1	11,8	12,9	2,9	2,5	20,9	6,6	100,0
	Vhembe	19,0	4,8	2,4	6,9	1,5	9,2	6,5	3,3	1,9	36,7	7,7	100,0
	Waterberg	25,2	6,0	3,5	6,7	2,6	17,0	12,5	3,0	2,4	11,8	9,3	100,0
	Unspecified	16,3	2,4	1,5	3,0	6,1	17,2	15,7	2,6	0,6	24,0	10,6	100,0
	Total	**23,4**	**5,4**	**2,2**	**6,7**	**3,4**	**13,9**	**12,4**	**3,1**	**1,9**	**19,6**	**8,1**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix P: The ten leading underlying natural causes of death by district municipality of death occurrence, Western Cape, 2013*

	Cape Winelands	No.	%		Central Karoo	No.	%		City of Cape Town	No.	%
1	Human immunodeficiency virus [HIV] disease (B20-B24)	455	7,2	1	Chronic lower respiratory diseases (J40-J47)	58	8,4	1	Diabetes mellitus (E10-E14)	2 010	7,1
2	Chronic lower respiratory diseases (J40-J47)	411	6,5	2	Tuberculosis (A15-A19)	51	7,4	2	Human immunodeficiency virus [HIV] disease (B20-B24)	1 733	6,1
3	Cerebrovascular diseases (I60-I69)	400	6,3	3	Human immunodeficiency virus [HIV] disease (B20-B24)	50	7,2	3	Ischaemic heart diseases (I20-I25)	1 639	5,8
4	Diabetes mellitus (E10-E14)	398	6,3	4	Hypertensive diseases (I10-I15)	35	5,1	4	Cerebrovascular diseases (I60-I69)	1 433	5,1
5	Tuberculosis (A15-A19)	387	6,1	5	Cerebrovascular diseases (I60-I69)	35	5,1	5	Tuberculosis (A15-A19)	1 412	5,0
6	Ischaemic heart diseases (I20-I25)	358	5,7	6	Ischaemic heart diseases (I20-I25)	34	4,9	6	Malignant neoplasms of digestive organs (C15-C26)	1 298	4,6
7	Malignant neoplasms of digestive organs (C15-C26)	297	4,7	7	Diabetes mellitus (E10-E14)	33	4,8	7	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	1 287	4,6
8	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	283	4,5	8	Other forms of heart disease (I30-I52)	30	4,3	8	Chronic lower respiratory diseases (J40-J47)	1 123	4,0
9	Hypertensive diseases (I10-I15)	213	3,4	9	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	26	3,8	9	Hypertensive diseases (I10-I15)	1 064	3,8
10	Other forms of heart disease (I30-I52)	172	2,7	10	Malignant neoplasms of digestive organs (C15-C26)	19	2,7	10	Other forms of heart disease (I30-I52)	847	3,0
	Other natural causes	2 228	35,2		Other natural causes	220	31,7		Other natural causes	10 466	37,1
	Non natural causes	733	11,6		Non natural causes	102	14,7		Non natural causes	3 898	13,8
	All causes	**6 335**	**100,0**		**All causes**	**693**	**100,0**		**All causes**	**28 210**	100,0
	Eden	**No.**	**%**		**Overberg**	**No.**	**%**		**West Coast**	**No.**	**%**
1	Cerebrovascular diseases (I60-I69)	372	7,4	1	Cerebrovascular diseases (I60-I69)	143	6,7	1	Tuberculosis (A15-A19)	313	9,5
2	Tuberculosis (A15-A19)	370	7,4	2	Diabetes mellitus (E10-E14)	132	6,2	2	Diabetes mellitus (E10-E14)	238	7,2
2	Ischaemic heart diseases (I20-I25)	349	7,0	3	Ischaemic heart diseases (I20-I25)	128	6,0	3	Ischaemic heart diseases (I20-I25)	228	6,9
4	Diabetes mellitus (E10-E14)	338	6,7	4	Chronic lower respiratory diseases (J40-J47)	127	6,0	4	Chronic lower respiratory diseases (J40-J47)	192	5,8
5	Human immunodeficiency virus [HIV] disease (B20-B24)	285	5,7	5	Malignant neoplasms of digestive organs (C15-C26)	118	5,6	5	Cerebrovascular diseases (I60-I69)	177	5,4
6	Chronic lower respiratory diseases (J40-J47)	258	5,1	6	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	103	4,9	6	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	140	4,2
7	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	208	4,2	7	Human immunodeficiency virus [HIV] disease (B20-B24)	98	4,6	7	Malignant neoplasms of digestive organs (C15-C26)	126	3,8
8	Malignant neoplasms of digestive organs (C15-C26)	202	4,0	8	Tuberculosis (A15-A19)	93	4,4	8	Hypertensive diseases (I10-I15)	125	3,8
9	Other forms of heart disease (I30-I52)	202	4,0	9	Hypertensive diseases (I10-I15)	74	3,5	9	Other forms of heart disease (I30-I52)	114	3,5
10	Hypertensive diseases (I10-I15)	161	3,2	10	Other forms of heart disease (I30-I52)	71	3,4	10	Human immunodeficiency virus [HIV] disease (B20-B24)	110	3,3
	Other natural causes	1 790	35,7		Other natural causes	762	36,0		Other natural causes	1 160	35,1
	Non natural causes	475	9,5		non natural	270	12,7		Non natural causes	378	11,5
	All causes	**5 010**	**100,0**		**All causes**	**2 119**	**100,0**		**All causes**	**3 301**	100,0

*Excluding cases with unspecified district municipality. **Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix P1: The ten leading underlying natural causes of death by district municipality of death occurrence, Eastern Cape, 2013*

	Alfred Nzo	No.	%		Amathole	No.	%		Buffalo City Metro	No.	%
1	Tuberculosis (A15-A19)	423	7,2	1	Tuberculosis (A15-A19)	1 270	10,3	1	Tuberculosis (A15-A19)	828	10,3
2	Other viral diseases (B25-B34)	179	3,0	2	Chronic lower respiratory diseases (J40-J47)	728	5,9	2	Other viral diseases (B25-B34)	492	6,1
3	Human immunodeficiency virus [HIV] disease (B20-B24)	178	3,0	3	Cerebrovascular diseases (I60-I69)	688	5,6	3	Diabetes mellitus (E10-E14)	470	5,8
4	Other forms of heart disease (I30-I52)	158	2,7	4	Other forms of heart disease (I30-I52)	657	5,3	4	Other forms of heart disease (I30-I52)	421	5,2
5	Influenza and pneumonia (J09-J18)	157	2,7	5	Diabetes mellitus (E10-E14)	549	4,4	5	Cerebrovascular diseases (I60-I69)	415	5,2
6	Intestinal infectious diseases (A00-A09)	148	2,5	6	Human immunodeficiency virus [HIV] disease (B20-B24)	522	4,2	6	Malignant neoplasms of digestive organs (C15-C26)	358	4,5
7	Cerebrovascular diseases (I60-I69)	140	2,4	7	Hypertensive diseases (I10-I15)	504	4,1	7	Chronic lower respiratory diseases (J40-J47)	335	4,2
8	Diabetes mellitus (E10-E14)	112	1,9	8	Influenza and pneumonia (J09-J18)	475	3,8	8	Hypertensive diseases (I10-I15)	286	3,6
9	Other acute lower respiratory infections (J20-J22)	70	1,2	9	Other viral diseases (B25-B34)	455	3,7	9	Other diseases of the respiratory system (J95-J99)	245	3,0
10	Chronic lower respiratory diseases (J40-J47)	61	1,0	10	Intestinal infectious diseases (A00-A09)	363	2,9	10	Other viral diseases (B25-B34)	198	2,5
	Other natural causes	3 797	64,3		Other natural causes	4 773	38,7		Other natural causes	3 041	37,8
	Non natural causes	479	8,1		Non natural causes	1 365	11,1		Non natural causes	954	11,9
	All causes	**5 902**	**100,0**		**All causes**	**12 349**	**100,0**		**All causes**	**8 043**	**100,0**
	Cacadu	**No.**	**%**		**Chris Hani**	**No.**	**%**		**Joe Gqabi**	**No.**	**%**
1	Tuberculosis (A15-A19)	432	11,0	1	Tuberculosis (A15-A19)	915	10,4	1	Tuberculosis (A15-A19)	389	8,7
2	Cerebrovascular diseases (I60-I69)	239	6,1	2	Other forms of heart disease (I30-I52)	541	6,2	2	Other forms of heart disease (I30-I52)	248	5,5
3	Human immunodeficiency virus [HIV] disease (B20-B24)	218	5,6	3	Human immunodeficiency virus [HIV] disease (B20-B24)	529	6,0	3	Influenza and pneumonia (J09-J18)	189	4,2
4	Diabetes mellitus (E10-E14)	189	4,8	4	Cerebrovascular diseases (I60-I69)	454	5,2	4	Cerebrovascular diseases (I60-I69)	183	4,1
5	Hypertensive diseases (I10-I15)	178	4,5	5	Chronic lower respiratory diseases (J40-J47)	453	5,2	5	Hypertensive diseases (I10-I15)	170	3,8
6	Other forms of heart disease (I30-I52)	175	4,5	6	Diabetes mellitus (E10-E14)	393	4,5	6	Certain disorders involving the immune mechanism (D80-D89)	166	3,7
7	Chronic lower respiratory diseases (J40-J47)	170	4,3	7	Influenza and pneumonia (J09-J18)	384	4,4	7	Diabetes mellitus (E10-E14)	148	3,3
8	Influenza and pneumonia (J09-J18)	135	3,4	8	Hypertensive diseases (I10-I15)	336	3,8	8	Human immunodeficiency virus [HIV] disease (B20-B24)	130	2,9
9	Ischaemic heart diseases (I20-I25)	115	2,9	9	Other viral diseases (B25-B34)	308	3,5	9	Other viral diseases (B25-B34)	119	2,7
10	Other viral diseases (B25-B34)	106	2,7	10	Intestinal infectious diseases (A00-A09)	255	2,9	10	Intestinal infectious diseases (A00-A09)	101	2,3
	Other natural causes	1 567	40,0		Other natural causes	3 297	37,6		Other natural causes	2 222	49,5
	Non natural causes	394	10,1		Non natural causes	895	10,2		Non natural causes	423	9,4
	All causes	**3 918**	**100,0**		**All causes**	**8 760**	**100,0**		**All causes**	**4 488**	**100,0**

*Excluding cases with unspecified district municipality. **Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix P1: The ten leading underlying natural causes of death by district municipality of death occurrence, Eastern Cape, 2013* (concluded)

	Nelson Mandela Bay Metro	No.	%		O. R. Tambo	No.	%
1	Tuberculosis (A15-A19)	654	9,3	1	Tuberculosis (A15-A19)	1 321	10,2
2	Diabetes mellitus (E10-E14)	538	7,7	2	Human immunodeficiency virus [HIV] disease (B20-B24)	910	7,0
3	Human immunodeficiency virus [HIV] disease (B20-B24)	475	6,8	3	Other forms of heart disease (I30-I52)	561	4,3
4	Hypertensive diseases (I10-I15)	426	6,1	4	Cerebrovascular diseases (I60-I69)	419	3,2
5	Cerebrovascular diseases (I60-I69)	385	5,5	5	Other viral diseases (B25-B34)	357	2,8
6	Chronic lower respiratory diseases (J40-J47)	322	4,6	6	Diabetes mellitus (E10-E14)	323	2,5
7	Ischaemic heart diseases (I20-I25)	281	4,0	7	Intestinal infectious diseases (A00-A09)	321	2,5
8	Other forms of heart disease (I30-I52)	210	3,0	8	Influenza and pneumonia (J09-J18)	265	2,1
9	Malignant neoplasms of digestive organs (C15-C26)	200	2,9	9	Chronic lower respiratory diseases (J40-J47)	224	1,7
10	Influenza and pneumonia (J09-J18)	190	2,7	10	Malignant neoplasms of digestive organs (C15-C26)	209	1,6
	Other natural causes	2 679	38,3		Other natural causes	6 357	49,2
	Non natural causes	637	9,1		Non natural causes	1 654	12,8
	All causes	**6 997**	**100,0**		**All causes**	**12 921**	**100,0**

*Excluding cases with unspecified district municipality. **Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix P2: The ten leading underlying natural causes of death by district municipality of death occurrence, Northern Cape, 2013*

	Frances Baard	No.	%
1	Tuberculosis (A15-A19)	312	8,6
2	Human immunodeficiency virus [HIV] disease (B20-B24)	279	7,7
3	Influenza and pneumonia (J09-J18)	198	5,5
4	Cerebrovascular diseases (I60-I69)	168	4,6
5	Hypertensive diseases (I10-I15)	167	4,6
6	Diabetes mellitus (E10-E14)	154	4,3
7	Ischaemic heart diseases (I20-I25)	118	3,3
8	Other forms of heart disease (I30-I52)	109	3,0
9	Certain disorders involving the immune mechanism (D80-D89)	105	2,9
10	Chronic lower respiratory diseases (J40-J47)	104	2,9
	Other natural causes	1 527	42,2
	Non natural causes	377	10,4
	All causes	**3 618**	**100,0**

	John Taolo Gaetsewe	No.	%
1	Human immunodeficiency virus [HIV] disease (B20-B24)	313	12,4
2	Tuberculosis (A15-A19)	135	5,3
3	Hypertensive diseases (I10-I15)	121	4,8
4	Intestinal infectious diseases (A00-A09)	104	4,1
5	Influenza and pneumonia (J09-J18)	104	4,1
6	Other viral diseases (B25-B34)	93	3,7
7	Cerebrovascular diseases (I60-I69)	81	3,2
8	Diabetes mellitus (E10-E14)	69	2,7
9	Other forms of heart disease (I30-I52)	58	2,3
10	Chronic lower respiratory diseases (J40-J47)	40	1,6
	Other natural causes	1 187	47,0
	Non natural causes	220	8,7
	All causes	**2 525**	**100,0**

	Namakwa	No.	%
1	Chronic lower respiratory diseases (J40-J47)	75	7,3
2	Tuberculosis (A15-A19)	62	6,0
3	Ischaemic heart diseases (I20-I25)	58	5,6
4	Diabetes mellitus (E10-E14)	56	5,4
5	Cerebrovascular diseases (I60-I69)	55	5,3
6	Hypertensive diseases (I10-I15)	49	4,7
7	Other forms of heart disease (I30-I52)	42	4,1
8	Human immunodeficiency virus [HIV] disease (B20-B24)	40	3,9
9	Malignant neoplasms of respiratory and intrathoracic organs (C30-C39)	35	3,4
10	Malignant neoplasms of digestive organs (C15-C26)	34	3,3
	Other natural causes	380	36,8
	Non natural causes	148	14,3
	All causes	**1 034**	**100,0**

	Pixley ka Seme	No.	%
1	Human immunodeficiency virus [HIV] disease (B20-B24)	314	8,7
2	Tuberculosis (A15-A19)	311	8,6
3	Cerebrovascular diseases (I60-I69)	199	5,5
4	Chronic lower respiratory diseases (J40-J47)	172	4,8
5	Influenza and pneumonia (J09-J18)	142	3,9
6	Hypertensive diseases (I10-I15)	141	3,9
7	Other forms of heart disease (I30-I52)	137	3,8
8	Diabetes mellitus (E10-E14)	132	3,7
9	Ischaemic heart diseases (I20-I25)	116	3,2
10	Intestinal infectious diseases (A00-A09)	82	2,3
	Other natural causes	1 473	40,8
	Non natural causes	390	10,8
	All causes	**3 609**	**100,0**

	Siyanda	No.	%
1	Human immunodeficiency virus [HIV] disease (B20-B24)	237	8,6
2	Tuberculosis (A15-A19)	225	8,1
3	Chronic lower respiratory diseases (J40-J47)	150	5,4
4	Hypertensive diseases (I10-I15)	132	4,8
5	Cerebrovascular diseases (I60-I69)	128	4,6
6	Influenza and pneumonia (J09-J18)	120	4,3
7	Diabetes mellitus (E10-E14)	106	3,8
8	Other forms of heart disease (I30-I52)	98	3,5
9	Intestinal infectious diseases (A00-A09)	95	3,4
10	Ischaemic heart diseases (I20-I25)	90	3,2
	Other natural causes	1 023	36,9
	Non natural causes	367	13,2
	All causes	**2 771**	**100,0**

*Excluding cases with unspecified district municipality. **Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix P3: The ten leading underlying natural causes of death by district municipality of death occurrence, Free State, 2013*

	Fezile Dabi	No.	%
1	Tuberculosis (A15-A19)	584	11,5
2	Other forms of heart disease (I30-I52)	359	7,0
3	Influenza and pneumonia (J09-J18)	338	6,6
4	Cerebrovascular diseases (I60-I69)	295	5,8
5	Hypertensive diseases (I10-I15)	279	5,5
6	Diabetes mellitus (E10-E14)	275	5,4
7	Intestinal infectious diseases (A00-A09)	206	4,0
8	Chronic lower respiratory diseases (J40-J47)	138	2,7
9	Ischaemic heart diseases (I20-I25)	121	2,4
10	Other viral diseases (B25-B34)	119	2,3
	Other natural causes	1 917	37,6
	Non natural causes	465	9,1
	All causes	**5 096**	**100,0**

	Lejweleputswa	No.	%
1	Influenza and pneumonia (J09-J18)	739	10,2
2	Tuberculosis (A15-A19)	602	8,3
3	Other forms of heart disease (I30-I52)	354	4,9
4	Intestinal infectious diseases (A00-A09)	336	4,7
5	Cerebrovascular diseases (I60-I69)	333	4,6
6	Diabetes mellitus (E10-E14)	253	3,5
7	Other viral diseases (B25-B34)	245	3,4
8	Hypertensive diseases (I10-I15)	233	3,2
9	Ischaemic heart diseases (I20-I25)	176	2,4
10	Human immunodeficiency virus [HIV] disease (B20-B24)	157	2,2
	Other natural causes	3 010	41,7
	Non natural causes	772	10,7
	All causes	**7 210**	**100,0**

	Mangaung Metro	No.	%
1	Tuberculosis (A15-A19)	688	**7,7**
2	Influenza and pneumonia (J09-J18)	494	**5,5**
3	Cerebrovascular diseases (I60-I69)	442	**4,9**
4	Human immunodeficiency virus [HIV] disease (B20-B24)	353	**3,9**
5	Hypertensive diseases (I10-I15)	307	**3,4**
6	Diabetes mellitus (E10-E14)	297	**3,3**
7	Other forms of heart disease (I30-I52)	289	**3,2**
8	Malignant neoplasms of digestive organs (C15-C26)	230	**2,6**
9	Certain disorders involving the immune mechanism (D80-D89)	217	**2,4**
10	Intestinal infectious diseases (A00-A09)	213	**2,4**
	Other natural causes	4 574	**51,0**
	Non natural causes	864	**9,6**
	All causes	**8 968**	**100,0**

	Thabo Mofutsanyane	No.	%
1	Tuberculosis (A15-A19)	746	8,1
2	Influenza and pneumonia (J09-J18)	670	7,3
3	Other forms of heart disease (I30-I52)	571	6,2
4	Intestinal infectious diseases (A00-A09)	519	5,6
5	Cerebrovascular diseases (I60-I69)	496	5,4
6	Human immunodeficiency virus [HIV] disease (B20-B24)	489	5,3
7	Diabetes mellitus (E10-E14)	451	4,9
8	Hypertensive diseases (I10-I15)	413	4,5
9	Other viral diseases (B25-B34)	376	4,1
10	Certain disorders involving the immune mechanism (D80-D89)	310	3,4
	Other natural causes	3 388	36,8
	Non natural causes	790	8,6
	All causes	**9 219**	**100,0**

	Xhariep	No.	%
1	Tuberculosis (A15-A19)	210	8,0
2	Influenza and pneumonia (J09-J18)	187	7,1
3	Cerebrovascular diseases (I60-I69)	151	5,7
4	Other forms of heart disease (I30-I52)	126	4,8
5	Human immunodeficiency virus [HIV] disease (B20-B24)	97	3,7
6	Intestinal infectious diseases (A00-A09)	81	3,1
7	Hypertensive diseases (I10-I15)	81	3,1
8	Diabetes mellitus (E10-E14)	80	3,0
9	Chronic lower respiratory diseases (J40-J47)	79	3,0
10	Malignant neoplasms of digestive organs (C15-C26)	76	2,9
	Other natural causes	1 208	45,9
	Non natural causes	256	9,7
	All causes	**2 632**	**100,0**

*Excluding cases with unspecified district municipality. **Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix P4: The ten leading underlying natural causes of death by district municipality of death occurrence, KwaZulu-Natal, 2013*

	Amajuba	No.	%		eThekwini Metro	No.	%		iLembe	No.	%
1	Tuberculosis (A15-A19)	521	10,4	1	Tuberculosis (A15-A19)	1 820	10,7	1	Tuberculosis (A15-A19)	845	17,1
2	Human immunodeficiency virus [HIV] disease (B20-B24)	456	9,1	2	Diabetes mellitus (E10-E14)	1 069	6,3	2	Cerebrovascular diseases (I60-I69)	353	7,1
3	Other forms of heart disease (I30-I52)	323	6,4	3	Other forms of heart disease (I30-I52)	845	5,0	3	Diabetes mellitus (E10-E14)	324	6,6
4	Cerebrovascular diseases (I60-I69)	303	6,0	4	Cerebrovascular diseases (I60-I69)	832	4,9	4	Human immunodeficiency virus [HIV] disease (B20-B24)	304	6,2
5	Other viral diseases (B25-B34)	277	5,5	5	Human immunodeficiency virus [HIV] disease (B20-B24)	648	3,8	5	Intestinal infectious diseases (A00-A09)	255	5,2
6	Influenza and pneumonia (J09-J18)	271	5,4	6	Ischaemic heart diseases (I20-I25)	614	3,6	6	Other viral diseases (B25-B34)	245	5,0
7	Diabetes mellitus (E10-E14)	265	5,3	7	Influenza and pneumonia (J09-J18)	571	3,4	7	Influenza and pneumonia (J09-J18)	154	3,1
8	Hypertensive diseases (I10-I15)	237	4,7	8	Other viral diseases (B25-B34)	518	3,0	8	Hypertensive diseases (I10-I15)	139	2,8
9	Intestinal infectious diseases (A00-A09)	213	4,3	9	Intestinal infectious diseases (A00-A09)	433	2,5	9	Other forms of heart disease (I30-I52)	126	2,6
10	Other acute lower respiratory infections (J20-J22)	172	3,4	10	Hypertensive diseases (I10-I15)	410	2,4	10	Ischaemic heart diseases (I20-I25)	117	2,4
	Other natural causes	1 552	31,0		Other natural causes	7 350	43,3		Other natural causes	1 528	30,9
	Non natural causes	421	8,4		Non natural causes	1 874	11,0		Non natural causes	549	11,1
	All causes	**5 011**	**100,0**		**All causes**	**16 984**	**100,0**		**All causes**	**4 939**	**100,0**
	Sisonke	**No.**	**%**		**Ugu**	**No.**	**%**		**uMgungundlovu**	**No.**	**%**
1	Tuberculosis (A15-A19)	708	12,3	1	Tuberculosis (A15-A19)	1 240	13,9	1	Tuberculosis (A15-A19)	877	8,4
2	Human immunodeficiency virus [HIV] disease (B20-B24)	462	8,0	2	Cerebrovascular diseases (I60-I69)	638	7,2	2	Human immunodeficiency virus [HIV] disease (B20-B24)	816	7,8
3	Diabetes mellitus (E10-E14)	366	6,4	3	Human immunodeficiency virus [HIV] disease (B20-B24)	594	6,7	3	Diabetes mellitus (E10-E14)	809	7,7
4	Cerebrovascular diseases (I60-I69)	323	5,6	4	Diabetes mellitus (E10-E14)	504	5,7	4	Cerebrovascular diseases (I60-I69)	591	5,6
5	Influenza and pneumonia (J09-J18)	239	4,2	5	Influenza and pneumonia (J09-J18)	380	4,3	5	Hypertensive diseases (I10-I15)	500	4,8
6	Intestinal infectious diseases (A00-A09)	218	3,8	6	Hypertensive diseases (I10-I15)	331	3,7	6	Intestinal infectious diseases (A00-A09)	330	3,1
7	Hypertensive diseases (I10-I15)	192	3,3	7	Intestinal infectious diseases (A00-A09)	329	3,7	7	Other forms of heart disease (I30-I52)	322	3,1
8	Other viral diseases (B25-B34)	157	2,7	8	Other viral diseases (B25-B34)	313	3,5	8	Ischaemic heart diseases (I20-I25)	320	3,0
9	Other forms of heart disease (I30-I52)	156	2,7	9	Other forms of heart disease (I30-I52)	297	3,3	9	Influenza and pneumonia (J09-J18)	306	2,9
10	Certain disorders involving the immune mechanism (D80-D89)	142	2,5	10	Chronic lower respiratory diseases (J40-J47)	265	3,0	10	Malignant neoplasms of digestive organs (C15-C26)	253	2,4
	Other natural causes	2 310	40,2		Other natural causes	3 029	34,1		Other natural causes	4 330	41,2
	Non natural causes	477	8,3		Non natural causes	973	10,9		Non natural causes	1 043	9,9
	All causes	**5 750**	**100,0**		**All causes**	**8 893**	**100,0**		**All causes**	**10 497**	**100,0**

*Excluding cases with unspecified district municipality. **Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix P4: The ten leading underlying natural causes of death by district municipality of death occurrence, KwaZulu-Natal, 2013* (concluded)

	uMkhanyakude	No.	%		uMzinyathi	No.	%		uThukela	No.	%
1	Human immunodeficiency virus [HIV] disease (B20-B24)	671	15,4	1	Tuberculosis (A15-A19)	461	10,0	1	Tuberculosis (A15-A19)	787	11,8
2	Tuberculosis (A15-A19)	486	11,2	2	Human immunodeficiency virus [HIV] disease (B20-B24)	371	8,0	2	Human immunodeficiency virus [HIV] disease (B20-B24)	630	9,4
3	Cerebrovascular diseases (I60-I69)	249	5,7	3	Cerebrovascular diseases (I60-I69)	272	5,9	3	Cerebrovascular diseases (I60-I69)	424	6,3
4	Other viral diseases (B25-B34)	175	4,0	4	Other forms of heart disease (I30-I52)	261	5,6	4	Intestinal infectious diseases (A00-A09)	423	6,3
5	Other forms of heart disease (I30-I52)	165	3,8	5	Intestinal infectious diseases (A00-A09)	250	5,4	5	Other forms of heart disease (I30-I52)	363	5,4
6	Intestinal infectious diseases (A00-A09)	163	3,7	6	Influenza and pneumonia (J09-J18)	210	4,5	6	Diabetes mellitus (E10-E14)	336	5,0
7	Diabetes mellitus (E10-E14)	144	3,3	7	Other viral diseases (B25-B34)	203	4,4	7	Influenza and pneumonia (J09-J18)	336	5,0
8	Hypertensive diseases (I10-I15)	128	2,9	8	Diabetes mellitus (E10-E14)	199	4,3	8	Hypertensive diseases (I10-I15)	252	3,8
9	Influenza and pneumonia (J09-J18)	98	2,2	9	Other acute lower respiratory infections (J20-J22)	144	3,1	9	Other viral diseases (B25-B34)	219	3,3
10	Malignant neoplasm of female genital organs (C51-C58)	62	1,4	10	Hypertensive diseases (I10-I15)	123	2,7	10	Ischaemic heart diseases (I20-I25)	209	3,1
	Other natural causes	1 605	36,8		Other natural causes	1 668	36,0		Other natural causes	2 000	29,9
	Non natural causes	411	9,4		Non natural causes	470	10,1		Non natural causes	702	10,5
	All causes	**4 357**	**100,0**		**All causes**	**4 632**	**100,0**		**All causes**	**6 681**	**100,0**

	uThungulu	No.	%		Zululand	No.	%
1	Tuberculosis (A15-A19)	916	11,5	1	Tuberculosis (A15-A19)	1 166	17,8
2	Human immunodeficiency virus [HIV] disease (B20-B24)	665	8,3	2	Human immunodeficiency virus [HIV] disease (B20-B24)	456	7,0
3	Other viral diseases (B25-B34)	443	5,6	3	Intestinal infectious diseases (A00-A09)	365	5,6
4	Other forms of heart disease (I30-I52)	439	5,5	4	Cerebrovascular diseases (I60-I69)	345	5,3
5	Diabetes mellitus (E10-E14)	428	5,4	5	Other viral diseases (B25-B34)	287	4,4
6	Cerebrovascular diseases (I60-I69)	391	4,9	6	Other forms of heart disease (I30-I52)	281	4,3
7	Hypertensive diseases (I10-I15)	289	3,6	7	Diabetes mellitus (E10-E14)	272	4,2
8	Intestinal infectious diseases (A00-A09)	287	3,6	8	Influenza and pneumonia (J09-J18)	248	3,8
9	Influenza and pneumonia (J09-J18)	271	3,4	9	Hypertensive diseases (I10-I15)	174	2,7
10	Renal failure (N17-N19)	149	1,9	10	Certain disorders involving the immune mechanism (D80-D89)	138	2,1
	Other natural causes	2 868	36,0		Other natural causes	2 248	34,4
	Non natural causes	823	10,3		Non natural causes	564	8,6
	All causes	**7 969**	**100,0**		**All causes**	**6 544**	**100,0**

*Excluding cases with unspecified district municipality. **Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix P5: The ten leading underlying natural causes of death by district municipality of death occurrence, North West, 2013*

	Bojanala Platinum	No.	%		Dr Kenneth Kaunda	No.	%		Dr Ruth Segomotsi Mompati	No.	%
1	Tuberculosis (A15-A19)	1 026	8,1	1	Tuberculosis (A15-A19)	796	10,3	1	Tuberculosis (A15-A19)	463	**8,4**
2	Influenza and pneumonia (J09-J18)	822	6,5	2	Human immunodeficiency virus [HIV] disease (B20-B24)	590	7,6	2	Influenza and pneumonia (J09-J18)	417	**7,6**
3	Other forms of heart disease (I30-I52)	803	6,4	3	Influenza and pneumonia (J09-J18)	383	4,9	3	Human immunodeficiency virus [HIV] disease (B20-B24)	342	**6,2**
4	Hypertensive diseases (I10-I15)	715	5,7	4	Hypertensive diseases (I10-I15)	352	4,5	4	Other viral diseases (B25-B34)	321	**5,8**
5	Diabetes mellitus (E10-E14)	621	4,9	5	Cerebrovascular diseases (I60-I69)	325	4,2	5	Other forms of heart disease (I30-I52)	318	**5,8**
6	Cerebrovascular diseases (I60-I69)	610	4,8	6	Diabetes mellitus (E10-E14)	284	3,7	6	Hypertensive diseases (I10-I15)	292	**5,3**
7	Intestinal infectious diseases (A00-A09)	552	4,4	7	Other forms of heart disease (I30-I52)	257	3,3	7	Cerebrovascular diseases (I60-I69)	259	**4,7**
8	Other viral diseases (B25-B34)	442	3,5	8	Intestinal infectious diseases (A00-A09)	237	3,1	8	Intestinal infectious diseases (A00-A09)	258	**4,7**
9	Human immunodeficiency virus [HIV] disease (B20-B24)	423	3,3	9	Chronic lower respiratory diseases (J40-J47)	212	2,7	9	Certain disorders involving the immune mechanism (D80-D89)	235	**4,3**
10	Chronic lower respiratory diseases (J40-J47)	330	2,6	10	Other viral diseases (B25-B34)	184	2,4	10	Diabetes mellitus (E10-E14)	148	**2,7**
	Other natural causes	5 097	40,3		Other natural causes	3 430	44,2		Other natural causes	2 074	**37,8**
	Non natural causes	1 192	9,4		Non natural causes	705	9,1		Non natural causes	367	**6,7**
	All causes	**12 633**	**100,0**		**All causes**	**7 755**	**100,0**		**All causes**	**5 494**	**100,0**

	Ngaka Modiri Molema	No.	%
1	Influenza and pneumonia (J09-J18)	832	9,1
2	Tuberculosis (A15-A19)	782	8,6
3	Other forms of heart disease (I30-I52)	668	7,3
4	Hypertensive diseases (I10-I15)	450	4,9
5	Cerebrovascular diseases (I60-I69)	424	4,6
6	Intestinal infectious diseases (A00-A09)	389	4,3
7	Diabetes mellitus (E10-E14)	360	3,9
8	Human immunodeficiency virus [HIV] disease (B20-B24)	343	3,8
9	Chronic lower respiratory diseases (J40-J47)	213	2,3
10	Other viral diseases (B25-B34)	198	2,2
	Other natural causes	3 835	42,0
	Non natural causes	638	7,0
	All causes	**9 132**	**100,0**

*Excluding cases with unspecified district municipality. **Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix P6: The ten leading underlying natural causes of death by district municipality of death occurrence, Gauteng, 2013*

	City of Johannesburg Metro	No.	%		City of Tshwane Metro	No.	%		Ekurhuleni Metro	No.	%
1	Tuberculosis (A15-A19)	1 764	6,0	1	Other forms of heart disease (I30-I52)	1 558	7,5	1	Tuberculosis (A15-A19)	2 215	8,5
2	Influenza and pneumonia (J09-J18)	1 468	5,0	2	Tuberculosis (A15-A19)	1 478	7,2	2	Influenza and pneumonia (J09-J18)	1 577	6,1
3	Other forms of heart disease (I30-I52)	1 232	4,2	3	Diabetes mellitus (E10-E14)	1 150	5,6	3	Other forms of heart disease (I30-I52)	1 086	4,2
4	Human immunodeficiency virus [HIV] disease (B20-B24)	1 101	3,7	4	Hypertensive diseases (I10-I15)	1 024	5,0	4	Other viral diseases (B25-B34)	1 076	4,1
5	Cerebrovascular diseases (I60-I69)	1 061	3,6	5	Influenza and pneumonia (J09-J18)	1 006	4,9	5	Cerebrovascular diseases (I60-I69)	1 000	3,8
6	Diabetes mellitus (E10-E14)	971	3,3	6	Cerebrovascular diseases (I60-I69)	949	4,6	6	Diabetes mellitus (E10-E14)	968	3,7
7	Ischaemic heart diseases (I20-I25)	786	2,7	7	Human immunodeficiency virus [HIV] disease (B20-B24)	901	4,4	7	Human immunodeficiency virus [HIV] disease (B20-B24)	830	3,2
8	Malignant neoplasms of digestive organs (C15-C26)	748	2,5	8	Ischaemic heart diseases (I20-I25)	719	3,5	8	Hypertensive diseases (I10-I15)	703	2,7
9	Hypertensive diseases (I10-I15)	668	2,3	9	Malignant neoplasms of digestive organs (C15-C26)	573	2,8	9	Ischaemic heart diseases (I20-I25)	648	2,5
10	Chronic lower respiratory diseases (J40-J47)	619	2,1	10	Intestinal infectious diseases (A00-A09)	529	2,6	10	Intestinal infectious diseases (A00-A09)	643	2,5
	Other natural causes	15 854	53,8		Other natural causes	8 898	43,1		Other natural causes	12 700	48,8
	Non natural causes	3 196	10,8		Non natural causes	1 868	9,0		Non natural causes	2 599	10,0
	All causes	**29 468**	**100,0**		**All causes**	**20 653**	**100,0**		**All causes**	**26 045**	**100,0**

	Sedibeng	No.	%		West Rand	No.	%
1	Influenza and pneumonia (J09-J18)	959	9,2	1	Tuberculosis (A15-A19)	721	7,4
2	Tuberculosis (A15-A19)	903	8,6	2	Influenza and pneumonia (J09-J18)	696	7,2
3	Other forms of heart disease (I30-I52)	650	6,2	3	Other forms of heart disease (I30-I52)	536	5,5
4	Cerebrovascular diseases (I60-I69)	527	5,0	4	Cerebrovascular diseases (I60-I69)	367	3,8
5	Diabetes mellitus (E10-E14)	497	4,8	5	Diabetes mellitus (E10-E14)	340	3,5
6	Hypertensive diseases (I10-I15)	460	4,4	6	Ischaemic heart diseases (I20-I25)	324	3,3
7	Intestinal infectious diseases (A00-A09)	349	3,3	7	Other viral diseases (B25-B34)	292	3,0
8	Ischaemic heart diseases (I20-I25)	330	3,2	8	Hypertensive diseases (I10-I15)	274	2,8
9	Human immunodeficiency virus [HIV] disease (B20-B24)	311	3,0	9	Intestinal infectious diseases (A00-A09)	231	2,4
10	Chronic lower respiratory diseases (J40-J47)	299	2,9	10	Human immunodeficiency virus [HIV] disease (B20-B24)	230	2,4
	Other natural causes	4 045	38,7		Other natural causes	4 512	46,4
	Non natural causes	1 133	10,8		Non natural causes	1 198	12,3
	All causes	**10 463**	**100,0**		**All causes**	**9 721**	**100,0**

*Excluding cases with unspecified district municipality. **Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix P7: The ten leading underlying natural causes of death by district municipality of death occurrence, Mpumalanga, 2013*

	Ehlanzeni	No.	%		Gert Sibande	No.	%		Nkangala	No.	%
1	Tuberculosis (A15-A19)	1 839	12,8	1	Tuberculosis (A15-A19)	878	9,3	1	Tuberculosis (A15-A19)	914	8,9
2	Human immunodeficiency virus [HIV] disease (B20-B24)	888	6,2	2	Influenza and pneumonia (J09-J18)	668	7,1	2	Influenza and pneumonia (J09-J18)	763	7,5
3	Cerebrovascular diseases (I60-I69)	852	5,9	3	Intestinal infectious diseases (A00-A09)	600	6,4	3	Hypertensive diseases (I10-I15)	617	6,0
4	Intestinal infectious diseases (A00-A09)	752	5,2	4	Other viral diseases (B25-B34)	489	5,2	4	Diabetes mellitus (E10-E14)	558	5,5
5	Diabetes mellitus (E10-E14)	616	4,3	5	Human immunodeficiency virus [HIV] disease (B20-B24)	486	5,1	5	Other forms of heart disease (I30-I52)	482	4,7
6	Other viral diseases (B25-B34)	570	4,0	6	Diabetes mellitus (E10-E14)	457	4,8	6	Cerebrovascular diseases (I60-I69)	471	4,6
7	Influenza and pneumonia (J09-J18)	539	3,8	7	Cerebrovascular diseases (I60-I69)	428	4,5	7	Other viral diseases (B25-B34)	465	4,5
8	Other forms of heart disease (I30-I52)	537	3,7	8	Certain disorders involving the immune mechanism (D80-D89)	409	4,3	8	Intestinal infectious diseases (A00-A09)	417	4,1
9	Other bacterial disease (A30-A49)	424	3,0	9	Other forms of heart disease (I30-I52)	399	4,2	9	Human immunodeficiency virus [HIV] disease (B20-B24)	384	3,8
10	Hypertensive diseases (I10-I15)	402	2,8	10	Hypertensive diseases (I10-I15)	340	3,6	10	Other acute lower respiratory infections (J20-J22)	354	3,5
	Other natural causes	5 660	39,5		Other natural causes	3 273	34,7		Other natural causes	3 529	34,5
	Non natural causes	1 247	8,7		Non natural causes	1 016	10,8		Non natural causes	1 277	12,5
	All causes	14 326	100,0		**All causes**	9 443	100,0		**All causes**	10 231	100,0

*Excluding cases with unspecified district municipality. **Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix P8: The ten leading underlying natural causes of death by district municipality of death occurrence, Limpopo, 2013*

	Capricorn	No.	%
1	Influenza and pneumonia (J09-J18)	1 191	9,4
2	Tuberculosis (A15-A19)	931	7,4
3	Intestinal infectious diseases (A00-A09)	768	6,1
4	Diabetes mellitus (E10-E14)	720	5,7
5	Human immunodeficiency virus [HIV] disease (B20-B24)	680	5,4
6	Hypertensive diseases (I10-I15)	562	4,5
7	Cerebrovascular diseases (I60-I69)	549	4,3
8	Other forms of heart disease (I30-I52)	470	3,7
9	Other viral diseases (B25-B34)	372	2,9
10	Chronic lower respiratory diseases (J40-J47)	227	1,8
	Other natural causes	5 085	40,3
	Non natural causes	1 067	8,5
	All causes	12 622	100,0

	Greater Sekhukhune	No.	%
1	Influenza and pneumonia (J09-J18)	1 204	12,5
2	Intestinal infectious diseases (A00-A09)	867	9,0
3	Tuberculosis (A15-A19)	709	7,3
4	Cerebrovascular diseases (I60-I69)	605	6,3
5	Other viral diseases (B25-B34)	551	5,7
6	Diabetes mellitus (E10-E14)	512	5,3
7	Other forms of heart disease (I30-I52)	478	5,0
8	Hypertensive diseases (I10-I15)	474	4,9
9	Human immunodeficiency virus [HIV] disease (B20-B24)	284	2,9
10	Other bacterial disease (A30-A49)	265	2,7
	Other natural causes	2 919	30,2
	Non natural causes	786	8,1
	All causes	9 654	100,0

	Mopani	No.	%
1	Tuberculosis (A15-A19)	829	9,2
2	Influenza and pneumonia (J09-J18)	737	8,2
3	Intestinal infectious diseases (A00-A09)	575	6,4
4	Inflammatory diseases of the central nervous system (G00-G09)	574	6,4
5	Diabetes mellitus (E10-E14)	474	5,3
6	Cerebrovascular diseases (I60-I69)	396	4,4
7	Other forms of heart disease (I30-I52)	372	4,1
8	Renal failure (N17-N19)	329	3,6
9	Human immunodeficiency virus [HIV] disease (B20-B24)	201	2,2
10	Other viral diseases (B25-B34)	194	2,1
	Other natural causes	3 749	41,5
	Non natural causes	597	6,6
	All causes	9 027	100,0

	Vhembe	No.	%
1	Tuberculosis (A15-A19)	643	6,8
2	Intestinal infectious diseases (A00-A09)	465	4,9
3	Diabetes mellitus (E10-E14)	456	4,8
4	Cerebrovascular diseases (I60-I69)	362	3,8
5	Other viral diseases (B25-B34)	319	3,4
6	Influenza and pneumonia (J09-J18)	312	3,3
7	Other forms of heart disease (I30-I52)	262	2,8
8	Renal failure (N17-N19)	237	2,5
9	Certain disorders involving the immune mechanism (D80-D89)	165	1,8
10	Hypertensive diseases (I10-I15)	163	1,7
	Other natural causes	5 311	56,4
	Non natural causes	725	7,7
	All causes	9 420	100,0

	Waterberg	No.	%
1	Tuberculosis (A15-A19)	474	9,0
2	Influenza and pneumonia (J09-J18)	382	7,3
3	Intestinal infectious diseases (A00-A09)	334	6,4
4	Other forms of heart disease (I30-I52)	308	5,9
5	Diabetes mellitus (E10-E14)	274	5,2
6	Cerebrovascular diseases (I60-I69)	247	4,7
7	Human immunodeficiency virus [HIV] disease (B20-B24)	210	4,0
8	Hypertensive diseases (I10-I15)	193	3,7
9	Other viral diseases (B25-B34)	191	3,6
10	Certain disorders involving the immune mechanism (D80-D89)	144	2,7
	Other natural causes	1 997	38,1
	Non natural causes	487	9,3
	All causes	5 241	100,0

*Excluding cases with unspecified district municipality. **Including deaths due to *MDR-TB* and *XDR-TB*.

Appendix Q: Population group differences

Due to the high proportion of deaths with unknown or unspecified population group (13,5%), the analysis of causes of death by population group was moved to appendices. Appendix Q1 shows the ten leading natural causes of death by population group for 2013. Proportion of deaths due to non-natural causes are also presented in the same appendix although not in greater detail.

The first leading underlying cause of death amongst black Africans was *tuberculosis* responsible for 10,7% of deaths in the black African population group, followed by *HIV disease* responsible for 6,2% deaths. For the white population group, *ischaemic heart diseases* were the leading cause of death accounting for 11,1% deaths in this population group followed by *other forms of heart diseases* accounting for 6,7% deaths. For both the coloured and the Indian/Asian population groups, *diabetes mellitus* was the first leading cause of death responsible for 14,7% deaths amongst the Indian/Asian population group and 7,5% amongst the coloured population group. The second leading cause of death amongst the coloured population was *tuberculosis* responsible for 7,1% deaths while for the Indian/Asian population group, *ischaemic heart diseases* was the second leading cause of death accounting for 12,9% of the deaths.

Intestinal infectious diseases, other viral diseases and *certain disorders involving the immune mechanism* were the leading causes of death only for the black African population. *Tuberculosis* and *HIV disease* were in the top ten leading underlying causes of death for only the coloured and the black African population group, while *renal failure* was the leading causes of death only for the white and the Indian/Asian population groups. The only population group where *influenza and pneumonia* was not part of the ten leading causes of death was the coloured population. Diseases which were common amongst all population groups was *cerebrovascular diseases, diabetes mellitus, other forms of heart disease* and *hypertensive diseases* but their contribution in causing deaths differed greatly by population group. For example, o*ther forms of heart diseases* were the second leading cause of death amongst the white population group (6,7%) while it was the tenth leading cause of death amongst the coloured population group (2,9%).

The proportions of deaths due to non-natural causes of death were slightly higher in the coloured population group as compared to the other population groups. About 11,4% deaths were due to non-natural causes for the coloured population group, followed by 10,6% for the black Africans; 10,4% for the Indian/Asian population group and 8,9% for the white population group.

Appendix Q1: The ten leading underlying natural causes of death by population group, 2013

Causes of death (based on ICD-10)	Black African			White			Indian or Asian			Coloured			Other/Unknown/Unspecified		
	Rank	No.	%	Rank	No.	%	Rank	No.	%	Rank	No.	%	Rank	No.	%
Tuberculosis (A15-A19)	1	34 603	10,7	…	…	…	…	…	…	2	2 102	7,1	1	3 496	5,6
Human immunodeficiency virus [HIV] disease (B20-B24)	2	20 143	6,2	…	…	…	…	…	…	6	1 360	4,6	7	1 571	2,5
Influenza and pneumonia (J09-J18)	3	18 325	5,7	7	1 605	4,2	9	148	2,3	…	…	…	2	2 829	4,5
Cerebrovascular diseases (I60-I69)	4	15 903	4,9	3	2 242	5,9	4	322	5,0	4	1 731	5,9	3	2 265	3,6
Diabetes mellitus (E10-E14)	5	15 263	4,7	6	1 707	4,5	1	948	14,7	1	2 207	7,5	5	2 071	3,3
Other forms of heart disease (I30-I52)	6	15 097	4,7	2	2 548	6,7	3	425	6,6	10	863	2,9	4	2 171	3,5
Intestinal infectious diseases (A00-A09)	7	13 561	4,2	…	…	…	…	…	…	…	…	…	9	1 522	2,4
Hypertensive diseases (I10-I15)	8	12 540	3,9	9	996	2,6	5	230	3,6	8	1 279	4,3	6	1 709	2,7
Other viral diseases (B25-B34)	9	12 388	3,8	…	…	…	…	…	…	…	…	…	…	…	…
Certain disorders involving the immune mechanism (D80-D89)	10	6 717	2,1	…	…	…	…	…	…	…	…	…	…	…	…
Ischaemic heart diseases (I20-I25)	…	…	…	1	4 244	11,1	2	830	12,9	5	1 505	5,1	10	1 333	2,1
Chronic lower respiratory diseases (J40-J47)	…	…	…	5	2 031	5,3	7	220	3,4	3	1 879	6,4	8	1 561	2,5
Malignant neoplasm of digestive organs (C15-C26)	…	…	…	4	2 094	5,5	6	224	3,5	9	1 093	3,7	…	…	…
Malignant neoplasm of respiratory and intrathoracic organs (C30-39)	…	…	…	8	1 265	3,3	10	132	2,0	7	1 282	4,3	…	…	…
Renal failure (N17-N19)	…	…	…	10	941	2,5	8	205	3,2	…	…	…	…	…	…
Other natural causes		123 617	38,4		15 074	39,5		2 090	32,4		10 870	36,8		36 337	58,1
Non-natural causes		34 144	10,6		3 407	8,9		671	10,4		3 372	11,4		5 625	9,0
All causes		**322 301**	**100,0**		**38 154**	**100,0**		**6 445**	**100,0**		**29 543**	**100,0**		**62 490**	**100,0**

*Including deaths due to *MDR-TB* and *XDR-TB*.