

# **Mortality and causes of death in South Africa, 1997–2003**

## **Findings from death notification**

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## **Mortality and causes of death in South Africa, 1997–2003: Findings from death notification**

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## Preface

This statistical release presents the results on mortality and causes of death based on the analysis of information contained on all death notification forms received from the Department of Home Affairs for the years 1997 to 2003. The last release from Statistics South Africa on this topic was based on a 12% sample of the forms received for the years 1997 to 2001.

Mortality data are provided in numbers and percentages for 1997 to 2002 and in percentages only for 2003, as fewer death notification forms have been processed for deaths in 2003 than the corresponding number of deaths recorded in the population register. Basic information on the causes of death for all seven years is presented in the appendices. The detailed analysis provided in the text pertains to data for years 1997, 1999 and 2001.

It should be noted that the present release employed stricter coding procedures than the previous release. Moreover, an automated procedure was used to determine the underlying cause of death, whereas for the release based on the 12% sample this step was carried out by health professionals.

A handwritten signature in black ink, appearing to read 'Pali Lehohla', with a large, stylized flourish at the end.

Pali Lehohla  
Statistician-General



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**Forthcoming**

Statistics South Africa plans to produce a more in-depth analytical report, including a comparison between data captured from death notification forms with death data recorded in the population register and data collected in the last two population censuses (1996 and 2001).

## 1. Introduction

### 1.1 Background

The systematic collection of data on mortality in South Africa is a recent phenomenon. It is widely acknowledged that the vital registration system for Africans was virtually non-existent under the apartheid government (e.g. Botha & Bradshaw, 1985). The government of post-apartheid South Africa recognised the importance of mortality and causes of death statistics and prioritised the collection of reliable mortality data. Various initiatives aimed at improving the quality of data have resulted in a dramatic improvement of the death registration system in the country over the last decade.

Accurate mortality statistics are needed for policy formulation, planning, monitoring and implementation of health programmes aimed at improving the health status of the population, particularly increasing life expectancy. The level of mortality is one of the indicators of the level of human development, hence its inclusion in the construction of human development indices and in the multi-dimensional approach to poverty.

Several studies have reported on mortality and the causes of death in South Africa (e.g. Dorrington et al., 2001; Dorrington et al., 2004). Statistics South Africa has the legal mandate to publish vital statistics based on deaths reported to the Department of Home Affairs. In 2001, Stats SA published the *Advance release of recorded causes of death, 1997–2000*, based on information from the population register, to meet the growing need for up-to-date information on mortality.

In 2002, Stats SA accelerated the processing of death notification forms (DNFs) for the period 1997 to 2001 and published a statistical release entitled *Causes of death in South Africa 1997–2001: Advance release of recorded causes of death*, based on a 12% sample of forms. This report highlighted a fast-changing profile of mortality in the country.

From early 2003, Statistics South Africa continued addressing the seven-year backlog in the compilation of statistics from DNFs. This endeavour has culminated in this release based on all the DNFs received from the Department of Home Affairs for the seven years 1997 to 2003.

It is envisaged that this release will become part of a regular series by Stats SA on mortality and causes of death in South Africa. Annual releases are planned, covering registered deaths per calendar year.

Several technical terms are used in this release. The definitions of these terms are provided in Appendix A.

## 1.2 Aims and objectives of this statistical release

The aims of this release are the following:

- to outline emerging trends, differentials and patterns of mortality by selected demographic and geographic characteristics for the period 1997-2003, as portrayed through death notification forms;
- to present statistics on the causes of death, using the underlying cause of death derived through the use of an automated method applied to the causes of death reported in death notifications. The focus is on the *underlying* causes of death, as this information is what is used for public health interventions; and
- to provide contextual information on the data and methods used to support further specialist analysis of the data available through death notification forms.

## 1.3 Scope and limitations of the release

Despite improved death registration, particularly the introduction of a new death notification form in 1998, the quality of the information collected and the overall coverage pose some challenges to the accuracy and comprehensiveness of the statistics they provide.

Factors limiting the accuracy and completeness of data obtained from the death notification forms are:

- The data from death notification forms is subject to content errors and omissions. Even though provision is made on the death notification form to record marital status, education, occupation, and the industrial sector in which the person worked, these variables have not been analysed in this release, due to lack of completeness. Location could be captured at the level of province only.
- Another limitation of the data used in this study is the probable under-registration of deaths, particularly in rural areas and of children. This leads to lower estimates of the total number of deaths that have occurred in the country and may lead to an under-estimation of some causes of death. It is not possible to calculate mortality rates using these data without first adjusting for the incompleteness of reporting. Deriving estimates of completeness of death registration is a complex issue and is not part of this release.
- The causes of death may also be misreported on the form. This happens when an incorrect cause of death is given or when the cause of death is not detailed. The quality of the reported information is determined largely by the diligence and integrity of the certifying official – physician, professional nurse or, in some rural areas, traditional headman. For example, the certifying officials sometimes write ‘natural causes’ instead of stating the actual cause.

Assessing the quality of the information reported is beyond the scope of this release, and no adjustments were made for misclassification of underlying causes of death due to inadequacies of certification.

This release covers mortality and causes of death broadly, and hence does not focus specifically on HIV and AIDS. It does, however, provide indirect evidence that HIV may be contributing to the increase in the level of mortality for prime-aged adults, given the increasing number of deaths due to associated diseases. The data captured through this exercise can contribute to detailed studies in which the incidence of deaths due to AIDS-related conditions is estimated (see, for example, Groenewald et al, 2005).

The change in methodology from the previous release (Stats SA, 2002) limits direct comparability. This is discussed in more detail in section 2.2 (p.7).

As noted elsewhere, a new death notification form was introduced in 1998. This may impact on the comparability of data captured in 1997 and earlier, with later mortality data.

In order to release information without further delays, three years (1997, 1999 and 2001) were selected for detailed analysis of the causes of death, although some tabulated data of the causes of death for all seven years are provided in appendices.

#### **1.4 Organisation and presentation of this release**

The remainder of this release is arranged as follows.

Section 2 describes the data compiled and methods used in preparing this release. Issues related to the completeness of the register and other aspects of data quality are discussed. The section also provides an overview of the data processing, and the methods used to determine the underlying causes of death.

Section 3 reports on the overall levels, patterns and trends of mortality. Specific emphasis is placed on age, sex, and geographic differences in these levels and patterns.

Section 4 provides information on the causes of death. A distinction is made between the reported causes of death, which may be multiple, and the derived underlying causes. The analysis distinguishes between natural and non-natural causes of death and then focuses on the leading underlying causes of death in each category.

Concluding remarks are presented in Section 5.

## 2. Data and methods

### 2.1 Data

#### Data source

This release is based exclusively on information recorded on the death notification forms received from the Department of Home Affairs (DHA), for the period 1997 to 2003. In 1998, a new form (Form BI-1663) was introduced. This form replaced the BI-7 and BI-12 forms that were previously used. An example of the new death notification form (Form BI-1663) is shown in Appendix B.

A total of 3 295 235 death notification forms were received from the DHA, organised by year of registration of death. Duplicates and forms for deaths which occurred before 1997 were removed, as were stillbirths, and cases which had an unspecified status (whether individual death or stillbirths). Even though stillbirths are recorded on DNFs, they fall outside the official definition of death. This resulted in a total of 2 877 654 valid forms for deaths which occurred during the reference period (1997-2003).

**Table 2.1: Processing of death notification forms received from the Department of Home Affairs**

Forms received from DHA	Duplicates identified through sorting	Duplicates identified post-capture	Deaths prior to 1997	Stillbirths	Unspecified as to death or stillbirth	Final number of valid cases of death for the study
3 295 235	297 134	46 217	960	63 185	85	2 887 654

The forms established as valid for use in the study were sorted into year of death for analysis. The numbers of valid forms for each of the seven years can be seen in Table 2.2. It should also be noted that these numbers are not identical to the number of deaths on the population register for the same period (also shown in the table). For most years there were more forms than deaths recorded in the population register. This is due in part to the fact that people without ID numbers are not included in the population register, and therefore their deaths are not recorded in the register.

However, in the case of 2003, fewer death notification forms had been received than the number of deaths recorded in the population register. According to the DHA there are often delays in sending death notification forms from the provinces to head office. It is for this reason that it is assumed that the 2003 data in this release are incomplete.

**Table 2.2: Number of deaths for each year of death according to the population register and according to the processed forms: 1997-2003**

No. of deaths according to	1997	1998	1999	2000	2001	2002	2003	Total
Population register	250 745	299 737	327 826	366 121	407 675	441 731	484 332	2 588 167
Valid forms received	318 287	367 689	381 902	413 969	451 936	499 268	454 603	2 887 654

### **Completeness of information**

The registration of deaths has improved significantly over the last decade as a direct result of efforts to improve the vital registration system. Estimates of the completeness of adult death registration suggest that the completeness of the death register increased to about 90% for adult deaths by 2000 (Dorrington et al., 2001; Timaeus et al., 2002). However, the registration of childhood deaths (persons younger than 15 years) appears to be less complete than for adults. Using a technique developed by Brass (1975) to estimate the completeness of death registration using data on deaths and population by age, this release estimates that the completeness of adult death registration for 2002 was approximately 90%.

Population group was not recorded for a relatively large percentage of deaths. Approximately one-third of the death notification forms did not contain information on the population group of the deceased. However, the new death notification form introduced during 1998 made better provision for capturing population group, and from 1999 onwards this information was recorded on approximately three-quarters of all forms.

## **2.2 Methods**

### **Overview of data capturing**

The death notification forms (DNFs) were sorted by year, month, day and finally by surname of the deceased in alphabetical order. The main purpose was to identify and remove duplicates (see Table 2.1). At this stage 297 000 duplicate forms were identified. Forms corresponding to deaths prior to 1997 were also excluded from further processing for the compilation of this release. During data processing, unique identifiers (serial numbers) were developed for each form for the purpose of tracking them through the capturing and processing phases. The coding of causes of death followed a two-step process, with the checking of assigned codes by a more experienced coder. The coding method is detailed in the following section. After the data were captured, a verification process was carried out to ensure that all the DNFs which had been removed as duplicates during sorting were genuine duplicates, and to identify any that were mistakenly taken out as duplicates. Quality assurance of captured data was undertaken, comparing captured data with original forms, and data were recaptured where accuracy targets were not met.

### **Classification of the causes of death**

The causes of death data presented in this release were coded using procedures described in the Stats SA manual *Guidelines for coders using ICD-10*.<sup>1</sup> The ICD-10 coding provides the basic guidance used in virtually all countries to code and classify causes of death data. It provides information on coding in terms of disease, injury and poisoning categories. It also provides the rules for selecting the underlying cause of death from the several diagnoses that may be reported on the death certificate, as well as definitions, tabulation lists, guidelines for the death notification form, and regulations on the use of the classification. The ICD-10 contains approximately 8000 categories of causes of death. The classification has been constructed for convenience and its usage is not mandatory. However, the ICD-10 has been adopted by member states. The National Health Information System of South Africa has adopted it as its standard.

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<sup>1</sup> ICD-10 is the tenth revision of the International Classification of Diseases developed by the World Health Organisation (WHO), which is followed worldwide in order to have a uniform way of classifying morbidity as well as causes of death.

Mortality statistics released in this report are compiled in accordance with WHO regulations that specify that member states classify and code causes of death in accordance with the current revision of the ICD-10. The approach followed in this release is therefore, consistent with international best practice. However, some researchers, especially those analysing causes of death over a long period spanning several revisions of the ICD codes, have re-classified individual causes of death into what they consider to be appropriate groups. In some instances the main purpose of the re-grouping was to remove the effect of different versions of the ICD coding system. For example, in ICD-9, respiratory failure was grouped under the chapter on 'Symptoms, signs and ill-defined conditions', while in ICD-10, respiratory failure was placed in the chapter on 'Diseases of the respiratory system'.

The ICD-10 methodology also allows for the extension of classifications and codes. Many countries have developed unique codes and categories to reflect specific public health concerns. For example, since 2001, the US has introduced special codes for death due to terrorism. In South Africa, unique codes (Y67, Y68, Y37, Y39 and Y38) have been introduced for causes of death related to herbal poisoning, enemas by traditional doctors, mine accidents, accidents in sports, and circumcision.

For this project, an ICD-10 code was assigned by a coder for each cause of death recorded on the death notification form, and the allocated codes were then checked by a more experienced coder.

### ***Automated generation of the underlying causes of death***

More medical information may be reported on the death notification form than is directly reflected in the underlying cause of death. This information is referred to as multiple causes of death. When multiple causes are entered on the form, the underlying cause is determined by:

- the sequence of the conditions listed on the form, or
- the provisions of the ICD-10 and associated rules and modifications.

Once the causes of death given on the death notification forms had been coded as described above, the underlying causes of death were then derived automatically using a software programme called Automated Classification of Medical Entities (ACME 2004.02) developed by the United States National Center for Health Statistics (NCHS). The ACME program applies World Health Organization rules on the selection of underlying causes of death. The ACME program is used as the international standard in the automated coding of causes of death.

For more information on the ACME program and an evaluation of the coding quality, the reader is referred to the following websites: [www.cdc.gov/nchs/](http://www.cdc.gov/nchs/) [www.who.int/whosis/icd10/](http://www.who.int/whosis/icd10/) [www.who.int/whosis/icd10/report96](http://www.who.int/whosis/icd10/report96) [www.who.int/entity/classifications/network/en/](http://www.who.int/entity/classifications/network/en/)

The Stats SA coding manual prescribes the use of three character codes while the ACME program requires four character codes in deriving the underlying cause of death. A conversion program was therefore applied to the codes for the ACME system to recognise the data as valid input. In most of the cases, the fourth character was '9' or '8', indicating that the detail of the coded disease was not specified.

While the automatic system did not resolve all coded cases, it did so for the overwhelming majority of cases. The underlying causes of death were automatically derived for approximately 98% of the records. The underlying causes for the rest of the records were manually derived.

The preparation of the ACME 2001 input file involved the following:

- a) Conversion of the captured ICD-10 codes into the required ACME format;
- b) Comparison of coded value sets for the up to five causes of death (Cause A, B, C, D and other causes of death, with the associated injury when necessary) with the valid value sets in the ACME instruction manual, and editing where necessary.

ACME input data exclude stillborns. The ACME system provides an editing user interface for cases to be resolved manually. This was required for some of the causes of death that are considered by the system as rare causes, such as cholera.

### ***Comparability with the previous study on causes of death based on sample data***

A key issue concerns the comparability of the previous results obtained from the sample of death notification forms (DNFs) (Stats SA, 2002) and the results obtained from using the algorithm implemented through ACME. It is important to note that the use of this algorithm represents a major change in methodology on the part of Stats SA. The previous study employed trained nurses who used their expert knowledge in conjunction with ICD-10 rules to choose the likely underlying cause of death out of at most five causes.

Regarding changes in the coding, subsequent to the previous release, a decision on how to code “*immunosuppression*” was agreed to.<sup>2</sup>

Appendix C provides information on comparisons between the underlying causes of death determined in the current exercise and the 12% sample.

### ***Ranking the underlying causes of death***

Ranking the underlying causes of death is useful for illustrating 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 point of view. As non-natural causes form such a high proportion in South Africa, natural and non-natural causes have been ranked separately.

In ranking natural underlying causes of death, *symptoms, signs and abnormal clinical findings not elsewhere classified* (R00-R99) are excluded. This group includes all ill-defined conditions regarding cases for which no diagnosis classifiable elsewhere is recorded. Table 2.3 shows the number of deaths that fell in these categories and were therefore excluded.

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<sup>2</sup> In November 2003, Stats SA, the South African Medical Association, the Cancer Association of South Africa, the Medical Research Council and the National Department of Health held a workshop where certain decisions were taken regarding coding problems, including the coding of immunosuppression as immunodeficiency. In terms of the Stats SA coding procedures and guidelines, immunosuppression was not coded as HIV, but as immunodeficiency, which has a separate ICD-10 code. There is no code for immunosuppression in the ICD-10 manuals. However certifying officials sometimes reported the underlying cause of death as ‘acquired immune suppression’. There is no code in the ICD-10 for ‘acquired immune suppression’. In terms of the Stats SA coding procedures, this term was interpreted as HIV disease and given an HIV code (group B20-B24). If HIV was written on the form this was also coded in the HIV group, as required by the ICD-10. This approach followed the principle of ‘what you see is what you code’.

Most of these cases were *ill-defined and unknown causes of mortality*, a group which includes causes such as *sudden infant death syndrome, other sudden death with causes unknown, unattended death* and any other ill-defined and unspecified causes of mortality. Although in some cases these causes would have been among the ten leading underlying causes, they are excluded from the ranking, as the information cannot be effectively utilised for public health policy planning purposes. Effectively this means that 42 963, 47 197 and 56 224 deaths were excluded from the total number of deaths for 1997, 1999 and 2001 respectively, in terms of identifying the leading underlying causes of death.

It is important to note that the method of ranking underlying causes used in this release is not identical to the ranking according to the NCHS list, as its suitability has not been established for South African circumstances. The NCHS ranking list is a well-established list that has become standard for the United States of America and other countries. These ranking procedures have been promulgated in educational seminars in the Caribbean, Middle East and Eastern Europe. Currently the World Health Organization (WHO) has developed a ranking list for international application. Debates are ongoing as to the suitability of the list as an international standard. A comparison between the ten leading causes of death in South Africa for the years 1997, 1999 and 2001 according to the two methods is provided in Appendix D.

**Table 2.3: Number and percentage of deaths due to symptoms, signs and abnormal clinical findings, not elsewhere classified: 1997, 1999 and 2001**

ICD-10 Chapter 18 causes	Number			Percentage		
	1997	1999	2001	1997	1999	2001
Symptoms and signs involving the circulatory and respiratory systems (R00 - R09)	350	795	875	0,8	1,7	1,6
Symptoms and signs involving digestive system and abdomen (R10 - R19)	199	339	521	0,5	0,7	0,9
Symptoms and signs involving skin and subcutaneous tissue (R20 - R23)	7	10	22	0,0	0,0	0,0
Symptoms and signs involving the nervous and musculoskeletal systems (R25 - R29)	6	23	16	0,0	0,0	0,0
Symptoms and signs involving the urinary system (R30 - R39)	10	17	11	0,0	0,0	0,0
Symptoms and signs involving cognition, perception, emotional state and behaviour (R40 - R46)	26	49	42	0,1	0,1	0,1
Symptoms and signs involving speech and voice (R47 - R49)	0	2	4	0,0	0,0	0,0
General symptoms and signs (R50 - R69)	4 861	5 757	5 909	11,3	12,2	10,5
Abnormal findings on examination of blood without diagnosis (R70 - R79)	17	47	38	0,0	0,1	0,1
Abnormal findings on examination of urine without diagnosis (R80 - R82)	0	0	0	0,0	0,0	0,0
Abnormal findings on examination of other fluids, substances and tissues without diagnosis (R83 - R89)	9	12	13	0,0	0,0	0,0
Abnormal findings on diagnostic imaging in function studies without diagnosis (R90 - R94)	9	21	16	0,0	0,0	0,0
Ill-defined and unknown causes of mortality (R95 - R99)	37 469	40 125	48 757	87,2	85,0	86,7
<b>Subtotal</b>	<b>42 963</b>	<b>47 197</b>	<b>56 224</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>
Symptoms, signs and abnormal clinical findings not elsewhere classified	42 963	47 197	56 224	13,5	12,4	12,4
Other causes	275 324	334 705	395 712	86,5	87,6	87,6
<b>All causes</b>	<b>318 287</b>	<b>381 902</b>	<b>451 936</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>

### 3. Overall levels, patterns and differentials of mortality

#### 3.1 The overall pattern of deaths

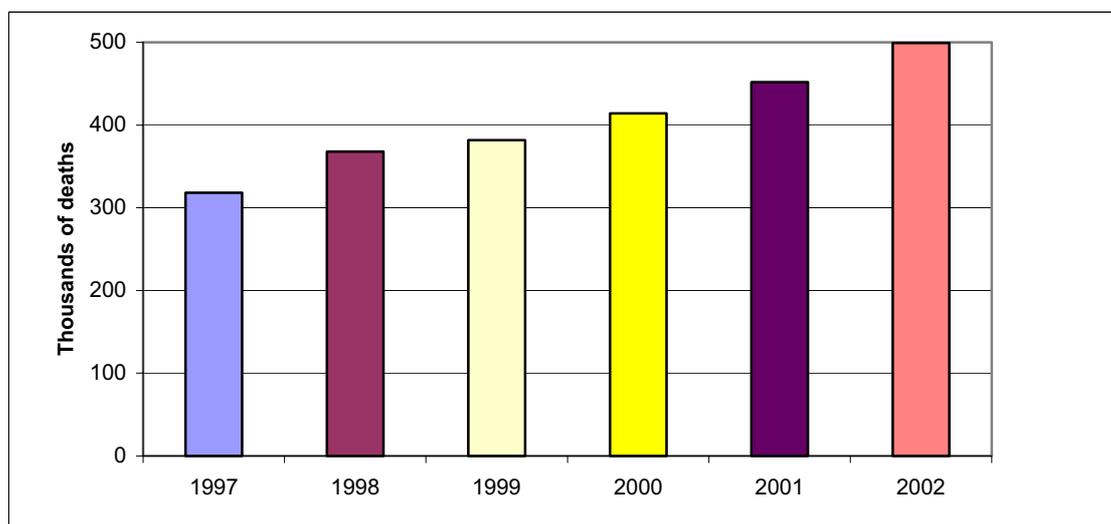
The results presented in this part of the release are based on the information on individual deaths which occurred between 1997 and 2002. As stated earlier, the processing of the DNFs for 2003 is not yet complete, so only percentages are given for that year.

**Table 3.1: Overall number of deaths for each year of death by broad age group, 1997-2002**

Year of death	0-14 years	15+ years	Unspecified age	Total
1997	40 495	272 221	5 571	<b>318 287</b>
1998	47 407	315 187	5 095	<b>367 689</b>
1999	46 534	332 649	2 719	<b>381 902</b>
2000	47 419	364 357	2 193	<b>413 969</b>
2001	48 954	401 095	1 887	<b>451 936</b>
2002	56 250	441 029	1 989	<b>499 268</b>

The results shown in Table 3.1 and Figure 3.1 indicate that the number of deaths increased by 57% from 318 287 in 1997 to 499 268 in 2002. Part of this increase may be attributed to population growth (there was approximately 10% growth in population over this period) and improvements in death registration.

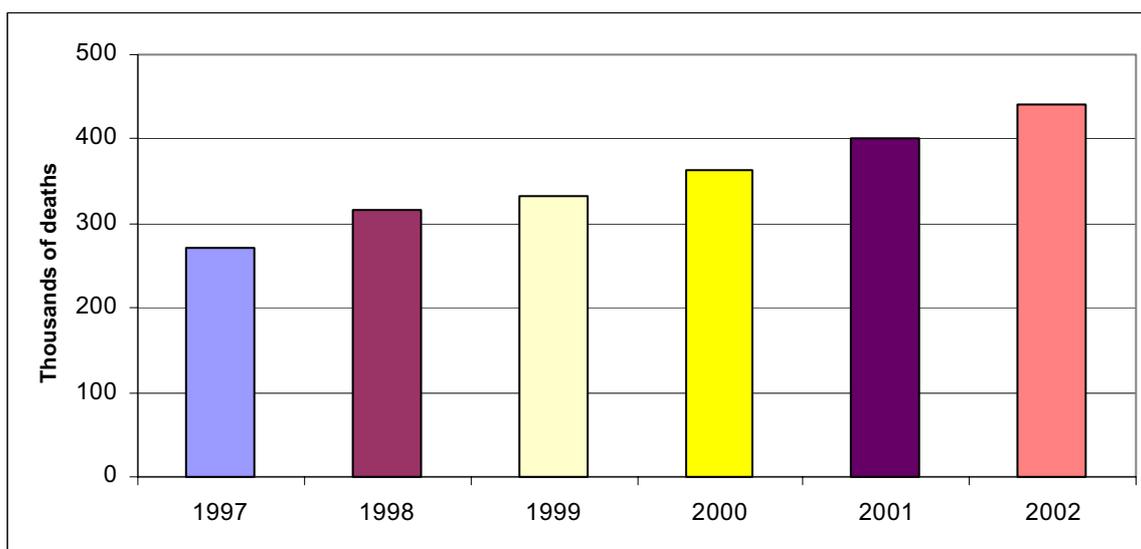
**Figure 3.1: Distribution of deaths by year of death, 1997-2002 (thousands)**



Note: The completeness of the death register has increased each year so that 2002 is more complete than 1997.

The next figure, Figure 3.2, shows the number of adult deaths (persons aged 15 years and above). The figures indicate that the number of deaths increased by 62% from 272 221 in 1997 to 441 029 in 2002.

**Figure 3.2: Distribution of adult deaths by year of death, 1997-2002 (thousands)**



Note: The completeness of the death register has increased each year so that 2002 is more complete than 1997.

### 3.2 Population group differences in mortality

Under apartheid South Africa people were classified into four official population groups: whites, Asians, coloureds and Africans. The Population Registration Act, in terms of which South Africans were classified according to population group, was repealed in 1991. The term 'population group' as used in this release therefore refers to population group as identified by the certifying medical practitioner or other official.

The reader is reminded that numerous forms did not record population group, particularly for deaths reported in 1997 and 1998 using the old form. The distribution of deaths by population group for each year up to 2002 is presented in Table 3.2, which also gives the percentage of deaths with unspecified population group. As expected, of those deaths with specified population group the African population group recorded the most deaths each year. This profile reflects the composition of the population in the country.

**Table 3.2: Distribution of deaths by population group for each year of death, 1997-2002**

Year of death	African	Coloured	Indian/Asian	White	Other, unspecified or unknown		Total
	No.	No.	No.	No.	No.	%	
1997	47 524	1 697	875	4 144	264 047	83,0	318 287
1998	119 786	8 981	2 520	14 572	221 830	60,3	367 689
1999	215 699	22 987	4 773	32 823	105 620	27,7	381 902
2000	254 613	23 646	6 593	34 077	95 040	23,3	413 969
2001	278 178	24 125	6 831	35 343	107 459	23,8	451 936
2002	308 946	24 269	6 832	35 200	124 021	24,8	499 268

### 3.3 Age and sex differences in mortality

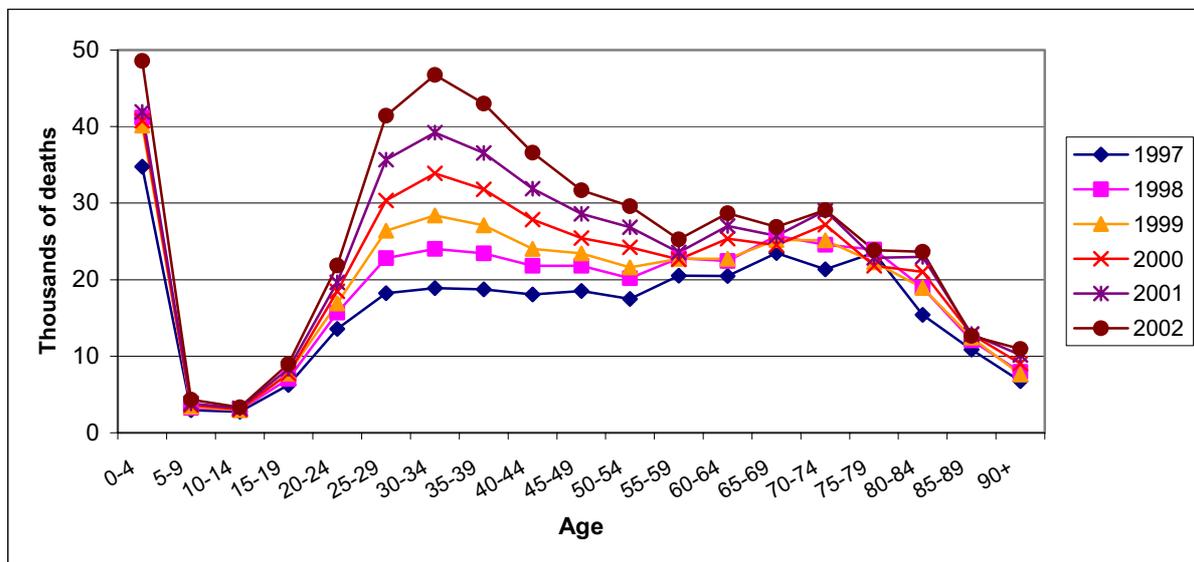
Table 3.3 shows the number of deaths in five-year age categories for the years 1997-2002, and Table 3.4 the same information in percentages for 1997-2003. Figures 3.4 and 3.5 present these data graphically. It can be seen that there was an increase in the proportion of deaths among persons aged 20 to 44 and children younger than 4 years. The figures also show a continuing shift in the age distribution of mortality, with relatively large increases in the number of deaths among young adults.

**Table 3.3: Total number of deaths by age and year of death, 1997-2002**

Age	1997	1998	1999	2000	2001	2002
0-4	34 779	41 171	40 139	40 768	41 920	48 572
5-9	2 970	3 245	3 422	3 604	3 831	4 339
10-14	2 746	2 991	2 973	3 047	3 203	3 339
15-19	6 257	7 041	7 737	7 752	8 371	8 977
20-24	13 574	15 682	16 892	18 500	19 655	21 838
25-29	18 227	22 797	26 375	30 348	35 667	41 412
30-34	18 903	24 008	28 404	33 909	39 203	46 758
35-39	18 733	23 419	27 118	31 814	36 568	43 020
40-44	18 086	21 816	24 041	27 868	31 893	36 614
45-49	18 530	21 808	23 445	25 452	28 611	31 681
50-54	17 495	20 202	21 596	24 213	26 864	29 613
55-59	20 543	22 812	22 720	22 667	23 566	25 270
60-64	20 467	22 422	22 735	25 367	27 037	28 704
65-69	23 501	25 733	25 171	24 522	25 719	26 902
70-74	21 352	24 543	25 130	27 165	29 020	29 095
75-79	23 525	23 935	22 292	21 830	22 848	23 875
80-84	15 388	18 942	18 953	21 042	22 982	23 655
85-89	10 881	12 086	12 431	12 864	12 919	12 668
90+	6 759	7 941	7 609	9 044	10 172	10 947
Unspecified	5 571	5 095	2 719	2 193	1 887	1 989
<b>Total</b>	<b>318 287</b>	<b>367 689</b>	<b>381 902</b>	<b>413 969</b>	<b>451 936</b>	<b>499 268</b>

Note: The completeness of the death register has increased by year so that 2002 is more complete than 1997. Numbers for 2003 are excluded, as Stats SA has not yet received all the death notification forms for 2003 from the Department of Home Affairs.

**Figure 3.3: Distribution of deaths by age and year of death, 1997-2002 (thousands)**

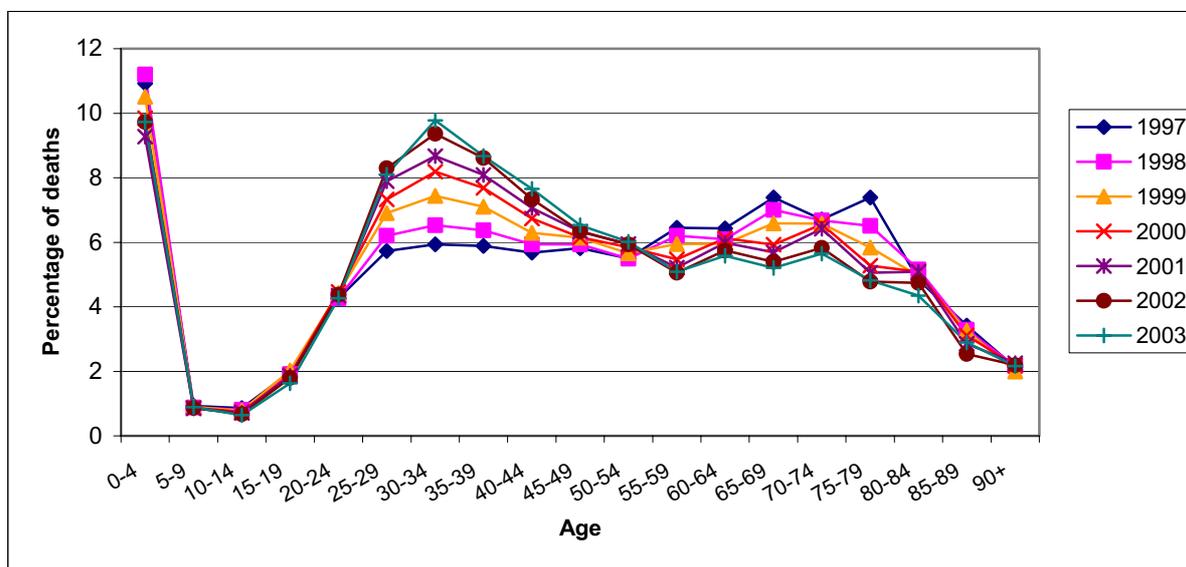


Note: The completeness of the death register has increased by year so that 2002 is more complete than 1997. Numbers for 2003 are excluded, as Stats SA has not yet received all the death notification forms for 2003 from the Department of Home Affairs.

**Table 3.4: Percentage distribution of deaths by age and year of death, 1997-2003**

Age	1997	1998	1999	2000	2001	2002	2003
0-4	10,93	11,20	10,51	9,85	9,28	9,73	9,73
5-9	0,93	0,88	0,90	0,87	0,85	0,87	0,88
10-14	0,86	0,81	0,78	0,74	0,71	0,67	0,64
15-19	1,97	1,91	2,03	1,87	1,85	1,80	1,63
20-24	4,26	4,27	4,42	4,47	4,35	4,37	4,27
25-29	5,73	6,20	6,91	7,33	7,89	8,29	8,10
30-34	5,94	6,53	7,44	8,19	8,67	9,37	9,78
35-39	5,89	6,37	7,10	7,69	8,09	8,62	8,67
40-44	5,68	5,93	6,30	6,73	7,06	7,33	7,65
45-49	5,82	5,93	6,14	6,15	6,33	6,35	6,53
50-54	5,50	5,49	5,65	5,85	5,94	5,93	6,01
55-59	6,45	6,20	5,95	5,48	5,21	5,06	5,09
60-64	6,43	6,10	5,95	6,13	5,98	5,75	5,58
65-69	7,38	7,00	6,59	5,92	5,69	5,39	5,20
70-74	6,71	6,67	6,58	6,56	6,42	5,83	5,65
75-79	7,39	6,51	5,84	5,27	5,06	4,78	4,81
80-84	4,83	5,15	4,96	5,08	5,09	4,74	4,34
85-89	3,42	3,29	3,26	3,11	2,86	2,54	2,89
90+	2,12	2,16	1,99	2,18	2,25	2,19	2,16
Unspecified	1,75	1,39	0,71	0,53	0,42	0,40	0,38
<b>Total</b>	<b>100,00</b>						

**Figure 3.4: Percentage distribution of deaths by age and year of death, 1997-2002**



The next four sets of tables and figures show the number and percentages of deaths for males and females separately. As before, numbers are given up to 2002 only, and percentages up to 2003. The figures suggest that there has been a significant increase in the number of deaths amongst men aged 30-44 and amongst women in reproductive ages.

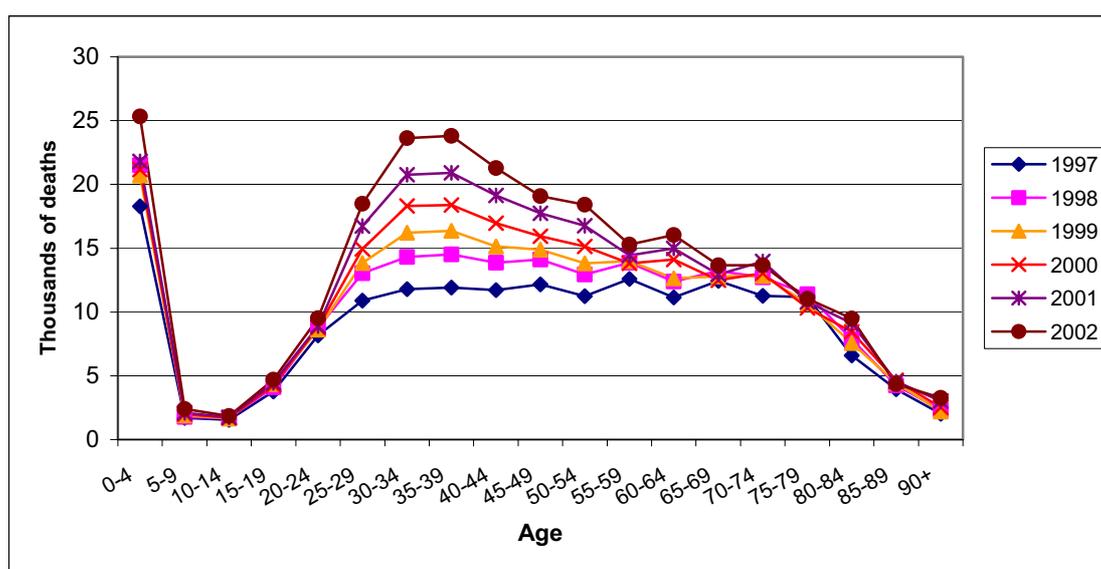
**Table 3.5: Number of male deaths by age and year of death, 1997-2002**

Age	1997	1998	1999	2000	2001	2002
0-4	18 287	21 497	20 706	21 158	21 800	25 341
5-9	1 703	1 775	1 886	1 990	2 103	2 387
10-14	1 542	1 688	1 649	1 699	1 738	1 844
15-19	3 774	4 100	4 350	4 272	4 454	4 702
20-24	8 156	8 773	8 619	8 793	8 889	9 515
25-29	10 894	13 028	13 844	14 934	16 730	18 477
30-34	11 781	14 318	16 221	18 300	20 752	23 630
35-39	11 913	14 516	16 360	18 374	20 904	23 800
40-44	11 718	13 870	15 131	16 965	19 136	21 284
45-49	12 164	14 117	14 893	15 932	17 746	19 085
50-54	11 251	12 947	13 801	15 140	16 752	18 416
55-59	12 591	13 862	13 997	13 806	14 435	15 279
60-64	11 143	12 387	12 637	14 121	14 976	16 034
65-69	12 431	13 218	12 783	12 479	12 941	13 657
70-74	11 260	12 708	12 831	13 040	13 953	13 674
75-79	11 162	11 389	10 669	10 315	10 797	11 032
80-84	6 588	7 866	7 579	8 440	9 110	9 480
85-89	3 949	4 253	4 444	4 653	4 556	4 355
90+	2 022	2 357	2 208	2 515	3 016	3 279
Unspecified	3 106	2 818	1 495	1 178	1 028	1 119
<b>Total</b>	<b>177 435</b>	<b>201 487</b>	<b>206 103</b>	<b>218 104</b>	<b>235 816</b>	<b>256 390</b>

Excluding unspecified sex

Note: The completeness of the death register has increased by year so that 2002 is more complete than 1997. Numbers for 2003 are excluded, as Stats SA has not yet received all the death notification forms for 2003 from the Department of Home Affairs.

**Figure 3.5: Distribution of male deaths by age and year of death, 1997-2002 (thousands)**

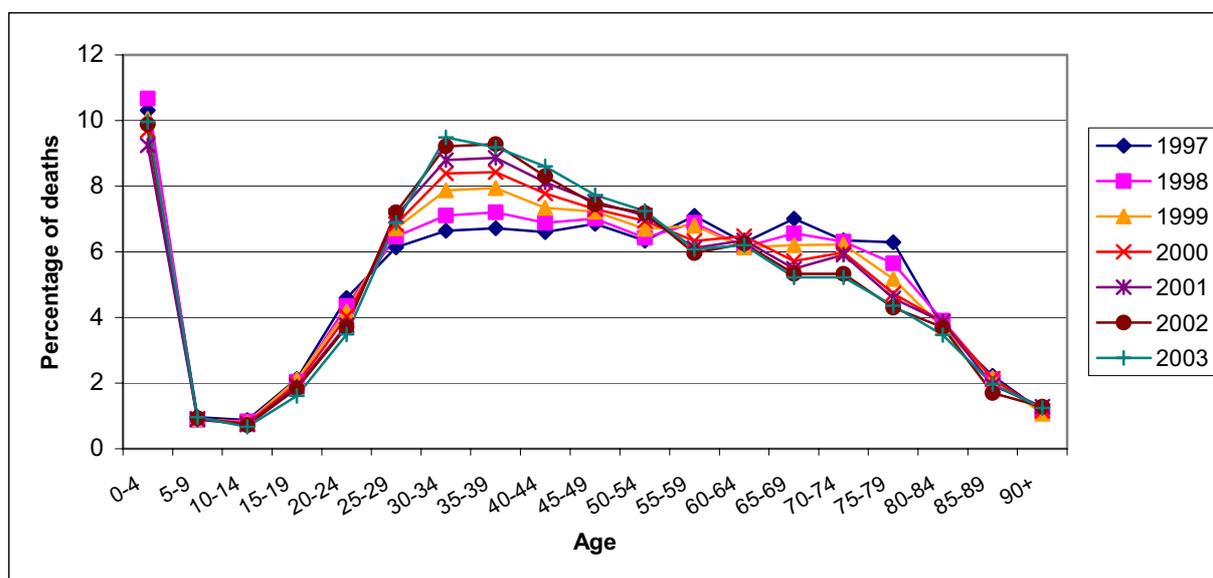


Note: The completeness of the death register has increased by year so that 2002 is more complete than 1997. Numbers for 2003 are excluded, as Stats SA has not yet received all the death notification forms for 2003 from the Department of Home Affairs.

**Table 3.6: Percentage distribution of male deaths by age and year of death, 1997-2003**

Age	1997	1998	1999	2000	2001	2002	2003
0-4	10,3	10,7	10,0	9,7	9,2	9,9	10,0
5-9	1,0	0,9	0,9	0,9	0,9	0,9	1,0
10-14	0,9	0,8	0,8	0,8	0,7	0,7	0,7
15-19	2,1	2,0	2,1	2,0	1,9	1,8	1,6
20-24	4,6	4,4	4,2	4,0	3,8	3,7	3,5
25-29	6,1	6,5	6,7	6,8	7,1	7,2	6,9
30-34	6,6	7,1	7,9	8,4	8,8	9,2	9,5
35-39	6,7	7,2	7,9	8,4	8,9	9,3	9,2
40-44	6,6	6,9	7,3	7,8	8,1	8,3	8,6
45-49	6,9	7,0	7,2	7,3	7,5	7,4	7,7
50-54	6,3	6,4	6,7	6,9	7,1	7,2	7,2
55-59	7,1	6,9	6,8	6,3	6,1	6,0	6,1
60-64	6,3	6,1	6,1	6,5	6,4	6,3	6,2
65-69	7,0	6,6	6,2	5,7	5,5	5,3	5,2
70-74	6,3	6,3	6,2	6,0	5,9	5,3	5,2
75-79	6,3	5,7	5,2	4,7	4,6	4,3	4,4
80-84	3,7	3,9	3,7	3,9	3,9	3,7	3,5
85-89	2,2	2,1	2,2	2,1	1,9	1,7	2,0
90+	1,1	1,2	1,1	1,2	1,3	1,3	1,2
Unspecified	1,8	1,4	0,7	0,5	0,4	0,4	0,4
<b>Total</b>	<b>100,0</b>						

**Figure 3.6: Percentage distribution of male deaths by age and year of death, 1997-2003**



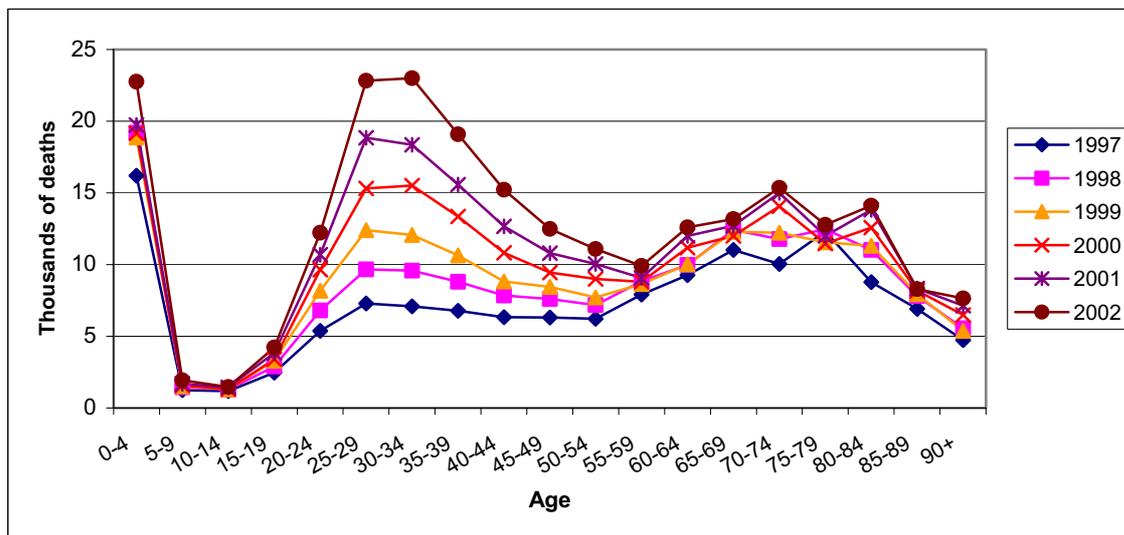
**Table 3.7: Number of female deaths by age and year of death, 1997-2002**

Age	1997	1998	1999	2000	2001	2002
0-4	16 208	19 202	18 871	19 157	19 730	22 764
5-9	1 251	1 434	1 502	1 585	1 700	1 935
10-14	1 185	1 280	1 301	1 316	1 444	1 471
15-19	2 460	2 883	3 299	3 411	3 855	4 220
20-24	5 370	6 804	8 171	9 635	10 688	12 221
25-29	7 293	9 666	12 397	15 317	18 838	22 813
30-34	7 080	9 570	12 071	15 511	18 348	22 989
35-39	6 772	8 811	10 654	13 349	15 572	19 099
40-44	6 332	7 852	8 824	10 833	12 668	15 221
45-49	6 316	7 605	8 455	9 445	10 806	12 487
50-54	6 216	7 178	7 716	9 009	10 041	11 098
55-59	7 908	8 845	8 640	8 792	9 066	9 919
60-64	9 274	9 977	10 016	11 181	11 996	12 594
65-69	11 026	12 432	12 297	11 991	12 715	13 184
70-74	10 044	11 782	12 229	14 058	15 007	15 359
75-79	12 320	12 459	11 560	11 467	11 991	12 773
80-84	8 768	11 029	11 301	12 571	13 825	14 116
85-89	6 907	7 799	7 936	8 184	8 333	8 279
90+	4 725	5 555	5 371	6 499	7 130	7 635
Unspecified	2 361	2 082	1 116	882	770	766
<b>Total</b>	<b>139 816</b>	<b>164 245</b>	<b>173 727</b>	<b>194 193</b>	<b>214 523</b>	<b>240 943</b>

Excluding unspecified sex

Note: The completeness of the death register has increased by year so that 2002 is more complete than 1997. Numbers for 2003 are excluded, as Stats SA has not yet received all the death notification forms for 2003 from the Department of Home Affairs.

**Figure 3.7: Distribution of female deaths by age and year of death, 1997-2002 (thousands)**

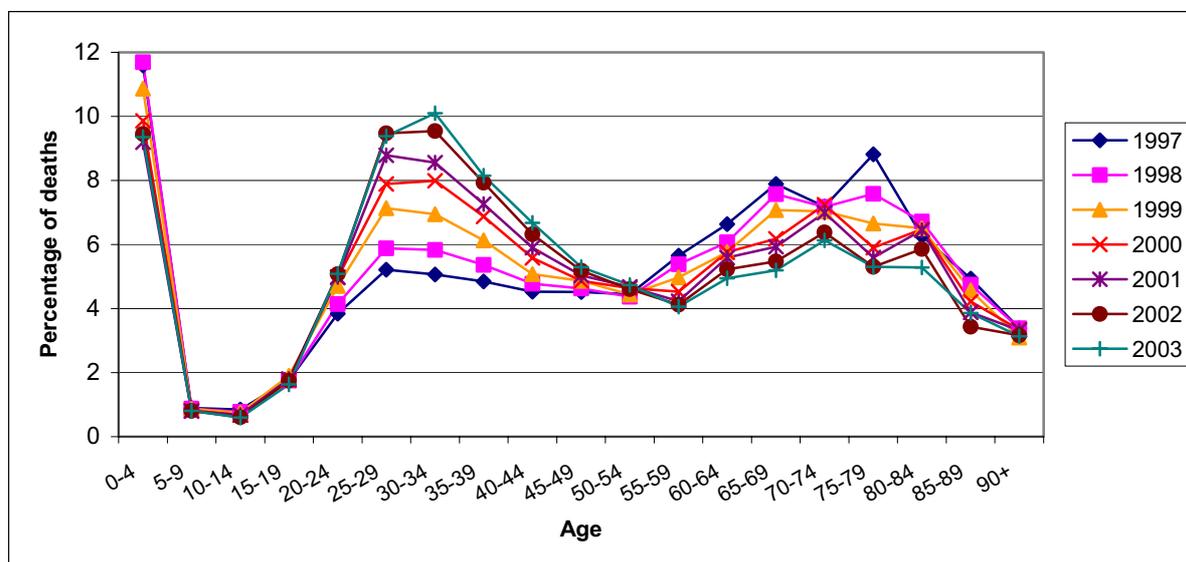


Note: The completeness of the death register has increased by year so that 2002 is more complete than 1997. Numbers for 2003 are excluded, as Stats SA has not yet received all the death notification forms for 2003 from the Department of Home Affairs.

**Table 3.8: Percentage distribution of female deaths by age and year of death, 1997-2003**

Age	1997	1998	1999	2000	2001	2002	2003
0-4	11,6	11,7	10,9	9,9	9,2	9,4	9,4
5-9	0,9	0,9	0,9	0,8	0,8	0,8	0,8
10-14	0,8	0,8	0,7	0,7	0,7	0,6	0,6
15-19	1,8	1,8	1,9	1,8	1,8	1,8	1,6
20-24	3,8	4,1	4,7	5,0	5,0	5,1	5,1
25-29	5,2	5,9	7,1	7,9	8,8	9,5	9,4
30-34	5,1	5,8	6,9	8,0	8,6	9,5	10,1
35-39	4,8	5,4	6,1	6,9	7,3	7,9	8,2
40-44	4,5	4,8	5,1	5,6	5,9	6,3	6,7
45-49	4,5	4,6	4,9	4,9	5,0	5,2	5,3
50-54	4,4	4,4	4,4	4,6	4,7	4,6	4,7
55-59	5,7	5,4	5,0	4,5	4,2	4,1	4,1
60-64	6,6	6,1	5,8	5,8	5,6	5,2	4,9
65-69	7,9	7,6	7,1	6,2	5,9	5,5	5,2
70-74	7,2	7,2	7,0	7,2	7,0	6,4	6,1
75-79	8,8	7,6	6,7	5,9	5,6	5,3	5,3
80-84	6,3	6,7	6,5	6,5	6,4	5,9	5,3
85-89	4,9	4,7	4,6	4,2	3,9	3,4	3,9
90+	3,4	3,4	3,1	3,3	3,3	3,2	3,1
Unspecified	1,7	1,3	0,6	0,5	0,4	0,3	0,3
<b>Total</b>	<b>100,0</b>						

**Figure 3.8: Percentage distribution of female deaths by age and year of death, 1997-2003**



**Sex ratios****Table 3.9: Sex ratios in each age group: 1997-2003**

Age	1997	1998	1999	2000	2001	2002	2003
0-4	113	112	110	110	110	111	112
5-9	136	124	126	126	124	123	125
10-14	130	132	127	129	120	125	118
15-19	153	142	132	125	116	111	103
20-24	152	129	105	91	83	78	72
25-29	149	135	112	97	89	81	77
30-34	166	150	134	118	113	103	99
35-39	176	165	154	138	134	125	118
40-44	185	177	171	157	151	140	135
45-49	193	186	176	169	164	153	153
50-54	181	180	179	168	167	166	161
55-59	159	157	162	157	159	154	157
60-64	120	124	126	126	125	127	132
65-69	113	106	104	104	102	104	106
70-74	112	108	105	93	93	89	90
75-79	91	91	92	90	90	86	86
80-84	75	71	67	67	66	67	69
85-89	57	55	56	57	55	53	54
90+	43	42	41	39	42	43	42
Unspecified	132	135	134	134	134	146	156
<b>Total</b>	<b>127</b>	<b>123</b>	<b>119</b>	<b>112</b>	<b>110</b>	<b>106</b>	<b>105</b>

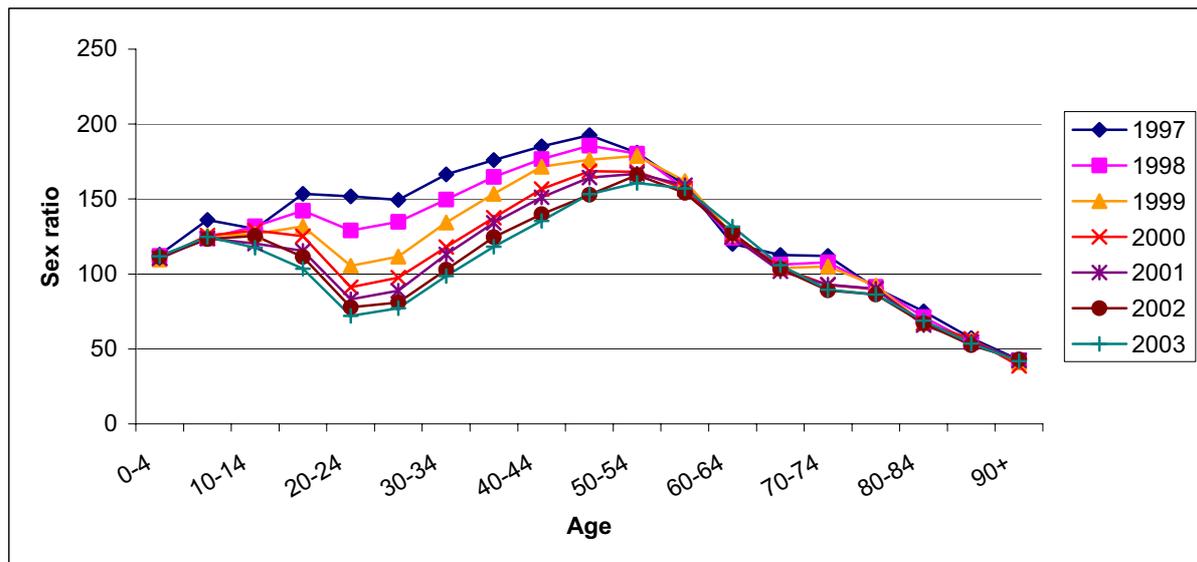
Over the period 1997 to 2002, 53% of all deaths were male. However, the proportion declined from about 56% in 1997 to about 51% in 2002.

Table 3.9 and Figure 3.9 show the age-specific sex ratios for deaths between 1997 and 2002. A low sex ratio (i.e. a sex ratio less than 100) means that the deaths were disproportionately female while a high sex ratio means that the deaths were disproportionately male.<sup>3</sup> The overall sex ratio derived from the total number of deaths for the period 1997-2002 is 114 compared to a sex ratio of 91 in the 2001 population census. This sex ratio is substantially higher than the sex ratio of the general population. This may be a reflection of a higher risk of mortality for men than for women, or a disproportionately higher under-registration of female deaths.

The figures also suggest that the sex ratios of deaths for young adults (those aged 20-29) have decreased substantially over the period 1997-2003. The low sex ratios in these age groups, 72 for those aged 20-24 and 77 for those aged 25-29 in 2003, indicate that there were more female deaths than male deaths in that year. For earlier years (1997-1999), the sex ratios for these age groups were higher, indicating that there were more male deaths than female deaths. Although the general pattern shows a decline in the sex ratios during the period, the sex ratios for those aged below 15 and 40-64 have remained significantly above 100, which implies higher male mortality at these ages.

<sup>3</sup> The sex ratio is expressed as the number of male deaths per 100 female deaths.

**Figure 3.9: Sex ratios of deaths by age and year of death, 1997-2003**



**3.4 Distribution of deaths by province**

Table 3.10 shows the number of deaths for the nine provinces<sup>4</sup> for 1997 to 2002. Table 3.11 gives the percentages for 1997 to 2003. Figures 3.10 and 3.11 show the same information graphically. The data suggest that while all provinces have had an increase in the number of deaths over time, the increase has been more rapid in KwaZulu-Natal. This is also the province with the largest proportion of deaths in the country, followed by Gauteng.

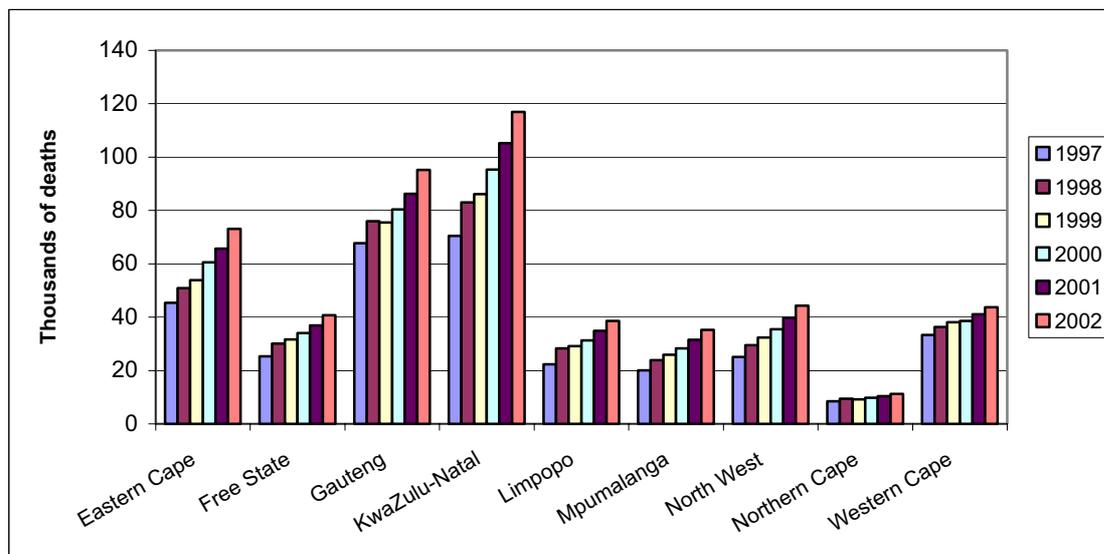
**Table 3.10: Number of deaths by province and year of death, 1997-2002**

	1997	1998	1999	2000	2001	2002
Western Cape	33 292	36 347	38 088	38 540	41 042	43 667
Eastern Cape	45 345	50 918	53 851	60 602	65 719	73 072
Northern Cape	8 495	9 441	9 187	9 847	10 421	11 267
Free State	25 375	30 142	31 625	34 101	36 877	40 715
KwaZulu-Natal	70 487	83 048	86 156	95 353	105 256	116 982
North West	25 026	29 458	32 395	35 437	39 723	44 269
Gauteng	67 734	75 993	75 445	80 425	86 213	95 186
Mpumalanga	20 122	23 926	25 899	28 273	31 548	35 277
Limpopo	22 338	28 302	29 135	31 263	34 901	38 639
Outside RSA	73	112	120	128	234	193
Unspecified	-	2	1	-	2	1
<b>Total</b>	<b>318 287</b>	<b>367 689</b>	<b>381 902</b>	<b>413 969</b>	<b>451 936</b>	<b>499 268</b>

Note: The completeness of the death register varies by year and province of death. The death register is more complete for 2002 than for 1997. Numbers for 2003 are excluded, as Stats SA has not yet received all the death notification forms for 2003 from the Department of Home Affairs.

<sup>4</sup> Deaths are reported for the province in which the death took place, not for the usual province of residence.

**Figure 3.10: Distribution of deaths by province and year of death, 1997-2002, (thousands)**



Note: The completeness of the death register varies by year and province of death. The death register is more complete for 2002 than for 1997. Numbers for 2003 are excluded, as Stats SA has not yet received all the death notification forms for 2003 from the Department of Home Affairs.

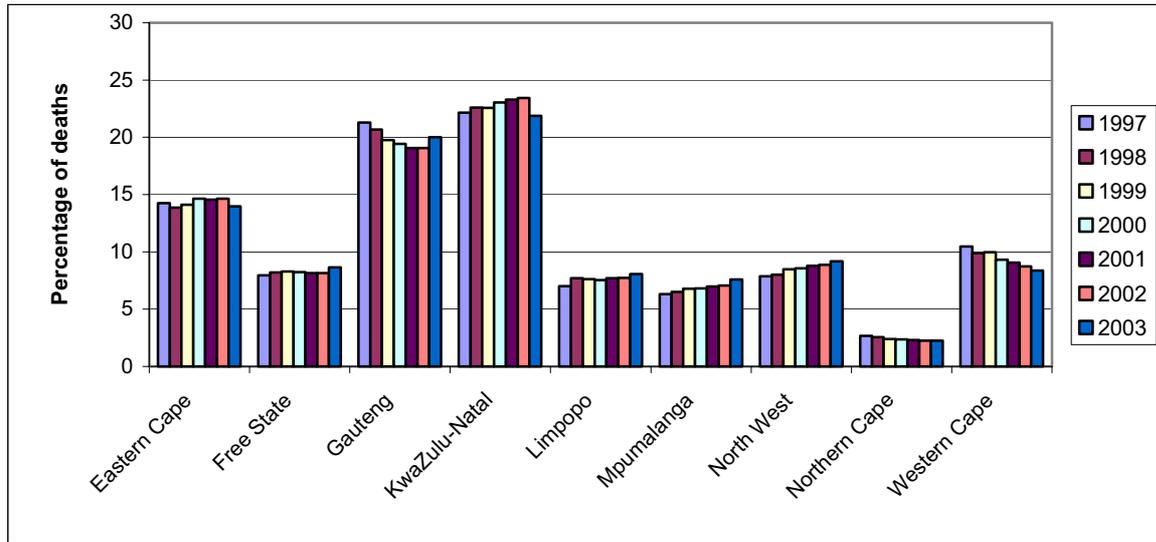
Table 3.11 and Figure 3.11 show the percentage breakdowns by province. It should be noted that the distribution by province for 2003 could change with the processing of additional death notification forms.

**Table 3.10: Percentage distribution of deaths by province for each year of death, 1997-2003**

	1997	1998	1999	2000	2001	2002	2003
Western Cape	10,5	9,9	10,0	9,3	9,1	8,7	8,4
Eastern Cape	14,2	13,8	14,1	14,6	14,5	14,6	14,0
Northern Cape	2,7	2,6	2,4	2,4	2,3	2,3	2,3
Free State	8,0	8,2	8,3	8,2	8,2	8,2	8,7
KwaZulu-Natal	22,1	22,6	22,6	23,0	23,3	23,4	21,9
North West	7,9	8,0	8,5	8,6	8,8	8,9	9,2
Gauteng	21,3	20,7	19,8	19,4	19,1	19,1	20,0
Mpumalanga	6,3	6,5	6,8	6,8	7,0	7,1	7,6
Limpopo	7,0	7,7	7,6	7,6	7,7	7,7	8,1
<b>Total</b>	<b>100,0</b>						

Excluding deaths taking outside South Africa and unspecified

**Figure 3.11: Percentage distribution of deaths by province and year of death, 1997-2003**



The completeness of the death register varies by year and province of death. The death register is more complete for 2002 than for 1997.

## 4. Causes of death in South Africa 1997, 1999 and 2001

### 4.1 Introduction

This section of the release focuses on the causes of death for 1997, 1999 and 2001. These three years were selected to provide an indication of trends over the period. A breakdown of the causes of death recorded on the death notification forms is provided first, followed by an analysis of the derived underlying causes of death.

In terms of the underlying cause of death, a breakdown of deaths according to the 18 main (level one) groups of causes of death, and an age breakdown of the proportion of deaths due to natural and non-natural causes, are presented. Natural deaths are then analysed according to the leading broad groups of underlying causes, using ranking as described in Section 2, for the South African population as a whole, for females and males, for various age groups, and for provinces. The high proportion of forms on which population group is not specified militates against reliance on analysis in terms of population group. However results from those forms which did specify population group are presented in Appendix H.

Non-natural deaths are then treated as a separate group, in view of the concern in South Africa about levels of violence and deaths due to accidents. Non-natural deaths consist of all deaths that were not attributable, or may not have been attributable, to natural causes. In terms of the Inquest Act (Act 58 of 1959) these deaths are subject to medico-legal investigation, an autopsy must be conducted to try to establish the cause of death, and an inquest is compulsory. The results of the inquest are then sent to the Department of Home Affairs, which issues the final death certificate.

Lastly, comparison is made between the reported causes of natural deaths and the results in terms of the underlying causes.

### 4.2 Reported causes of death

The format of the DNF provides for the recording of more than one cause of death, that is, *multiple* causes of death may be reported. Multiple causes of death are defined as: *'All morbid conditions, diseases and injuries entered on the death certificate. These causes include those involved in the morbid train of events leading to the death which were classified as either the underlying causes, 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.'* Table 4.1 provides the number of causes of death (from one to five and more) associated with the deaths recorded for 1997, 1999 and 2001.

**Table 4.1: Distribution of death notification forms by the number of causes entered on the form: 1997, 1999 and 2001**

Number of reported causes of death	1997		1999		2001	
	No. of death notification forms	%	No. of death notification forms	%	No. of death notification forms	%
No cause given	9	0,0	5	0,0	12	0,0
1 cause	176 811	55,6	210 627	55,2	270 893	59,9
2 causes	89 633	28,2	111 589	29,2	122 176	27,0
3 causes	37 903	11,9	43 640	11,4	44 269	9,8
4 causes	10 772	3,4	12 865	3,4	11 921	2,6
5 or more causes	3 159	1,0	3 176	0,8	2 665	0,6
<b>Total</b>	<b>318 287</b>	<b>100,0</b>	<b>381 902</b>	<b>100,0</b>	<b>451 936</b>	<b>100,0</b>

It can be noted from the above table that more than half of the reported deaths in each of the three years under discussion were associated with one cause only.

We now look at the frequency with which individual causes were recorded on a form. Table 4.2 gives the number of associated deaths for the ten leading recorded natural causes of death. *Other forms of heart disease, tuberculosis, and influenza and pneumonia* were the three reported causes that were associated with the most deaths for the three years. However, it should be noted that the number of deaths which had *tuberculosis* or *influenza and pneumonia* as one of the reported causes increased substantially over the period.

**Table 4.2: Number of associated deaths for the ten leading reported natural causes of death and for HIV as a reported cause: 1997, 1999 and 2001**

Reported causes of death	1997	1999	2001
Other forms of heart disease (I30 - I52)	60 768	53 977	48 927
Tuberculosis (A15 - A19)	25 640	39 759	56 985
Influenza and pneumonia (J10 - J18)	24 698	39 069	55 115
Cerebrovascular diseases (I60 - I69)	24 039	28 218	31 104
Hypertensive diseases (I10 - I15)	19 786	24 911	27 622
General symptoms and signs (R50 - R69)	16 307	19 618	19 454
Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	15 449	16 483	17 191
Chronic lower respiratory diseases (J40 - J47)	15 330	18 242	20 136
Ischaemic heart diseases (I 20-I 25)	14 512	16 867	17 380
Diabetics mellitus (E10 - E14)	12 133	14 244	16 207
Human immunodeficiency virus (HIV) diseases (B20 - B24)*	6 602	10 331	9 479
Events of undetermined intent (Y10 - Y34)*	45 182	37 627	35 328

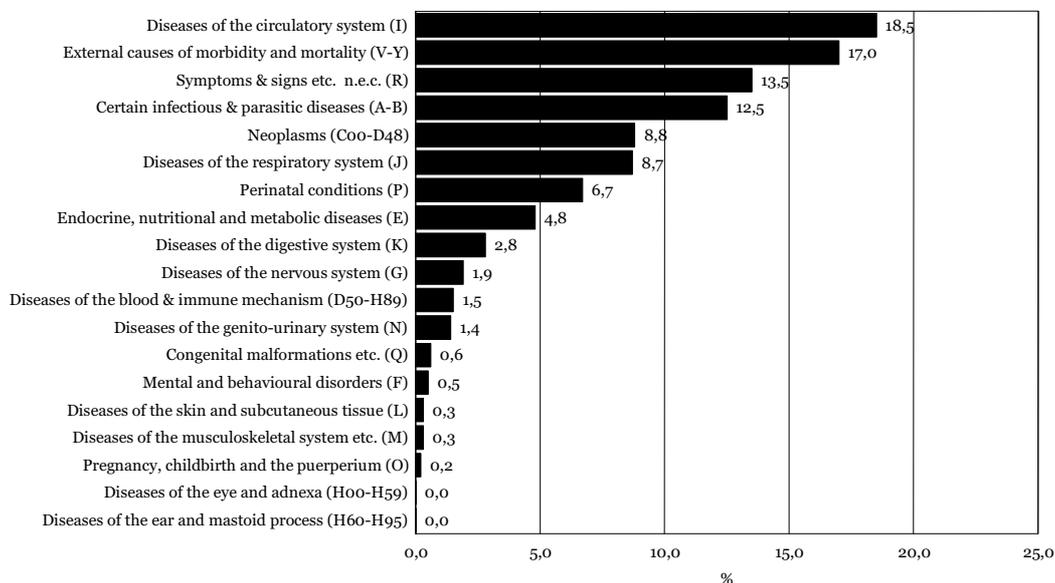
\* HIV and non-natural causes (events of undetermined intent) have been added for comparison purposes

It should be noted that this table focuses on natural causes of death, and at the second level of classification (broad groups of causes). This is in order to facilitate comparison with the findings from the analysis of the derived underlying causes of death, which follows in section 4.5. The comparison between reported and underlying causes will be found in section 4.7.

### 4.3 Overview of the leading underlying causes of death

This subsection focuses on the eighteen main (level one) groups of underlying causes of death. Figure 4.1 shows the main groups of leading causes of death in 1997. The top four groups of causes accounted for just under two-thirds (62%) of all deaths in that year.

**Figure 4.1: Main groups of causes of death: 1997**



**Figure 4.2: Main groups of causes of death: 1999**

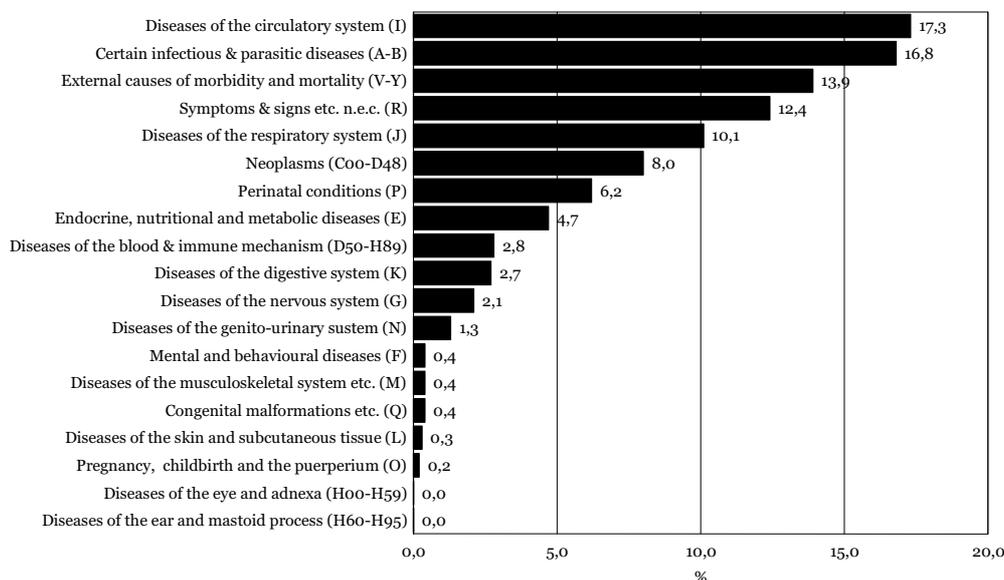


Figure 4.2, which shows the breakdown for 1999, indicates a change in the proportions of deaths due to three of the four leading main groups. The top five causes accounted for 71% of all deaths in that year. *Diseases of the circulatory system* decreased from 18,5% in 1997 to 17,3% in 1999, *symptoms and signs abnormal clinical and laboratory findings not elsewhere classified* decreased from 13,5% to 12,4%, and *external causes of morbidity and mortality* decreased from 17% to 13,9%, while *diseases of the respiratory system* increased from 8,7% to 10,1% during the above period. The proportion of deaths due to *certain infectious and parasitic diseases* increased from 12,5% in 1997 to 16,8% in 1999.

**Figure 4.3: Main groups of causes of death: 2001**

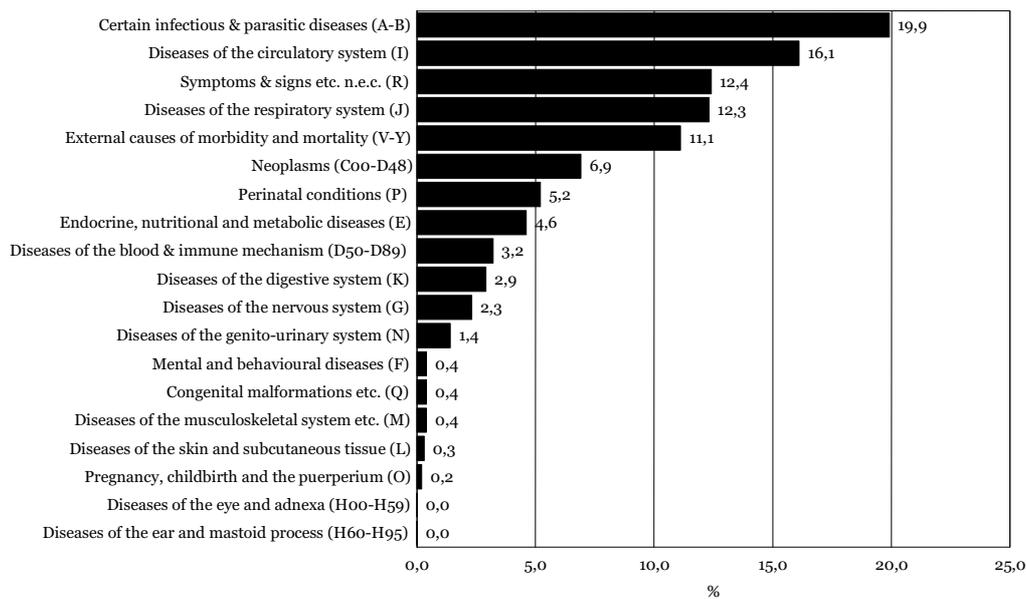


Figure 4.3 shows that the top five causes accounted for just under three-quarters (72%) of all deaths in 2001. A further increase in deaths due to *certain infectious and parasitic diseases* was observed, from 16,8% in 1999 to 19,9% in 2001, while *diseases of the respiratory system* increased from 10,1% in 1999 to 12,3% in 2001. The proportion of deaths due to *external causes of morbidity and mortality* decreased from 13,9% in 1999 to 11,1% in 2001, while that pertaining to *diseases of the circulatory system* decreased from 17,3% in 1999 to 16,1% in 2001.

### 4.4 Natural and non-natural causes of death

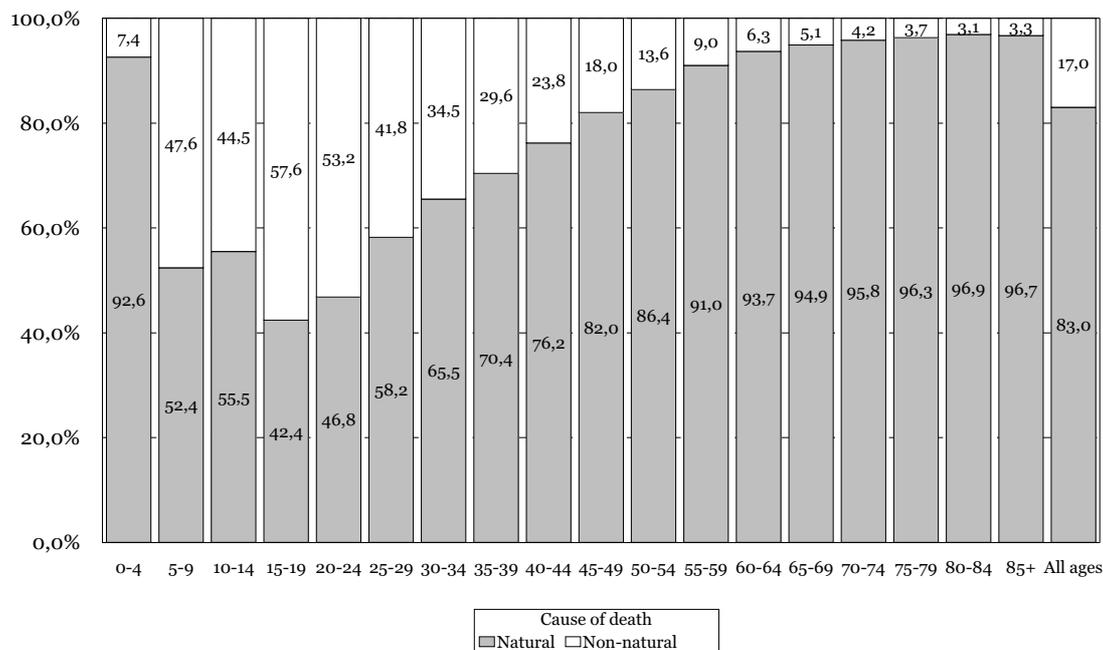
The next table shows the number and percentage of deaths due to natural and non-natural causes in each of the three years, while Figures 4.4 to 4.6 show the percentage distributions across age groups. Non-natural deaths constituted a substantial proportion in the 5-29 age groups, decreasing thereafter with age. However, the overall proportion of non-natural deaths decreased from 17,0% in 1997 to 11,1% in 2001.

**Table 4.3: Natural and non-natural deaths: 1997, 1999 and 2001**

Cause of death	1997		1999		2001	
	No.	%	No.	%	No.	%
Natural	264 285	83,0	328 671	86,1	401 812	88,9
Non-natural	54 002	17,0	53 231	13,9	50 124	11,1
<b>Total</b>	<b>318 287</b>	<b>100,0</b>	<b>381 902</b>	<b>100,0</b>	<b>451 936</b>	<b>100,0</b>

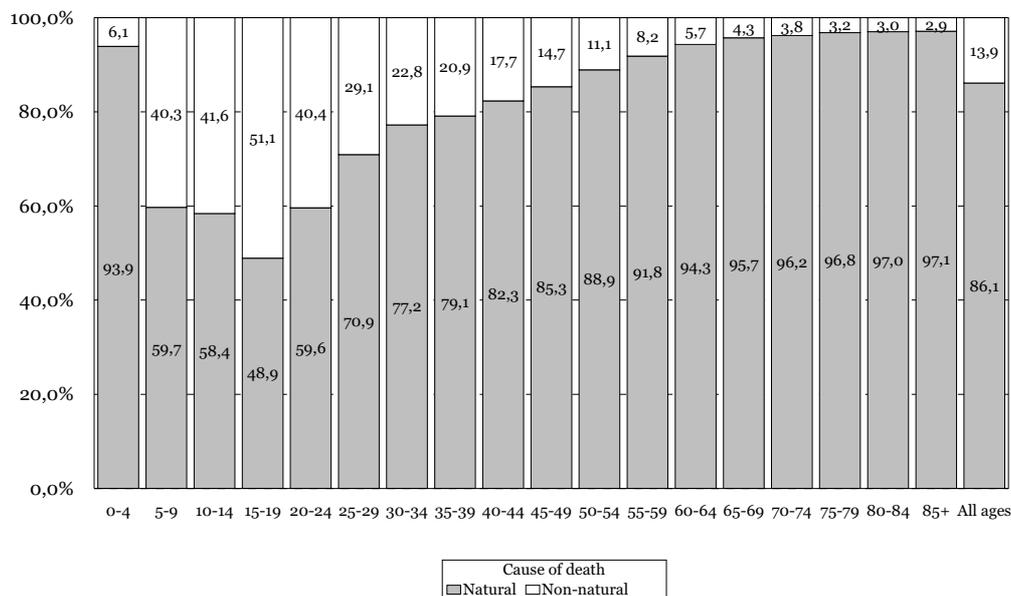
Deaths attributed to symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified, are included with natural causes.

**Figure 4.4: Distribution of deaths due to natural and non-natural causes according to age group: 1997**



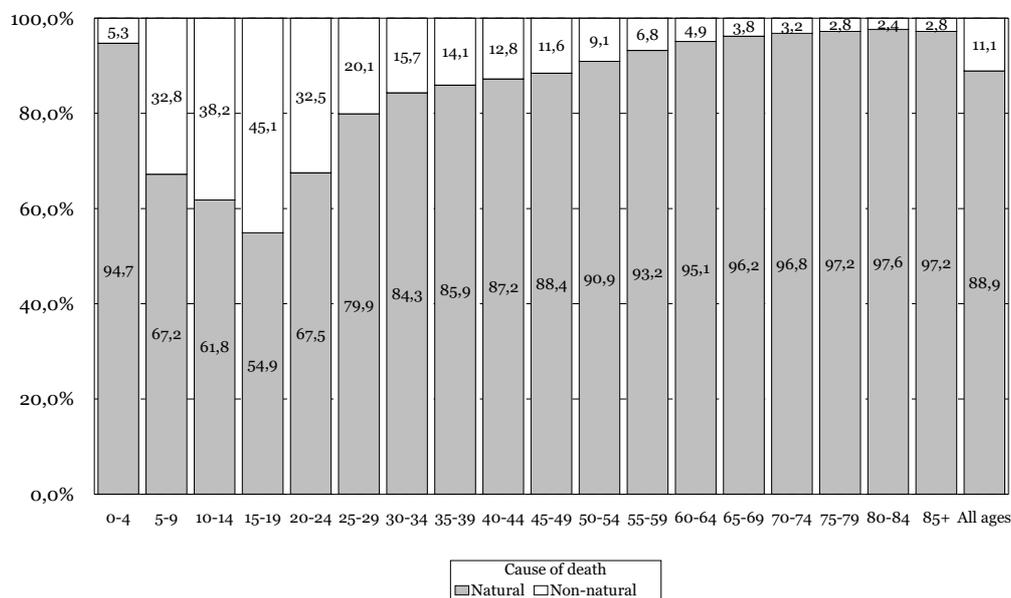
Including in natural causes 42 972 cases with *symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified* as an underlying cause of death, and excluding 5571 cases with unspecified age

**Figure 4.5: Distribution of deaths due to natural and non-natural causes according to age group: 1999**



Including in natural causes 47 202 cases with symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified as an underlying cause of death, and excluding 2719 cases with unspecified age

**Figure 4.6: Distribution of deaths due to natural and non-natural causes according to age group: 2001**



Including in natural causes 56 253 cases with symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified as an underlying cause of death, and excluding 1887 cases with unspecified age

## 4.5 Natural causes of death

### Ten leading underlying natural causes of death

We now turn to a detailed analysis of natural causes of death. The main groups of causes of death used in section 4.3 are likely to conceal crucial variations within groups and for various sections of the population. Hence, the analyses that follow are based on the next level of aggregation, referred to as broad groups of underlying causes.

Table 4.4 shows the ten leading underlying natural causes of death in 1997, 1999 and 2001. Complete rankings of all causes for the seven years are shown in Appendix E. In 1997, the ten leading causes collectively accounted for almost 40% of all deaths occurring in South Africa in that year. The top three causes, *tuberculosis*, *other forms of heart disease*, and *cerebrovascular diseases*, accounted for just under a fifth (19%) of all deaths in that year.

The top seven leading underlying natural causes of death remained unchanged for 1999 from 1997, although the ranking changed. The ten leading causes accounted for 42% of all deaths in 1999. The top three causes collectively accounted for just about a fifth (19%) of all deaths. It should however, be noted that *intestinal infectious diseases*, and *human immunodeficiency virus disease*, which were not among the ten leading causes of death in 1997, were among the ten leading causes in 1999. They ranked eighth and ninth respectively.

The top four leading underlying natural causes of death in 2001 remained the same as in 1997 and 1999, although the ranking changed. The ten leading causes accounted for 46% of all deaths in 2001. The top four causes accounted for just over a quarter (28%) of all deaths. Of the two new leading causes in 1999, *intestinal infectious diseases* had moved up the ranking, while *HIV diseases* fell off the list. *Tuberculosis*, which was the leading cause of death in 1997 and 1999, was again the top leading cause of death. *Influenza and pneumonia* came second, while *other forms of heart disease* dropped to third from second place. *Certain disorders involving the immune mechanism*, which was not among the ten leading causes in 1997 or 1999, became the ninth leading cause of death.

**Table 4.4: The ten leading underlying natural causes of death: 1997, 1999 and 2001**

	1997			1999			2001		
	Rank	No.	%	Rank	No.	%	Rank	No.	%
Tuberculosis (A15 - A19)	1	22 021	6,9	1	34 173	8,9	1	50 872	11,3
Other forms of heart disease (I30 - I52)	2	20 103	6,3	2	20 120	5,3	3	22 602	5,0
Cerebrovascular diseases (I60 - I69)	3	16 992	5,3	3	19 948	5,2	4	22 577	5,0
Influenza and pneumonia (J10 - J18)	4	11 503	3,6	4	19 135	5,0	2	31 495	7,0
Diabetes mellitus (E10 - E14)	5	10 828	3,4	6	12 540	3,3	7	14 557	3,2
Chronic lower respiratory diseases (J40 - J47)	6	10 747	3,4	5	12 573	3,3	6	14 681	3,2
Ischaemic heart diseases (I20 - I25)	7	9 794	3,1	7	11 426	3,0	8	11 777	2,6
Malignant neoplasms of the digestive organs (C15 - C26)	8	8 914	2,8	...	...	...	...	...	...
Hypertensive diseases (I10 - I15)	9	7 706	2,4	10	9 427	2,5	10	10 748	2,4
Resp. & cardio. disorders – perinatal (P20 - P29)	10	7 125	2,2	...	...	...	...	...	...
Intestinal infectious diseases (A00 - A09)	...	...	...	8	11 155	2,9	5	16 060	3,6
Human immunodeficiency virus [HIV] diseases (B20 - B24)	...	...	...	9	9 925	2,6	...	...	...
Certain disorders of the immune mechanism (D80 - D89)	...	...	...	...	...	...	9	11 670	2,6
Other causes		192 554	60,5		221 480	58,0		244 897	54,2
<b>Total</b>		<b>318 287</b>	<b>100,0</b>		<b>381 902</b>	<b>100,0</b>		<b>451 936</b>	<b>100,0</b>

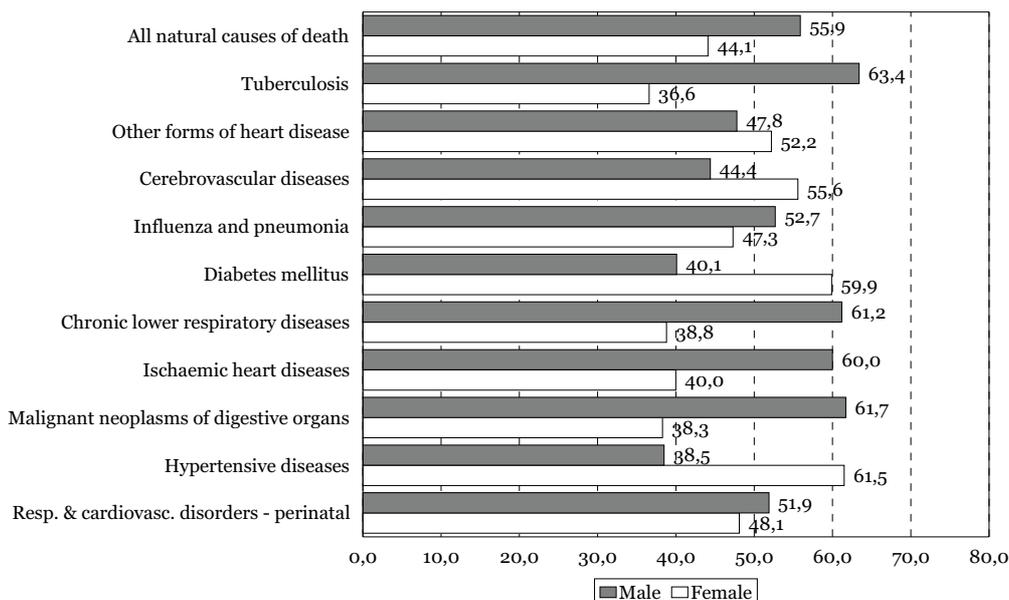
... Category not in top ten

It is important to note that there was a steady increase in the proportion of deaths due to *tuberculosis* from 6,9% in 1997, to 11,3% in 2001. The proportion of deaths due to *influenza and pneumonia* also increased from 3,6% in 1997 to 7,0% in 2001. On the other hand, the proportion of deaths due to *other forms of heart disease* decreased from 6,3% in 1997 to 5,0% in 2001.

In summary, the following broad groups – 1) *intestinal infectious diseases*, 2) *tuberculosis*, 3) *human immunodeficiency virus disease*, 4) *malignant neoplasms of digestive organs*, 5) *certain disorders involving the immune mechanism*, 6) *diabetes mellitus*, 7) *hypertensive diseases*, 8) *ischaemic heart diseases*, 9) *other forms of heart disease*, 10) *cerebrovascular diseases*, 11) *influenza and pneumonia*, 12) *chronic lower respiratory diseases*, and 13) *respiratory and cardiovascular disorders specific to the perinatal period* (listed here in no particular order) – were among the ten leading causes in at least one of the three years examined. More details of the specific diseases that fall into each category are presented in Appendix F.

Figures 4.7 to 4.9 below show the proportion of deaths attributed to males and females in each of the ten leading underlying natural causes of death for 1997, 1999 and 2001.

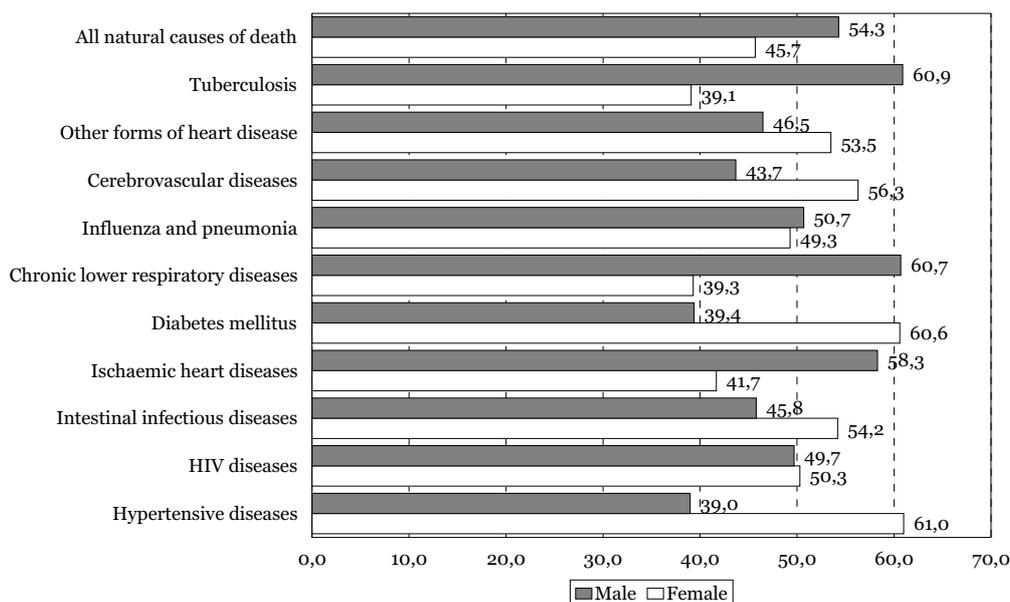
**Figure 4.7: The proportion of deaths attributed to males and females in each of the ten leading underlying natural causes of death: 1997**



Excluding 1036 cases with unspecified sex

The figures in Figure 4.7 show that in 1997 *tuberculosis* was the cause of death with the greatest difference between the percentage of males (63%) and females (37%). Males also made up the larger proportion of those for whom one of the following was the underlying cause of death: *chronic lower respiratory diseases*, *influenza and pneumonia*, *ischaemic heart disease*, *malignant neoplasms of the digestive organs*, and *respiratory and cardiovascular disorders specific to the perinatal period*, whereas females made up the larger proportion in the case of *hypertensive diseases*, *diabetes mellitus*, *cerebrovascular diseases* and *other forms of heart disease*.

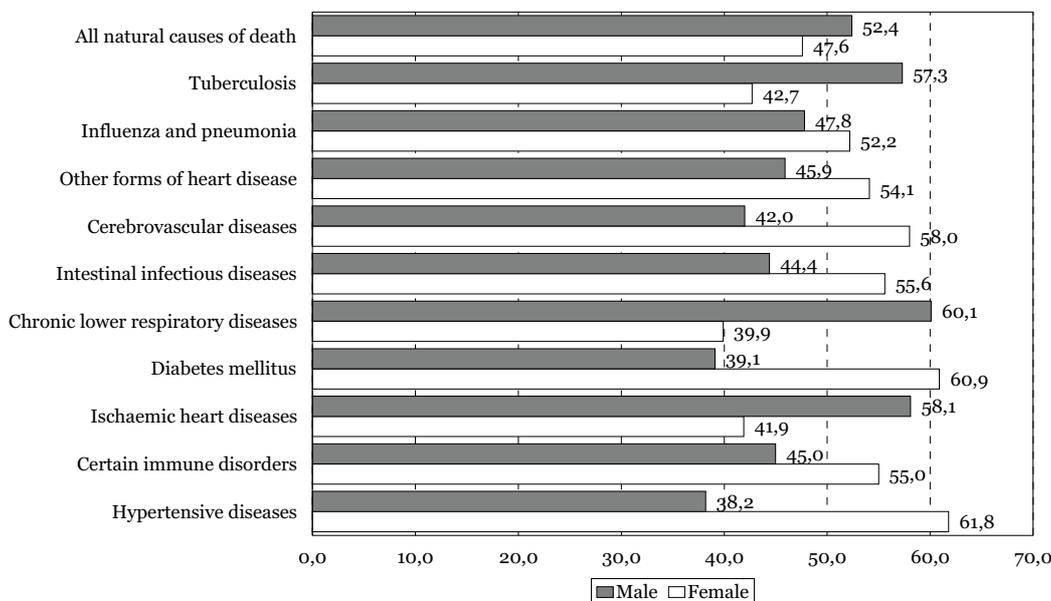
**Figure 4.8: The proportion of deaths attributed to males and females in each of the ten leading underlying natural causes of death: 1999**



Excluding 2072 cases with unspecified sex

The figures presented in Figure 4.8 show that in 1999 *tuberculosis* was again the leading cause of death. Males constituted the highest proportion (61%) compared to 39% as far as females were concerned. Males also constituted a higher proportion in the case of *chronic lower respiratory diseases*, *influenza and pneumonia* and *ischaemic heart disease*. Females constituted a higher proportion in the case of *intestinal infectious diseases*, *diabetes mellitus*, *cerebrovascular disease*, *hypertensive diseases* and *other forms of heart disease*.

**Figure 4.9: The proportion attributed to males and females in each of the ten leading underlying natural causes of death: 2001**



Excluding 1597 cases with unspecified sex

In 2001 the greatest difference between the sexes is seen in *hypertensive diseases* (females 61,8%, males 38,2%) and *diabetes mellitus* (females 60,9%, males 39,1%), while *chronic lower respiratory diseases* was the cause of death where males exceeded females by the greatest percentage (males 60,1%, females 39,9%). Males also made up the highest proportion in the case of *tuberculosis* and *ischaemic heart disease*, whereas females made up the largest proportion in the case of *cerebrovascular diseases*, *other forms of heart disease*, *certain disorders involving the immune mechanism*, *intestinal infectious diseases*, and *influenza and pneumonia*.

**Leading underlying natural causes of death for males and females**

Tables 4.5 to 4.7 present the ten leading underlying natural causes of death for the three years for males and females separately.

Seven of the ten leading causes – *tuberculosis*, *chronic lower respiratory diseases*, *influenza and pneumonia*, *other forms of heart disease*, *ischaemic heart disease*, *diabetes mellitus* and *Cerebrovascular diseases* – were common for males and females in all three years, although not in the same order. In addition to these five causes, in 1997 *malignant neoplasms of digestive organs* was also common to males and females; in 1999, *intestinal infectious diseases* and *human immunodeficiency virus diseases* were common; while in 2001 *certain disorders involving the immune mechanism* and *intestinal infectious diseases* were in both lists.

**Table 4.5: Number and percentage of deaths due to the ten leading underlying natural causes of death, for males and females: 1997**

Causes of death (Based on the Tenth Revision, International Classification of Disease, 1992)	Male			Female		
	Rank	No.	%	Rank	No.	%
Tuberculosis (A15 - A19)	1	13 925	7,8	3	8 045	5,8
Other forms of heart disease (I30 - I52)	2	9 583	5,4	1	10 473	7,5
Cerebrovascular diseases (I60 - I69)	3	7 530	4,2	2	9 417	6,7
Chronic lower respiratory diseases (J40 - J47)	4	6 570	3,7	7	4 162	3,0
Influenza and pneumonia (J10 - J18)	5	6 037	3,4	5	5 428	3,9
Ischaemic heart diseases (I20 - I25)	6	5 867	3,3	8	3 908	2,8
Malignant neoplasms of digestive organs (C15 - C26)	7	5 492	3,1	10	3 404	2,4
Diabetes mellitus (E10 - E14)	8	4 334	2,4	4	6 462	4,6
Respiratory and cardiovascular to the perinatal period (P20 - P29)	9	3 662	2,1	...	...	...
Malign. neoplasms of the resp. and intrathoracic organs (C30 - C39)	10	3 299	1,9	...	...	...
Hypertensive diseases (I10 - I15)	...	...	...	6	4 732	3,4
Intestinal infectious diseases (A00 - A09)	...	...	...	9	3 453	2,5
Other		111 136	62,6		80 332	57,5
<b>Total</b>		<b>177 435</b>	<b>100,0</b>		<b>139 816</b>	<b>100,0</b>

... Category not in top ten  
 Excluding 1036 cases with unknown and unspecified sex

**Table 4.6: Number and percentage of deaths due to the ten leading underlying natural causes of death, for males and females: 1999**

Causes of death (Based on the Tenth Revision, International Classification of Disease, 1992)	Male			Female		
	Rank	No.	%	Rank	No.	%
Tuberculosis (A15 - A19)	1	20 707	10,0	1	13 298	7,7
Influenza and pneumonia (J10 - J18)	2	9 651	4,7	4	9 399	5,4
Other forms of heart disease (I30 – I52)	3	9 319	4,5	3	10 733	6,2
Cerebrovascular diseases (I60 - I69)	4	8 699	4,2	2	11 185	6,4
Chronic lower respiratory diseases (J40 - J47)	5	7 609	3,7	9	4 923	2,8
Ischaemic heart diseases (I20 - I25)	6	6 643	3,2	10	4 750	2,7
Malignant neoplasms of digestive organs (C15 - C26)	7	5 597	2,7	...	...	...
Intestinal infectious diseases (A00 - A09)	8	5 076	2,5	6	6 009	3,5
Diabetes mellitus (E10 - E14)	9	4 924	2,4	5	7 574	4,4
Human immunodeficiency virus (HIV) diseases (B20 - B24)	10	4 902	2,9	8	4 970	2,9
Hypertensive diseases (I10 - I15)	...	...	...	7	5 724	3,3
Other		122 976	59,7		95 162	54,8
<b>Total</b>		<b>206 103</b>	<b>100,0</b>		<b>173 727</b>	<b>100,0</b>

... Category not in top ten  
 Excluding 2072 cases with unknown and unspecified sex

**Table 4.7: Number and percentage of deaths due to the ten leading underlying natural causes of death, for males and females: 2001**

Causes of death (Based on the Tenth Revision, International Classification of Disease, 1992)	Male			Female		
	Rank	No.	%	Rank	No.	%
Tuberculosis (A15 – A19)	1	29 068	12,3	1	21 636	10,1
Influenza and pneumonia (J10 - J18)	2	14 998	6,4	2	16 407	7,6
Other forms of heart disease (I30 – I52)	3	10 351	4,4	4	12 195	5,7
Cerebrovascular diseases (I60 - I69)	4	9 452	4,0	3	13 077	6,1
Chronic lower respiratory diseases (J40 - J47)	5	8 796	3,7	9	5 837	2,7
Intestinal infectious diseases (A00 - A09)	6	7 101	3,0	5	8 900	4,1
Ischaemic heart diseases (I20 - I25)	7	6 829	2,9	10	4 930	2,3
Diabetes mellitus (E10 - E14)	8	5 677	2,4	6	8 840	4,1
Malignant neoplasms of digestive organs (C15 - C26)	9	5 536	2,3	...	....	...
Certain disorders involving the immune mechanism (D80 - D89)	10	5 229	2,2	8	6 398	3,0
Hypertensive diseases (I10 - I15)	...	....	...	7	6 630	3,1
Other		132 779	56,3		109 673	51,1
<b>Total</b>		<b>235 816</b>	<b>100,0</b>		<b>214 523</b>	<b>100,0</b>

... Category not in top ten  
 Excluding 1597 cases with unknown and unspecified sex

**Age differences**

Table 4.8 presents the leading underlying natural causes of death by broad age groups of the deceased for the three years under consideration. Four age groups are used for this analysis: 0-14, 15-49, 50-64, and 65 and above. It should be noted that the age groupings used have an impact on the rankings. For example, in all three years the 15-49 age group showed a higher ranking of *human immunodeficiency virus disease* than the 15-24 age group. An additional grouping of 15-24 years has therefore been provided (see Table 4.8) as suggested in the ICD-10 recommendations, for purposes of international comparison.

## 1997

The leading underlying natural causes of death for the age group 0-14 in 1997 were *respiratory and cardiovascular disorders specific to the perinatal period* and *digestive system disorders of foetus and newborn*. Overall, seven of the ten leading causes are related to diseases occurring during the perinatal period, which masks the situation for children aged 1-14. Further details in this regard are presented in the next section.

The age categories 15-49 and 50-64 had six leading causes of death in common in 1997, although the rankings differed. *Tuberculosis* was the most important causes of death in the 15-49 age category. *HIV* as a leading cause was exclusive to this age category, as were *other viral diseases* and *inflammatory diseases of the central nervous system*. In the 50-64 age group, *other forms of heart disease* and *cerebrovascular diseases* were most prevalent.

The 65+ age category shared all ten leading causes of death with the 50-64 age group, although not in the same order and with varying numbers of associated deaths. *Other forms of heart disease* and *cerebrovascular diseases* were the two most important causes of death in the this age group.

## 1999

The ten leading underlying natural causes of death in the 0-14 age group in 1999 were virtually the same as those for 1997 with the exception of *certain disorders involving the immune mechanism*, which replaced *haemorrhagic and haematological disorders of foetus and newborn*.

The 15-49 and 50-64 age groups had five leading causes in common in 1999, and there were five leading causes in common across these two age groups and the 65+ age group. *Tuberculosis* was again the most important cause of death for these age groups.

The 65+ age group shared all ten leading causes of death with the 50-64 age group although the rankings differed. The top two leading causes of death in the 65+age group were *cerebrovascular diseases* and *other forms of heart disease*, in that order.

## 2001

In 2001, the ten leading underlying natural causes of death in the 0-14 age group were virtually the same as in 1999 although not in the same order, with *tuberculosis* replacing *foetus and newborn affected by maternal factors and by complications of pregnancy, labour and delivery*. The first four leading causes – *respiratory and cardiovascular disorders specific to the perinatal period*, *digestive system disorders of foetus and newborn*, *other disorders originating in the perinatal period*, and *intestinal infectious diseases* – were the same for both years. *Tuberculosis* appeared in the top ten causes for this age group for the first time.

As in 1999, the 15-49 and 50-64 age groups had five leading causes in common in 2001, and shared four leading causes with the 65+ age group. In the 15-49 age group, *tuberculosis* was the most prevalent. Exclusive to this age group was *inflammatory diseases of the central nervous system*.

The 65+ age group had nine leading causes of death in common with the 50-64 age group although the rankings differed. The leading causes of death in the 65+ age group were *cerebrovascular diseases*, and *other forms of heart disease*. Exclusive to this age group in 2001 were *intestinal and infectious diseases*.

**Table 4.8: Ten leading underlying natural causes of death for each age group: 1997, 1999 and 2001**

Broad group of causes of death	1997*			1999**			2001***		
	Rank	No.	%	Rank	No.	%	Rank	No.	%
<b>0-14 years</b>									
Resp. & cardiovascular - perinatal (P20 - P29)	1	6 797	16,8	1	7 983	17,2	1	9 388	19,2
Digestive disorders foetus and newborn (P75 - P78)	2	4 814	11,9	2	6 323	13,6	2	5 498	11,2
Other disorders - perinatal (P90 - P96)	3	3 368	8,3	3	3 309	7,1	3	3 419	7,0
Intestinal infectious diseases (A00 - A09)	4	1 877	4,6	4	2 655	5,7	4	2 818	5,8
Disorders related to gestation and foetal growth (P05 - P08)	5	1 598	3,9	5	1 563	3,4	9	1 418	2,9
Infections specific to the perinatal period (P35 - P39)	6	1 310	3,2	7	1 446	3,1	7	1 626	3,3
Foetus and newborn complications (P00 - P04)	7	1 216	3,0	10	1 125	2,4	...	...	...
Malnutrition (E40 - E46)	8	1 208	3,0	6	1 463	3,1	8	1 505	3,1
Influenza and pneumonia (J10 - J18)	9	899	2,2	8	1 281	2,8	5	1 927	3,9
Haemor. & haemat. disorders of the foetus & newborn (P50 - P61)	10	610	1,5	...	...	...	...	...	...
Certain immune disorders (D80 - D89)	...	...	...	9	1 241	2,7	6	1 783	3,6
Tuberculosis (A15 - A19)	...	...	...	...	...	...	10	1 123	2,3
Other causes	...	16 798	41,5	...	18 145	39,0	...	18 449	37,7
All causes	...	40 495	100,0	...	46 534	100,0	...	48 954	100,0
<b>15-49 years</b>									
Tuberculosis (A15 - A19)	1	13 398	11,9	1	23 448	15,2	1	37 917	19,0
Human immunodeficiency virus [HIV] diseases (B20 - B24)	2	5 029	4,5	3	8 197	5,3	5	7 564	3,8
Influenza and pneumonia (J10 - J18)	3	4 647	4,1	2	9 830	6,4	2	18 632	9,3
Other forms of heart disease (I30 - I52)	4	4 218	3,8	6	4 566	3,0	6	5 684	2,8
Cerebrovascular diseases (I60 - I69)	5	2 707	2,4	7	3 746	2,4	7	3 833	1,9
Certain immune disorders (D80 - D89)	6	2 448	2,2	4	6 615	4,3	3	8 948	4,5
Intestinal infectious diseases (A00 - A09)	7	2 070	1,8	5	4 951	3,2	4	8 559	4,3
Chronic lower respiratory diseases (J40 - J47)	8	1 831	1,6	8	2 709	1,8	9	3 099	1,5
Malignant neoplasms of digestive organs (C15 - C26)	9	1 736	1,5	...	...	...	...	...	...
Diseases of the liver (K70 - K77)	10	1 695	1,5	10	1 968	1,3	...	...	...
Other viral diseases (B25 - B34)	...	...	...	9	2 004	1,3	8	3 691	1,8
Inflammatory diseases of the central nervous system (G00 - G09)	...	...	...	...	...	...	10	2 968	1,5
Other causes	...	72 531	64,6	...	85 978	55,8	...	99 073	50,0
All causes	...	112 310	100,0	...	154 100,0	...	...	199 968	100,0
<b>50-64 years</b>									
Other forms of heart disease (I30 - I52)	1	4 591	7,8	3	4 520	6,8	3	4 870	6,3
Tuberculosis (A15 - A19)	2	4 508	7,7	1	6 072	8,8	1	7 573	9,8
Cerebrovascular diseases (I60 - I69)	3	4 397	7,5	2	4 875	7,4	2	5 716	7,4
Diabetes mellitus (E10 - E14)	4	3 537	6,0	4	4 105	6,2	4	4 744	6,1
Chronic lower respiratory diseases (J40 - J47)	5	3 004	5,1	5	3 434	5,2	5	4 189	5,4
Malignant neoplasms of digestive organs (C15 - C26)	6	2 982	5,1	6	3 164	4,8	8	3 171	4,1
Ischaemic heart diseases (I20 - I25)	7	2 743	4,7	7	3 139	4,8	7	3 330	4,3
Hypertensive diseases (I10 - I15)	8	2 034	3,5	9	2 498	3,8	9	2 862	3,7
Malignant neoplasms - resp. & intrathoracic (C30 - C39)	9	1 787	3,1	10	2 004	3,0	10	2 016	2,6
Influenza and pneumonia (J10 - J18)	10	1 781	3,0	8	2 654	4,0	6	4 128	5,3
Other causes	...	27 141	46,4	...	30 586	45,3	...	34 868	45,0
All causes	...	58 505	100,0	...	67 051	100,0	...	77 467	100,0
<b>65 years and over</b>									
Other forms of heart disease (I30 - I52)	1	10 661	10,5	2	10 646	9,5	2	11 670	9,4
Cerebrovascular diseases (I60 - I69)	2	9 657	9,5	1	11 109	10,0	1	12 885	10,4
Ischaemic heart diseases (I20 - I25)	3	5 750	5,7	3	6 723	6,0	5	6 791	5,5
Chronic lower respiratory diseases (J40 - J47)	4	5 704	5,6	5	6 224	5,6	4	7 184	5,8
Diabetes mellitus (E10 - E14)	5	5 630	5,6	4	6 614	5,9	3	7 688	6,2
Hypertensive diseases (I10 - I15)	6	4 484	4,4	6	5 503	4,9	7	6 254	5,1
Malignant neoplasms of digestive organs (C15 - C26)	7	4 092	4,0	8	4 436	4,0	8	4 480	3,6
Influenza and pneumonia (J10 - J18)	8	3 947	3,9	7	5 226	4,7	6	6 672	5,4
Tuberculosis (A15 - A19)	9	3 194	3,1	9	3 674	3,3	9	3 955	3,2
Malignant neoplasms - resp. & intrathoracic (C30 - C39)	10	2 041	2,0	10	2 210	2,0	...	...	...
Intestinal infectious diseases (A00 - A09)	...	...	...	...	...	...	10	2 653	2,1
Other causes	...	46 246	45,6	...	49 221	44,1	...	53 428	43,2
All causes	...	101 406	100,0	...	111 100,0	...	...	123 660	100,0

\*Excluding 5571 cases with unspecified age \*\*Excluding 2719 cases with unspecified age \*\*\*Excluding 1887 cases with unspecified age  
 ... Category not in top ten

### **Leading underlying natural causes of infant and child mortality**

Table 4.9 shows the variation across the three years of leading underlying natural causes of death for all children below one year and those between one and four years. Infants aged less than one year had nine of the ten leading causes of death in common across the three years, although not in the same order. The first six causes of infant death in 1997 and 1999 were identical, while the first three causes of infant death were identical across the three years – *respiratory and cardiovascular disorders specific to the perinatal period, digestive system disorders of foetus and newborn, and disorders originating in the perinatal period*. It is important to note that infants under one year had the highest proportion of deaths due to *respiratory and cardiovascular disorders specific to the perinatal period*, which also showed a steady increase across the three years.

Children aged between one year and four years had nine of the ten leading causes of death in common across the three years studied, although not in the same order. The top three leading causes of child mortality across the three years were *intestinal infectious diseases, malnutrition and influenza and pneumonia*. Furthermore, there was a steady increase in the number and percentage of deaths due to *intestinal infectious diseases* and *influenza and pneumonia*. However, an increase in the absolute number of deaths attributable to *malnutrition* did not translate into an increase in the percentage of such deaths, which in fact showed a steady decrease. *Certain disorders involving the immune mechanism* appeared in all three years, as did *human immunodeficiency virus diseases*. Other diseases of importance to this age group were *other viral diseases*, appearing in the 1999 and 2001 lists, while *other bacterial diseases* appeared in the 1997 list.

**Table 4.9: The ten leading underlying natural causes of death for selected age groups: 1997, 1999 and 2001**

Broad group of cause of death	1997			1999			2001		
	Rank	No.	%	Rank	No.	%	Rank	No.	%
<b>Less than 1 year</b>									
All causes		27 044	100,0		30 359	100,0		30 750	100,0
Respir. & cardiovascular disorders - perinatal (P20 - P29)	1	6 797	25,1	1	7 983	26,3	1	9 388	30,5
Digestive system disorders of foetus and newborn (P75 - P78)	2	4 814	17,8	2	6 323	20,8	2	5 498	17,9
Other disorders originating in the perinatal period (P90 - P96)	3	3 368	12,5	3	3 308	10,9	3	3 419	11,1
Disorders related to length of gestation and foetal growth (P05 - P08)	4	1 598	5,9	4	1 563	5,1	5	1 418	4,6
Infections specific to the perinatal period (P35 - P39)	5	1 310	4,8	5	1 446	4,8	4	1 626	5,3
Foetus and newborn affected by maternal factors (P00 - P04)	6	1 216	4,5	6	1 125	3,7	7	690	2,2
Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	7	610	2,3	8	645	2,1	8	682	2,2
Malnutrition (E40 - E46)	8	424	1,6	9	495	1,6	10	514	1,7
Transitory endocrine and metabolic disorders specific to foetus and newborn (P70 - P74)	9	404	1,5	...	...	...	9	563	1,8
Certain disorders involving the immune mechanism (D80 - D89)	10	387	1,4	7	842	2,8	6	1 207	3,9
Human immunodeficiency virus [HIV] diseases (B20 - B24)	...	...	...	10	484	1,6	...	...	...
Other causes		6 116	22,6		6 145	20,2		5 745	18,7
<b>1-4 years</b>									
All causes		7 735	100,0		9 780	100,0		11 170	100,0
Intestinal infectious diseases (A00 - A09)	1	1 611	20,8	1	2 274	23,3	1	2 308	20,7
Malnutrition (E40 - E46)	2	733	9,5	3	886	9,1	3	910	8,1
Influenza and pneumonia (J10 - J18)	3	626	8,1	2	931	9,5	2	1 453	13,0
Tuberculosis (A15 - A19)	4	288	3,7	4	373	3,8	4	640	5,7
Human immunodeficiency virus [HIV] diseases (B20 - B24)	5	219	2,8	6	338	3,5	6	334	3,0
Other forms of heart disease (I30 - I52)	6	164	2,1	7	141	1,4	9	153	1,4
Certain disorders involving the immune mechanism (D80 - D89)	7	111	1,4	5	349	3,6	5	454	4,1
Inflammatory diseases of the central nervous system (G00 - G09)	8	110	1,4	9	125	1,3	8	175	1,6
Other bacterial diseases (A30 - A49)	9	102	1,3	...	...	...	...	...	...
Metabolic disorders (E70 - E88)	10	92	1,2	10	112	1,1	10	131	1,2
Other viral diseases (B25 - B34)	...	...	...	8	137	1,4	7	226	2,0
Other causes		3 679	47,6		4 114	42,1		4 386	39,3
<b>15-24 years</b>									
All causes		19 831	100,0		24 629	100,0		28 026	100,0
Tuberculosis (A15 - A19)	1	1 568	7,9	1	2 579	10,5	1	3 989	14,2
Influenza and pneumonia (J10 - J18)	2	698	3,5	2	1 256	5,1	2	2 215	7,9
Human immunodeficiency virus [HIV] diseases (B20 - B24)	3	689	3,5	3	1 018	4,1	5	844	3,0
Other forms of heart disease (I30 - I52)	4	476	2,4	6	504	2,0	6	598	2,1
Certain disorders involving the immune mechanism (D80 - D89)	5	384	1,9	4	938	3,8	4	1 037	3,7
Intestinal infectious diseases (A00 - A09)	6	337	1,7	5	659	2,7	3	1 041	3,7
Episodic and paroxysmal disorders (G40 - G47)	7	290	1,5	9	302	1,2	9	368	1,3
Inflammatory diseases of the central nervous system (G00 - G09)	8	194	1,0	7	350	1,4	7	464	1,7
Cerebrovascular diseases (I60 - I69)	9	163	0,8	8	305	1,2	...	...	...
Chronic lower respiratory diseases (J40 - J47)	10	149	0,8	10	278	1,1	...	...	...
Other viral diseases (B25 - B34)	...	...	...	...	...	...	8	432	1,5
Protozoal diseases (B50 - B64)	...	...	...	...	...	...	10	249	0,9
Other causes		14 883	75,0		16 440	66,8		16 789	59,9
<b>0-18 years</b>									
All causes		43 563	100,0		50 292	100,0		52 792	100,0
Respir. & cardiovascular disorders - perinatal (P20 - P29)	1	6 797	15,6	1	7 983	15,9	1	9 388	17,8
Digestive system disorders of foetus and newborn (P75 - P78)	2	4 814	11,1	2	6 323	12,6	2	5 498	10,4
Other disorders originating in the perinatal period (P90 - P96)	3	3 368	7,7	3	3 309	6,6	3	3 419	6,5
Intestinal infectious diseases (A00 - A09)	4	1 954	4,5	4	2 722	5,4	4	2 936	5,6
Disorders related to length of gestation and foetal growth (P05 - P08)	5	1 598	3,7	5	1 563	3,1	10	1 418	2,7
Infections specific to the perinatal period (P35 - P39)	6	1 310	3,0	8	1 446	2,9	7	1 626	3,1
Foetus and newborn affected by maternal factors and by complications of pregnancy, labour and delivery (P00 - P04)	7	1 216	2,8	10	1 125	2,2	...	...	...
Malnutrition (E40 - E46)	8	1 209	2,8	6	1 471	2,9	8	1 508	2,9
Influenza and pneumonia (J10 - J18)	9	1 007	2,3	7	1 449	2,9	5	2 125	4,0
Human immunodeficiency virus [HIV] diseases (B20 - B24)	10	659	1,5	...	...	...	...	...	...
Certain disorders involving the immune mechanism (D80 - D89)	...	...	...	9	1 288	2,6	6	1 828	3,5
Tuberculosis (A15 - A19)	...	...	...	...	...	...	9	1 436	2,7
Other causes		19 631	45,1		21 613	43,0		21 610	40,9

... Category not in top ten

### **Provincial differences**

Table 4.10 shows the provincial variations of the ten leading underlying natural causes of death. In 1997, the nine provinces had six leading causes of death in common – *cerebrovascular diseases, other forms of heart disease, tuberculosis, chronic lower respiratory diseases, diabetes mellitus and influenza and pneumonia* – although not in the same order. In four provinces – Eastern Cape, Northern Cape, Free State and KwaZulu-Natal – *tuberculosis* was the leading cause of death. This cause ranked no lower than fifth in the other five provinces. *Other forms of heart disease* was the leading cause of death in four provinces (North West, Gauteng, Mpumalanga and Limpopo) and no lower than fourth in the other five provinces. In the Western Cape, *ischaemic heart diseases* was the leading cause of death – this ranked as low as ninth position in the Eastern Cape.

Other leading causes common to more than one province were *malignant neoplasms of digestive organs and hypertensive diseases* (seven provinces), *ischaemic heart diseases and intestinal infectious diseases* (five provinces), *respiratory and cardiovascular disorders specific to the perinatal period* (six provinces) and *digestive system disorders of foetus and newborn* (three provinces). Exclusive to Mpumalanga and Free State was *human immunodeficiency virus diseases*, while *malignant neoplasms of respiratory and intrathoracic organs* was exclusive to Western Cape.

In 1999, all nine provinces had four leading causes of death in common – *cerebrovascular diseases, other forms of heart disease, tuberculosis and chronic lower respiratory diseases* – although not in the same order. *Tuberculosis* was the leading cause of death in all nine provinces.

Other leading causes common to more than one province were *influenza and pneumonia* (eight provinces), *ischaemic heart diseases* (seven provinces), *diabetes mellitus, human immunodeficiency virus disease and respiratory and cardiovascular disorders specific to the perinatal period* (six provinces). *Intestinal infectious diseases, hypertensive diseases and malignant neoplasms of the digestive organs* were common to five provinces, while *certain disorders involving the immune mechanism* were common to four provinces. Exclusive to Free State and Western Cape were *digestive system disorders of foetus and newborn and malignant neoplasms of respiratory and intrathoracic organs* respectively.

In 2001, the nine provinces had six leading causes of death in common – *cerebrovascular diseases, other forms of heart disease, tuberculosis, diabetes mellitus, chronic lower respiratory diseases, and intestinal infectious diseases* – although not in the same order. *Tuberculosis* was the leading cause of death in seven provinces – Eastern Cape, Western Cape, Northern Cape, KwaZulu-Natal, Gauteng and North West – and the second leading cause in the other two provinces. *Influenza and pneumonia* was the leading cause of death in those two provinces (Free State and Limpopo) and was second in five other provinces.

Other leading causes common to more than one province were *certain disorders involving the immune mechanism and influenza and pneumonia* (seven provinces); *respiratory and cardiovascular disorders specific to the perinatal period* (five provinces); and *human immunodeficiency virus disease, ischaemic heart diseases and hypertensive diseases* (four provinces). *Malignant neoplasms of the digestive organs* was common to three provinces, while *digestive system disorders of foetus and newborn and malignant neoplasms of respiratory and intrathoracic organs* were exclusive to Limpopo and Western Cape respectively.

Detailed tables with the top ten leading underlying causes of death broken down by province, sex and age group, for each of the three years studied, are provided in Appendix G.

**Table 4.10: Ten leading underlying natural causes of death in each province: 1997, 1999 and 2001**

	Western Cape		Eastern Cape		Northern Cape		Free State		KwaZulu-Natal		North West		Gauteng		Mpumalanga		Limpopo						
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%					
<b>1997</b> Ischaemic heart diseases (I60 - I69) Cerebrovascular diseases (I60 - I69) Diabetes mellitus (E10 - E14) Other forms of heart disease (I30 - I52) Tuberculosis (A15 - A19) Chronic lower respiratory diseases (J40 - J47) Malignant neoplasms of digestive organs (C15 - C26) Malignant neoplasms - resp. and intrathor. organs (C30 - C39) Hypertensive diseases (I10 - I15) Influenza and pneumonia (J10 - J18) Intestinal infectious diseases (A00 - A09) Resp./cardio. disorders - perinatal (P20 - P29) Digestive system disorders of foetus and newborn (P75 - P78) Human immunodeficiency virus [HIV] diseases (B20 - B24) Other causes	1	2 302	6,9	9	972	2,1	4	370	4,4	...	...	...	4	2 332	3,4	...	7	705	3,2				
	2	2 155	6,5	3	2 433	5,4	3	519	6,1	3	3 312	4,7	3	1 531	6,1	3	1 039	5,2	2	1 213	5,4		
	3	1 871	5,6	6	1 424	3,1	8	262	3,1	10	644	2,5	4	2 470	3,5	9	636	2,5	6	2 113	3,1		
	4	1 864	5,6	2	2 494	5,5	2	553	6,5	2	4 545	6,4	1	1 968	7,9	1	1 462	7,3	1	1 405	6,3		
	5	1 734	5,2	1	4 170	9,2	1	674	7,9	1	6 099	8,7	2	1 966	7,9	3	2 914	4,3	2	1 220	6,1		
	6	1 416	4,3	4	2 337	5,2	5	351	4,1	6	816	3,2	6	2 105	3,0	7	740	3,0	8	1 835	2,7		
	7	1 369	4,1	5	1 682	3,7	6	309	3,6	...	...	...	10	1 518	2,2	8	656	2,6	7	1 887	2,8		
	8	1 067	3,2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	9	715	2,1	8	1 118	2,5	...	...	...	8	670	2,6	...	...	6	740	3,0	9	1 581	2,3	8	679	3,0
	10	654	2,0	7	1 178	2,6	7	292	3,4	4	1 508	5,9	5	2 420	3,4	4	1 255	5,0	5	2 293	3,4		
...	...	...	10	853	1,9	...	...	...	...	7	2 068	2,9	10	629	2,5	...	6	589	2,9	6	737	3,3	
...	...	...	...	...	...	9	211	2,5	7	807	3,2	8	2 030	2,9	5	750	3,0	10	1 415	2,1	...	...	...
...	...	...	...	...	...	10	194	2,3	9	664	2,6	9	1 523	2,2	...	...	...	...	...	...	...	...	...
...	18 145	54,5	...	26 684	58,8	...	4 760	56,0	...	13 657	53,8	...	42 397	60,1	...	14 155	56,6	...	44 353	65,5	...	12 254	60,9
...	33 292	100,0	...	45 345	100,0	...	8 495	100,0	...	25 375	100,0	...	70 487	100,0	...	25 026	100,0	...	67 734	100,0	...	20 122	100,0
...	1 2 565	6,7	1	6 227	11,6	1	823	9,0	1	3 022	9,6	1	9 309	10,8	1	3 272	10,1	1	4 932	6,5	1	2 199	8,5
...	2 2 560	6,7	10	1 194	2,2	5	403	4,4	...	...	...	...	...	10	843	2,6	5	2 483	3,3	...	...	...	
...	3 2 474	6,5	2	2 999	5,6	2	571	6,2	4	1 710	5,4	3	4 246	4,9	4	1 845	5,7	4	3 404	4,5	4	1 310	5,1
...	4 2 073	5,4	6	1 865	3,5	9	251	2,7	...	...	6	2 966	3,4	...	6	2 367	3,1	10	726	2,8	8	783	2,7
...	5 1 694	4,4	4	2 549	4,7	3	551	6,0	3	1 968	6,2	2	4 376	5,1	3	2 006	6,2	2	4 203	5,6	3	1 324	5,1
...	6 1 570	4,1	3	2 778	5,2	6	379	4,1	10	849	2,7	7	2 559	3,0	9	925	2,9	8	2 009	2,7	9	753	2,9
...	7 1 489	3,9	7	1 826	3,4	7	306	3,3	...	...	...	...	...	9	1 855	2,5	...	...	...	...	...	...	...
...	8 1 369	3,6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	9 925	2,4	...	...	...	8	280	3,0	5	1 668	5,3	10	1 942	2,3	...	...	...	7	2 079	2,8	8	778	3,0
...	10 800	2,1	9	1 385	2,6	...	...	...	...	...	...	...	...	7	1 042	3,2	...	...	...	...	...	...	...
...	...	...	5	1 906	3,5	4	542	5,9	2	2 774	8,8	4	3 820	4,4	2	2 306	7,1	3	3 842	5,1	2	1 431	5,5
...	...	...	8	1 436	2,7	...	...	...	7	1 154	3,6	5	3 336	3,9	6	1 139	3,5	...	...	...	6	959	3,7
...	...	...	...	...	...	10	242	2,6	8	918	2,9	8	1 951	2,3	8	936	2,9	10	1 696	2,2	...	...	...
...	...	...	...	...	...	...	...	...	6	1 258	4,0	9	1 947	2,3	5	1 212	3,7	...	...	...	5	1 054	4,1
...	...	...	...	...	...	...	...	...	9	853	2,7	...	...	...	...	...	...	...	...	...	...	...	...
...	20 569	54,0	...	29 686	55,1	...	4 839	52,7	...	15 451	48,9	...	49 704	57,7	...	16 869	52,1	...	48 575	61,7	...	14 556	56,2
...	38 088	100,0	...	53 851	100,0	...	9 187	100,0	...	31 625	100,0	...	86 156	100,0	...	32 395	100,0	...	75 445	100,0	...	25 899	100,0
...	1 3 412	8,3	1	8 621	13,1	1	1 128	10,8	2	4 200	11,4	1	15 345	14,6	1	4 568	11,5	1	7 383	8,6	1	3 523	11,2
...	2 2 745	6,7	...	...	...	6	404	3,9	...	...	...	8	2 363	2,2	...	...	...	6	2 594	3,0	...	...	...
...	3 2 665	6,5	3	3 355	5,1	3	665	6,4	5	1 725	4,7	3	5 231	5,0	4	2 032	5,1	4	3 722	4,3	4	1 455	4,6
...	4 2 225	5,4	6	2 060	3,1	10	281	2,7	10	851	2,3	6	3 700	3,5	10	855	2,2	5	2 682	3,1	9	890	2,8
...	5 1 759	4,3	2	3 398	5,2	5	485	4,7	9	867	2,4	7	2 667	2,5	9	1 229	3,1	7	2 346	2,7	8	940	3,0
...	6 1 689	4,1	4	3 129	4,8	4	526	5,0	3	2 197	6,0	5	4 565	4,3	3	2 710	6,8	3	4 788	5,6	5	1 424	4,5
...	7 1 593	3,9	7	1 879	2,9	8	298	2,9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	8 1 362	3,3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	9 1 048	2,6	...	...	...	9	295	2,8	8	890	2,4	...	...	...	...	...	...	...	...	...	7	977	3,1
...	10 981	2,4	5	3 062	4,7	2	746	7,2	1	4 650	12,6	2	6 477	6,2	2	4 200	10,6	2	5 918	6,9	2	2 509	8,0
...	...	...	8	1 773	2,7	7	312	3,0	6	1 304	3,5	4	4 877	4,6	5	1 867	4,7	10	2 089	2,4	3	1 485	4,7
...	...	...	9	1 620	2,5	...	...	...	...	...	...	...	...	...	8	1 254	3,2	...	...	...	10	852	2,7
...	...	...	10	1 249	1,9	...	...	...	4	1 798	4,9	9	2 232	2,1	6	1 636	4,1	9	2 097	2,4	6	1 190	3,8
...	...	...	...	...	...	...	...	...	7	1 226	3,3	10	2 138	2,0	7	1 288	3,2	8	2 209	2,6	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	21 563	52,5	...	35 573	54,1	...	5 281	50,7	...	17 169	46,6	...	55 661	52,9	...	18 084	45,5	...	50 385	58,4	...	16 303	51,7
...	41 042	100,0	...	65 719	100,0	...	10 421	100,0	...	36 877	100,0	...	105 256	100,0	...	39 723	100,0	...	86 213	100,0	...	31 548	100,0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

... Category not in top ten. Excluding 73 cases of unknown or unspecified province, or death taking place outside South Africa, in 1997; 121 cases in 1999; and 236 cases in 2001

#### 4.6 Non-natural causes of death

As indicated in the introduction, documenting non-natural causes of death is crucial given the high levels of violence experienced in the country. When completing the death notification form medical practitioners are expected to specify whether the deceased died from natural or non-natural causes. In addition, from the cause of death specified on the death notification form and the resulting ICD-10 code it can be determined whether the cause of death was natural or non-natural. This release makes use of the latter method and therefore treats codes V01-Y98 – external causes of morbidity and mortality – as non-natural causes of death.

Non-natural deaths mainly comprised *events of undetermined intent* for all the years. According to law, the police have final responsibility for indicating the specific cause of death whenever a non-natural death occurs. Unfortunately, the law also allows the police to complete the death notification forms without explicitly stating the cause of death where it is difficult to ascertain. These cases were omitted from this analysis.

**Table 4.11: Events of undetermined intent: 1997, 1999 and 2001**

Underlying causes of death	Deaths			%		
	1997	1999	2001	1997	1999	2001
Y10 Poisoning by and exposure to nonopioid analgesics, antipyretics and antirheumatics	5	7	10	0,0	0,0	0,0
Y11 Poisoning by and exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, n.e.c.	8	11	10	0,0	0,0	0,0
Y12 Poisoning by and exposure to narcotics and psychodysleptics [hallucinogens], n.e.c.	0	3	0	0,0	0,0	0,0
Y13 Poisoning by and exposure to other drugs acting on the autonomic nervous system	2	4	0	0,0	0,0	0,0
Y14 Poisoning by and exposure to other and unspecified drugs, medicaments and biological substances,	69	135	131	0,1	0,4	0,4
Y15 Poisoning by and exposure to alcohol	18	32	34	0,0	0,1	0,1
Y16 Poisoning by and exposure to organic solvents and halogenated hydrocarbons and their vapours	28	30	18	0,1	0,1	0,1
Y17 Poisoning by and exposure to other gases and vapours	121	362	355	0,3	1,0	1,0
Y18 Poisoning by and exposure to pesticides	42	113	138	0,1	0,3	0,4
Y19 Poisoning by and exposure to other and unspecified chemicals and noxious substances	193	343	473	0,4	0,9	1,4
Y20 Hanging, strangulation and suffocation	757	2 049	2 425	1,6	5,5	7,0
Y21 Drowning and submersion	546	1 361	1 410	1,2	3,7	4,1
Y22 Handgun discharge	1	1	5	0,0	0,0	0,0
Y23 Rifle, shotgun and larger firearm discharge	4	29	20	0,0	0,1	0,1
Y24 Other and unspecified firearm discharge	2 034	6 355	7 116	4,3	17,1	20,4
Y25 Contact with explosive material	2	10	5	0,0	0,0	0,0
Y26 Exposure to smoke, fire and flames	784	1 855	1 823	1,7	5,0	5,2
Y27 Contact with steam, hot vapours and hot objects	1	5	2	0,0	0,0	0,0
Y28 Contact with sharp object	485	2 391	2 181	1,0	6,4	6,3
Y29 Contact with blunt object	279	963	1 152	0,6	2,6	3,3
Y30 Falling, jumping or pushed from a high place	9	11	10	0,0	0,0	0,0
Y31 Falling, lying or running before or into moving object	15	18	11	0,0	0,0	0,0
Y32 Crashing of motor vehicle	20	11	2	0,0	0,0	0,0
Y33 Other specified events	26	26	13	0,1	0,1	0,0
Y34 Unspecified event	41 423	21 048	17 469	88,4	56,6	50,2
<b>Total</b>	<b>46 872</b>	<b>37 173</b>	<b>34 813</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>

Table 4.11 provides a disaggregation of the broad group of *events of undetermined intent* to provide a further understanding of the specific events captured by this grouping. Over the three years the proportion of deaths classified as *unspecified event* decreased from 88% to 50%, which indicates an improvement in the accuracy of identification of specific causes.

Tables 4.12 to 4.14 show the age and sex distribution of the broad groups of underlying non-natural causes of death in 1997, 1999 and 2001. These causes of death, in order of relative importance, are: 1) *events of undetermined intent*; 2) *other external causes of accidental injury*; 3) *transport accidents*; 4) *assault*; 5) *complications of medical and surgical care*; 6) *intentional self-harm*. Non-natural causes of death collectively accounted for 17,0% of all deaths which occurred in 1997; this figure dropped to 13,9% in 1999 and 11,1% in 2001.

A similar pattern was noted when comparing the data for males and females although the rankings were not in exactly the same order. Non-natural causes of death for males maintained the same sequence across the three years with *events of undetermined intent* accounting for 88% of all the non-natural deaths in 1997, and 71% for both 1999 and 2001. Furthermore, male non-natural deaths outnumbered female non-natural deaths by 3:1.

The ranking order for females was somewhat similar to that of males. The order was slightly different in 1997, with *complications of medical and surgical care*, and *transport accidents* ranking third and fourth respectively.

The most frequent non-natural cause of death for all four broad age groups was *events of undetermined intent*, accounting for 87% of all non-natural deaths in 1997, 70% in 1999 and 69% in 2001. The second most frequent non-natural cause of death for the 0-14 age grouping in 1997 was *complications of medical and surgical care*; in 1999 and 2001 it was *transport accidents*.

The 15-49, 50-64 and 65+ age groups shared *other external causes of accidental injury* as the second most frequent non-natural cause of death in all the three years. The 15-49 age group had the highest proportion of deaths attributable to non-natural causes across the three years, 90% in 1997 and 72% in 1999 and 2001.

Tables 4.15, which follows the age breakdowns, gives the provincial distribution of non-natural causes of death in the country in 1997, 1999 and 2001. As for the total population, the percentage of all deaths attributable to non-natural causes declined over the three years examined across all provinces. In 1997 and 1999 Western Cape had the highest proportion of deaths linked to *events of undetermined intent*, while in 2001 the leading province in this regard was Gauteng.

**Table 4.12: Underlying non-natural causes of death by age group and sex: 1997**

	Number of deaths					%				
	0-14	15-49	50-64	65+	Total	0-14	15-49	50-64	65+	Total
<b>Total</b>										
Events of undetermined intent (Y10 - Y34)	4 240	34 286	4 724	2 697	45 947	81,1	89,9	85,5	67,0	86,8
Other external causes of accidental injury (W00 - X59)	313	1 141	312	847	2 613	6,0	3,0	5,6	21,0	4,9
Transport accidents (V01 - V99)	257	1 140	189	111	1 697	4,9	3,0	3,4	2,8	3,2
Assault (X85 - Y09)	40	1 080	95	87	1 302	0,8	2,8	1,7	2,2	2,5
Complications of medical and surgical care (Y40 - Y84)	374	392	181	268	1 215	7,2	1,0	3,3	6,7	2,3
Intentional self-harm (X60 - X84)	0	76	15	12	103	0,0	0,2	0,3	0,3	0,2
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	1	6	3	6	16	0,0	0,0	0,1	0,1	0,0
Legal intervention and operations of war (Y35 - Y36)	0	8	4	0	12	0,0	0,0	0,1	0,0	0,0
All non-natural causes	5 225	38 129	5 523	4 028	52 905	100,0	100,0	100,0	100,0	100,0
Natural causes	35 270	74 181	52 982	97 378	259 811	87,1	66,1	90,6	96,0	83,1
<b>All underlying causes</b>	<b>40 495</b>	<b>112 310</b>	<b>58 505</b>	<b>101 406</b>	<b>312 716</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>
<b>Males</b>										
Events of undetermined intent (Y10 - Y34)	2 584	27 583	3 430	1 602	35 199	82,9	90,2	86,8	72,6	88,3
Other external causes of accidental injury (W00 - X59)	170	883	198	323	1 574	5,5	2,9	5,0	14,6	4,0
Transport accidents (V01 - V99)	141	889	138	74	1 242	4,5	2,9	3,5	3,4	3,1
Assault (X85 - Y09)	28	918	76	49	1 071	0,9	3,0	1,9	2,2	2,7
Complications of medical and surgical care (Y40 - Y84)	193	228	94	146	661	6,2	0,7	2,4	6,6	1,7
Intentional self-harm (X60 - X84)	0	61	13	7	81	0,0	0,2	0,3	0,3	0,2
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	1	4	2	5	12	0,0	0,0	0,1	0,2	0,0
Legal intervention and operations of war (Y35 - Y36)	0	6	2	0	8	0,0	0,0	0,1	0,0	0,0
All non-natural causes	3 117	30 572	3 953	2 206	39 848	100,0	100,0	100,0	100,0	100,0
Natural causes	18 415	39 828	31 032	45 206	134 481	85,5	56,6	88,7	95,3	77,1
<b>All underlying causes</b>	<b>21 532</b>	<b>70 400</b>	<b>34 985</b>	<b>47 412</b>	<b>174 329</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>
<b>Females</b>										
Events of undetermined intent (Y10 - Y34)	1 628	6 613	1 285	1 089	10 615	78,7	88,7	82,4	60,1	82,3
Other external causes of accidental injury (W00 - X59)	138	253	114	522	1 027	6,7	3,4	7,3	28,8	8,0
Transport accidents (V01 - V99)	113	246	50	37	446	5,5	3,3	3,2	2,0	3,5
Assault (X85 - Y09)	12	159	18	37	226	0,6	2,1	1,2	2,0	1,8
Complications of medical and surgical care (Y40 - Y84)	177	164	87	122	550	8,6	2,2	5,6	6,7	4,3
Intentional self-harm (X60 - X84)	0	15	2	5	22	0,0	0,2	0,1	0,3	0,2
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	0	2	1	1	4	0,0	0,0	0,1	0,1	0,0
Legal intervention and operations of war (Y35 - Y36)	0	2	2	0	4	0,0	0,0	0,1	0,0	0,0
All non-natural causes	2 068	7 454	1 559	1 813	12 894	100,0	100,0	100,0	100,0	100,0
Natural causes	16 576	34 169	21 839	51 977	124 561	88,9	82,1	93,3	96,6	90,6
<b>All underlying causes</b>	<b>18 644</b>	<b>41 623</b>	<b>23 398</b>	<b>53 790</b>	<b>137 455</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>

Excluding, except in the relevant totals, 932 cases with specified age and unspecified sex and 5571 cases with unspecified age

**Table 4.13: Underlying non-natural causes of death by age group and sex: 1999**

	No. of deaths					%				
	0-14	15-49	50-64	65+	Total	0-14	15-49	50-64	65+	Total
<b>Total</b>										
Events of undetermined intent (Y10 - Y34)	3 195	27 736	3 820	2 135	36 886	63,0	72,4	68,8	54,9	69,8
Other external causes of accidental injury (W00 - X59)	625	3 856	641	1 004	6 126	12,3	10,1	11,6	25,8	11,6
Transport accidents (V01 - V99)	657	3 272	625	267	4 821	12,9	8,5	11,3	6,9	9,1
Assault (X85 - Y09)	63	2 504	193	112	2 872	1,2	6,5	3,5	2,9	5,4
Complications of medical and surgical care (Y40 - Y84)	528	679	246	347	1 800	10,4	1,8	4,4	8,9	3,4
Intentional self-harm (X60 - X84)	6	235	19	21	281	0,1	0,6	0,3	0,5	0,5
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	0	14	2	2	18	0,0	0,0	0,0	0,1	0,0
Legal intervention and operations of war (Y35 - Y36)	0	16	3	2	21	0,0	0,0	0,1	0,1	0,0
All non-natural causes	5 074	38 312	5 549	3 890	52 825	100,0	100,0	100,0	100,0	100,0
Natural causes	41 460	115 700	61 502	107 696	326 358	89,1	75,1	91,7	96,5	86,1
All underlying causes	46 534	154 012	67 051	111 586	379 183	100,0	100,0	100,0	100,0	100,0
<b>Males</b>										
Events of undetermined intent (Y10 - Y34)	1 956	22 058	2 816	1 210	28 040	65,7	72,7	70,2	59,6	71,3
Other external causes of accidental injury (W00 - X59)	363	3 053	439	406	4 261	12,2	10,1	11,0	20,0	10,8
Transport accidents (V01 - V99)	344	2 484	426	153	3 407	11,6	8,2	10,6	7,5	8,7
Assault (X85 - Y09)	41	2 134	163	63	2 401	1,4	7,0	4,1	3,1	6,1
Complications of medical and surgical care (Y40 - Y84)	268	390	148	182	988	9,0	1,3	3,7	9,0	2,5
Intentional self-harm (X60 - X84)	4	184	15	15	218	0,1	0,6	0,4	0,7	0,6
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	0	8	2	0	10	0,0	0,0	0,0	0,0	0,0
Legal intervention and operations of war (Y35 - Y36)	0	11	0	2	13	0,0	0,0	0,0	0,1	0,0
All non-natural causes	2 976	30 322	4 009	2 031	39 338	100,0	100,0	100,0	100,0	100,0
Natural causes	21 265	59 096	36 426	48 483	165 270	87,7	66,1	90,1	96,0	80,8
All underlying causes	24 241	89 418	40 435	50 514	204 608	100,0	100,0	100,0	100,0	100,0
<b>Females</b>										
Events of undetermined intent (Y10 - Y34)	1 215	5 543	993	921	8 672	59,3	71,1	65,2	49,9	65,6
Other external causes of accidental injury (W00 - X59)	252	782	202	595	1 831	12,3	10,0	13,3	32,2	13,9
Transport accidents (V01 - V99)	306	768	196	112	1 382	14,9	9,9	12,9	6,1	10,5
Assault (X85 - Y09)	22	358	28	49	457	1,1	4,6	1,8	2,7	3,5
Complications of medical and surgical care (Y40 - Y84)	252	284	96	163	795	12,3	3,6	6,3	8,8	6,0
Intentional self-harm (X60 - X84)	2	49	4	5	60	0,1	0,6	0,3	0,3	0,5
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	0	8	1	2	11	0,0	0,1	0,1	0,1	0,1
Legal intervention and operations of war (Y35 - Y36)	0	2	2	0	4	0,0	0,0	0,1	0,0	0,0
All non-natural causes	2 049	7 794	1 522	1 847	13 212	100,0	100,0	100,0	100,0	100,0
Natural causes	19 625	56 077	24 850	58 847	159 399	90,5	87,8	94,2	97,0	92,3
All underlying causes	21 674	63 871	26 372	60 694	172 611	100,0	100,0	100,0	100,0	100,0

Excluding, except in the relevant totals, 1964 cases with specified age but unspecified sex and 2719 cases with unspecified age

**Table 4.14: Underlying non-natural causes of death by age group and sex: 2001**

	No. of deaths					%				
	0-14	15-49	50-64	65+	Total	0-14	15-49	50-64	65+	Total
<b>Total</b>										
Events of undetermined intent (Y10 - Y34)	2 924	25 939	3 770	1 982	34 615	62,3	72,0	69,9	52,8	69,4
Other external causes of accidental injury (W00 - X59)	607	2 806	524	997	4 934	12,9	7,8	9,7	26,6	9,9
Transport accidents (V01 - V99)	604	3 025	554	244	4 427	12,9	8,4	10,3	6,5	8,9
Assault (X85 - Y09)	74	3 279	264	125	3 742	1,6	9,1	4,9	3,3	7,5
Complications of medical and surgical care (Y40 - Y84)	0	6	1	0	7	0,0	0,0	0,0	0,0	0,0
Intentional self-harm (X60 - X84)	467	545	221	357	1 590	10,0	1,5	4,1	9,5	3,2
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	7	336	31	11	385	0,1	0,9	0,6	0,3	0,8
Legal intervention and operations of war (Y35 - Y36)	8	96	25	35	164	0,2	0,3	0,5	0,9	0,3
All non-natural causes	4 691	36 032	5 390	3 751	49 864	100,0	100,0	100,0	100,0	100,0
Natural causes	44 263	163 936	72 077	119 909	400 185	90,4	82,0	93,0	97,0	88,9
All underlying causes	48 954	199 968	77 467	123 660	450 049	100,0	100,0	100,0	100,0	100,0
<b>Males</b>										
Events of undetermined intent (Y10 - Y34)	1 771	20 882	2 820	1 136	26 609	63,7	71,9	71,1	58,8	70,5
Other external causes of accidental injury (W00 - X59)	371	2 308	370	366	3 415	13,3	7,9	9,3	18,9	9,0
Transport accidents (V01 - V99)	348	2 338	407	141	3 234	12,5	8,0	10,3	7,3	8,6
Assault (X85 - Y09)	48	2 840	201	68	3 157	1,7	9,8	5,1	3,5	8,4
Complications of medical and surgical care (Y40 - Y84)	233	334	129	186	882	8,4	1,1	3,3	9,6	2,3
Intentional self-harm (X60 - X84)	4	276	22	11	313	0,1	0,9	0,6	0,6	0,8
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	6	79	17	24	126	0,2	0,3	0,4	1,2	0,3
Legal intervention and operations of war (Y35 - Y36)	0	4	1	0	5	0,0	0,0	0,0	0,0	0,0
All non-natural causes	2 781	29 061	3 967	1 932	37 741	100,0	100,0	100,0	100,0	100,0
Natural causes	22 860	79 550	42 196	52 441	197 047	89,2	73,2	91,4	96,4	83,9
All underlying causes	25 641	108 611	46 163	54 373	234 788	100,0	100,0	100,0	100,0	100,0
<b>Females</b>										
Events of undetermined intent (Y10 - Y34)	1 135	4 979	948	841	7 903	60,1	72,6	66,9	46,5	66,0
Other external causes of accidental injury (W00 - X59)	235	485	154	627	1 501	12,5	7,1	10,9	34,7	12,5
Transport accidents (V01 - V99)	256	680	145	103	1 184	13,6	9,9	10,2	5,7	9,9
Assault (X85 - Y09)	25	427	60	57	569	1,3	6,2	4,2	3,2	4,8
Complications of medical and surgical care (Y40 - Y84)	231	208	92	170	701	12,2	3,0	6,5	9,4	5,9
Intentional self-harm (X60-X84)	3	60	9	0	72	0,2	0,9	0,6	0,0	0,6
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	2	17	8	10	37	0,1	0,2	0,6	0,6	0,3
Legal intervention and operations of war (Y35 - Y36)	0	2	0	0	2	0,0	0,0	0,0	0,0	0,0
All non-natural causes	1 887	6 858	1 416	1 808	11 969	100,0	100,0	100,0	100,0	100,0
Natural causes	20 987	83 917	29 687	67 193	201 784	91,8	92,4	95,4	97,4	94,4
All underlying causes	22 874	90 775	31 103	69 001	213 753	100,0	100,0	100,0	100,0	100,0

Excluding, except in the relevant totals, 1508 cases with unspecified sex and 1887 cases with unspecified age

**Table 4.15: Leading underlying non-natural causes of death by province: 1997, 1999 and 2001**

	WC	EC	NC	FS	KZN	NW	GP	MP	LP
	No.	No.	No.	No.	No.	No.	No.	No.	No.
	%	%	%	%	%	%	%	%	%
<b>1997</b>									
Assault (X85 - Y09)	18	513	27	197	189	109	117	46	130
Complications of medical and surgical care (Y40 - Y84)	89	130	26	84	330	97	269	74	153
Events of undetermined intent (Y10 - Y34)	6 511	5 736	1 212	2 862	9 896	2 822	12 990	3 095	1 734
Intentional self-harm (X60 - X84)	2	25	0	6	34	10	4	5	17
Legal intervention and operations of war (Y35 - Y36)	1	2	0	0	5	2	2	0	0
Other external causes of accidental injury (W00 - X59)	155	506	48	237	508	202	525	150	334
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	2	2	0	2	2	0	6	2	0
Transport accidents (V01 - V99)	27	470	20	29	277	177	131	58	541
All non-natural causes	6 805	7 384	1 333	3 417	11 241	3 419	14 044	3 430	2 909
Other	26 487	37 961	7 162	21 958	59 246	21 607	53 690	16 692	19 429
<b>Total</b>	<b>33 292</b>	<b>45 345</b>	<b>8 495</b>	<b>25 375</b>	<b>70 487</b>	<b>25 026</b>	<b>67 734</b>	<b>20 122</b>	<b>22 338</b>
<b>1999</b>									
Assault (X85 - Y09)	441	782	178	196	409	163	448	151	141
Complications of medical and surgical care (Y40 - Y84)	138	204	22	103	435	153	394	148	223
Events of undetermined intent (Y10 - Y34)	5 381	4 798	6 777	2 328	8 126	2 429	9 458	2 106	1 853
Intentional self-harm (X60 - X84)	22	58	30	27	43	42	16	27	18
Legal intervention and operations of war (Y35 - Y36)	2	4	1	2	3	1	3	1	2
Other external causes of accidental injury (W00 - X59)	641	786	176	354	1 332	469	1 485	439	476
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	4	3	1	0	7	1	4	0	1
Transport accidents (V01 - V99)	325	701	137	328	724	479	697	620	833
All non-natural causes	6 954	7 336	1 222	3 338	11 079	3 737	12 505	3 492	3 547
Other	31 134	46 515	7 965	28 287	75 077	28 658	62 940	22 407	25 588
<b>Total</b>	<b>38 088</b>	<b>53 851</b>	<b>9 187</b>	<b>31 625</b>	<b>86 156</b>	<b>32 395</b>	<b>75 445</b>	<b>25 899</b>	<b>29 135</b>
<b>2001</b>									
Assault (X85 - Y09)	802	986	149	223	752	167	383	144	156
Complications of medical and surgical care (Y40 - Y84)	114	199	23	84	353	119	372	145	187
Events of undetermined intent (Y10 - Y34)	4 938	4 548	6 884	2 123	6 927	2 373	9 340	2 175	1 672
Intentional self-harm (X60 - X84)	49	75	13	27	88	39	26	42	27
Legal intervention and operations of war (Y35 - Y36)	4	0	0	0	0	0	2	1	0
Other external causes of accidental injury (W00 - X59)	623	751	132	297	1 122	321	1 066	293	343
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	10	14	6	9	89	5	21	3	7
Transport accidents (V01 - V99)	443	649	113	264	949	288	598	414	717
All non-natural causes	6 983	7 222	1 120	3 027	10 280	3 312	11 808	3 217	3 109
Other	34 059	58 497	9 301	33 850	94 976	36 411	74 405	28 331	31 792
<b>Total</b>	<b>41 042</b>	<b>65 719</b>	<b>10 421</b>	<b>36 877</b>	<b>105 256</b>	<b>39 723</b>	<b>86 213</b>	<b>31 548</b>	<b>34 901</b>

Excluding 73 cases of unknown and unspecified province, and deaths taking place outside South Africa, in 1997; 121 cases in 1999; and 236 cases in 2001

### 4.7 Comparison between underlying and reported causes of death

Table 4.16 provides further insights into whether the results on the underlying causes of death reflect the profile portrayed by the information on recorded causes. The table shows the number of deaths due to the ten leading underlying causes of death for each year, and the number of cases for which those specific causes were entered on the death notification form (whether as a single or multiple cause). The figures indicate that the numbers of deaths due to *tuberculosis*, *cerebrovascular diseases* and *diabetes mellitus* as the underlying causes were relatively close to the number of cases which had these conditions entered on the forms across the three years. The same pertains to *HIV* in 1999, and *intestinal infectious diseases* in 1999 and 2001.

**Table 4.16: Comparison between underlying and reported causes of death**

Rank		No. of deaths due to this underlying cause	No. of forms with this recorded cause	% *
<b>1997</b>				
1	Tuberculosis (A15 - A19)	22 021	25 640	85,89
2	Other forms of heart disease (I30 – I52)	20 103	60 768	33,08
3	Cerebrovascular diseases (I60 - I69)	16 992	24 039	70,69
4	Influenza and pneumonia (J10 - J18)	11 503	24 698	46,57
5	Diabetes mellitus (E10 - E14)	10 828	12 133	89,24
6	Chronic lower respiratory diseases (J40 - J47)	10 747	15 330	70,10
7	Ischaemic heart diseases (I20 - I25)	9 794	14 512	67,49
8	Malignant neoplasms of digestive organs (C15 - C26)	8 914	9 499	93,84
9	Hypertensive diseases (I10 - I15)	7 706	19 786	38,95
10	Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	7 125	15 449	46,12
<b>1999</b>				
1	Tuberculosis (A15 - A19)	34 173	39 759	85,95
2	Other forms of heart disease (I30 – I52)	20 120	53 977	37,28
3	Cerebrovascular diseases (I60 - I69)	19 948	28 218	70,69
4	Influenza and pneumonia (J10 - J18)	19 135	39 069	48,98
5	Chronic lower respiratory diseases (J40 - J47)	12 573	18 242	68,92
6	Diabetes mellitus (E10 - E14)	12 540	14 244	88,04
7	Ischaemic heart diseases (I20 - I25)	11 426	16 867	67,74
8	Intestinal infectious diseases (A00 - A09)	11 155	13 206	84,47
9	Human immunodeficiency virus [HIV] diseases (B20 – B24)	9 925	10 331	96,07
10	Hypertensive diseases (I10 - I15)	9 427	24 911	37,84
<b>2001</b>				
1	Tuberculosis (A15 - A19)	50872	56985	89,27
2	Influenza and pneumonia (J10 - J18)	31495	55115	57,14
3	Other forms of heart diseases (I30 - I52)	22602	48927	46,20
4	Cerebrovascular diseases (I60 - I69)	22577	31104	72,59
5	Intestinal infectious diseases (A00 - A09)	16060	18241	88,04
6	Chronic lower respiratory diseases (J40 - J47)	14681	20136	72,91
7	Diabetes mellitus (E10 - E14)	14557	16207	89,82
8	Ischaemic heart diseases (I20 - I25)	11777	17380	67,76
9	Certain disorders involving the immune mechanism (D80 - D89)	11670	20345	57,36
10	Hypertensive diseases (I10 - I15)	10748	27622	38,91

\* Number of deaths due to the underlying cause, divided by the number of forms where this cause appeared as a recorded cause, expressed as a percentage.

## 5. Concluding remarks

The capture and processing of data from death notification forms has provided requisite information which has enabled the studying of mortality patterns and causes of death over a seven year period in South Africa. In addition to capturing the data provided on the death notification forms, an underlying cause of death for each case was derived from the reported causes of death using an internationally acclaimed algorithm. The present study represents a more systematic approach of determining the underlying cause of death than was used for the release based on the 12% sample of forms for 1997 to 2001 (Stats SA, 2002a), which relied upon the expertise of health professionals to determine the underlying cause of death.

The most significant trend observed is that the number of reported deaths has been increasing steadily, which is partly associated with population growth and with improved notification. The proportion of deaths in the age group 20-49 is increasing. While an increasing number of deaths are associated with lifestyle diseases (such as heart disease and diabetes) as the underlying cause, the dominant contributors to the growth in mortality are deaths associated with *tuberculosis*, and *influenza and pneumonia*. *Malnutrition* was among the ten leading causes of death among children aged under 4. The numbers of deaths linked to malnutrition increased steadily.

The proportion of reported deaths of females is increasing relative to the total. Of the leading underlying causes of death, the main differences between the proportions of male and female deaths occur in relation to *tuberculosis* and *chronic lower respiratory diseases*, where male deaths predominate, and *cerebrovascular diseases* and *other forms of heart disease*, where female deaths predominate.

During the period for which death notification forms have been captured, the majority of deaths were linked to natural causes of death. Overall, there has been a decline in the number and percentage of deaths due to non-natural causes of death.

More in-depth analysis, including a detailed comparison between data captured from DNFs with death data recorded in the population register as well as with data collected in the last two population censuses (1996 and 2001), is to follow.

## References

- Anderson RN. 2001. *Deaths: Leading causes for 1999*. National Vital Statistics Reports; Vol. 49, No 11. Hyattsville, Maryland: National Center for Health Statistics.
- Botha, J. & Bradshaw, D. 1985. African vital statistics – a black hole? *South African Medical Journal*, 67:977-981.
- Brass, W. 1975. Estimating mortality from deficient registration data. In: *Methods for estimating fertility and mortality from limited and defective data*. University of North Carolina, POPLAB Occasional Publication.
- Dorrington, R., Bourne, D., Bradshaw, D., Laubsher, R. & Timaeus, I. 2001. *The impact of HIV/AIDS on adult mortality in South Africa*. Technical report. Cape Town: Medical Research Council.
- Dorrington, R., Bradshaw, D., Johnson, L. & Budlender D. 2004. *The demographic impact of HIV/AIDS in South Africa: National indicators for 2004*. Cape Town: Centre for Actuarial Research, South African Medical Research Council and Actuarial Society of South Africa.
- Groenewald, P., Nannan, N., Bourne, D., Laubscher, R. & Bradshaw, B. 2005. Identifying deaths from AIDS in South Africa, *AIDS* 2005, Vol 19, No 2.
- Kochanek KD, Smith BL. 2002. *Deaths: Preliminary Data for 2002*. National Vital Statistics Reports; Vol. 52, No 13. Hyattsville, Maryland: National Center for Health Statistics.
- Rosenberg, H. & Anderson, R. 2004. *Leading causes of death: A tool for health assessment*. Geneva: World Health Organization.
- Stats SA. 2001a. *Recorded deaths, 1996*. Report No. 03-09-01. Pretoria: Statistics South Africa.
- Stats SA. 2001b. Advance release of recorded deaths, 1997–2000, Statistical release P0309.1. Pretoria: Statistics South Africa.
- Stats SA. 2002a. *Causes of death in South Africa, 1999–2001: Advance release of recorded causes of death*. Statistical release P0309.2. Pretoria: Statistics South Africa.
- Stats SA. 2002b. *Guidelines for coders using ICD-10*. Pretoria: Statistics South Africa.
- Stats SA. 2002c. *Medical terminology manual for cause of death coding*. Pretoria: Statistics South Africa.
- Timaeus, I., Dorrington, R., Bradshaw, B., & Nannan, N. 2002. *Mortality trends in South Africa 1985-2000: From apartheid to AIDS*. Technical report. Cape Town: Medical Research Council.
- World Health Organization. 1992. *International classification of diseases and related health problems, Tenth Revision*. Geneva: World Health Organization.

## APPENDIX A

### Definitions

- A *death* is a principal event and is the disappearance of life at any time after birth has taken place.
- *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.
- *Immediate cause* is the disease or condition directly leading to death.
- *Contributing causes* are morbid conditions, if any, giving rise to the immediate cause of death.
- An *underlying cause of death* (previously known as primary cause) is defined as: 'The disease or injury that initiated the train of events leading to death, or the circumstances of the accident or violence that produced the fatal injury.'
- *Multiple causes of death* are defined in ICD-10 as: '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.'
- *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.
- *Human immunodeficiency virus (HIV)* is defined in the Dictionary of Epidemiology as follows: 'The pathogenic organism responsible for the acquired immunodeficiency syndrome (AIDS), formally or also known as the lymphadenopathy virus (LAV), the name given by the original French discoverers Montagnier et al. in 1983, or the human T-cell lymphotropic virus type III (HTLV-III), the name given by Gallo et al. to the virus they reported in 1984.'
- *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.

# APPENDIX B

## Death notification form introduced in 1998



**REPUBLIC OF SOUTH AFRICA  
DEPARTMENT OF HOME AFFAIRS  
NOTIFICATION / REGISTER OF DEATH / STILL BIRTH**

BI - 1663

**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)

SERIAL No:

\* Please refer to instructions

**A 0 1857265**

<b>FILE No:</b>	<b>DATE:</b>		
<b>A PARTICULARS OF DECEASED INDIVIDUAL</b> <input type="checkbox"/> / <b>STILLBORN CHILD</b> <input type="checkbox"/>		Date of birth	
Identity number of deceased	Date of death	Y Y Y Y M M D D	
Surname		Age at last birthday	
Maiden Name (If female)		years	
Forenames		Sex	
		If death occurred within 24 hours after birth	
		No. of hours alive	
<b>MARITAL STATUS OF DECEASED</b>		Left thumb print of deceased	
Single <input type="checkbox"/> Civil Marriage <input type="checkbox"/> Living as married <input type="checkbox"/> Widowed <input type="checkbox"/>			
Religious Law Marriage <input type="checkbox"/> Divorced <input type="checkbox"/> Customary Marriage <input type="checkbox"/>			
PLACE OF BIRTH (municipal district or country if abroad)			
PLACE OF DEATH (City / Town / Village)			
PLACE OF REGISTRATION OF DEATH			
CITIZENSHIP OF DECEASED			
<b>B PARTICULARS OF INFORMANT</b>			
Identity number		Left thumb print of informant	
Initials and Surname			
Relationship to deceased			
Parent <input type="checkbox"/> Spouse <input type="checkbox"/> Child <input type="checkbox"/> Other (specify)			
Postal address			
Postal Code		Dialling Code	
Was the next of kin of the deceased a smoker* during the past five years?		Telephone No.	
Yes <input type="checkbox"/> No <input type="checkbox"/> Refuse to answer <input type="checkbox"/>			
Date		Signature	
<b>C PARTICULARS OF FUNERAL UNDERTAKER</b>			
Initials and Surname		Office Stamp of Funeral Undertaker	
Designation No.			
Place of burial / cremation			
Date		Signature	
<b>D CERTIFICATE BY ATTENDING MEDICAL PRACTITIONER / PROFESSIONAL NURSE</b>			
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		Postal Address	
I, the undersigned, am not in the position to certify that the deceased died exclusively due to natural causes		Postal Code	
INITIALS AND SURNAME		SAMDC / SANC Reg. No.	
SIGNATURE		Date signed	
<b>CERTIFICATE BY DISTRICT SURGEON / FORENSIC PATHOLOGIST</b>			
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:		Postal Address	
Unnatural <input type="checkbox"/> Under investigation <input type="checkbox"/>		Postal Code	
Natural (Cause of Death as indicated in Section G) <input type="checkbox"/>			
Initials and Surname		Mortuary Reference	
Place of post-mortem		Date	
Signature		Date signed	
		SAMDC Reg. No.	
<b>E FOR OFFICIAL USE ONLY</b>			
Registration of death approved and burial order issued		Office Stamp	
Address			
Force No. / Designation No.			
Date		Persal No.	
Signature			

\* Someone who smokes tobacco on most days



## APPENDIX C

### Comparison between manual and automated methods of determining the underlying causes of death

The cases of deaths processed in the 12% sample, for which an underlying cause of death was manually determined by a health professional, were matched by ID number to the corresponding records in the dataset compiled for this release. A total of 125 233 cases were matched. A comparison of the underlying cause of death between corresponding records was carried out to ascertain the level of agreement between the two methodologies.

Table C1 provides the results of this exercise. The key results are:

- Concurrence in the underlying cause of death was found for 74% of the 125 223 records.
- Concurrence declined as the number of causes listed on the death notification form increased, from 84% when only one cause was recorded, to about 40% when there were five causes recorded on the form.

The above results underscore the fact that manual determination of the underlying cause of death, being subjective, may not be appropriate when several causes are recorded on the notification form.

Differences in the coding of the reported causes of death in the two separate exercises would also contribute to the lack of concordance of the underlying cause of death.

**Table C1: Comparison of the underlying causes of death derived from ACME and the manual procedure used during the processing of the 12% sample**

Number of reported causes of death	ACME vs Sample Underlying Cause of Death				Total
	MATCH		NON-MATCH		
	Number	%	Number	%	
1	60 380	84,06	11 448	15,94	71 828
2	22 885	65,57	12 017	34,43	34 902
3	7 375	53,52	6 405	46,48	13 780
4	1 726	46,19	2 011	53,81	3 737
5	386	39,55	590	60,45	976
<b>Total</b>	<b>92 752</b>	<b>74,07</b>	<b>32 471</b>	<b>25,93</b>	<b>125 223</b>

**APPENDIX D: Comparison of ten leading underlying causes of death according to SA and NCHS ranking methods, 1997, 1999 & 2003**

SA ranking method		No. of deaths	NCHS ranking method (developed for use with ICD 10 according to recommendations by 1951 Public Health Conference)	No. of deaths
<b>1997</b>				
1	Events of undetermined intent (Y10 - Y34)	46,872	1 Diseases of heart	36,493
2	Tuberculosis (A15 - A19)	22,021	2 Malignant neoplasm	27,012
3	Other forms of heart disease (I30 - I52)	20,103	3 Tuberculosis	22,021
4	Cerebrovascular diseases (I60 - I69)	16,992	4 Certain conditions originating in the perinatal period	21,340
5	Influenza and pneumonia (J10 - J18)	11,503	5 Cerebrovascular diseases	16,992
6	Diabetes mellitus (E10 - E14)	10,828	6 Influenza and pneumonia	11,503
7	Chronic lower respiratory diseases (J40 - J47)	10,747	7 Diabetes mellitus	10,828
8	Ischaemic heart diseases (I20 - I25)	9,794	8 Chronic lower respiratory diseases	10,747
9	Malignant neoplasms of digestive organs (C15 - C26)	8,914	9 Human immunodeficiency virus (HIV) disease	6,234
10	Hypertensive diseases (I10 - I15)	7,706	10 Accidents (unintentional injuries)	4,406
	Other causes	152,807	Other rankable causes	46,631
	All causes	318,287	Nonrankable causes	104,080
			All causes	318,287
<b>1999</b>				
1	Events of undetermined intent (Y10 - Y34)	37,173	1 Diseases of heart	40,118
2	Tuberculosis (A15 - A19)	34,173	2 Tuberculosis	34,173
3	Other forms of heart disease (I30 - I52)	20,120	3 Malignant neoplasm	29,647
4	Cerebrovascular diseases (I60 - I69)	19,948	4 Certain conditions originating in the perinatal period	23,493
5	Influenza and pneumonia (J10 - J18)	19,135	5 Cerebrovascular diseases	19,948
6	Chronic lower respiratory diseases (J40 - J47)	12,573	6 Influenza and pneumonia	19,135
7	Diabetes mellitus (E10 - E14)	12,540	7 Chronic lower respiratory diseases	12,573
8	Ischaemic heart diseases (I20 - I25)	11,426	8 Diabetes mellitus	12,540
9	Intestinal infectious diseases (A00 - A09)	11,155	9 Accidents (unintentional injuries)	11,014
10	Human immunodeficiency virus [HIV] diseases (B20 - B24)	9,925	10 Human immunodeficiency virus (HIV) disease	9,925
	Other causes	193,734	Other rankable causes	62,040
	All causes	381,902	Nonrankable causes	107,296
			All causes	381,902
<b>2001</b>				
1	Tuberculosis (A15 - A19)	50,872	1 Tuberculosis	50,872
2	Events of undetermined intent (Y10 - Y34)	34,813	2 Diseases of heart	43,690
3	Influenza and pneumonia (J10 - J18)	31,495	3 Influenza and pneumonia	31,495
4	Other forms of heart disease (I30 - I52)	22,602	4 Malignant neoplasm	30,208
5	Cerebrovascular diseases (I60 - I69)	22,577	5 Certain conditions originating in the perinatal period	23,696
6	Intestinal infectious diseases (A00 - A09)	16,060	6 Cerebrovascular diseases	22,577
7	Chronic lower respiratory diseases (J40 - J47)	14,681	7 Chronic lower respiratory diseases	14,681
8	Diabetes mellitus (E10 - E14)	14,557	8 Diabetes mellitus	14,557
9	Ischaemic heart diseases (I20 - I25)	11,777	9 Other immunodeficiencies	11,554
10	Certain disorders involving the immune mechanism (D80 - D89)	11,670	10 Accidents (unintentional injuries)	9,423
	Other causes	220,832	Other rankable causes	73,279
	All causes	451,936	Nonrankable causes	125,904
			All causes	451,936

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>1997</b>	<b>No. of deaths</b>	<b>%</b>
All causes	318,287	100.0
Events of undetermined intent (Y10 - Y34)	46,872	14.7
Ill-defined and unknown causes of mortality (R95 - R99)	37,469	11.8
Tuberculosis (A15 - A19)	22,021	6.9
Other forms of heart disease (I30 - I52)	20,103	6.3
Cerebrovascular diseases (I60 - I69)	16,992	5.3
Influenza and pneumonia (J10 - J18)	11,503	3.6
Diabetes mellitus (E10 - E14)	10,828	3.4
Chronic lower respiratory diseases (J40 - J47)	10,747	3.4
Ischaemic heart diseases (I20 - I25)	9,794	3.1
Malignant neoplasms of digestive organs (C15 - C26)	8,914	2.8
Hypertensive diseases (I10 - I15)	7,706	2.4
Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	7,125	2.2
Intestinal infectious diseases (A00 - A09)	6,522	2.0
Human immunodeficiency virus [HIV] diseases (B20 - B24)	6,234	2.0
Digestive system disorders of foetus and newborn (P75 - P78)	5,103	1.6
General symptoms and signs (R50 - R69)	4,861	1.5
Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	4,543	1.4
Diseases of liver (K70 - K77)	4,329	1.4
Other disorders originating in the perinatal period (P90 - P96)	3,507	1.1
Renal failure (N17 - N19)	3,429	1.1
Certain disorders involving the immune mechanism (D80 - D89)	3,298	1.0
Malignant neoplasms of female genital organs (C51 - C58)	2,761	0.9
Other external causes of accidental injury (W00 - X59)	2,667	0.8
Malignant neoplasms of ill-defined, secondary and unspecified sites (C76 - C80)	2,491	0.8
Episodic and paroxysmal disorders (G40 - G47)	2,261	0.7
Other bacterial diseases (A30 - A49)	2,041	0.6
Malnutrition (E40 - E46)	1,851	0.6
Malignant neoplasms of lymphoid, haematopoietic and related tissue (C81 - C96)	1,750	0.5
Transport accidents (V01 - V99)	1,733	0.5
Metabolic disorders (E70 - E88)	1,661	0.5
Disorders related to length of gestation and foetal growth (P05 - P08)	1,660	0.5
Pulmonary heart disease and diseases of pulmonary circulation (I26 - I28)	1,639	0.5
Inflammatory diseases of the central nervous system (G00 - G09)	1,624	0.5
Malignant neoplasms of breast (C50)	1,617	0.5
Malignant neoplasms of male genital organs (C60 - C63)	1,573	0.5
Other diseases of the respiratory system (J90 - J94)	1,571	0.5
Diseases of arteries, arterioles and capillaries (I70 - I79)	1,528	0.5
Diseases of oesophagus, stomach and duodenum (K20 - K31)	1,453	0.5
Infections specific to the perinatal period (P35 - P39)	1,387	0.4
Assault (X85 - Y09)	1,346	0.4
Other respiratory diseases principal affecting the interstitium (J80 - J84)	1,322	0.4
Foetus and newborn affected by maternal factors & complications of pregnancy, labour & delivery (P00 - P04)	1,295	0.4
Complications of medical and surgical care (Y40 - Y84)	1,253	0.4
Aplastic and other anaemias (D60 - D64)	1,210	0.4
Other viral diseases (B25 - B34)	1,127	0.4
Other acute lower respiratory infections (J20 - J22)	1,072	0.3
Other diseases of the intestines (K55 - K63)	909	0.3
Malignant neoplasms of lip, oral cavity and pharynx (C00 - C14)	883	0.3
Disorder of gallbladder, biliary tract and pancreas (K80 - K87)	737	0.2
Neoplasms of uncertain or unknown behaviour (D37 - D48)	714	0.2
Cerebral palsy and other paralytic syndromes (G80 - G83)	704	0.2
Protozoal diseases (B50 - B64)	680	0.2
Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	641	0.2
Malignant neoplasms of urinary tract (C64 - C68)	639	0.2
Organic, including symptomatic, mental disorders (F00 - F09)	616	0.2
Arthropathies (M00 - M25)	603	0.2
Other diseases of digestive system (K90 - K93)	566	0.2
Lung diseases due to external agents (J60 - J70)	564	0.2
Noninfective enteritis and colitis (K50 - K52)	562	0.2
Chronic rheumatic heart diseases (I05 - I09)	533	0.2
Congenital malformations of the circulatory system (Q20 - Q28)	523	0.2
Mental and behavioural disorders due to psychoactive substance use (F10 - F19)	519	0.2
Other disorders of glucose regulation and pancreatic internal secretion (E15 - E16)	497	0.2
Other disorders of the skin and subcutaneous (L80 - L99)	497	0.2

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>1997 (continued)</b>	<b>No. of deaths</b>	<b>%</b>
Other degenerative diseases of the nervous system (G30 - G32)	477	0.1
Malignant neoplasms of mesothelial and soft tissue (C45 - C49)	474	0.1
Malignant neoplasms of independent (primary) multiple sites (C97)	436	0.1
Transitory endocrine and metabolic disorders specific to foetus and newborn (P70 - P74)	425	0.1
Other disorders of the nervous system (G90 - G98)	393	0.1
Congenital malformations of the nervous system (Q00 - Q07)	382	0.1
Diseases of veins, lymphatic vessels and lymph nodes, not elsewhere classified (I80 - I89)	357	0.1
Symptoms and signs involving the circulatory and respiratory systems (R00 - R09)	350	0.1
Malignant neoplasms of eye, brain and other parts of central nervous system (C69 - C72)	346	0.1
Suppurative and necrotic conditions of lower respiratory tract (J85 - J86)	343	0.1
Other diseases of pleura (J90 - J94)	340	0.1
Melanoma and other malignant neoplasms of skin (C43 - C44)	319	0.1
Extrapyramidal and movement disorders (G20 - G26)	303	0.1
Mycoses (B35 - B49)	294	0.1
Other congenital malformations (Q80 - Q89)	291	0.1
Other diseases of urinary system (N30 - N39)	280	0.1
Infections of the skin and subcutaneous tissue (L00 - L08)	255	0.1
Systemic connective tissue disorders (M30 - M36)	236	0.1
Sequelae of infectious and parasitic diseases (B90 - B94)	229	0.1
Viral hepatitis (B15 - B19)	226	0.1
Obesity and other hyperalimentation (E65 - E68)	218	0.1
Schizophrenia, schizotypal and delusional disorders (F20 - F29)	215	0.1
Diseases of male genital organs (N40 - N51)	215	0.1
Renal tubulo-interstitial diseases (N10 - N16)	214	0.1
Diseases of peritoneum (K65 - K67)	205	0.1
Chromosomal abnormalities not elsewhere classified (Q90 - Q99)	203	0.1
Symptoms and signs involving digestive system and abdomen (R10 - R19)	199	0.1
Glomerular diseases (N00 - N08)	194	0.1
Coagulation defects, purpura and other haemorrhagic conditions (D65 - D69)	185	0.1
Other congenital malformation of the digestive system (Q38 - Q45)	169	0.1
Oedema, proteinuria and hypertensive disorders in pregnancy, childbirth and puerperium (O10 - O16)	168	0.1
Malignant neoplasms of bone and articular cartilage (C40 - C41)	146	0.0
Infections with predominately sexual mode of transmission (A50 - A64)	134	0.0
Other nutritional deficiencies (E50 - E64)	131	0.0
Benign neoplasms (D10 - D36)	128	0.0
Other infectious diseases (B99)	124	0.0
Hernia (K40 - K46)	124	0.0
Condition involving the integument and temperature regulation of foetus and newborn (P80 - P83)	124	0.0
Disorders of thyroid gland (E00 - E07)	123	0.0
Malignant neoplasms of thyroid and other endocrine glands (C73 - C75)	120	0.0
Systemic atrophies primarily affecting the central nervous system (G10 - G13)	117	0.0
Acute upper respiratory infections (J00 - J06)	111	0.0
Viral infections of central nervous system (A80 - A89)	107	0.0
Complication of labour and delivery (O60 - O75)	107	0.0
Pregnancy with abortive outcome (O00 - O08)	106	0.0
Complication predominantly related to the puerperium (O85 - O92)	105	0.0
Intentional self-harm (X60 - X84)	103	0.0
Nutritional anaemias (D50 - D53)	99	0.0
Soft tissue disorders (M60 - M79)	96	0.0
Inflammatory diseases of female pelvic organs (N70 - N77)	95	0.0
Viral infections characterised by skin and mucous membrane lesions (B00 - B09)	94	0.0
Osteopathies and chondropathies (M80 - M94)	94	0.0
Other diseases of upper respiratory tract (J30 - J39)	93	0.0
Dorsopathies (M40 - M54)	77	0.0
Helminthiases (B65 - B83)	73	0.0
Polyneuropathies and other disorders of the peripheral nervous system (G60 - G64)	73	0.0
Birth trauma (P10 - P15)	73	0.0
Diseases of appendix (K35 - K38)	71	0.0
Other obstetric conditions not elsewhere classified (O95 - O99)	70	0.0
Diseases of myoneural junction and muscle (G70 - G73)	66	0.0
Demyelinating diseases of the A251central nervous system (G35 - G37)	65	0.0
Congenital malformations of the respiratory system (Q30 - Q34)	65	0.0
Congenital malformations of and deformations of the musculoskeletal system (Q65 - Q79)	62	0.0
Noninflammatory disorders of female genital tract (N80 - N98)	59	0.0
Diseases of middle ear and mastoid (H65 - H75)	56	0.0
Congenital malformation of urinary system (Q60 - Q64)	55	0.0

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>1997 (concluded)</b>	<b>No. of deaths</b>	<b>%</b>
Acute rheumatic fever (I00 - I02)	52	0.0
Maternal care related to the foetus and amniotic cavity and possible delivery problems (O30 - O48)	52	0.0
Other and unspecified disorders of the circulatory system (I95 - I99)	48	0.0
Disorders of other endocrine glands (E20 - E35)	43	0.0
Diseases of oral cavity, salivary glands and jaws (K00 - K14)	43	0.0
Other disorders of kidney and ureter (N25 - N29)	43	0.0
Behavioural syndromes associated with physiological disturbances and physical factors (F50 - F59)	38	0.0
Other diseases of blood and blood-forming organs (D70 - D77)	35	0.0
Neurotic, stress-related and somatoform disorders (F40 - F48)	33	0.0
Haemolytic anaemias (D55 - D59)	32	0.0
Unspecified mental disorder (F99)	27	0.0
Other maternal disorders predominantly related to pregnancy (O20 - O29)	27	0.0
Symptoms and signs involving cognition, perception, emotional state and behaviour (R40 - R46)	26	0.0
Dermatitis and eczema (L20 - L30)	25	0.0
Urticaria and erythema (L50 - L54)	25	0.0
Mood [affective] disorders (F30 - F39)	22	0.0
Cleft lip and cleft palate (Q35 - Q37)	21	0.0
Abnormal findings on examination of blood without diagnosis (R70 - R79)	17	0.0
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	16	0.0
Arthropod-borne viral fevers and viral haemorrhagic fevers (A90 - A99)	14	0.0
Bullous disorders (L10 - L14)	13	0.0
Visual disturbances and blindness (H53 - H54)	12	0.0
Disorders of the breast (N60 - N64)	12	0.0
Legal intervention and operations of war (Y35 - Y36)	12	0.0
In situ neoplasms (D00 - D09)	11	0.0
Nerve, nerve root and plexus disorders (G50 - G59)	11	0.0
Urolithiasis (N20 - N23)	10	0.0
Symptoms and signs involving the urinary system (R30 - R39)	10	0.0
Abnormal findings on examination of other fluids, substances and tissues without diagnosis (R83 - R89)	9	0.0
Abnormal findings on diagnostic imaging in function studies without diagnosis (R90 - R94)	9	0.0
Unspecified/ Not yet resolved	9	0.0
Congenital malformations of eye, ear, face and neck (Q10 - Q18)	8	0.0
Other spirochactal diseases (A65 - A69)	7	0.0
Symptoms and signs involving skin and subcutaneous tissue (R20 - R23)	7	0.0
Pediculosis, acariasis and other infestations (B85 - B89)	6	0.0
Symptoms and signs involving the nervous and musculoskeletal systems (R25 - R29)	6	0.0
Certain zoonotic bacteria diseases (A20 - A28)	5	0.0
Disorders of adult personality and behaviour (F60 - F69)	3	0.0
Disorders of psychological development (F80 - F89)	3	0.0
Papulosquamous disorders (L40 - L45)	3	0.0
Congenital malformation of genital organs (Q50 - Q56)	3	0.0
Disorders of vitreous body and globe (H43 - H45)	2	0.0
Other disorders of the musculoskeletal system and connective tissue (M95 - M99)	2	0.0
Rickettsioses (A75 - A79)	1	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
Disorders of sclera, cornea, iris and ciliary body (H15 - H22)	1	0.0
Disorders of choroid and retina (H30 - H36)	1	0.0
Other disorders of eye and adnexa (H55 - H59)	1	0.0
Diseases of inner ear (H80 - H83)	1	0.0
Other disorders of ear (H90 - H95)	1	0.0
Other diseases caused by chlamydiae (A70 - A74)	-	-
Mental retardation (F70 - F79)	-	-
Disorders of conjunctiva (H10 - H13)	-	-
Disorders of lens (H25 - H28)	-	-
Glaucoma (H40 - H42)	-	-
Disorders of optic nerve and visual pathways (H46 - H48)	-	-
Disorders of ocular muscles, binocular movement, accommodation and refraction (H49 - H52)	-	-
Diseases of external ear (H60 - H62)	-	-
Radiation-related disorders of the skin and subcutaneous tissue (L55 - L59)	-	-
Disorders of skin appendages (L60 - L75)	-	-
Other disorders of the genito-urinary system (N99)	-	-
Delivery (O80 - O84)	-	-
Symptoms and signs involving speech and voice (R47 - R49)	-	-
Abnormal findings on examination of urine without diagnosis (R80 - R82)	-	-

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>1998</b>	<b>No. of deaths</b>	<b>%</b>
All causes	367,689	100.0
Ill-defined and unknown causes of mortality (R95 - R99)	45,681	12.4
Events of undetermined intent (Y10 - Y34)	45,449	12.4
Tuberculosis (A15 - A19)	28,487	7.7
Other forms of heart disease (I30 - I52)	21,721	5.9
Cerebrovascular diseases (I60 - I69)	18,667	5.1
Influenza and pneumonia (J10 - J18)	17,019	4.6
Chronic lower respiratory diseases (J40 - J47)	13,145	3.6
Diabetes mellitus (E10 - E14)	12,279	3.3
Ischaemic heart diseases (I20 - I25)	10,687	2.9
Malignant neoplasms of digestive organs (C15 - C26)	9,169	2.5
Intestinal infectious diseases (A00 - A09)	8,780	2.4
Hypertensive diseases (I10 - I15)	8,749	2.4
Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	8,107	2.2
Human immunodeficiency virus [HIV] diseases (B20 - B24)	7,266	2.0
Digestive system disorders of foetus and newborn (P75 - P78)	6,226	1.7
Certain disorders involving the immune mechanism (D80 - D89)	5,695	1.5
General symptoms and signs (R50 - R69)	5,364	1.5
Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	4,812	1.3
Diseases of liver (K70 - K77)	4,603	1.3
Other disorders originating in the perinatal period (P90 - P96)	3,991	1.1
Renal failure (N17 - N19)	3,745	1.0
Other external causes of accidental injury (W00 - X59)	3,565	1.0
Malignant neoplasms of female genital organs (C51 - C58)	2,898	0.8
Transport accidents (V01 - V99)	2,888	0.8
Malignant neoplasms of ill-defined, secondary and unspecified sites (C76 - C80)	2,760	0.8
Episodic and paroxysmal disorders (G40 - G47)	2,551	0.7
Other bacterial diseases (A30 - A49)	2,342	0.6
Malnutrition (E40 - E46)	2,223	0.6
Inflammatory diseases of the central nervous system (G00 - G09)	2,102	0.6
Pulmonary heart disease and diseases of pulmonary circulation (I26 - I28)	2,100	0.6
Other diseases of the respiratory system (J90 - J94)	2,053	0.6
Metabolic disorders (E70 - E88)	2,032	0.6
Disorders related to length of gestation and foetal growth (P05 - P08)	1,936	0.5
Other viral diseases (B25 - B34)	1,859	0.5
Malignant neoplasms of lymphoid, haematopoietic and related tissue (C81 - C96)	1,801	0.5
Malignant neoplasms of breast (C50)	1,758	0.5
Malignant neoplasms of male genital organs (C60 - C63)	1,623	0.4
Diseases of oesophagus, stomach and duodenum (K20 - K31)	1,617	0.4
Diseases of arteries, arterioles and capillaries (I70 - I79)	1,606	0.4
Foetus and newborn affected by maternal factors and by complications of pregnancy, labour and delivery (P00 - P04)	1,569	0.4
Complications of medical and surgical care (Y40 - Y84)	1,528	0.4
Aplastic and other anaemias (D60 - D64)	1,485	0.4
Other acute lower respiratory infections (J20 - J22)	1,438	0.4
Infections specific to the perinatal period (P35 - P39)	1,410	0.4
Assault (X85 - Y09)	1,348	0.4
Other respiratory diseases principally affecting the interstitium (J80 - J84)	1,255	0.3
Malignant neoplasms of lip, oral cavity and pharynx (C00 - C14)	968	0.3
Cerebral palsy and other paralytic syndromes (G80 - G83)	964	0.3
Protozoal diseases (B50 - B64)	916	0.2
Other diseases of intestines (K55 - K63)	902	0.2
Noninfective enteritis and colitis (K50 - K52)	852	0.2
Neoplasms of uncertain or unknown behaviour (D37 - D48)	832	0.2
Disorder of gallbladder, biliary tract and pancreas (K80 - K87)	750	0.2
Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	697	0.2
Organic, including symptomatic, mental disorders (F00 - F09)	672	0.2
Symptoms and signs involving the circulatory and respiratory systems (R00 - R09)	653	0.2
Lung diseases due to external agents (J60 - J70)	640	0.2
Other diseases of digestive system (K90 - K93)	628	0.2
Malignant neoplasms of urinary tract (C64 - C68)	615	0.2
Malignant neoplasms of independent (primary) multiple sites (C97)	614	0.2
Other disorders of glucoses regulation and pancreatic internal secretion (E15 - E16)	610	0.2
Arthropathies (M00 - M25)	603	0.2
Mental and behavioural disorders due to psychoactive substance use (F10 - F19)	573	0.2
Other disorders of the nervous system (G90 - G98)	571	0.2
Congenital malformations of the circulatory system (Q20 - Q28)	551	0.1
Chronic rheumatic heart diseases (I05 - I09)	525	0.1
Other disorders of the skin and subcutaneous (L80 - L99)	523	0.1

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>1998 (continued)</b>	<b>No. of deaths</b>	<b>%</b>
Malignant neoplasms of mesothelial and soft tissue (C45 - C49)	522	0.1
Transitory endocrine and metabolic disorders specific to foetus and newborn (P70 - P74)	505	0.1
Other degenerative diseases of the nervous system (G30 - G32)	492	0.1
Mycoses (B35 - B49)	445	0.1
Other diseases of pleura (J90 - J94)	436	0.1
Congenital malformations of the nervous system (Q00 - Q07)	426	0.1
Symptoms and signs involving digestive system and abdomen (R10 - R19)	420	0.1
Diseases of veins, lymphatic vessels and lymph nodes, not elsewhere classified (I80 - I89)	404	0.1
Malignant neoplasms of eye, brain and other parts of central nervous system (C69 - C72)	398	0.1
Suppurative and necrotic conditions of lower respiratory tract (J85 - J86)	386	0.1
Sequelae of infectious and parasitic diseases (B90 - B94)	342	0.1
Extrapyramidal and movement disorders (G20 - G26)	325	0.1
Melanoma and other malignant neoplasms of skin (C43 - C44)	310	0.1
Other congenital malformations (Q80 - Q89)	307	0.1
Other diseases of urinary system (N30 - N39)	290	0.1
Infections of the skin and subcutaneous tissue (L00 - L08)	286	0.1
Viral hepatitis (B15 - B19)	283	0.1
Obesity and other hyperalimentation (E65 - E68)	271	0.1
Glomerular diseases (N00 - N08)	247	0.1
Systemic connective tissue disorders (M30 - M36)	242	0.1
Diseases of peritoneum (K65 - K67)	240	0.1
Renal tubulo-interstitial diseases (N10 - N16)	239	0.1
Schizophrenia, schizotypal and delusional disorders (F20 - F29)	215	0.1
Coagulation defects, purpura and other haemorrhagic conditions (D65 - D69)	209	0.1
Diseases of male genital organs (N40 - N51)	201	0.1
Malignant neoplasms of bone and articular cartilage (C40 - C41)	195	0.1
Intentional self-harm (X60 - X84)	182	0.0
Chromosomal abnormalities not elsewhere classified (Q90 - Q99)	177	0.0
Oedema, proteinuria and hypertensive disorders in pregnancy, childbirth and puerperium (O10 - O16)	175	0.0
Other congenital malformations of the digestive system (Q38 - Q45)	167	0.0
Inflammatory diseases of female pelvic organs (N70 - N77)	158	0.0
Infections with predominantly sexual mode of transmission (A50 - A64)	154	0.0
Acute upper respiratory infections (J00 - J06)	153	0.0
Soft tissue disorders (M60 - M79)	151	0.0
Other infectious diseases (B99)	145	0.0
Benign neoplasms (D10 - D36)	144	0.0
Systemic atrophies primarily affecting the central nervous system (G10 - G13)	141	0.0
Disorders of thyroid gland (E00 - E07)	138	0.0
Other nutritional deficiencies (E50 - E64)	132	0.0
Viral infections of central nervous system (A80 - A89)	126	0.0
Hernia (K40 - K46)	126	0.0
Condition involving the integument and temperature regulation of foetus and newborn (P80 - P83)	122	0.0
Pregnancy with abortive outcome (O00 - O08)	117	0.0
Viral infections characterised by skin and mucous membrane lesions (B00 - B09)	116	0.0
Malignant neoplasms of thyroid and other endocrine glands (C73 - C75)	113	0.0
Complication predominantly related to the puerperium (O85 - O92)	104	0.0
Complication of labour and delivery (O60 - O75)	100	0.0
Osteopathies and chondropathies (M80 - M94)	94	0.0
Nutritional anaemias (D50 - D53)	83	0.0
Other diseases of upper respiratory tract (J30 - J39)	82	0.0
Polyneuropathies and other disorders of the peripheral nervous system (G60 - G64)	76	0.0
Diseases of appendix (K35 - K38)	76	0.0
Diseases of myoneural junction and muscle (G70 - G73)	73	0.0
Dorsopathies (M40 - M54)	72	0.0
Congenital malformations of and deformations of the musculoskeletal system (Q65 - Q79)	71	0.0
Helminthiasis (B65 - B83)	69	0.0
Noninflammatory disorders of female genital tract (N80 - N98)	69	0.0
Other obstetric conditions not elsewhere classified (O95 - O99)	68	0.0
Diseases of middle ear and mastoid (H65 - H75)	64	0.0
Other disorders of kidney and ureter (N25 - N29)	62	0.0
Disorders of other endocrine glands (E20 - E35)	61	0.0
Other diseases of blood and blood-forming organs (D70 - D77)	58	0.0
Congenital malformation of urinary system (Q60 - Q64)	58	0.0
Behavioural syndromes associated with physiological disturbances and physical factors (F50 - F59)	52	0.0
Demyelinating diseases of the of the central nervous system (G35 - G37)	52	0.0
Maternal care related to the foetus and amniotic cavity and possible delivery problems (O30 - O48)	52	0.0
Birth trauma (P10 - P15)	51	0.0
Other and unspecified disorders of the circulatory system (I95 - I99)	50	0.0

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>1998 (concluded)</b>	<b>No. of deaths</b>	<b>%</b>
Congenital malformations of the respiratory system (Q30 - Q34)	50	0.0
Symptoms and signs involving cognition, perception, emotional state and behaviour (R40 - R46)	48	0.0
Diseases of oral cavity, salivary glands and jaws (K00 - K14)	47	0.0
Acute rheumatic fever (I00 - I02)	33	0.0
Other maternal disorders predominantly related to pregnancy (O20 - O29)	29	0.0
Urticaria and erythema (L50 - L54)	27	0.0
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	27	0.0
Haemolytic anaemias (D55 - D59)	25	0.0
Unspecified mental disorder (F99)	23	0.0
Dermatitis and eczema (L20 - L30)	22	0.0
Symptoms and signs involving the urinary system (R30 - R39)	20	0.0
Legal intervention and operations of war (Y35 - Y36)	20	0.0
Mood [affective] disorders (F30 - F39)	19	0.0
Neurotic, stress-related and somatoform disorders (F40 - F48)	19	0.0
Nerve, nerve root and plexus disorders (G50 - G59)	18	0.0
Symptoms and signs involving the nervous and musculoskeletal systems (R25 - R29)	18	0.0
Abnormal findings on examination of blood without diagnosis (R70 - R79)	18	0.0
Urolithiasis (N20 - N23)	17	0.0
Bullous disorders (L10 - L14)	15	0.0
Symptoms and signs involving skin and subcutaneous tissue (R20 - R23)	13	0.0
Unspecified/ Not yet resolved	13	0.0
Abnormal findings on diagnostic imaging in function studies without diagnosis (R90 - R94)	12	0.0
Pediculosis, acariasis and other infestations (B85 - B89)	10	0.0
In situ neoplasms (D00 - D09)	10	0.0
Cleft lip and cleft palate (Q35 - Q37)	10	0.0
Congenital malformation of genital organs (Q50 - Q56)	9	0.0
Papulosquamous disorders (L40 - L45)	8	0.0
Congenital malformations of eye, ear, face and neck (Q10 - Q18)	8	0.0
Abnormal findings on examination of other fluids, substances and tissues without diagnosis (R83 - R89)	8	0.0
Rickettsioses (A75 - A79)	7	0.0
Arthropod-borne viral fevers and viral haemorrhagic fevers (A90 - A99)	7	0.0
Disorders of the breast (N60 - N64)	7	0.0
Disorders of adult personality and behaviour (F60 - F69)	6	0.0
Disorders of eyelid, lacrimal system and orbit (H00 - H06)	6	0.0
Other spirochactal diseases (A65 - A69)	5	0.0
Visual disturbances and blindness (H53 - H54)	5	0.0
Certain zoonotic bacteria diseases (A20 - A28)	4	0.0
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence (F90 - F98)	3	0.0
Glaucoma (H40 - H42)	3	0.0
Disorders of vitreous body and globe (H43 - H45)	3	0.0
Diseases of external ear (H60 - H62)	3	0.0
Symptoms and signs involving speech and voice (R47 - R49)	3	0.0
Disorders of sclera, cornea, iris and ciliary body (H15 - H22)	2	0.0
Other disorders of eye and adnexa (H55 - H59)	2	0.0
Other disorders of ear (H90 - H95)	2	0.0
Other disorders of the musculoskeletal system and connective tissue (M95 - M99)	2	0.0
Disorders of psychological development (F80 - F89)	1	0.0
Disorders of conjunctiva (H10 - H13)	1	0.0
Disorders of choroid and retina (H30 - H36)	1	0.0
Disorders of skin appendages (L60 - L75)	1	0.0
Abnormal findings on examination of urine without diagnosis (R80 - R82)	1	0.0
Other diseases caused by chlamydiae (A70 - A74)	0	0.0
Mental retardation (F70 - F79)	0	0.0
Disorders of lens (H25 - H28)	0	0.0
Disorders of optic nerve and visual pathways (H46 - H48)	0	0.0
Disorders of ocular muscles, binocular movement, accommodation and refraction (H49 - H52)	0	0.0
Diseases of inner ear (H80 - H83)	0	0.0
Radiation-related disorders of the skin and subcutaneous tissue (L55 - L59)	0	0.0
Other disorders of the genito-urinary system (N99)	0	0.0
Delivery (O80 - O84)	0	0.0

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>1999</b>	<b>No. of deaths</b>	<b>%</b>
All causes	381,902	100.0
Ill-defined and unknown causes of mortality (R95 - R99)	40,125	10.5
Events of undetermined intent (Y10 - Y34)	37,173	9.7
Tuberculosis (A15 - A19)	34,173	8.9
Other forms of heart disease (I30 - I52)	20,120	5.3
Cerebrovascular diseases (I60 - I69)	19,948	5.2
Influenza and pneumonia (J10 - J18)	19,135	5.0
Chronic lower respiratory diseases (J40 - J47)	12,573	3.3
Diabetes mellitus (E10 - E14)	12,540	3.3
Ischaemic heart diseases (I20 - I25)	11,426	3.0
Intestinal infectious diseases (A00 - A09)	11,155	2.9
Human immunodeficiency virus [HIV] diseases (B20 - B24)	9,925	2.6
Hypertensive diseases (I10 - I15)	9,427	2.5
Malignant neoplasms of digestive organs (C15 - C26)	9,367	2.5
Certain disorders involving the immune mechanism (D80 - D89)	8,590	2.2
Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	8,121	2.1
Digestive system disorders of foetus and newborn (P75 - P78)	6,451	1.7
Other external causes of accidental injury (W00 - X59)	6,158	1.6
General symptoms and signs (R50 - R69)	5,757	1.5
Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	4,981	1.3
Transport accidents (V01 - V99)	4,847	1.3
Diseases of liver (K70 - K77)	4,653	1.2
Renal failure (N17 - N19)	3,662	1.0
Other disorders originating in the perinatal period (P90 - P96)	3,358	0.9
Malignant neoplasms of female genital organs (C51 - C58)	3,042	0.8
Malignant neoplasms of ill-defined, secondary and unspecified sites (C76 - C80)	2,919	0.8
Assault (X85 - Y09)	2,909	0.8
Episodic and paroxysmal disorders (G40 - G47)	2,760	0.7
Other viral diseases (B25 - B34)	2,759	0.7
Inflammatory diseases of the central nervous system (G00 - G09)	2,581	0.7
Other bacterial diseases (A30 - A49)	2,400	0.6
Pulmonary heart disease and diseases of pulmonary circulation (I26 - I28)	2,307	0.6
Malnutrition (E40 - E46)	2,155	0.6
Other diseases of the respiratory system (J90 - J94)	2,127	0.6
Metabolic disorders (E70 - E88)	2,004	0.5
Malignant neoplasms of breast (C50)	1,901	0.5
Malignant neoplasms of lymphoid, haematopoietic and related tissue (C81 - C96)	1,861	0.5
Diseases of oesophagus, stomach and duodenum (K20 - K31)	1,835	0.5
Complications of medical and surgical care (Y40 - Y84)	1,821	0.5
Protozoal diseases (B50 - B64)	1,764	0.5
Malignant neoplasms of male genital organs (C60 - C63)	1,738	0.5
Disorders related to length of gestation and foetal growth (P05 - P08)	1,587	0.4
Diseases of arteries, arterioles and capillaries (I70 - I79)	1,581	0.4
Aplastic and other anaemias (D60 - D64)	1,524	0.4
Other respiratory diseases principally affecting the interstitium (J80 - J84)	1,482	0.4
Infections specific to the perinatal period (P35 - P39)	1,479	0.4
Other acute lower respiratory infections (J20 - J22)	1,457	0.4
Foetus and newborn affected by maternal factors & complications of pregnancy, etc. (P00 - P04)	1,161	0.3
Noninfective enteritis and colitis (K50 - K52)	1,152	0.3
Other diseases of intestines (K55 - K63)	975	0.3
Malignant neoplasms of lip, oral cavity and pharynx (C00 - C14)	958	0.3
Arthropathies (M00 - M25)	826	0.2
Symptoms and signs involving the circulatory and respiratory systems (R00 - R09)	795	0.2
Neoplasms of uncertain or unknown behaviour (D37 - D48)	772	0.2
Lung diseases due to external agents (J60 - J70)	764	0.2
Cerebral palsy and other paralytic syndromes (G80 - G83)	743	0.2
Disorder of gallbladder, biliary tract and pancreas (K80 - K87)	736	0.2
Other disorders of the nervous system (G90 - G98)	670	0.2
Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	666	0.2
Organic, including symptomatic, mental disorders (F00 - F09)	643	0.2
Other disorders of glucoses regulation and pancreatic internal secretion (E15 - E16)	643	0.2
Other diseases of digestive system (K90 - K93)	633	0.2
Malignant neoplasms of urinary tract (C64 - C68)	627	0.2
Malignant neoplasms of independent (primary) multiple sites (C97)	609	0.2
Other disorders of the skin and subcutaneous (L80 - L99)	607	0.2
Mycoses (B35 - B49)	593	0.2

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>1999 (continued)</b>	<b>No. of deaths</b>	<b>%</b>
Mental and behavioural disorders due to psychoactive substance use (F10 - F19)	583	0.2
Malignant neoplasms of mesothelial and soft tissue (C45 - C49)	572	0.1
Chronic rheumatic heart diseases (I05 - I09)	551	0.1
Congenital malformations of the circulatory system (Q20 - Q28)	533	0.1
Other degenerative diseases of the nervous system (G30 - G32)	533	0.1
Transitory endocrine and metabolic disorders specific to foetus and newborn (P70 - P74)	462	0.1
Other diseases of pleura (J90 - J94)	458	0.1
Sequelae of infectious and parasitic diseases (B90 - B94)	437	0.1
Diseases of veins, lymphatic vessels and lymph nodes not elsewhere classified (I80 - I89)	431	0.1
Malignant neoplasms of eye, brain and other parts of central nervous system (C69 - C72)	415	0.1
Suppurative and necrotic conditions of lower respiratory tract (J85 - J86)	397	0.1
Extrapyramidal and movement disorders (G20 - G26)	343	0.1
Melanoma and other malignant neoplasms of skin (C43 - C44)	340	0.1
Symptoms and signs involving digestive system and abdomen (R10 - R19)	339	0.1
Congenital malformations of the nervous system (Q00 - Q07)	338	0.1
Viral hepatitis (B15 - B19)	332	0.1
Infections of the skin and subcutaneous tissue (L00 - L08)	310	0.1
Systemic connective tissue disorders (M30 - M36)	294	0.1
Renal tubulo-interstitial diseases (N10 - N16)	290	0.1
Other diseases of urinary system (N30 - N39)	288	0.1
Intentional self-harm (X60 - X84)	283	0.1
Obesity and other hyperalimentation (E65 - E68)	282	0.1
Other congenital malformations (Q80 - Q89)	273	0.1
Glomerular diseases (N00 - N08)	256	0.1
Diseases of peritoneum (K65 - K67)	240	0.1
Coagulation defects, purpura and other haemorrhagic conditions (D65 - D69)	212	0.1
Schizophrenia, schizotypal and delusional disorders (F20 - F29)	210	0.1
Diseases of male genital organs (N40 - N51)	204	0.1
Chromosomal abnormalities not elsewhere classified (Q90 - Q99)	203	0.1
Malignant neoplasms of bone and articular cartilage (C40 - C41)	203	0.1
Infections with predominantly sexual mode of transission (A50 - A64)	198	0.1
Oedema, proteinuria and hypertensive disorders in pregnancy, childbirth and puerperium (O10 - O16)	185	0.0
Disorders of thyroid gland (E00 - E07)	171	0.0
Benign neoplasms (D10 - D36)	168	0.0
Other congenital malformation of the digestive system (Q38 - Q45)	165	0.0
Condition involving the integument and temperature regulation of foetus and newborn (P80 - P83)	157	0.0
Soft tissue disorders (M60 - M79)	155	0.0
Hernia (K40 - K46)	143	0.0
Acute upper respiratory infections (J00 - J06)	142	0.0
Inflammatory diseases of female pelvic organs (N70 - N77)	140	0.0
Complications of labour and delivery (O60 - O75)	139	0.0
Viral infections of central nervous system (A80 - A89)	134	0.0
Other nutritional deficiencies (E50 - E64)	132	0.0
Pregnancy with abortive outcome (O00 - O08)	132	0.0
Nutritional anaemias (D50 - D53)	125	0.0
Viral infections characterised by skin and mucous membrane lesions (B00 - B09)	125	0.0
Systemic atrophies primarily affecting the central nervous system (G10 - G13)	119	0.0
Malignant neoplasms of thyroid and other endocrine glands (C73 - C75)	114	0.0
Other infectious diseases (B99)	113	0.0
Complications predominantly related to the puerperium (O85 - O92)	112	0.0
Other diseases of upper respiratory tract (J30 - J39)	110	0.0
Helminthiases (B65 - B83)	92	0.0
Osteopathies and chondropathies (M80 - M94)	85	0.0
Dorsopathies (M40 - M54)	84	0.0
Diseases of appendix (K35 - K38)	83	0.0
Diseases of myoneural junction and muscle (G70 - G73)	77	0.0
Noninflammatory disorders of female genital tract (N80 - N98)	77	0.0
Polyneuropathies and other disorders of the peripheral nervous system (G60 - G64)	77	0.0
Diseases of middle ear and mastoid (H65 - H75)	72	0.0
Disorders of other endocrine glands (E20 - E35)	71	0.0
Other obstetric conditions not elsewhere classified (O95 - O99)	68	0.0
Demyelinating diseases of the central nervous system (G35 - G37)	64	0.0
Congenital malformations of the respiratory system (Q30 - Q34)	61	0.0
Acute rheumatic fever (I00 - I02)	56	0.0
Maternal care related to the foetus and amniotic cavity and possible delivery problems (O30 - O48)	56	0.0

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>1999 (concluded)</b>	<b>No. of deaths</b>	<b>%</b>
Other and unspecified disorders of the circulatory system (I95 - I99)	55	0.0
Other disorders of kidney and ureter (N25 - N29)	52	0.0
Birth trauma (P10 - P15)	51	0.0
Congenital malformation of urinary system (Q60 - Q64)	49	0.0
Symptoms and signs involving cognition, perception, emotional state and behaviour (R40 - R46)	49	0.0
Other diseases of blood and blood-forming organs (D70 - D77)	48	0.0
Abnormal findings on examination of blood without diagnosis (R70 - R79)	47	0.0
Congenital malformations of and deformations of the musculoskeletal system (Q65 - Q79)	46	0.0
Diseases of oral cavity, salivary glands and jaws (K00 - K14)	46	0.0
Dermatitis and eczema (L20 - L30)	43	0.0
Behavioural syndromes associated with physiological disturbances and physical factors (F50 - F59)	39	0.0
Neurotic, stress-related and somatoform disorders (F40 - F48)	34	0.0
Mood [affective] disorders (F30 - F39)	31	0.0
Unspecified mental disorder (F99)	31	0.0
Haemolytic anaemias (D55 - D59)	29	0.0
Urticaria and erythema (L50 - L54)	28	0.0
Other maternal disorders predominantly related to pregnancy (O20 - O29)	25	0.0
In situ neoplasms (D00 - D09)	24	0.0
Symptoms and signs involving the nervous and musculoskeletal systems (R25 - R29)	23	0.0
Abnormal findings on diagnostic imaging in function studies without diagnosis (R90 - R94)	21	0.0
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	21	0.0
Cleft lip and cleft palate (Q35 - Q37)	19	0.0
Legal intervention and operations of war (Y35 - Y36)	19	0.0
Nerve, nerve root and plexus disorders (G50 - G59)	17	0.0
Symptoms and signs involving the urinary system (R30 - R39)	17	0.0
Arthropod-borne viral fevers and viral haemorrhagic fevers (A90 - A99)	15	0.0
Bullous disorders (L10 - L14)	15	0.0
Visual disturbances and blindness (H53 - H54)	13	0.0
Abnormal findings on examination of other fluids, substances and tissues without diagnosis (R83 - R89)	12	0.0
Certain zoonotic bacteria diseases (A20 - A28)	11	0.0
Pediculosis, acariasis and other infestations (B85 - B89)	11	0.0
Papulosquamous disorders (L40 - L45)	10	0.0
Symptoms and signs involving skin and subcutaneous tissue (R20 - R23)	10	0.0
Disorders of the breast (N60 - N64)	9	0.0
Disorders of adult personality and behaviour (F60 - F69)	8	0.0
Urolithiasis (N20 - N23)	8	0.0
Disorders of eyelid, lacrimal system and orbit (H00 - H06)	7	0.0
Rickettsioses (A75 - A79)	7	0.0
Unspecified/ Not yet resolved	6	0.0
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence (F90 - F98)	5	0.0
Disorders of psychological development (F80 - F89)	5	0.0
Disorders of sclera, cornea, iris and ciliary body (H15 - H22)	5	0.0
Other spirochactal diseases (A65 - A69)	5	0.0
Congenital malformations of eye, ear, face and neck (Q10 - Q18)	4	0.0
Disorders of choroid and retina (H30 - H36)	4	0.0
Disorders of vitreous body and globe (H43 - H45)	4	0.0
Diseases of external ear (H60 - H62)	3	0.0
Congenital malformation of genital organs (Q50 - Q56)	2	0.0
Disorders of conjunctiva (H10 - H13)	2	0.0
Other diseases caused by chlamydiae (A70 - A74)	2	0.0
Other disorders of ear (H90 - H95)	2	0.0
Symptoms and signs involving speech and voice (R47 - R49)	2	0.0
Disorders of lens (H25 - H28)	1	0.0
Disorders of ocular muscles, binocular movement, accommodation and refraction (H49 - H52)	1	0.0
Disorders of skin appendages (L60 - L75)	1	0.0
Glaucoma (H40 - H42)	1	0.0
Other disorders of the musculoskeletal system and connective tissue (M95 - M99)	1	0.0
Radiation-related disorders of the skin and subcutaneous tissue (L55 - L59)	1	0.0
Abnormal findings on examination of urine without diagnosis (R80 - R82)	0	0.0
Delivery (O80 - O84)	0	0.0
Diseases of inner ear (H80 - H83)	0	0.0
Disorders of optic nerve and visual pathways (H46 - H48)	0	0.0
Mental retardation (F70 - F79)	0	0.0
Other disorders of eye and adnexa (H55 - H59)	0	0.0
Other disorders of the genito-urinary system (N99)	0	0.0

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>2000</b>	<b>No. of deaths</b>	<b>%</b>
All causes	413,969	100.0
Ill-defined and unknown causes of mortality (R95 - R99)	42,897	10.4
Tuberculosis (A15 - A19)	42,102	10.2
Events of undetermined intent (Y10 - Y34)	36,695	8.9
Influenza and pneumonia (J10 - J18)	24,580	5.9
Cerebrovascular diseases (I60 - I69)	21,922	5.3
Other forms of heart disease (I30 - I52)	21,409	5.2
Intestinal infectious diseases (A00 - A09)	14,139	3.4
Diabetes mellitus (E10 - E14)	13,533	3.3
Chronic lower respiratory diseases (J40 - J47)	13,234	3.2
Ischaemic heart diseases (I20 - I25)	11,640	2.8
Certain disorders involving the immune mechanism (D80 - D89)	10,926	2.6
Human immunodeficiency virus [HIV] diseases (B20 - B24)	10,420	2.5
Hypertensive diseases (I10 - I15)	10,199	2.5
Malignant neoplasms of digestive organs (C15 - C26)	9,186	2.2
Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	8,919	2.2
General symptoms and signs (R50 - R69)	6,066	1.5
Digestive system disorders of foetus and newborn (P75 - P78)	5,615	1.4
Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	4,718	1.1
Diseases of liver (K70 - K77)	4,610	1.1
Other external causes of accidental injury (W00 - X59)	4,406	1.1
Renal failure (N17 - N19)	4,212	1.0
Transport accidents (V01 - V99)	4,197	1.0
Other viral diseases (B25 - B34)	3,804	0.9
Inflammatory diseases of the central nervous system (G00 - G09)	3,398	0.8
Other disorders originating in the perinatal period (P90 - P96)	3,239	0.8
Episodic and paroxysmal disorders (G40 - G47)	3,161	0.8
Malignant neoplasms of female genital organs (C51 - C58)	3,119	0.8
Malignant neoplasms of ill-defined, secondary and unspecified sites (C76 - C80)	2,993	0.7
Other bacterial diseases (A30 - A49)	2,833	0.7
Other diseases of the respiratory system (J90 - J94)	2,439	0.6
Pulmonary heart disease and diseases of pulmonary circulation (I26 - I28)	2,356	0.6
Metabolic disorders (E70 - E88)	2,317	0.6
Protozoal diseases (B50 - B64)	2,238	0.5
Assault (X85 - Y09)	2,111	0.5
Diseases of oesophagus, stomach and duodenum (K20 - K31)	2,101	0.5
Malnutrition (E40 - E46)	2,094	0.5
Malignant neoplasms of lymphoid, haematopoietic and related tissue (C81 - C96)	1,953	0.5
Malignant neoplasms of breast (C50)	1,940	0.5
Malignant neoplasms of male genital organs (C60 - C63)	1,835	0.4
Complications of medical and surgical care (Y40 - Y84)	1,763	0.4
Noninfective enteritis and colitis (K50 - K52)	1,743	0.4
Aplastic and other anaemias (D60 - D64)	1,690	0.4
Disorders related to length of gestation and foetal growth (P05 - P08)	1,679	0.4
Other acute lower respiratory infections (J20 - J22)	1,642	0.4
Infections specific to the perinatal period (P35 - P39)	1,573	0.4
Diseases of arteries, arterioles and capillaries (I70 - I79)	1,570	0.4
Other respiratory diseases principally affecting the interstitium (J80 - J84)	1,295	0.3
Symptoms and signs involving the circulatory and respiratory systems (R00 - R09)	1,290	0.3
Other diseases of intestines (K55 - K63)	1,080	0.3
Foetus and newborn affected by maternal factors and by complications of pregnancy, labour and delivery (P00 - P04)	1,019	0.2
Malignant neoplasms of lip, oral cavity and pharynx (C00 - C14)	966	0.2
Mycoses (B35 - B49)	948	0.2
Arthropathies (M00 - M25)	829	0.2
Cerebral palsy and other paralytic syndromes (G80 - G83)	803	0.2
Organic, including symptomatic, mental disorders (F00 - F09)	792	0.2
Neoplasms of uncertain or unknown behaviour (D37 - D48)	783	0.2
Other disorders of glucoses regulation and pancreatic internal secretion (E15 - E16)	766	0.2
Lung diseases due to external agents (J60 - J70)	745	0.2
Disorder of gallbladder, biliary tract and pancreas (K80 - K87)	742	0.2
Malignant neoplasms of urinary tract (C64 - C68)	688	0.2
Other disorder of the nervous system (G90 - G98)	664	0.2
Malignant neoplasms of mesothelial and soft tissue (C45 - C49)	663	0.2
Other diseases of digestive system (K90 - K93)	660	0.2
Other disorders of the skin and subcutaneous (L80 - L99)	649	0.2
Malignant neoplasms of independent (primary) multiple sites (C97)	648	0.2
Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	645	0.2
Other degenerative diseases of the nervous system (G30 - G32)	625	0.2

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>2000 (continued)</b>	<b>No. of deaths</b>	<b>%</b>
Symptoms and signs involving digestive system and abdomen (R10 - R19)	624	0.2
Chronic rheumatic heart diseases (I05 - I09)	551	0.1
Congenital malformations of the circulatory system (Q20 - Q28)	549	0.1
Mental and behavioural disorders due to psychoactive substance use (F10 - F19)	532	0.1
Other diseases of pleura (J90 - J94)	524	0.1
Sequelae of infectious and parasitic diseases (B90 - B94)	505	0.1
Diseases of veins, lymphatic vessels and lymph nodes, not elsewhere classified (I80 - I89)	481	0.1
Transitory endocrine and metabolic disorders specific to foetus and newborn (P70 - P74)	448	0.1
Suppurative and necrotic conditions of lower respiratory tract (J85 - J86)	395	0.1
Infections of the skin and subcutaneous tissue (L00 - L08)	379	0.1
Malignant neoplasms of eye, brain and other parts of central nervous system (C69 - C72)	374	0.1
Congenital malformations of the nervous system (Q00 - Q07)	360	0.1
Extrapyramidal and movement disorders (G20 - G26)	343	0.1
Melanoma and other malignant neoplasms of skin (C43 - C44)	311	0.1
Renal tubulo-interstitial diseases (N10 - N16)	278	0.1
Glomerular diseases (N00 - N08)	272	0.1
Intentional self-harm (X60 - X84)	267	0.1
Obesity and other hyperalimentation (E65 - E68)	266	0.1
Other diseases of urinary system (N30 - N39)	264	0.1
Diseases of peritoneum (K65 - K67)	260	0.1
Viral hepatitis (B15 - B19)	253	0.1
Other congenital malformations (Q80 - Q89)	251	0.1
Coagulation defects, purpura and other haemorrhagic conditions (D65 - D69)	249	0.1
Systemic connective tissue disorders (M30 - M36)	247	0.1
Schizophrenia, schizotypal and delusional disorders (F20 - F29)	245	0.1
Diseases of male genital organs (N40 - N51)	215	0.1
Oedema, proteinuria and hypertensive disorders in pregnancy, childbirth and puerperium (O10 - O16)	211	0.1
Other infectious diseases (B99)	210	0.1
Inflammatory diseases of female pelvic organs (N70 - N77)	209	0.1
Malignant neoplasms of bone and articular cartilage (C40 - C41)	194	0.0
Disorders of thyroid gland (E00 - E07)	188	0.0
Viral infections of central nervous system (A80 - A89)	185	0.0
Chromosomal abnormalities not elsewhere classified (Q90 - Q99)	180	0.0
Viral infections characterised by skin and mucous membrane lesions (B00 - B09)	175	0.0
Soft tissue disorders (M60 - M79)	175	0.0
Benign neoplasms (D10 - D36)	172	0.0
Other congenital malformation of the digestive system (Q38 - Q45)	167	0.0
Infections with predominantly sexual mode of transmission (A50 - A64)	166	0.0
Nutritional anaemias (D50 - D53)	148	0.0
Acute upper respiratory infections (J00 - J06)	144	0.0
Pregnancy with abortive outcome (O00 - O08)	134	0.0
Other nutritional deficiencies (E50 - E64)	131	0.0
Other diseases of upper respiratory tract (J30 - J39)	129	0.0
Complication predominantly related to the puerperium (O85 - O92)	129	0.0
Condition involving the integument and temperature regulation of foetus and newborn (P80 - P83)	126	0.0
Systemic atrophies primarily affecting the central nervous system (G10 - G13)	121	0.0
Osteopathies and chondropathies (M80 - M94)	120	0.0
Hernia (K40 - K46)	117	0.0
Malignant neoplasms of thyroid and other endocrine glands (C73 - C75)	116	0.0
Complications of labour and delivery (O60 - O75)	115	0.0
Diseases of appendix (K35 - K38)	104	0.0
Polyneuropathies and other disorders of the peripheral nervous system (G60 - G64)	101	0.0
Helminthiasis (B65 - B83)	96	0.0
Diseases of myoneural junction and muscle (G70 - G73)	88	0.0
Noninflammatory disorders of female genital tract (N80 - N98)	76	0.0
Dorsopathies (M40 - M54)	74	0.0
Other obstetric conditions not elsewhere classified (O95 - O99)	70	0.0
Disorders of other endocrine glands (E20 - E35)	69	0.0
Other and unspecified disorders of the circulatory system (I95 - I99)	68	0.0
Congenital malformations of and deformations of the musculoskeletal system (Q65 - Q79)	68	0.0
Symptoms and signs involving cognition, perception, emotional state and behaviour (R40 - R46)	68	0.0
Diseases of middle ear and mastoid (H65 - H75)	64	0.0
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	63	0.0
Diseases of oral cavity, salivary glands and jaws (K00 - K14)	60	0.0
Other disorders of kidney and ureter (N25 - N29)	60	0.0
Behavioural syndromes associated with physiological disturbances and physical factors (F50 - F59)	58	0.0
Congenital malformation of urinary system (Q60 - Q64)	56	0.0
Maternal care related to the foetus and amniotic cavity and possible delivery problems (O30 - O48)	54	0.0

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>2000 (concluded)</b>	<b>No. of deaths</b>	<b>%</b>
Congenital malformations of the respiratory system (Q30 - Q34)	53	0.0
Abnormal findings on examination of blood without diagnosis (R70 - R79)	50	0.0
Haemolytic anaemias (D55 - D59)	49	0.0
Birth trauma (P10 - P15)	49	0.0
Demyelinating diseases of the central nervous system (G35 - G37)	46	0.0
Urticaria and erythema (L50 - L54)	46	0.0
Neurotic, stress-related and somatoform disorders (F40 - F48)	41	0.0
Acute rheumatic fever (I00 - I02)	41	0.0
Other diseases of blood and blood-forming organs (D70 - D77)	39	0.0
Unspecified mental disorder (F99)	39	0.0
Other maternal disorders predominantly related to pregnancy (O20 - O29)	38	0.0
Symptoms and signs involving the urinary system (R30 - R39)	38	0.0
Abnormal findings on diagnostic imaging in function studies without diagnosis (R90 - R94)	31	0.0
Dermatitis and eczema (L20 - L30)	28	0.0
Mood [affective] disorders (F30 - F39)	27	0.0
Disorders of the breast (N60 - N64)	26	0.0
In situ neoplasms (D00 - D09)	25	0.0
Arthropod-borne viral fevers and viral haemorrhagic fevers (A90 - A99)	23	0.0
Symptoms and signs involving the nervous and musculoskeletal systems (R25 - R29)	18	0.0
Pediculosis, acariasis and other infestations (B85 - B89)	16	0.0
Nerve, nerve root and plexus disorders (G50 - G59)	16	0.0
Papulosquamous disorders (L40 - L45)	16	0.0
Urolithiasis (N20 - N23)	16	0.0
Symptoms and signs involving skin and subcutaneous tissue (R20 - R23)	16	0.0
Bullous disorders (L10 - L14)	14	0.0
Cleft lip and cleft palate (Q35 - Q37)	12	0.0
Legal intervention and operations of war (Y35 - Y36)	12	0.0
Other spirochactal diseases (A65 - A69)	11	0.0
Abnormal findings on examination of other fluids, substances and tissues without diagnosis (R83 - R89)	11	0.0
Visual disturbances and blindness (H53 - H54)	10	0.0
Congenital malformations of eye, ear, face and neck (Q10 - Q18)	9	0.0
Disorders of adult personality and behaviour (F60 - F69)	8	0.0
Disorders of psychological development (F80 - F89)	7	0.0
Symptoms and signs involving speech and voice (R47 - R49)	7	0.0
Congenital malformation of genital organs (Q50 - Q56)	5	0.0
Certain zoonotic bacteria diseases (A20 - A28)	4	0.0
Rickettsioses (A75 - A79)	4	0.0
Disorders of eyelid, lacrimal system and orbit (H00 - H06)	4	0.0
Diseases of external ear (H60 - H62)	4	0.0
Radiation-related disorders of the skin and subcutaneous tissue (L55 - L59)	4	0.0
Abnormal findings on examination of urine without diagnosis (R80 - R82)	4	0.0
Unspecified/ Not yet resolved	4	0.0
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence (F90 - F98)	3	0.0
Disorders of sclera, cornea, iris and ciliary body (H15 - H22)	3	0.0
Disorders of lens (H25 - H28)	3	0.0
Glaucoma (H40 - H42)	3	0.0
Disorders of vitreous body and globe (H43 - H45)	3	0.0
Other disorders of the musculoskeletal system and connective tissue (M95 - M99)	3	0.0
Disorders of choroid and retina (H30 - H36)	2	0.0
Disorders of optic nerve and visual pathways (H46 - H48)	2	0.0
Disorders of ocular muscles, binocular movement, accommodation and refraction (H49 - H52)	2	0.0
Other disorders of ear (H90 - H95)	2	0.0
Disorders of skin appendages (L60 - L75)	2	0.0
Other diseases caused by chlamydiae (A70 - A74)	1	0.0
Other disorders of eye and adnexa (H55 - H59)	1	0.0
Mental retardation (F70 - F79)	0	0.0
Disorders of conjunctiva (H10 - H13)	0	0.0
Diseases of inner ear (H80 - H83)	0	0.0
Other disorders of the genito-urinary system (N99)	0	0.0
Delivery (O80 - O84)	0	0.0

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>2001</b>	<b>No. of deaths</b>	<b>%</b>
All causes	451,936	100.0
Tuberculosis (A15 - A19)	50,872	11.3
Ill-defined and unknown causes of mortality (R95 - R99)	48,757	10.8
Events of undetermined intent (Y10 - Y34)	34,813	7.7
Influenza and pneumonia (J10 - J18)	31,495	7.0
Other forms of heart disease (I30 - I52)	22,602	5.0
Cerebrovascular diseases (I60 - I69)	22,577	5.0
Intestinal infectious diseases (A00 - A09)	16,060	3.6
Chronic lower respiratory diseases (J40 - J47)	14,681	3.2
Diabetes mellitus (E10 - E14)	14,557	3.2
Ischaemic heart diseases (I20 - I25)	11,777	2.6
Certain disorders involving the immune mechanism (D80 - D89)	11,670	2.6
Hypertensive diseases (I10 - I15)	10,748	2.4
Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	9,497	2.1
Malignant neoplasms of digestive organs (C15 - C26)	9,378	2.1
Human immunodeficiency virus [HIV] diseases (B20 - B24)	9,212	2.0
General symptoms and signs (R50 - R69)	5,909	1.3
Digestive system disorders of foetus and newborn (P75 - P78)	5,540	1.2
Diseases of liver (K70 - K77)	5,058	1.1
Other external causes of accidental injury (W00 - X59)	4,950	1.1
Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	4,909	1.1
Renal failure (N17 - N19)	4,849	1.1
Other viral diseases (B25 - B34)	4,809	1.1
Transport accidents (V01 - V99)	4,445	1.0
Inflammatory diseases of the central nervous system (G00 - G09)	4,167	0.9
Assault (X85 - Y09)	3,763	0.8
Other disorders originating in the perinatal period (P90 - P96)	3,460	0.8
Episodic and paroxysmal disorders (G40 - G47)	3,279	0.7
Malignant neoplasms of female genital organs (C51 - C58)	3,244	0.7
Other bacterial diseases (A30 - A49)	3,201	0.7
Other diseases of the respiratory system (J90 - J94)	3,141	0.7
Protozoal diseases (B50 - B64)	2,885	0.6
Metabolic disorders (E70 - E88)	2,619	0.6
Malignant neoplasms of ill-defined, secondary and unspecified sites (C76 - C80)	2,569	0.6
Noninfective enteritis and colitis (K50 - K52)	2,459	0.5
Diseases of oesophagus, stomach and duodenum (K20 - K31)	2,380	0.5
Pulmonary heart disease and diseases of pulmonary circulation (I26 - I28)	2,359	0.5
Other acute lower respiratory infections (J20 - J22)	2,281	0.5
Malnutrition (E40 - E46)	2,190	0.5
Malignant neoplasms of breast (C50)	2,189	0.5
Aplastic and other anaemias (D60 - D64)	2,173	0.5
Other respiratory diseases principal affecting the interstitium (J80 - J84)	1,968	0.4
Malignant neoplasms of male genital organs (C60 - C63)	1,864	0.4
Malignant neoplasms of lymphoid, haematopoietic and related tissue (C81 - C96)	1,848	0.4
Infections specific to the perinatal period (P35 - P39)	1,640	0.4
Complications of medical and surgical care (Y40 - Y84)	1,596	0.4
Diseases of arteries, arterioles and capillaries (I70 - I79)	1,592	0.4
Disorders related to length of gestation and foetal growth (P05 - P08)	1,430	0.3
Mycoses (B35 - B49)	1,354	0.3
Other diseases of intestines (K55 - K63)	1,153	0.3
Malignant neoplasms of lip, oral cavity and pharynx (C00 - C14)	1,045	0.2
Arthropathies (M00 - M25)	910	0.2
Symptoms and signs involving the circulatory and respiratory systems (R00 - R09)	875	0.2
Malignant neoplasms of mesothelial and soft tissue (C45 - C49)	856	0.2
Lung diseases due to external agents (J60 - J70)	829	0.2
Organic, including symptomatic, mental disorders (F00 - F09)	827	0.2
Disorder of gallbladder, biliary tract and pancreas (K80 - K87)	813	0.2
Cerebral palsy and other paralytic syndromes (G80 - G83)	807	0.2
Neoplasms of uncertain or unknown behaviour (D37 - D48)	805	0.2
Other disorders of glucoses regulation and pancreatic internal secretion (E15 - E16)	771	0.2
Other diseases of digestive system (K90 - K93)	733	0.2
Malignant neoplasms of urinary tract (C64 - C68)	717	0.2
Foetus and newborn affected by maternal factors and by complications of pregnancy, labour and delivery (P00 - P04)	698	0.2
Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	692	0.2
Other disorders of the nervous system (G90 - G98)	690	0.2
Other degenerative diseases of the nervous system (G30 - G32)	618	0.1

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>2001 (continued)</b>	<b>No. of deaths</b>	<b>%</b>
Other disorders of the skin and subcutaneous (L80 - L99)	599	0.1
Chronic rheumatic heart diseases (I05 - I09)	585	0.1
Transitory endocrine and metabolic disorders specific to foetus and newborn (P70 - P74)	568	0.1
Other diseases of pleura (J90 - J94)	539	0.1
Congenital malformations of the circulatory system (Q20 - Q28)	529	0.1
Symptoms and signs involving digestive system and abdomen (R10 - R19)	521	0.1
Diseases of veins, lymphatic vessels and lymph nodes not elsewhere classified (I80 - I89)	494	0.1
Mental and behavioural disorders due to psychoactive substance use (F10 - F19)	460	0.1
Malignant neoplasms of independent (primary) multiple sites (C97)	453	0.1
Suppurative and necrotic conditions of lower respiratory tract (J85 - J86)	447	0.1
Melanoma and other malignant neoplasms of skin (C43 - C44)	447	0.1
Infections of the skin and subcutaneous tissue (L00 - L08)	440	0.1
Intentional self-harm (X60 - X84)	386	0.1
Malignant neoplasms of eye, brain and other parts of central nervous system (C69 - C72)	377	0.1
Congenital malformations of the nervous system (Q00 - Q07)	367	0.1
Sequelae of infectious and parasitic diseases (B90 - B94)	351	0.1
Renal tubulo-interstitial diseases (N10 - N16)	332	0.1
Soft tissue disorders (M60 - M79)	321	0.1
Extrapyramidal and movement disorders (G20 - G26)	316	0.1
Glomerular diseases (N00 - N08)	302	0.1
Diseases of peritoneum (K65 - K67)	301	0.1
Systemic connective tissue disorders (M30 - M36)	282	0.1
Viral hepatitis (B15 - B19)	278	0.1
Other diseases of urinary system (N30 - N39)	275	0.1
Diseases of male genital organs (N40 - N51)	241	0.1
Inflammatory diseases of female pelvic organs (N70 - N77)	231	0.1
Coagulation defects, purpura and other haemorrhagic conditions (D65 - D69)	230	0.1
Schizophrenia, schizotypal and delusional disorders (F20 - F29)	230	0.1
Obesity and other hyperalimentation (E65 - E68)	222	0.0
Oedema, proteinuria and hypertensive disorders in pregnancy, childbirth and puerperium (O10 - O16)	215	0.0
Viral infections of central nervous system (A80 - A89)	212	0.0
Other congenital malformations (Q80 - Q89)	206	0.0
Viral infections characterised by skin and mucous membrane lesions (B00 - B09)	200	0.0
Acute upper respiratory infections (J00 - J06)	190	0.0
Other infectious diseases (B99)	187	0.0
Disorders of thyroid gland (E00 - E07)	179	0.0
Chromosomal abnormalities not elsewhere classified (Q90 - Q99)	178	0.0
Malignant neoplasms of bone and articular cartilage (C40 - C41)	176	0.0
Benign neoplasms (D10 - D36)	172	0.0
Complication predominantly related to the puerperium (O85 - O92)	168	0.0
Hernia (K40 - K46)	164	0.0
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	164	0.0
Systemic atrophies primarily affecting the central nervous system (G10 - G13)	161	0.0
Other congenital malformation of the digestive system (Q38 - Q45)	158	0.0
Nutritional anaemias (D50 - D53)	148	0.0
Complication of labour and delivery (O60 - O75)	148	0.0
Infectious with predominantly sexual mode of transmission (A50 - A64)	141	0.0
Pregnancy with abortive outcome (O00 - O08)	141	0.0
Malignant neoplasms of thyroid and other endocrine glands (C73 - C75)	136	0.0
Osteopathies and chondropathies (M80 - M94)	123	0.0
Condition involving the integument and temperature regulation of foetus and newborn (P80 - P83)	119	0.0
Other nutritional deficiencies (E50 - E64)	118	0.0
Diseases of appendix (K35 - K38)	118	0.0
Helminthiases (B65 - B83)	115	0.0
Other disorders of kidney and ureter (N25 - N29)	113	0.0
Other obstetric conditions not elsewhere classified (O95 - O99)	105	0.0
Polyneuropathies and other disorders of the peripheral nervous system (G60 - G64)	99	0.0
Other diseases of upper respiratory tract (J30 - J39)	98	0.0
Dorsopathies (M40 - M54)	96	0.0
Diseases of myoneural junction and muscle (G70 - G73)	92	0.0
Diseases of middle ear and mastoid (H65 - H75)	87	0.0
Noninflammatory disorders of female genital tract (N80 - N98)	81	0.0
Other and unspecified disorders of the circulatory system (I95 - I99)	76	0.0
Congenital malformations of the respiratory system (Q30 - Q34)	75	0.0
Diseases of oral cavity, salivary glands and jaws (K00 - K14)	69	0.0

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>2001 (concluded)</b>	<b>No. of deaths</b>	<b>%</b>
Congenital malformation of urinary system (Q60 - Q64)	69	0.0
Demyelinating diseases of the of the central nervous system (G35 - G37)	63	0.0
Congenital malformations of and deformations of the musculoskeletal system (Q65 - Q79)	62	0.0
Disorders of other endocrine glands (E20 - E35)	60	0.0
Other diseases of blood and blood-forming organs (D70 - D77)	57	0.0
Birth trauma (P10 - P15)	52	0.0
Mood [affective] disorders (F30 - F39)	47	0.0
Maternal care related to the foetus and amniotic cavity and possible delivery problems (O30 - O48)	47	0.0
Haemolytic anaemias (D55 - D59)	43	0.0
Urticaria and erythema (L50 - L54)	42	0.0
Symptoms and signs involving cognition, perception, emotional state and behaviour (R40 - R46)	42	0.0
Behavioural syndromes associated with physiological disturbances and physical factors (F50 - F59)	40	0.0
Dermatitis and eczema (L20 - L30)	39	0.0
Abnormal findings on examination of blood without diagnosis (R70 - R79)	38	0.0
Neurotic, stress-related and somatoform disorders (F40 - F48)	33	0.0
Unspecified/ Not yet resolved	33	0.0
Nerve, nerve root and plexus disorders (G50 - G59)	32	0.0
Acute rheumatic fever (I00 - I02)	31	0.0
Other maternal disorders predominantly related to pregnancy (O20 - O29)	31	0.0
Disorders of the breast (N60 - N64)	29	0.0
Symptoms and signs involving skin and subcutaneous tissue (R20 - R23)	22	0.0
Arthropod-borne viral fevers and viral haemorrhagic fevers (A90 - A99)	21	0.0
Unspecified mental disorder (F99)	20	0.0
Symptoms and signs involving the nervous and musculoskeletal systems (R25 - R29)	16	0.0
Abnormal findings on diagnostic imaging in function studies without diagnosis (R90 - R94)	16	0.0
Bullous disorders (L10 - L14)	14	0.0
Urolithiasis (N20 - N23)	13	0.0
Abnormal findings on examination of other fluids, substances and tissues without diagnosis (R83 - R89)	13	0.0
Pediculosis, acariasis and other infestations (B85 - B89)	11	0.0
Symptoms and signs involving the urinary system (R30 - R39)	11	0.0
Other spirochactal diseases (A65 - A69)	10	0.0
Visual disturbances and blindness (H53 - H54)	10	0.0
In situ neoplasms (D00 - D09)	7	0.0
Cleft lip and cleft palate (Q35 - Q37)	7	0.0
Legal intervention and operations of war (Y35 - Y36)	7	0.0
Papulosquamous disorders (L40 - L45)	6	0.0
Rickettsioses (A75 - A79)	5	0.0
Disorders of skin appendages (L60 - L75)	5	0.0
Congenital malformations of eye, ear, face and neck (Q10 - Q18)	5	0.0
Disorders of eyelid, lacrimal system and orbit (H00 - H06)	4	0.0
Symptoms and signs involving speech and voice (R47 - R49)	4	0.0
Disorders of adult personality and behaviour (F60 - F69)	2	0.0
Other disorders of eye and adnexa (H55 - H59)	2	0.0
Congenital malformation of genital organs (Q50 - Q56)	2	0.0
Certain zoonotic bacteria diseases (A20 - A28)	1	0.0
Disorders of psychological development (F80 - F89)	1	0.0
Disorders of sclera, cornea, iris and ciliary body (H15 - H22)	1	0.0
Disorders of lens (H25 - H28)	1	0.0
Disorders of choroid and retina (H30 - H36)	1	0.0
Other disorders of the musculoskeletal system and connective tissue (M95 - M99)	1	0.0
Other diseases caused by chlamydiae (A70 - A74)	0	0.0
Mental retardation (F70 - F79)	0	0.0
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence (F90 - F98)	0	0.0
Disorders of conjunctiva (H10 - H13)	0	0.0
Glaucoma (H40 - H42)	0	0.0
Disorders of vitreous body and globe (H43 - H45)	0	0.0
Disorders of optic nerve and visual pathways (H46 - H48)	0	0.0
Disorders of ocular muscles, binocular movement, accommodation and refraction (H49 - H52)	0	0.0
Diseases of external ear (H60 - H62)	0	0.0
Diseases of inner ear (H80 - H83)	0	0.0
Other disorders of ear (H90 - H95)	0	0.0
Radiation-related disorders of the skin and subcutaneous tissue (L55 - L59)	0	0.0
Other disorders of the genito-urinary system (N99)	0	0.0
Delivery (O80 - O84)	0	0.0
Abnormal findings on examination of urine without diagnosis (R80 - R82)	0	0.0

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>2002</b>	<b>No. of deaths</b>	<b>%</b>
All causes	499,268	100.0
Tuberculosis (A15 - A19)	59,951	12.0
Ill-defined and unknown causes of mortality (R95 - R99)	53,696	10.8
Events of undetermined intent (Y10 - Y34)	39,045	7.8
Influenza and pneumonia (J10 - J18)	37,637	7.5
Cerebrovascular diseases (I60 - I69)	25,165	5.0
Other forms of heart disease (I30 - I52)	22,623	4.5
Intestinal infectious diseases (A00 - A09)	19,836	4.0
Diabetes mellitus (E10 - E14)	15,716	3.1
Chronic lower respiratory diseases (J40 - J47)	14,943	3.0
Certain disorders involving the immune mechanism (D80 - D89)	12,682	2.5
Ischaemic heart diseases (I20 - I25)	12,303	2.5
Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	11,304	2.3
Hypertensive diseases (I10 - I15)	10,782	2.2
Human immunodeficiency virus [HIV] diseases (B20 - B24)	10,425	2.1
Malignant neoplasms of digestive organs (C15 - C26)	9,298	1.9
Digestive system disorders of foetus and newborn (P75 - P78)	6,925	1.4
Other viral diseases (B25 - B34)	6,054	1.2
General symptoms and signs (R50 - R69)	6,003	1.2
Inflammatory diseases of the central nervous system (G00 - G09)	5,163	1.0
Renal failure (N17 - N19)	4,940	1.0
Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	4,881	1.0
Diseases of liver (K70 - K77)	4,834	1.0
Other external causes of accidental injury (W00 - X59)	4,138	0.8
Other disorders originating in the perinatal period (P90 - P96)	3,773	0.8
Protozoal diseases (B50 - B64)	3,712	0.7
Transport accidents (V01 - V99)	3,642	0.7
Other bacterial diseases (A30 - A49)	3,589	0.7
Episodic and paroxysmal disorders (G40 - G47)	3,486	0.7
Malignant neoplasms of female genital organs (C51 - C58)	3,404	0.7
Other diseases of the respiratory system (J90 - J94)	3,277	0.7
Malignant neoplasms of ill-defined, secondary and unspecified sites (C76 - C80)	3,063	0.6
Metabolic disorders (E70 - E88)	3,033	0.6
Other acute lower respiratory infections (J20 - J22)	2,982	0.6
Noninfective enteritis and colitis (K50 - K52)	2,976	0.6
Pulmonary heart disease and diseases of pulmonary circulation (I26 - I28)	2,616	0.5
Aplastic and other anaemias (D60 - D64)	2,598	0.5
Malnutrition (E40 - E46)	2,381	0.5
Diseases of oesophagus, stomach and duodenum (K20 - K31)	2,373	0.5
Assault (X85 - Y09)	2,152	0.4
Malignant neoplasms of breast (C50)	2,115	0.4
Disorders related to length of gestation and foetal growth (P05 - P08)	2,004	0.4
Malignant neoplasms of lymphoid, haematopoietic and related tissue (C81 - C96)	1,980	0.4
Malignant neoplasms of male genital organs (C60 - C63)	1,901	0.4
Complications of medical and surgical care (Y40 - Y84)	1,850	0.4
Infections specific to the perinatal period (P35 - P39)	1,754	0.4
Mycoses (B35 - B49)	1,745	0.3
Other respiratory diseases principal affecting the interstitium (J80 - J84)	1,728	0.3
Symptoms and signs involving the circulatory and respiratory systems (R00 - R09)	1,576	0.3
Diseases of arteries, arterioles and capillaries (I70 - I79)	1,565	0.3
Other diseases of intestines (K55 - K63)	1,222	0.2
Foetus and newborn affected by maternal factors and by complications of pregnancy, labour and delivery (P00 - P04)	1,101	0.2
Malignant neoplasms of lip, oral cavity and pharynx (C00 - C14)	1,050	0.2
Arthropathies (M00 - M25)	977	0.2
Organic, including symptomatic, mental disorders (F00 - F09)	948	0.2
Other disorders of glucoses regulation and pancreatic internal secretion (E15 - E16)	941	0.2
Symptoms and signs involving digestive system and abdomen (R10 - R19)	905	0.2
Neoplasms of uncertain or unknown behaviour (D37 - D48)	902	0.2
Cerebral palsy and other paralytic syndromes (G80 - G83)	857	0.2
Malignant neoplasms of mesothelial and soft tissue (C45 - C49)	853	0.2
Lung diseases due to external agents (J60 - J70)	849	0.2
Disorder of gallbladder, biliary tract and pancreas (K80 - K87)	801	0.2
Other diseases of digestive system (K90 - K93)	770	0.2
Other disorder of the nervous system (G90 - G98)	767	0.2
Sequelae of infectious and parasitic diseases (B90 - B94)	747	0.1
Malignant neoplasms of urinary tract (C64 - C68)	718	0.1
Other disorders of the skin and subcutaneous (L80 - L99)	707	0.1

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>2002 (continued)</b>	<b>No. of deaths</b>	<b>%</b>
Malignant neoplasms of independent (primary) multiple sites (C97)	703	0.1
Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	671	0.1
Unspecified/ Not yet resolved	633	0.1
Diseases of veins, lymphatic vessels and lymph nodes, not elsewhere classified (I80 - I89)	616	0.1
Other diseases of pleura (J90 - J94)	605	0.1
Other degenerative diseases of the nervous system (G30 - G32)	594	0.1
Transitory endocrine and metabolic disorders specific to foetus and newborn (P70 - P74)	593	0.1
Chronic rheumatic heart diseases (I05 - I09)	532	0.1
Congenital malformations of the circulatory system (Q20 - Q28)	527	0.1
Infections of the skin and subcutaneous tissue (L00 - L08)	525	0.1
Mental and behavioural disorders due to psychoactive substance use (F10 - F19)	496	0.1
Malignant neoplasms of eye, brain and other parts of central nervous system (C69 - C72)	431	0.1
Renal tubulo-interstitial diseases (N10 - N16)	406	0.1
Diseases of peritoneum (K65 - K67)	384	0.1
Melanoma and other malignant neoplasms of skin (C43 - C44)	384	0.1
Suppurative and necrotic conditions of lower respiratory tract (J85 - J86)	374	0.1
Congenital malformations of the nervous system (Q00 - Q07)	364	0.1
Extrapyramidal and movement disorders (G20 - G26)	339	0.1
Glomerular diseases (N00 - N08)	337	0.1
Other diseases of urinary system (N30 - N39)	320	0.1
Soft tissue disorders (M60 - M79)	312	0.1
Other congenital malformations (Q80 - Q89)	287	0.1
Coagulation defects, purpura and other haemorrhagic conditions (D65 - D69)	261	0.1
Diseases of male genital organs (N40 - N51)	253	0.1
Schizophrenia, schizotypal and delusional disorders (F20 - F29)	247	0.0
Viral hepatitis (B15 - B19)	247	0.0
Viral infections characterizes by skin and mucous membrane lessions (B00 - B09)	239	0.0
Intentional self-harm (X60 - X84)	233	0.0
Inflammatory diseases of female pelvic organs (N70 - N77)	231	0.0
Viral infections of central nervous system (A80 - A89)	230	0.0
Other infectious diseases (B99)	227	0.0
Chromosomal abnormalities not elsewhere classified (Q90 - Q99)	225	0.0
Obesity and other hyperalimentation (E65 - E68)	221	0.0
Malignant neoplasms of bone and articular cartilage (C40 - C41)	219	0.0
Oedema, proteinuria and hypertensive disorders in pregnancy, childbirth and puerperium (O10 - O16)	215	0.0
Systemic connective tissue disorders (M30 - M36)	205	0.0
Acute upper respiratory infections (J00 - J06)	192	0.0
Benign neoplasms (D10 - D36)	177	0.0
Nutritional anaemias (D50 - D53)	171	0.0
Disorders of thyroid gland (E00 - E07)	168	0.0
Other congenital malformation of the digestive system (Q38 - Q45)	160	0.0
Hernia (K40 - K46)	148	0.0
Complication of labour and delivery (O60 - O75)	146	0.0
Systemic atrophies primarily affecting the central nervous system (G10 - G13)	140	0.0
Complication predominantly related to the puerperium (O85 - O92)	138	0.0
Infectious with predominantly sexual mode of transmission (A50 - A64)	136	0.0
Osteopathies and chondropathies (M80 - M94)	135	0.0
Pregnancy with abortive outcome (O00 - O08)	134	0.0
Other nutritional deficiencies (E50 - E64)	127	0.0
Other diseases of upper respiratory tract (J30 - J39)	122	0.0
Noninflammatory disorders of females genital tract (N80 - N98)	122	0.0
Polyneuropathies and other disorders of the peripheral nervous system (G60 - G64)	119	0.0
Dorsopathies (M40 - M54)	117	0.0
Condition involving the integument and temperature regulation of foetus and newborn (P80 - P83)	116	0.0
Malignant neoplasms of thyroid and other endocrine glands (C73 - C75)	110	0.0
Diseases of appendix (K35 - K38)	103	0.0
Other disorders of kidney and ureter (N25 - N29)	92	0.0
Other and unspecified disorders of the circulatory system (I95 - I99)	91	0.0
Helminthiases (B65 - B83)	90	0.0
Diseases of middle ear and mastoid (H65 - H75)	87	0.0
Diseases of myoneural junction and muscle (G70 - G73)	84	0.0
Diseases of oral cavity, salivary glands and jaws (K00 - K14)	84	0.0
Disorders of other endocrine glands (E20 - E35)	80	0.0
Other obstetric conditions not elsewhere classified (O95 - O99)	79	0.0
Urticaria and erythema (L50 - L54)	74	0.0
Congenital malformations of the respiratory system (Q30 - Q34)	68	0.0
Other diseases of blood and blood-forming organs (D70 - D77)	65	0.0

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>2002 (concluded)</b>	<b>No. of deaths</b>	<b>%</b>
Demyelinating diseases of the central nervous system (G35 - G37)	62	0.0
Congenital malformations of and deformations of the musculoskeletal system (Q65 - Q79)	62	0.0
Neurotic, stress-related and somatoform disorders (F40 - F48)	58	0.0
Symptoms and signs involving cognition, perception, emotional state and behaviour (R40 - R46)	57	0.0
Maternal care related to the foetus and amniotic cavity and possible delivery problems (O30 - O48)	56	0.0
Birth trauma (P10 - P15)	56	0.0
Dermatitis and eczema (L20 - L30)	52	0.0
Abnormal findings on examination of blood without diagnosis (R70 - R79)	52	0.0
Congenital malformation of urinary system (Q60 - Q64)	48	0.0
Mood [affective] disorders (F30 - F39)	45	0.0
Behavioural syndromes associated with physiological disturbances and physical factors (F50 - F59)	45	0.0
Acute rheumatic fever (I00 - I02)	42	0.0
Haemolytic anaemias (D55 - D59)	39	0.0
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	39	0.0
Other maternal disorders predominantly related to pregnancy (O20 - O29)	31	0.0
Abnormal findings on diagnostic imaging in function studies without diagnosis (R90 - R94)	30	0.0
Pediculosis, acariasis and other infestations (B85 - B89)	29	0.0
Disorders of the breast (N60 - N64)	27	0.0
In situ neoplasms (D00 - D09)	26	0.0
Nerve, nerve root and plexus disorders (G50 - G59)	24	0.0
Unspecified mental disorder (F99)	23	0.0
Bullous disorders (L10 - L14)	22	0.0
Symptoms and signs involving the nervous and musculoskeletal systems (R25 - R29)	20	0.0
Urolithiasis (N20 - N23)	18	0.0
Symptoms and signs involving skin and subcutaneous tissue (R20 - R23)	18	0.0
Arthropod-borne viral fevers and viral haemorrhagic fevers (A90 - A99)	17	0.0
Symptoms and signs involving the urinary system (R30 - R39)	17	0.0
Legal intervention and operations of war (Y35 - Y36)	16	0.0
Other spirochactal diseases (A65 - A69)	15	0.0
Disorders of adult personality and behaviour (F60 - F69)	11	0.0
Certain zoonotic bacteria diseases (A20 - A28)	10	0.0
Visual disturbances and blindness (H53 - H54)	10	0.0
Cleft lip and cleft palate (Q35 - Q37)	10	0.0
Papulosquamous disorders (L40 - L45)	9	0.0
Abnormal findings on examination of other fluids, substances and tissues without diagnosis (R83 - R89)	9	0.0
Symptoms and signs involving speech and voice (R47 - R49)	8	0.0
Other disorders of the musculoskeletal system and connective tissue (M95 - M99)	7	0.0
Disorders of psychological development (F80 - F89)	6	0.0
Disorders of eyelid, lacrimal system and orbit (H00 - H06)	6	0.0
Congenital malformations of eye, ear, face and neck (Q10 - Q18)	6	0.0
Rickettsioses (A75 - A79)	5	0.0
Disorders of sclera, cornea, iris and ciliary body (H15 - H22)	5	0.0
Congenital malformation of genital organs (Q50 - Q56)	5	0.0
Radiation-related disorders of the skin and subcutaneous tissue (L55 - L59)	3	0.0
Abnormal findings on examination of urine without diagnosis (R80 - R82)	3	0.0
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence (F90 - F98)	2	0.0
Disorders of optic nerve and visual pathways (H46 - H48)	2	0.0
Diseases of external ear (H60 - H62)	2	0.0
Disorders of skin appendages (L60 - L75)	2	0.0
Other diseases caused by chlamydiae (A70 - A74)	1	0.0
Glaucoma (H40 - H42)	1	0.0
Disorders of vitreous body and globe (H43 - H45)	1	0.0
Disorders of ocular muscles, binocular movement, accommodation and refraction (H49 - H52)	1	0.0
Other disorders of eye and adnexa (H55 - H59)	1	0.0
Other disorders of ear (H90 - H95)	1	0.0
Mental retardation (F70 - F79)	0	0.0
Disorders of conjunctiva (H10 - H13)	0	0.0
Disorders of lens (H25 - H28)	0	0.0
Disorders of choroid and retina (H30 - H36)	0	0.0
Diseases of inner ear (H80 - H83)	0	0.0
Other disorders of the genito-urinary system (N99)	0	0.0
Delivery (O80 - O84)	0	0.0

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>2003</b>	<b>%</b>
All causes	100.0
Tuberculosis (A15 - A19)	12.1
Ill-defined and unknown causes of mortality (R95 - R99)	10.6
Influenza and pneumonia (J10 - J18)	8.3
Events of undetermined intent (Y10 - Y34)	7.0
Cerebrovascular diseases (I60 - I69)	5.0
Other forms of heart disease (I30 - I52)	4.4
Intestinal infectious diseases (A00 - A09)	4.4
Diabetes mellitus (E10 - E14)	3.1
Chronic lower respiratory diseases (J40 - J47)	3.0
Certain disorders involving the immune mechanism (D80 - D89)	2.7
Ischaemic heart diseases (I20 - I25)	2.5
Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	2.3
Hypertensive diseases (I10 - I15)	2.2
Human immunodeficiency virus [HIV] diseases (B20 - B24)	2.1
Malignant neoplasms of digestive organs (C15 - C26)	1.7
Other viral diseases (B25 - B34)	1.4
Digestive system disorders of foetus and newborn (P75 - P78)	1.4
General symptoms and signs (R50 - R69)	1.2
Inflammatory diseases of the central nervous system (G00 - G09)	1.2
Renal failure (N17 - N19)	1.1
Diseases of liver (K70 - K77)	0.9
Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	0.9
Other acute lower respiratory infections (J20 - J22)	0.8
Other diseases of the respiratory system (J90 - J94)	0.8
Other disorders originating in the perinatal period (P90 - P96)	0.8
Transport accidents (V01 - V99)	0.8
Other bacterial diseases (A30 - A49)	0.7
Other external causes of accidental injury (W00 - X59)	0.7
Protozoal diseases (B50 - B64)	0.7
Episodic and paroxysmal disorders (G40 - G47)	0.7
Malignant neoplasms of female genital organs (C51 - C58)	0.6
Malignant neoplasms of ill-defined, secondary and unspecified sites (C76 - C80)	0.6
Metabolic disorders (E70 - E88)	0.6
Noninfective enteritis and colitis (K50 - K52)	0.6
Aplastic and other anaemias (D60 - D64)	0.5
Pulmonary heart disease and diseases of pulmonary circulation (I26 - I28)	0.5
Diseases of oesophagus, stomach and duodenum (K20 - K31)	0.5
Malnutrition (E40 - E46)	0.4
Symptoms and signs involving the circulatory and respiratory systems (R00 - R09)	0.4
Malignant neoplasms of breast (C50)	0.4
Malignant neoplasms of male genital organs (C60 - C63)	0.4
Malignant neoplasms of lymphoid, haematopoietic and related tissue (C81 - C96)	0.4
Infections specific to the perinatal period (P35 - P39)	0.4
Disorders related to length of gestation and foetal growth (P05 - P08)	0.4
Mycoses (B35 - B49)	0.4
Complications of medical and surgical care (Y40 - Y84)	0.4
Diseases of arteries, arterioles and capillaries (I70 - I79)	0.3
Assault (X85 - Y09)	0.3
Other respiratory diseases principal affecting the interstitium (J80 - J84)	0.3
Other diseases of intestines (K55 - K63)	0.2
Foetus and newborn affected by maternal factors and by complications of pregnancy, labour and delivery (P00 - P04)	0.2
Other disorders of glucoses regulation and pancreatic internal secretion (E15 - E16)	0.2
Malignant neoplasms of lip, oral cavity and pharynx (C00 - C14)	0.2
Organic, including symptomatic, mental disorders (F00 - F09)	0.2
Arthropathies (M00 - M25)	0.2
Symptoms and signs involving digestive system and abdomen (R10 - R19)	0.2
Malignant neoplasms of mesothelial and soft tissue (C45 - C49)	0.2
Neoplasms of uncertain or unknown behaviour (D37 - D48)	0.2
Other diseases of digestive system (K90 - K93)	0.2
Lung diseases due to external agents (J60 - J70)	0.2
Other disorder of the nervous system (G90 - G98)	0.2
Disorders of gallbladder, biliary tract and pancreas (K80 - K87)	0.2
Cerebral palsy and other paralytic syndromes (G80 - G83)	0.2
Malignant neoplasms of independent (primary) multiple sites (C97)	0.1

\* Note: Information for 2003 is based only on the 454 603 valid forms received and is therefore incomplete.

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>2003 (continued)</b>	<b>%</b>
Diseases of veins, lymphatic vessels and lymph nodes, not elsewhere classified (I80 - I89)	0.1
Other diseases of pleura (J90 - J94)	0.1
Other degenerative diseases of the nervous system (G30 - G32)	0.1
Transitory endocrine and metabolic disorders specific to foetus and newborn (P70 - P74)	0.1
Other disorders of the skin and subcutaneous (L80 - L99)	0.1
Malignant neoplasms of urinary tract (C64 - C68)	0.1
Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	0.1
Congenital malformations of the circulatory system (Q20 - Q28)	0.1
Chronic rheumatic heart diseases (I05 - I09)	0.1
Infections of the skin and subcutaneous tissue (L00 - L08)	0.1
Renal tubulo-interstitial diseases (N10 - N16)	0.1
Malignant neoplasms of eye, brain and other parts of central nervous system (C69 - C72)	0.1
Mental and behavioural disorders due to psychoactive substance use (F10 - F19)	0.1
Suppurative and necrotic conditions of lower respiratory tract (J85 - J86)	0.1
Sequelae of infectious and parasitic diseases (B90 - B94)	0.1
Diseases of peritoneum (K65 - K67)	0.1
Extrapyramidal and movement disorders (G20 - G26)	0.1
Melanoma and other malignant neoplasms of skin (C43 - C44)	0.1
Other diseases of urinary system (N30 - N39)	0.1
Congenital malformations of the nervous system (Q00 - Q07)	0.1
Glomerular diseases (N00 - N08)	0.1
Soft tissue disorders (M60 - M79)	0.1
Other infectious diseases (B99)	0.1
Other congenital malformations (Q80 - Q89)	0.1
Viral infections characterised by skin and mucous membrane lesions (B00 - B09)	0.1
Viral hepatitis (B15 - B19)	0.0
Acute upper respiratory infections (J00 - J06)	0.0
Coagulation defects, purpura and other haemorrhagic conditions (D65 - D69)	0.0
Schizophrenia, schizotypal and delusional disorders (F20 - F29)	0.0
Benign neoplasms (D10 - D36)	0.0
Inflammatory diseases of female pelvic organs (N70 - N77)	0.0
Viral infections of central nervous system (A80 - A89)	0.0
Obesity and other hyperalimentation (E65 - E68)	0.0
Oedema, proteinuria and hypertensive disorders in pregnancy, childbirth and puerperium (O10 - O16)	0.0
Diseases of male genital organs (N40 - N51)	0.0
Systemic connective tissue disorders (M30 - M36)	0.0
Malignant neoplasms of bone and articular cartilage (C40 - C41)	0.0
Polynuropathies and other disorders of the peripheral nervous system (G60 - G64)	0.0
Chromosomal abnormalities not elsewhere classified (Q90 - Q99)	0.0
Intentional self-harm (X60 - X84)	0.0
Other congenital malformation of the digestive system (Q38 - Q45)	0.0
Nutritional anaemias (D50 - D53)	0.0
Hernia (K40 - K46)	0.0
Disorders of thyroid gland (E00 - E07)	0.0
Pregnancy with abortive outcome (O00 - O08)	0.0
Complication predominantly related to the puerperium (O85 - O92)	0.0
Complication of labour and delivery (O60 - O75)	0.0
Systemic atrophies primarily affecting the central nervous system (G10 - G13)	0.0
Other nutritional deficiencies (E50 - E64)	0.0
Dorsopathies (M40 - M54)	0.0
Noninflammatory disorders of female genital tract (N80 - N98)	0.0
Other diseases of upper respiratory tract (J30 - J39)	0.0
Osteopathies and chondropathies (M80 - M94)	0.0
Infectious with predominantly sexual mode of transmission (A50 - A64)	0.0
Malignant neoplasms of thyroid and other endocrine glands (C73 - C75)	0.0
Diseases of appendix (K35 - K38)	0.0
Condition involving the integument and temperature regulation of foetus and newborn (P80 - P83)	0.0
Other disorders of kidney and ureter (N25 - N29)	0.0
Helminthiases (B65 - B83)	0.0
Diseases of middle ear and mastoid (H65 - H75)	0.0
Disorders of other endocrine glands (E20 - E35)	0.0
Diseases of myoneural junction and muscle (G70 - G73)	0.0
Other and unspecified disorders of the circulatory system (I95 - I99)	0.0
Diseases of oral cavity, salivary glands and jaws (K00 - K14)	0.0
Symptoms and signs involving cognition, perception, emotional state and behaviour (R40 - R46)	0.0

**APPENDIX E: All underlying causes of death, 1997-2003, by single years**

<b>2003 (concluded)</b>	<b>%</b>
Other diseases of blood and blood-forming organs (D70 - D77)	0.0
Dermatitis and eczema (L20 - L30)	0.0
Other obstetric conditions not elsewhere classified (O95 - O99)	0.0
Congenital malformations of the respiratory system (Q30 - Q34)	0.0
Birth trauma (P10 - P15)	0.0
Demyelinating diseases of the central nervous system (G35 - G37)	0.0
Congenital malformations of and deformations of the musculoskeletal system (Q65 - Q79)	0.0
Abnormal findings on examination of blood without diagnosis (R70 - R79)	0.0
Behavioural syndromes associated with physiological disturbances and physical factors (F50 - F59)	0.0
Urticaria and erythema (L50 - L54)	0.0
Maternal care related to the foetus and amniotic cavity and possible delivery problems (O30 - O48)	0.0
Congenital malformation of urinary system (Q60 - Q64)	0.0
Mood [affective] disorders (F30 - F39)	0.0
Neurotic, stress-related and somatoform disorders (F40 - F48)	0.0
Other maternal disorders predominantly related to pregnancy (O20 - O29)	0.0
Acute rheumatic fever (I00 - I02)	0.0
Symptoms and signs involving the urinary system (R30 - R39)	0.0
In situ neoplasms (D00 - D09)	0.0
Haemolytic anaemias (D55 - D59)	0.0
Symptoms and signs involving the nervous and musculoskeletal systems (R25 - R29)	0.0
Unspecified mental disorder (F99)	0.0
Sequelae of external causes of morbidity and mortality (Y85 - Y89)	0.0
Symptoms and signs involving skin and subcutaneous tissue (R20 - R23)	0.0
Disorders of the breast (N60 - N64)	0.0
Arthropod-borne viral fevers and viral haemorrhagic fevers (A90 - A99)	0.0
Bullous disorders (L10 - L14)	0.0
Abnormal findings on diagnostic imaging in function studies without diagnosis (R90 - R94)	0.0
Nerve, nerve root and plexus disorders (G50 - G59)	0.0
Urolithiasis (N20 - N23)	0.0
Congenital malformations of eye, ear, face and neck (Q10 - Q18)	0.0
Legal intervention and operations of war (Y35 - Y36)	0.0
Pediculosis, acariasis and other infestations (B85 - B89)	0.0
Cleft lip and cleft palate (Q35 - Q37)	0.0
Congenital malformation of genital organs (Q50 - Q56)	0.0
Symptoms and signs involving speech and voice (R47 - R49)	0.0
Certain zoonotic bacteria diseases (A20 - A28)	0.0
Disorders of adult personality and behaviour (F60 - F69)	0.0
Disorders of psychological development (F80 - F89)	0.0
Visual disturbances and blindness (H53 - H54)	0.0
Papulosquamous disorders (L40 - L45)	0.0
Disorders of skin appendages (L60 - L75)	0.0
Abnormal findings on examination of other fluids, substances and tissues without diagnosis (R83 - R89)	0.0
Other spirochactal diseases (A65 - A69)	0.0
Rickettsioses (A75 - A79)	0.0
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence (F90 - F98)	0.0
Disorders of eyelid, lacrimal system and orbit (H00 - H06)	0.0
Disorders of sclera, cornea, iris and ciliary body (H15 - H22)	0.0
Disorders of choroid and retina (H30 - H36)	0.0
Disorders of ocular muscles, binocular movement, accommodation and refraction (H49 - H52)	0.0
Other disorders of ear (H90 - H95)	0.0
Radiation-related disorders of the skin and subcutaneous tissue (L55 - L59)	0.0
Other disorders of the musculoskeletal system and connective tissue (M95 - M99)	0.0
Abnormal findings on examination of urine without diagnosis (R80 - R82)	0.0
Glaucoma (H40 - H42)	0.0
Diseases of external ear (H60 - H62)	0.0
Other diseases caused by chlamydiae (A70 - A74)	0.0
Disorders of lens (H25 - H28)	0.0
Disorders of vitreous body and globe (H43 - H45)	0.0
Disorders of optic nerve and visual pathways (H46 - H48)	0.0
Other disorders of eye and adnexa (H55 - H59)	0.0
Diseases of inner ear (H80 - H83)	0.0
Unspecified/ Not yet resolved	0.0
Mental retardation (F70 - F79)	0.0
Disorders of conjunctiva (H10 - H13)	0.0
Other disorders of the genito-urinary system (N99)	0.0
Delivery (O80 - O84)	0.0

**APPENDIX F: Detailed description of the broad groups of natural causes of death which were among the ten leading causes in 1997, 1999 and 2001**

	No. of deaths			%		
	1997	1999	2001	1997	1999	2001
<b>Intestinal infectious diseases (A00 - A09)</b>						
A00 Cholera	3	8	372	0.0	0.1	2.3
A01 Typhoid and paratyphoid fevers	126	98	86	1.9	0.9	0.5
A02 Other salmonella infections	12	28	28	0.2	0.3	0.2
A03 Shigellosis	36	22	21	0.6	0.2	0.1
A04 Other bacterial intestinal infections	16	9	8	0.2	0.1	0.0
A05 Other bacterial foodborne intoxications	5	5	1	0.1	0.0	0.0
A06 Amoebiasis	73	116	44	1.1	1.0	0.3
A07 Other protozoal intestinal diseases	4	10	14	0.1	0.1	0.1
A08 Viral and other specified intestinal infections	11	25	31	0.2	0.2	0.2
A09 Diarrhoea and gastroenteritis of presumed infectious origin	6,236	10,834	15,455	95.6	97.1	96.2
<b>Total</b>	<b>6,522</b>	<b>11,155</b>	<b>16,060</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Tuberculosis (A15 - A19)</b>						
A16 Respiratory tuberculosis, not confirmed bacteriologically or histologically	20,364	31,513	46,368	92.5	92.2	91.1
A17 Tuberculosis of nervous system	645	1,006	1,740	2.9	2.9	3.4
A18 Tuberculosis of other organs	377	538	892	1.7	1.6	1.8
A19 Miliary tuberculosis	635	1,116	1,872	2.9	3.3	3.7
<b>Total</b>	<b>22,021</b>	<b>34,173</b>	<b>50,872</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Human immunodeficiency virus [HIV] diseases (B20 - B24)</b>						
B20 Human immunodeficiency virus (HIV) disease resulting in infectious and parasitic diseases	4,332	7,167	6,280	69.5	72.2	68.2
B21 Human immunodeficiency virus (HIV) disease resulting in malignant neoplasms	95	107	122	1.5	1.1	1.3
B22 Human immunodeficiency virus (HIV) disease resulting in other specified diseases	328	497	436	5.3	5.0	4.7
B23 Human immunodeficiency virus (HIV) disease resulting in other conditions	654	864	650	10.5	8.7	7.1
B24 Unspecified human immunodeficiency virus (HIV) disease	825	1,290	1,724	13.2	13.0	18.7
<b>Total</b>	<b>6,234</b>	<b>9,925</b>	<b>9,212</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Malignant neoplasms of digestive organs (C15 - C26)</b>						
C15 Malignant neoplasm of oesophagus	3,409	3,429	3,411	38.2	36.6	36.4
C16 Malignant neoplasm of stomach	1,351	1,420	1,343	15.2	15.2	14.3
C17 Malignant neoplasm of small intestine	28	19	23	0.3	0.2	0.2
C18 Malignant neoplasm of colon	1,086	1,197	1,203	12.2	12.8	12.8
C19 Malignant neoplasm of rectosigmoid junction	23	37	38	0.3	0.4	0.4
C20 Malignant neoplasm of rectum	318	331	350	3.6	3.5	3.7
C21 Malignant neoplasm of anus and anal canal	28	27	40	0.3	0.3	0.4
C22 Malignant neoplasm of liver and intrahepatic bile ducts	1,556	1,596	1,609	17.5	17.0	17.2
C23 Malignant neoplasm of gallbladder	66	82	69	0.7	0.9	0.7
C24 Malignant neoplasm of other and unspecified parts of biliary tract	33	53	37	0.4	0.6	0.4
C25 Malignant neoplasm of pancreas	825	945	1,056	9.3	10.1	11.3
C26 Malignant neoplasm of other and ill-defined digestive organs	191	231	199	2.1	2.5	2.1
<b>Total</b>	<b>8,914</b>	<b>9,367</b>	<b>9,378</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**APPENDIX F: Detailed description of the broad groups of natural causes of death which were among the ten leading causes in 1997, 1999 and 2001 (continued)**

	No. of deaths			%		
	1997	1999	2001	1997	1999	2001
<b>Certain disorders involving the immune mechanism (D80 - 89)</b>						
D80 Immunodeficiency with predominantly antibody defects	3	3	4	0.1	0.0	0.0
D81 Combined immunodeficiencies	1	6	1	0.0	0.1	0.0
D82 Immunodeficiency associated with other major defects	2	6	0	0.1	0.1	0.0
D83 Common variable immunodeficiency	49	15	65	1.5	0.2	0.6
D84 Other immunodeficiencies	3,205	8,515	11,554	97.2	99.1	99.0
D86 Sarcoidosis	25	26	29	0.8	0.3	0.2
D89 Other disorders involving the immune mechanism, not elsewhere classified	13	19	17	0.4	0.2	0.1
<b>Total</b>	<b>3,298</b>	<b>8,590</b>	<b>11,670</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Diabetes mellitus (E10 - E14)</b>						
E10 Insulin-dependent diabetes mellitus	236	408	360	2.2	3.3	2.5
E11 Non-insulin-dependent diabetes mellitus	355	769	1,081	3.3	6.1	7.4
E12 Malnutrition-related diabetes mellitus	15	31	9	0.1	0.2	0.1
E13 Other specified diabetes mellitus	2	1	3	0.0	0.0	0.0
E14 Unspecified diabetes mellitus	10,220	11,331	13,104	94.4	90.4	90.0
<b>Total</b>	<b>10,828</b>	<b>12,540</b>	<b>14,557</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Hypertensive diseases (I10 - I15)</b>						
I10 Essential (primary) hypertension	2,698	2,978	3,691	35.0	31.6	34.3
I11 Hypertensive heart disease	4,164	5,370	6,095	54.0	57.0	56.7
I12 Hypertensive renal disease	636	791	721	8.3	8.4	6.7
I13 Hypertensive heart and renal disease	208	288	241	2.7	3.1	2.2
<b>Total</b>	<b>7,706</b>	<b>9,427</b>	<b>10,748</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Ischaemic heart diseases (I20 - I25)</b>						
I20 Angina pectoris	168	145	134	1.7	1.3	1.1
I21 Acute myocardial infarction	6,589	7,949	8,673	67.3	69.6	73.6
I22 Subsequent myocardial infarction	22	26	31	0.2	0.2	0.3
I23 Certain current complications following acute myocardial infarction	0	0	0	0.0	0.0	0.0
I24 Other acute ischaemic heart diseases	155	113	101	1.6	1.0	0.9
I25 Chronic ischaemic heart disease	2,860	3,193	2,838	29.2	27.9	24.1
<b>Total</b>	<b>9,794</b>	<b>11,426</b>	<b>11,777</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Cerebrovascular diseases (I60 - I69)</b>						
I60 Subarachnoid haemorrhage	483	446	416	2.8	2.2	1.8
I61 Intracerebral haemorrhage	1,890	2,023	1,829	11.1	10.1	8.1
I62 Other nontraumatic intracranial haemorrhage	392	708	479	2.3	3.5	2.1
I63 Cerebral infarction	638	560	653	3.8	2.8	2.9
I64 Stroke, not specified as haemorrhage or infarction	13,053	15,698	18,507	76.8	78.7	82.0
I65 Occlusion and stenosis of precerebral arteries, not resulting in cerebral infarction	0	0	0	0.0	0.0	0.0
I66 Occlusion and stenosis of unspecified precerebral arteries	0	0	0	0.0	0.0	0.0
I67 Other cerebrovascular diseases	383	381	505	2.3	1.9	2.2
I69 Sequelae of cerebrovascular disease	153	132	188	0.9	0.7	0.8
<b>Total</b>	<b>16,992</b>	<b>19,948</b>	<b>22,577</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**APPENDIX F: Detailed description of the broad groups of natural causes of death which were among the ten leading causes in 1997, 1999 and 2001 (concluded)**

	No. of deaths			%		
	1997	1999	2001	1997	1999	2001
<b>Other forms of heart disease (I30 - I52)</b>						
I30 Acute pericarditis	13	15	11	0.1	0.1	0.0
I31 Other diseases of pericardium	154	169	260	0.8	0.8	1.2
I33 Acute and subacute endocarditis	64	57	45	0.3	0.3	0.2
I34 Nonrheumatic mitral valve disorders	117	117	110	0.6	0.6	0.5
I35 Nonrheumatic aortic valve disorders	168	156	175	0.8	0.8	0.8
I36 Nonrheumatic tricuspid valve disorders	0	2	1	0.0	0.0	0.0
I37 Pulmonary valve disorders	6	11	4	0.0	0.1	0.0
I38 Endocarditis, valve unspecified	209	261	264	1.0	1.3	1.2
I40 Acute myocarditis	56	62	74	0.3	0.3	0.3
I42 Cardiomyopathy	2,027	2,602	2,975	10.1	12.9	13.2
I44 Atrioventricular and left bundle-branch block	20	38	32	0.1	0.2	0.1
I45 Other conduction disorders	63	68	72	0.3	0.3	0.3
I46 Cardiac arrest	3,889	3,546	3,705	19.3	17.6	16.4
I47 Paroxysmal tachycardia	19	28	39	0.1	0.1	0.2
I48 Atrial fibrillation and flutter	222	268	321	1.1	1.3	1.4
I49 Other cardiac arrhythmias	137	168	185	0.7	0.8	0.8
I50 Heart failure	12,659	12,145	13,743	63.0	60.4	60.8
I51 Complications and ill-defined descriptions of heart disease	280	407	586	1.4	2.0	2.6
<b>Total</b>	<b>20,103</b>	<b>20,120</b>	<b>22,602</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Influenza and pneumonia (J10 - J18)</b>						
J10 Influenza due to identified influenza virus	36	45	24	0.3	0.2	0.1
J11 Influenza, virus not identified	230	529	643	2.0	2.8	2.0
J12 Viral pneumonia, not elsewhere classified	36	45	37	0.3	0.2	0.1
J13 Pneumonia due to Streptococcus pneumoniae	3	21	16	0.0	0.1	0.1
J14 Pneumonia due to Haemophilus influenzae	1	4	2	0.0	0.0	0.0
J15 Bacterial pneumonia, not elsewhere classified	117	161	384	1.0	0.8	1.2
J16 Pneumonia due to other infectious organisms, not elsewhere classified	5	9	6	0.0	0.0	0.0
J18 Pneumonia, organism unspecified	11,075	18,321	30,383	96.3	95.7	96.5
<b>Total</b>	<b>11,503</b>	<b>19,135</b>	<b>31,495</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Chronic lower respiratory diseases (J40 - J47)</b>						
J40 Bronchitis; not specified as acute or chronic	365	571	519	3.4	4.5	3.5
J41 Simple and mucopurulent chronic bronchitis	8	20	3	0.1	0.2	0.0
J42 Unspecified chronic bronchitis	555	637	846	5.2	5.1	5.8
J43 Emphysema	1,255	1,215	1,195	11.7	9.7	8.1
J44 Other chronic obstructive pulmonary disease	4,328	5,164	6,224	40.3	41.1	42.4
J45 Asthma	3,301	3,839	4,499	30.7	30.5	30.6
J46 Status asthmaticus	770	921	1172	7.2	7.3	8.0
J47 Bronchiectasis	165	206	223	1.5	1.6	1.5
<b>Total</b>	<b>10,747</b>	<b>12,573</b>	<b>14,681</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

### APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1997, South Africa

	No.	%	No.	%	No.	%
<b>All provinces, both sexes, all ages</b>						
1 Tuberculosis (A15 - A19)	21,510	6.9	13,657	7.8	10,346	7.5
2 Other forms of heart disease (I30 - I52)	19,816	6.4	9,470	5.4	9,349	6.8
3 Cerebrovascular diseases (I60 - I69)	16,806	5.4	7,457	4.3	7,853	5.7
4 Diabetes mellitus (E10 - E14)	11,235	3.6	6,510	3.7	6,428	4.7
5 Influenza and pneumonia (J10 - J18)	10,750	3.4	5,910	3.4	5,325	3.9
6 Chronic lower respiratory diseases (J40 - J47)	10,642	3.4	5,846	3.4	4,690	3.4
7 Ischaemic heart diseases (I20 - I25)	9,741	3.1	5,450	3.1	4,132	3.0
8 Malignant neoplasms of digestive organs (C15 - C26)	8,619	2.8	4,322	2.5	3,895	2.8
9 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	7,623	2.4	3,500	2.0	3,369	2.5
10 Resp. and cardiovasc. disorders - perinatal period (P35 - P39)	6,739	2.2	3,273	1.9	3,350	2.4
... Other causes	188,030	60.3	108,880	62.5	78,689	57.3
... All causes	311,711	100.0	174,275	100.0	137,436	100.0
<b>All provinces, male, all ages</b>						
1 Tuberculosis (A15 - A19)	10,636	10.5	4,533	9.6	6,103	11.3
2 Other forms of heart disease (I30 - I52)	9,632	9.5	3,754	7.9	5,878	10.9
3 Cerebrovascular diseases (I60 - I69)	5,738	5.7	3,440	7.3	3,554	6.6
4 Diabetes mellitus (E10 - E14)	5,698	5.6	3,033	6.4	3,000	5.6
5 Influenza and pneumonia (J10 - J18)	5,612	5.5	2,344	4.9	2,705	5.0
6 Chronic lower respiratory diseases (J40 - J47)	4,474	4.4	2,107	4.5	2,258	4.2
7 Ischaemic heart diseases (I20 - I25)	4,086	4.0	2,058	4.3	2,051	3.8
8 Malignant neoplasms of digestive organs (C15 - C26)	3,936	3.9	1,885	4.0	1,742	3.2
9 Influenza and pneumonia (J10 - J18)	3,188	3.2	1,474	3.1	1,081	2.0
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	2,035	2.0	1,380	2.9	948	1.8
... Other causes	46,145	45.6	21,380	45.1	24,462	45.5
... All causes	101,180	100.0	47,398	100.0	53,782	100.0
<b>All provinces, female, all ages</b>						
1 Tuberculosis (A15 - A19)	13,365	11.9	7,960	11.3	5,405	13.0
2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	5,018	4.5	2,458	3.5	2,560	6.2
3 Influenza and pneumonia (J10 - J18)	4,632	4.1	2,210	3.1	2,211	5.3
4 Other forms of heart disease (I30 - I52)	4,210	3.8	2,210	3.1	2,000	4.8
5 Cerebrovascular diseases (I60 - I69)	2,697	2.4	1,421	2.0	1,453	3.5
6 Certain disorders involving the immune mechanism (D80 - D89)	2,441	2.2	1,137	1.6	1,276	3.1
7 Infectious diseases (A00 - A09)	2,066	1.8	1,086	1.5	1,126	2.7
8 Chronic lower respiratory diseases (J40 - J47)	1,828	1.6	1,046	1.5	873	2.1
9 Malignant neoplasms of digestive organs (C15 - C26)	1,731	1.5	988	1.4	782	1.9
10 Diseases of liver (K70 - K77)	1,693	1.5	940	1.3	765	1.8
... Other causes	72,312	64.6	48,708	69.2	23,167	55.7
... All causes	111,993	100.0	70,375	100.0	41,618	100.0
<b>All provinces, both sexes, 0-14 years</b>						
1 Tuberculosis (A15 - A19)	6,739	16.8	3,500	16.3	3,239	17.4
2 Digestive system disorders of foetus and newborn (P75 - P78)	4,768	11.9	2,524	11.7	2,244	12.0
3 Other disorders originating in the perinatal period (P90 - P96)	3,344	8.3	1,800	8.4	1,544	8.3
4 Intestinal infectious diseases (A00 - A09)	1,863	4.6	981	4.6	882	4.7
5 Disorders related to length of gestation and foetal growth (P05 - P08)	1,586	3.9	842	3.9	744	4.0
6 Infections specific to the perinatal period (P35 - P39)	1,302	3.2	702	3.3	600	3.2
7 Foetus & newborn affected by matern. factors & complic. of preg. lab. & deliv. (P00 - P04)	1,202	3.0	648	3.0	586	3.1
8 Malnutrition (E40 - E46)	1,198	3.0	612	2.8	554	3.0
9 Influenza and pneumonia (J10 - J18)	891	2.2	443	2.1	448	2.4
10 Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	607	1.5	350	1.6	291	1.6
... Other causes	16,674	41.5	9,129	42.4	7,511	40.3
... All causes	40,174	100.0	21,531	100.0	18,643	100.0
<b>All provinces, male, 0-14 years</b>						
1 Tuberculosis (A15 - A19)	13,365	11.9	7,960	11.3	5,405	13.0
2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	5,018	4.5	2,458	3.5	2,560	6.2
3 Influenza and pneumonia (J10 - J18)	4,632	4.1	2,210	3.1	2,211	5.3
4 Other forms of heart disease (I30 - I52)	4,210	3.8	2,210	3.1	2,000	4.8
5 Cerebrovascular diseases (I60 - I69)	2,697	2.4	1,421	2.0	1,453	3.5
6 Certain disorders involving the immune mechanism (D80 - D89)	2,441	2.2	1,137	1.6	1,276	3.1
7 Infectious diseases (A00 - A09)	2,066	1.8	1,086	1.5	1,126	2.7
8 Chronic lower respiratory diseases (J40 - J47)	1,828	1.6	1,046	1.5	873	2.1
9 Malignant neoplasms of digestive organs (C15 - C26)	1,731	1.5	988	1.4	782	1.9
10 Diseases of liver (K70 - K77)	1,693	1.5	940	1.3	765	1.8
... Other causes	72,312	64.6	48,708	69.2	23,167	55.7
... All causes	111,993	100.0	70,375	100.0	41,618	100.0
<b>All provinces, female, 0-14 years</b>						
1 Tuberculosis (A15 - A19)	6,739	16.8	3,500	16.3	3,239	17.4
2 Digestive system disorders of foetus and newborn (P75 - P78)	4,768	11.9	2,524	11.7	2,244	12.0
3 Other disorders originating in the perinatal period (P90 - P96)	3,344	8.3	1,800	8.4	1,544	8.3
4 Intestinal infectious diseases (A00 - A09)	1,863	4.6	981	4.6	882	4.7
5 Disorders related to length of gestation and foetal growth (P05 - P08)	1,586	3.9	842	3.9	744	4.0
6 Infections specific to the perinatal period (P35 - P39)	1,302	3.2	702	3.3	600	3.2
7 Foetus & newborn affected by matern. factors & complic. of preg. lab. & deliv. (P00 - P04)	1,202	3.0	648	3.0	586	3.1
8 Malnutrition (E40 - E46)	1,198	3.0	612	2.8	554	3.0
9 Influenza and pneumonia (J10 - J18)	891	2.2	443	2.1	448	2.4
10 Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	607	1.5	350	1.6	291	1.6
... Other causes	16,674	41.5	9,129	42.4	7,511	40.3
... All causes	40,174	100.0	21,531	100.0	18,643	100.0
<b>All provinces, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	4,584	7.9	3,357	9.6	2,153	9.2
2 Other forms of heart disease (I30 - I52)	4,499	7.7	2,543	7.3	2,083	8.9
3 Cerebrovascular diseases (I60 - I69)	4,386	7.5	2,233	6.4	2,041	8.7
4 Diabetes mellitus (E10 - E14)	3,529	6.0	1,957	5.6	1,142	4.9
5 Chronic lower respiratory diseases (J40 - J47)	3,000	5.1	1,953	5.6	1,118	4.8
6 Malignant neoplasms of digestive organs (C15 - C26)	2,976	5.1	1,885	5.4	1,043	4.5
7 Ischaemic heart diseases (I20 - I25)	2,737	4.7	1,446	4.1	1,023	4.4
8 Hypertensive diseases (I10 - I15)	2,031	3.5	1,373	3.9	853	4.1
9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	1,785	3.1	1,161	3.3	852	3.6
10 Influenza and pneumonia (J10 - J18)	1,776	3.0	943	2.7	615	2.6
... Other causes	27,061	46.4	16,120	46.1	10,370	44.3
... All causes	58,364	100.0	34,971	100.0	23,393	100.0
<b>All provinces, female, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	4,584	7.9	3,357	9.6	2,153	9.2
2 Other forms of heart disease (I30 - I52)	4,499	7.7	2,543	7.3	2,083	8.9
3 Cerebrovascular diseases (I60 - I69)	4,386	7.5	2,233	6.4	2,041	8.7
4 Diabetes mellitus (E10 - E14)	3,529	6.0	1,957	5.6	1,142	4.9
5 Chronic lower respiratory diseases (J40 - J47)	3,000	5.1	1,953	5.6	1,118	4.8
6 Malignant neoplasms of digestive organs (C15 - C26)	2,976	5.1	1,885	5.4	1,043	4.5
7 Ischaemic heart diseases (I20 - I25)	2,737	4.7	1,446	4.1	1,023	4.4
8 Hypertensive diseases (I10 - I15)	2,031	3.5	1,373	3.9	853	4.1
9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	1,785	3.1	1,161	3.3	852	3.6
10 Influenza and pneumonia (J10 - J18)	1,776	3.0	943	2.7	615	2.6
... Other causes	27,061	46.4	16,120	46.1	10,370	44.3
... All causes	58,364	100.0	34,971	100.0	23,393	100.0
<b>All provinces, male, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	10,636	10.5	4,533	9.6	6,103	11.3
2 Other forms of heart disease (I30 - I52)	9,632	9.5	3,754	7.9	5,878	10.9
3 Cerebrovascular diseases (I60 - I69)	5,738	5.7	3,440	7.3	3,554	6.6
4 Diabetes mellitus (E10 - E14)	5,698	5.6	3,033	6.4	3,000	5.6
5 Influenza and pneumonia (J10 - J18)	5,612	5.5	2,344	4.9	2,705	5.0
6 Chronic lower respiratory diseases (J40 - J47)	4,474	4.4	2,107	4.5	2,258	4.2
7 Ischaemic heart diseases (I20 - I25)	4,086	4.0	2,058	4.3	2,051	3.8
8 Malignant neoplasms of digestive organs (C15 - C26)	3,936	3.9	1,885	4.0	1,742	3.2
9 Influenza and pneumonia (J10 - J18)	3,188	3.2	1,474	3.1	1,081	2.0
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	2,035	2.0	1,380	2.9	948	1.8
... Other causes	46,145	45.6	21,380	45.1	24,462	45.5
... All causes	101,180	100.0	47,398	100.0	53,782	100.0
<b>All provinces, female, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	6,739	16.8	3,500	16.3	3,239	17.4
2 Digestive system disorders of foetus and newborn (P75 - P78)	4,768	11.9	2,524	11.7	2,244	12.0
3 Other disorders originating in the perinatal period (P90 - P96)	3,344	8.3	1,800	8.4	1,544	8.3
4 Intestinal infectious diseases (A00 - A09)	1,863	4.6	981	4.6	882	4.7
5 Disorders related to length of gestation and foetal growth (P05 - P08)	1,586	3.9	842	3.9	744	4.0
6 Infections specific to the perinatal period (P35 - P39)	1,302	3.2	702	3.3	600	3.2
7 Foetus & newborn affected by matern. factors & complic. of preg. lab. & deliv. (P00 - P04)	1,202	3.0	648	3.0	586	3.1
8 Malnutrition (E40 - E46)	1,198	3.0	612	2.8	554	3.0
9 Influenza and pneumonia (J10 - J18)	891	2.2	443	2.1	448	2.4
10 Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	607	1.5	350	1.6	291	1.6
... Other causes	16,674	41.5	9,129	42.4	7,511	40.3
... All causes	40,174	100.0	21,531	100.0	18,643	100.0
<b>All provinces, male, 65 years and above</b>						
1 Tuberculosis (A15 - A19)	10,636	10.5	4,533	9.6	6,103	11.3
2 Other forms of heart disease (I30 - I52)	9,632	9.5	3,754	7.9	5,878	10.9
3 Cerebrovascular diseases (I60 - I69)	5,738	5.7	3,440	7.3	3,554	6.6
4 Diabetes mellitus (E10 - E14)	5,698	5.6	3,033	6.4	3,000	5.6
5 Influenza and pneumonia (J10 - J18)	5,612	5.5	2,344	4.9	2,705	5.0
6 Chronic lower respiratory diseases (J40 - J47)	4,474	4.4	2,107	4.5	2,258	4.2
7 Ischaemic heart diseases (I20 - I25)	4,086	4.0	2,058	4.3	2,051	3.8
8 Malignant neoplasms of digestive organs (C15 - C26)	3,936	3.9	1,885	4.0	1,742	3.2
9 Influenza and pneumonia (J10 - J18)	3,188	3.2	1,474	3.1	1,081	2.0
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	2,035	2.0	1,380	2.9	948	1.8
... Other causes	46,145	45.6	21,380	45.1	24,462	45.5
... All causes	101,180	100.0	47,398	100.0	53,782	100.0

Excluding a total of 6576 cases with unspecified for at least one of the three variables analysed.

## APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1997, Western Cape

	Western Cape, both sexes, all ages		Western Cape, male, all ages		Western Cape, female, all ages	
	No.	%	No.	%	No.	%
1 Ischaemic heart diseases (I20 - I25)	2,137	7.0	1,344	7.1	1,344	7.1
2 Cerebrovascular diseases (I60 - I69)	2,235	7.5	1,121	5.9	1,121	5.9
3 Diabetes mellitus (E10 - E14)	1,856	5.6	952	5.0	952	5.0
4 Other forms of heart disease (I30 - I52)	1,844	5.6	892	4.7	892	4.7
5 Tuberculosis (A15 - A19)	1,703	5.2	873	4.6	873	4.6
6 Chronic lower respiratory diseases (J40 - J47)	1,409	4.3	808	4.3	808	4.3
7 Malignant neoplasms of digestive organs (C15 - C26)	1,362	4.1	731	3.9	731	3.9
8 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	1,064	3.2	677	3.6	677	3.6
9 Hypertensive diseases (I10 - I15)	712	2.2	311	1.6	311	1.6
10 Influenza and pneumonia (J10 - J18)	644	2.0	290	1.5	290	1.5
... Other causes	17,842	54.3	10,887	57.6	10,887	57.6
... All causes	32,858	100.0	18,886	100.0	18,886	100.0
<b>Western Cape, both sexes, 0-14 years</b>						
1 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	403	13.9	217	13.5	217	13.5
2 Digestive system disorders of foetus and newborn (P75 - P78)	304	10.5	160	10.1	160	10.1
3 Other disorders originating in the perinatal period (P90 - P96)	285	9.8	150	9.3	150	9.3
4 Disorders related to length of gestation and foetal growth (P05 - P08)	133	4.6	65	4.0	65	4.0
5 Infections specific to the perinatal period (P35 - P39)	89	3.1	45	2.8	45	2.8
6 Congenital malformations of the circulatory system (Q20 - Q28)	67	2.3	39	2.4	39	2.4
7 Intestinal infectious diseases (A00 - A09)	57	2.0	38	2.4	38	2.4
8 Foetus & newborn affectd by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	57	2.0	28	1.7	28	1.7
9 Human immunodeficiency virus [HIV] diseases (B20 - B24)	52	1.8	28	1.7	28	1.7
10 Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	50	1.7	27	1.7	27	1.7
... Other causes	1,407	48.5	807	50.2	807	50.2
... All causes	2,904	100.0	1,606	100.0	1,606	100.0
<b>Western Cape, both sexes, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	985	9.5	611	8.7	611	8.7
2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	339	3.3	199	2.8	199	2.8
3 Ischaemic heart diseases (I20 - I25)	266	2.6	153	2.2	153	2.2
4 Other forms of heart disease (I30 - I52)	253	2.4	148	2.1	148	2.1
5 Cerebrovascular diseases (I60 - I69)	245	2.4	144	2.1	144	2.1
6 Malignant neoplasms of digestive organs (C15 - C26)	228	2.2	108	1.5	108	1.5
7 Chronic lower respiratory diseases (J40 - J47)	179	1.7	108	1.5	108	1.5
8 Diabetes mellitus (E10 - E14)	165	1.6	104	1.5	104	1.5
9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	148	1.4	94	1.3	94	1.3
10 Influenza and pneumonia (J10 - J18)	142	1.4	94	1.3	94	1.3
... Other causes	7,426	71.6	5,241	74.8	5,241	74.8
... All causes	10,376	100.0	7,004	100.0	7,004	100.0
<b>Western Cape, both sexes, 50-64 years</b>						
1 Ischaemic heart diseases (I20 - I25)	597	8.5	400	9.4	400	9.4
2 Diabetes mellitus (E10 - E14)	567	8.1	322	7.6	322	7.6
3 Cerebrovascular diseases (I60 - I69)	525	7.5	317	7.5	317	7.5
4 Chronic lower respiratory diseases (J40 - J47)	447	6.4	284	6.7	284	6.7
5 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	445	6.4	278	6.5	278	6.5
6 Tuberculosis (A15 - A19)	435	6.2	278	6.5	278	6.5
7 Malignant neoplasms of digestive organs (C15 - C26)	434	6.2	234	5.5	234	5.5
8 Other forms of heart disease (I30 - I52)	405	5.8	217	5.1	217	5.1
9 Hypertensive diseases (I10 - I15)	184	2.6	121	2.8	121	2.8
10 Diseases of liver (K70 - K77)	150	2.1	90	2.1	90	2.1
... Other causes	2,811	40.2	1,714	40.3	1,714	40.3
... All causes	7,000	100.0	4,255	100.0	4,255	100.0
<b>Western Cape, both sexes, 65 years and above</b>						
1 Ischaemic heart diseases (I20 - I25)	1,416	11.3	740	12.3	740	12.3
2 Cerebrovascular diseases (I60 - I69)	1,360	10.8	555	9.2	555	9.2
3 Other forms of heart disease (I30 - I52)	1,144	9.1	502	8.3	502	8.3
4 Diabetes mellitus (E10 - E14)	1,121	8.9	485	8.1	485	8.1
5 Chronic lower respiratory diseases (J40 - J47)	778	6.2	384	6.4	384	6.4
6 Malignant neoplasms of digestive organs (C15 - C26)	697	5.5	369	6.4	369	6.4
7 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	470	3.7	305	5.1	305	5.1
8 Hypertensive diseases (I10 - I15)	456	3.6	228	3.8	228	3.8
9 Influenza and pneumonia (J10 - J18)	368	2.9	178	3.0	178	3.0
10 Tuberculosis (A15 - A19)	254	2.0	160	2.7	160	2.7
... Other causes	4,514	35.9	2,115	35.1	2,115	35.1
... All causes	12,578	100.0	6,021	100.0	6,021	100.0
<b>Western Cape, male, 0-14 years</b>						
1 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	304	10.5	160	10.1	160	10.1
2 Digestive system disorders of foetus and newborn (P75 - P78)	285	9.8	150	9.3	150	9.3
3 Other disorders originating in the perinatal period (P90 - P96)	133	4.6	65	4.0	65	4.0
4 Disorders related to length of gestation and foetal growth (P05 - P08)	89	3.1	45	2.8	45	2.8
5 Infections specific to the perinatal period (P35 - P39)	67	2.3	39	2.4	39	2.4
6 Congenital malformations of the circulatory system (Q20 - Q28)	57	2.0	38	2.4	38	2.4
7 Intestinal infectious diseases (A00 - A09)	57	2.0	28	1.7	28	1.7
8 Foetus & newborn affectd by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	52	1.8	28	1.7	28	1.7
9 Human immunodeficiency virus [HIV] diseases (B20 - B24)	50	1.7	27	1.7	27	1.7
10 Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	47	1.6	27	1.7	27	1.7
... Other causes	1,407	48.5	807	50.2	807	50.2
... All causes	2,904	100.0	1,606	100.0	1,606	100.0
<b>Western Cape, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	985	9.5	611	8.7	611	8.7
2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	339	3.3	199	2.8	199	2.8
3 Ischaemic heart diseases (I20 - I25)	266	2.6	153	2.2	153	2.2
4 Other forms of heart disease (I30 - I52)	253	2.4	148	2.1	148	2.1
5 Cerebrovascular diseases (I60 - I69)	245	2.4	144	2.1	144	2.1
6 Malignant neoplasms of digestive organs (C15 - C26)	228	2.2	108	1.5	108	1.5
7 Chronic lower respiratory diseases (J40 - J47)	179	1.7	108	1.5	108	1.5
8 Diabetes mellitus (E10 - E14)	165	1.6	104	1.5	104	1.5
9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	148	1.4	94	1.3	94	1.3
10 Influenza and pneumonia (J10 - J18)	142	1.4	94	1.3	94	1.3
... Other causes	7,426	71.6	5,241	74.8	5,241	74.8
... All causes	10,376	100.0	7,004	100.0	7,004	100.0
<b>Western Cape, male, 50-64 years</b>						
1 Ischaemic heart diseases (I20 - I25)	597	8.5	400	9.4	400	9.4
2 Diabetes mellitus (E10 - E14)	567	8.1	322	7.6	322	7.6
3 Cerebrovascular diseases (I60 - I69)	525	7.5	317	7.5	317	7.5
4 Chronic lower respiratory diseases (J40 - J47)	447	6.4	284	6.7	284	6.7
5 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	445	6.4	278	6.5	278	6.5
6 Tuberculosis (A15 - A19)	435	6.2	278	6.5	278	6.5
7 Malignant neoplasms of digestive organs (C15 - C26)	434	6.2	234	5.5	234	5.5
8 Other forms of heart disease (I30 - I52)	405	5.8	217	5.1	217	5.1
9 Hypertensive diseases (I10 - I15)	184	2.6	121	2.8	121	2.8
10 Diseases of liver (K70 - K77)	150	2.1	90	2.1	90	2.1
... Other causes	2,811	40.2	1,714	40.3	1,714	40.3
... All causes	7,000	100.0	4,255	100.0	4,255	100.0
<b>Western Cape, male, 65 years and above</b>						
1 Ischaemic heart diseases (I20 - I25)	1,416	11.3	740	12.3	740	12.3
2 Cerebrovascular diseases (I60 - I69)	1,360	10.8	555	9.2	555	9.2
3 Other forms of heart disease (I30 - I52)	1,144	9.1	502	8.3	502	8.3
4 Diabetes mellitus (E10 - E14)	1,121	8.9	485	8.1	485	8.1
5 Chronic lower respiratory diseases (J40 - J47)	778	6.2	384	6.4	384	6.4
6 Malignant neoplasms of digestive organs (C15 - C26)	697	5.5	369	6.4	369	6.4
7 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	470	3.7	305	5.1	305	5.1
8 Hypertensive diseases (I10 - I15)	456	3.6	228	3.8	228	3.8
9 Influenza and pneumonia (J10 - J18)	368	2.9	178	3.0	178	3.0
10 Tuberculosis (A15 - A19)	254	2.0	160	2.7	160	2.7
... Other causes	4,514	35.9	2,115	35.1	2,115	35.1
... All causes	12,578	100.0	6,021	100.0	6,021	100.0
<b>Western Cape, female, 0-14 years</b>						
1 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	186	14.3	186	14.3	186	14.3
2 Digestive system disorders of foetus and newborn (P75 - P78)	142	10.9	142	10.9	142	10.9
3 Other disorders originating in the perinatal period (P90 - P96)	135	10.4	135	10.4	135	10.4
4 Disorders related to length of gestation and foetal growth (P05 - P08)	68	5.2	68	5.2	68	5.2
5 Infections specific to the perinatal period (P35 - P39)	44	3.4	44	3.4	44	3.4
6 Foetus & newborn affectd by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	30	2.3	30	2.3	30	2.3
7 Congenital malformations of the circulatory system (Q20 - Q28)	28	2.2	28	2.2	28	2.2
8 Other forms of heart disease (I30 - I52)	24	1.8	24	1.8	24	1.8
9 Human immunodeficiency virus [HIV] diseases (B20 - B24)	24	1.8	24	1.8	24	1.8
10 Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	22	1.7	22	1.7	22	1.7
... Other causes	595	45.8	595	45.8	595	45.8
... All causes	1,298	100.0	1,298	100.0	1,298	100.0
<b>Western Cape, female, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	374	11.1	374	11.1	374	11.1
2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	191	5.7	191	5.7	191	5.7
3 Cerebrovascular diseases (I60 - I69)	137	4.1	137	4.1	137	4.1
4 Malignant neoplasms of female, genital organs (C51 - C58)	101	3.0	101	3.0	101	3.0
5 Other forms of heart disease (I30 - I52)	100	3.0	100	3.0	100	3.0
6 Diabetes mellitus (E10 - E14)	92	2.7	92	2.7	92	2.7
7 Malignant neoplasms of digestive organs (C15 - C26)	84	2.5	84	2.5	84	2.5
8 Diabetes mellitus (E10 - E14)	80	2.4	80	2.4	80	2.4
9 Chronic lower respiratory diseases (J40 - J47)	71	2.1	71	2.1	71	2.1
10 Ischaemic heart diseases (I20 - I25)	67	2.0	67	2.0	67	2.0
... Other causes	2,075	61.5	2,075	61.5	2,075	61.5
... All causes	3,372	100.0	3,372	100.0	3,372	100.0
<b>Western Cape, female, 50-64 years</b>						
1 Diabetes mellitus (E10 - E14)	333	12.1	333	12.1	333	12.1
2 Cerebrovascular diseases (I60 - I69)	241	8.8	241	8.8	241	8.8
3 Ischaemic heart diseases (I20 - I25)	197	7.2	197	7.2	197	7.2
4 Other forms of heart disease (I30 - I52)	188	6.8	188	6.8	188	6.8
5 Chronic lower respiratory diseases (J40 - J47)	169	6.2	169	6.2	169	6.2
6 Malignant neoplasms of digestive organs (C15 - C26)	156	5.7	156	5.7	156	5.7
7 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	123	4.5	123	4.5	123	4.5
8 Tuberculosis (A15 - A19)	118	4.3	118	4.3	118	4.3
9 Malignant neoplasms of female, genital organs (C51 - C58)	109	4.0	109	4.0	109	4.0
10 Malignant neoplasms of breast (C50)	108	3.9	108	3.		

### APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1997, Eastern Cape

	No.		%		No.		%	
<b>Eastern Cape, both sexes, all ages</b>								
1 Tuberculosis (A15 - A19)	4,103	9.2	2,467	10.1	<b>Eastern Cape, female, all ages</b>			
2 Other forms of heart disease (I30 - I52)	2,459	5.5	1,312	5.4	1 Tuberculosis (A15 - A19)			
3 Chronic lower respiratory diseases (J40 - J47)	2,410	5.4	1,103	4.5	2 Cerebrovascular diseases (I60 - I69)			
4 Cerebrovascular diseases (I60 - I69)	2,313	5.2	1,034	4.2	3 Other forms of heart disease (I30 - I52)			
5 Malignant neoplasms of digestive organs (C15 - C26)	1,664	3.7	963	4.0	4 Chronic lower respiratory diseases (J40 - J47)			
6 Diabetes mellitus (E10 - E14)	1,414	3.2	589	2.4	5 Diabetes mellitus (E10 - E14)			
7 Influenza and pneumonia (J10 - J18)	1,160	2.6	571	2.3	6 Malignant neoplasms of digestive organs (C15 - C26)			
8 Hypertensive diseases (I10 - I15)	1,104	2.5	530	2.2	7 Hypertensive diseases (I10 - I15)			
9 Ischaemic heart diseases (I20 - I25)	968	2.2	470	1.9	8 Influenza and pneumonia (J10 - J18)			
10 Intestinal infectious diseases (A00 - A09)	835	1.9	406	1.7	9 Intestinal infectious diseases (A00 - A09)			
... Other causes	26,164	58.7	14,933	61.3	10 Ischaemic heart diseases (I20 - I25)			
... All causes	44,594	100.0	24,378	100.0	... Other causes			
<b>Eastern Cape, male, all ages</b>								
1 Tuberculosis (A15 - A19)	4,103	9.2	2,467	10.1	<b>Eastern Cape, female, 0-14 years</b>			
2 Other forms of heart disease (I30 - I52)	2,459	5.5	1,312	5.4	1 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)			
3 Chronic lower respiratory diseases (J40 - J47)	2,410	5.4	1,103	4.5	2 Digestive system disorders of foetus and newborn (P75 - P78)			
4 Cerebrovascular diseases (I60 - I69)	2,313	5.2	1,034	4.2	3 Other disorders originating in the perinatal period (P90 - P96)			
5 Malignant neoplasms of digestive organs (C15 - C26)	1,664	3.7	963	4.0	4 Intestinal infectious diseases (A00 - A09)			
6 Diabetes mellitus (E10 - E14)	1,414	3.2	589	2.4	5 Foetus & newborn affectd by matern. factors & complic. of preg. lab. & deliv. (P00 - P04)			
7 Influenza and pneumonia (J10 - J18)	1,160	2.6	571	2.3	6 Disorders related to length of gestation and foetal growth (P05 - P08)			
8 Hypertensive diseases (I10 - I15)	1,104	2.5	530	2.2	7 Infections specific to the perinatal period (P35 - P39)			
9 Ischaemic heart diseases (I20 - I25)	968	2.2	470	1.9	8 Malnutrition (E40 - E46)			
10 Intestinal infectious diseases (A00 - A09)	835	1.9	406	1.7	9 Human immunodeficiency virus [HIV] diseases (B20 - B24)			
... Other causes	26,164	58.7	14,933	61.3	10 Tuberculosis (A15 - A19)			
... All causes	44,594	100.0	24,378	100.0	... Other causes			
<b>Eastern Cape, both sexes, 0-14 years</b>								
1 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	642	14.2	329	13.5	<b>Eastern Cape, female, 15-49 years</b>			
2 Digestive system disorders of foetus and newborn (P75 - P78)	512	11.4	261	10.7	1 Tuberculosis (A15 - A19)			
3 Other disorders originating in the perinatal period (P90 - P96)	404	9.0	234	9.6	2 Human immunodeficiency virus [HIV] diseases (B20 - B24)			
4 Intestinal infectious diseases (A00 - A09)	164	3.6	84	3.4	3 Other forms of heart disease (I30 - I52)			
5 Foetus & newborn affectd by matern. factors & complic. of preg. lab. & deliv. (P00 - P04)	137	3.0	79	3.2	4 Influenza and pneumonia (J10 - J18)			
6 Disorders related to length of gestation and foetal growth (P05 - P08)	131	2.9	74	3.0	5 Cerebrovascular diseases (I60 - I69)			
7 Infections specific to the perinatal period (P35 - P39)	126	2.8	61	2.5	6 Chronic lower respiratory diseases (J40 - J47)			
8 Malnutrition (E40 - E46)	101	2.2	59	2.4	7 Intestinal infectious diseases (A00 - A09)			
9 Human immunodeficiency virus [HIV] diseases (B20 - B24)	86	1.9	41	1.7	8 Chronic lower respiratory diseases (J40 - J47)			
10 Tuberculosis (A15 - A19)	72	1.6	38	1.6	9 Intestinal infectious diseases (A00 - A09)			
... Other causes	2,061	45.7	1,175	48.3	10 Malignant neoplasms of digestive organs (C15 - C26)			
... All causes	4,508	100.0	2,435	100.0	... Other causes			
<b>Eastern Cape, both sexes, 15-49 years</b>								
1 Tuberculosis (A15 - A19)	1,978	13.7	1,164	13.0	<b>Eastern Cape, female, 50-64 years</b>			
2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	562	3.9	215	2.4	1 Tuberculosis (A15 - A19)			
3 Other forms of heart disease (I30 - I52)	407	2.8	190	2.1	2 Human immunodeficiency virus [HIV] diseases (B20 - B24)			
4 Influenza and pneumonia (J10 - J18)	368	2.6	190	2.1	3 Other forms of heart disease (I30 - I52)			
5 Cerebrovascular diseases (I60 - I69)	340	2.4	187	2.1	4 Influenza and pneumonia (J10 - J18)			
6 Chronic lower respiratory diseases (J40 - J47)	323	2.3	180	2.0	5 Cerebrovascular diseases (I60 - I69)			
7 Malignant neoplasms of digestive organs (C15 - C26)	282	2.0	169	1.9	6 Chronic lower respiratory diseases (J40 - J47)			
8 Intestinal infectious diseases (A00 - A09)	239	1.7	144	1.6	7 Intestinal infectious diseases (A00 - A09)			
9 Episodic and paroxysmal disorders (G40 - G47)	226	1.6	132	1.5	8 Certain disorders involving the immune mechanism (D80 - D89)			
10 Diseases of liver (K70 - K77)	213	1.5	118	1.3	9 Malignant neoplasms of digestive organs (C15 - C26)			
... Other causes	9,451	65.7	6,251	69.9	10 Malignant neoplasms of female, genital organs (C51 - C58)			
... All causes	14,393	100.0	8,940	100.0	... Other causes			
<b>Eastern Cape, both sexes, 50-64 years</b>								
1 Tuberculosis (A15 - A19)	973	11.1	654	12.7	<b>Eastern Cape, female, 65 years and above</b>			
2 Chronic lower respiratory diseases (J40 - J47)	632	7.2	397	7.7	1 Tuberculosis (A15 - A19)			
3 Other forms of heart disease (I30 - I52)	599	6.8	349	6.8	2 Cerebrovascular diseases (I60 - I69)			
4 Cerebrovascular diseases (I60 - I69)	598	6.8	322	6.3	3 Other forms of heart disease (I30 - I52)			
5 Malignant neoplasms of digestive organs (C15 - C26)	556	6.3	291	5.7	4 Diabetes mellitus (E10 - E14)			
6 Diabetes mellitus (E10 - E14)	445	5.1	179	3.5	5 Chronic lower respiratory diseases (J40 - J47)			
7 Hypertensive diseases (I10 - I15)	259	2.9	176	3.4	6 Malignant neoplasms of digestive organs (C15 - C26)			
8 Ischaemic heart diseases (I20 - I25)	251	2.9	157	3.0	7 Hypertensive diseases (I10 - I15)			
9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	240	2.7	124	2.4	8 Malignant neoplasms of female, genital organs (C51 - C58)			
10 Influenza and pneumonia (J10 - J18)	194	2.2	111	2.2	9 Ischaemic heart diseases (I20 - I25)			
... Other causes	4,039	46.0	2,389	46.4	10 Influenza and pneumonia (J10 - J18)			
... All causes	8,786	100.0	5,149	100.0	... Other causes			
<b>Eastern Cape, both sexes, 65 years and above</b>								
1 Cerebrovascular diseases (I60 - I69)	1,458	8.6	713	9.1	<b>Eastern Cape, female, 65 years and above</b>			
2 Other forms of heart disease (I30 - I52)	1,410	8.3	611	7.8	1 Cerebrovascular diseases (I60 - I69)			
3 Chronic lower respiratory diseases (J40 - J47)	1,330	7.9	567	7.2	2 Other forms of heart disease (I30 - I52)			
4 Tuberculosis (A15 - A19)	1,080	6.4	555	7.1	3 Chronic lower respiratory diseases (J40 - J47)			
5 Malignant neoplasms of digestive organs (C15 - C26)	819	4.8	440	5.6	4 Tuberculosis (A15 - A19)			
6 Diabetes mellitus (E10 - E14)	754	4.5	289	3.7	5 Diabetes mellitus (E10 - E14)			
7 Hypertensive diseases (I10 - I15)	696	4.1	285	3.6	6 Hypertensive diseases (I10 - I15)			
8 Ischaemic heart diseases (I20 - I25)	593	3.5	244	3.1	7 Malignant neoplasms of digestive organs (C15 - C26)			
9 Influenza and pneumonia (J10 - J18)	526	3.1	229	2.9	8 Ischaemic heart diseases (I20 - I25)			
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	314	1.9	211	2.7	9 Influenza and pneumonia (J10 - J18)			
... Other causes	7,927	46.9	3,710	47.2	10 Intestinal infectious diseases (A00 - A09)			
... All causes	16,907	100.0	7,854	100.0	... Other causes			

## APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1997, Northern Cape

	Northern Cape, both sexes, all ages		Northern Cape, male, all ages		Northern Cape, female, all ages	
	No.	%	No.	%	No.	%
1 Tuberculosis (A15 - A19)	669	8.0	418	9.1	251	7.9
2 Other forms of heart disease (I30 - I52)	548	6.5	269	5.8	279	7.4
3 Cerebrovascular diseases (I60 - I69)	517	6.2	227	4.9	290	6.6
4 Ischaemic heart diseases (I20 - I25)	370	4.4	217	4.7	153	4.6
5 Chronic lower respiratory diseases (J40 - J47)	347	4.1	217	4.7	175	4.0
6 Malignant neoplasms of digestive organs (C15 - C26)	309	3.7	170	3.7	139	3.7
7 Influenza and pneumonia (J10 - J18)	291	3.5	158	3.4	133	3.6
8 Diabetes mellitus (E10 - E14)	260	3.1	131	2.8	129	3.5
9 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	187	2.2	103	2.2	84	2.3
10 Hypertensive diseases (I10 - I15)	204	2.4	94	2.0	110	2.7
... Other causes	4,686	55.9	2,600	56.5	1,988	52.8
... All causes	8,388	100.0	4,604	100.0	3,784	100.0
	<b>Northern Cape, both sexes, 0-14 years</b>					
1 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	204	18.1	103	16.9	101	19.6
2 Digestive system disorders of foetus and newborn (P75 - P78)	186	16.5	94	15.4	92	17.8
3 Disorders related to length of gestation and foetal growth (P05 - P08)	63	5.6	39	6.4	26	5.0
4 Other disorders originating in the perinatal period (P90 - P96)	54	4.8	29	4.7	24	4.7
5 Intestinal infectious diseases (A00 - A09)	50	4.4	28	4.6	22	4.3
6 Malnutrition (E40 - E46)	46	4.1	26	4.3	21	4.1
7 Infections specific to the perinatal period (P35 - P39)	43	3.8	21	3.4	20	3.9
8 Tuberculosis (A15 - A19)	22	2.0	11	1.8	13	2.5
9 Foetus & newborn affect'd by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	21	1.9	10	1.6	12	2.3
10 Inflammatory diseases of the central nervous system (G00 - G09)	19	1.7	9	1.5	9	1.7
... Other causes	419	37.2	241	39.4	176	34.1
... All causes	1,127	100.0	611	100.0	516	100.0
	<b>Northern Cape, both sexes, 15-49 years</b>					
1 Tuberculosis (A15 - A19)	405	14.9	233	14.4	172	15.6
2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	121	4.4	57	3.5	77	7.0
3 Other forms of heart disease (I30 - I52)	104	3.8	53	3.3	51	4.6
4 Influenza and pneumonia (J10 - J18)	97	3.6	44	2.7	46	4.2
5 Cerebrovascular diseases (I60 - I69)	77	2.8	31	1.9	40	3.6
6 Chronic lower respiratory diseases (J40 - J47)	56	2.1	27	1.7	30	2.7
7 Malignant neoplasms of digestive organs (C15 - C26)	53	1.9	27	1.7	27	2.4
8 Diseases of liver (K70 - K77)	52	1.9	27	1.7	26	2.4
9 Ischaemic heart diseases (I20 - I25)	46	1.7	26	1.6	25	2.3
10 Episodic and paroxysmal disorders (G40 - G47)	39	1.4	26	1.6	23	2.1
... Other causes	1,673	61.4	1,069	66.0	586	53.1
... All causes	2,723	100.0	1,620	100.0	1,103	100.0
	<b>Northern Cape, both sexes, 50-64 years</b>					
1 Tuberculosis (A15 - A19)	160	9.1	117	11.6	70	9.3
2 Other forms of heart disease (I30 - I52)	143	8.1	81	8.0	67	8.9
3 Cerebrovascular diseases (I60 - I69)	140	7.9	75	7.4	65	8.6
4 Chronic lower respiratory diseases (J40 - J47)	125	7.1	75	7.4	50	6.6
5 Ischaemic heart diseases (I20 - I25)	115	6.5	73	7.2	46	6.1
6 Malignant neoplasms of digestive organs (C15 - C26)	106	6.0	60	5.9	43	5.7
7 Diabetes mellitus (E10 - E14)	92	5.2	52	5.1	34	4.5
8 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	71	4.0	27	2.7	34	4.5
9 Hypertensive diseases (I10 - I15)	47	2.7	25	2.5	33	4.4
10 Influenza and pneumonia (J10 - J18)	47	2.7	25	2.5	20	2.7
... Other causes	718	40.7	402	39.7	290	38.6
... All causes	1,764	100.0	1,012	100.0	752	100.0
	<b>Northern Cape, both sexes, 65 years and above</b>					
1 Cerebrovascular diseases (I60 - I69)	299	10.8	140	10.3	188	13.3
2 Other forms of heart disease (I30 - I52)	291	10.5	125	9.2	151	10.7
3 Ischaemic heart diseases (I20 - I25)	209	7.5	111	8.2	99	7.0
4 Chronic lower respiratory diseases (J40 - J47)	164	5.9	110	8.1	84	5.9
5 Malignant neoplasms of digestive organs (C15 - C26)	150	5.4	83	6.1	82	5.8
6 Influenza and pneumonia (J10 - J18)	130	4.7	66	4.8	67	4.7
7 Diabetes mellitus (E10 - E14)	129	4.7	62	4.6	64	4.5
8 Hypertensive diseases (I10 - I15)	110	4.0	58	4.3	39	2.8
9 Tuberculosis (A15 - A19)	82	3.0	45	3.3	26	1.8
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	77	2.8	39	2.9	24	1.7
... Other causes	1,133	40.8	522	38.4	589	41.7
... All causes	2,774	100.0	1,361	100.0	1,413	100.0

### APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1997, Free State

	No.	%	No.	%	No.	%
<b>Free State, both sexes, all ages</b>						
1 Tuberculosis (A15 - A19)	2,008	8.0	1,259	9.3	1,032	9.0
2 Other forms of heart disease (I30 - I52)	1,999	8.0	987	7.1	905	7.9
3 Cerebrovascular diseases (I60 - I69)	1,598	6.2	781	5.8	749	6.5
4 Influenza and pneumonia (J10 - J18)	1,456	6.0	663	4.8	714	6.2
5 Human immunodeficiency virus [HIV] diseases (B20 - B24)	1,495	6.0	522	3.9	525	4.6
6 Chronic lower respiratory diseases (J40 - J47)	976	3.9	451	3.3	432	3.8
7 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	814	3.3	412	3.0	398	3.5
8 Hypertensive diseases (I10 - I15)	687	2.7	372	2.7	369	3.2
9 Diabetes mellitus (E10 - E14)	640	2.6	357	2.6	343	3.0
10 Digestive system disorders of foetus and newborn (P75 - P78)	625	2.5	327	2.4	298	2.6
... Other causes	13,478	53.8	7,435	54.9	5,740	49.9
... All causes	25,041	100.0	13,536	100.0	11,505	100.0
<b>Free State, male, all ages</b>						
1 Tuberculosis (A15 - A19)	781	20.8	412	20.9	369	20.6
2 Other forms of heart disease (I30 - I52)	625	16.6	327	16.6	298	16.6
3 Cerebrovascular diseases (I60 - I69)	220	5.9	110	5.6	110	6.1
4 Influenza and pneumonia (J10 - J18)	220	5.9	95	4.8	91	5.1
5 Human immunodeficiency virus [HIV] diseases (B20 - B24)	186	4.9	94	4.8	91	5.1
6 Chronic lower respiratory diseases (J40 - J47)	185	4.9	94	4.8	70	3.9
7 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	142	3.8	73	3.7	69	3.9
8 Hypertensive diseases (I10 - I15)	133	3.5	63	3.2	47	2.6
9 Diabetes mellitus (E10 - E14)	103	2.7	56	2.8	46	2.6
10 Digestive system disorders of foetus and newborn (P75 - P78)	101	2.7	55	2.8	46	2.6
... Other causes	75	2.0	34	1.7	41	2.3
... All causes	1,209	32.2	651	33.0	558	31.2
... All causes	3,760	100.0	1,970	100.0	1,790	100.0
<b>Free State, female, 0-14 years</b>						
1 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	781	20.8	412	20.9	369	20.6
2 Digestive system disorders of foetus and newborn (P75 - P78)	625	16.6	327	16.6	298	16.6
3 Intestinal infectious diseases (A00 - A09)	220	5.9	110	5.6	110	6.1
4 Other disorders originating in the perinatal period (P90 - P96)	186	4.9	95	4.8	91	5.1
5 Disorders related to length of gestation and foetal growth (P05 - P08)	185	4.9	94	4.8	91	5.1
6 Malnutrition (E40 - E46)	142	3.8	73	3.7	70	3.9
7 Influenza and pneumonia (J10 - J18)	133	3.5	63	3.2	47	2.6
8 Infections specific to the perinatal period (P35 - P39)	103	2.7	56	2.8	46	2.6
9 Foetus & newborn affect'd by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	101	2.7	55	2.8	46	2.6
10 Human immunodeficiency virus [HIV] diseases (B20 - B24)	75	2.0	34	1.7	41	2.3
... Other causes	1,209	32.2	651	33.0	558	31.2
... All causes	3,760	100.0	1,970	100.0	1,790	100.0
<b>Free State, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	1,425	14.8	829	14.8	596	14.9
2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	838	8.7	373	6.7	465	11.6
3 Influenza and pneumonia (J10 - J18)	673	7.0	332	5.9	341	8.5
4 Other forms of heart disease (I30 - I52)	442	4.6	237	4.2	222	5.5
5 Certain disorders involving the immune mechanism (D80 - D89)	357	3.7	157	2.8	205	5.1
6 Cerebrovascular diseases (I60 - I69)	324	3.4	135	2.4	167	4.2
7 Intestinal infectious diseases (A00 - A09)	178	1.9	87	1.6	116	2.9
8 Chronic lower respiratory diseases (J40 - J47)	140	1.5	78	1.4	85	2.1
9 Diseases of liver (K70 - K77)	137	1.4	69	1.2	59	1.5
10 Diabetes mellitus (E10 - E14)	111	1.2	64	1.1	59	1.5
... Other causes	4,982	51.9	64	1.1	1,691	42.2
... All causes	9,507	100.0	3,176	56.7	4,006	100.0
... All causes	5,601	100.0	5,601	100.0	5,601	100.0
<b>Free State, female, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	829	14.8	412	20.9	369	20.6
2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	373	6.7	173	6.5	116	6.1
3 Influenza and pneumonia (J10 - J18)	332	5.9	157	2.8	205	5.1
4 Other forms of heart disease (I30 - I52)	237	4.2	135	2.4	167	4.2
5 Certain disorders involving the immune mechanism (D80 - D89)	157	2.8	87	1.6	116	2.9
6 Cerebrovascular diseases (I60 - I69)	135	2.4	78	1.4	85	2.1
7 Intestinal infectious diseases (A00 - A09)	87	1.6	69	1.2	59	1.5
8 Chronic lower respiratory diseases (J40 - J47)	78	1.4	64	1.1	59	1.5
9 Diseases of liver (K70 - K77)	69	1.2	64	1.1	59	1.5
10 Diabetes mellitus (E10 - E14)	64	1.1	64	1.1	59	1.5
... Other causes	3,176	56.7	3,176	56.7	4,006	100.0
... All causes	5,601	100.0	5,601	100.0	5,601	100.0
<b>Free State, male, 50-64 years</b>						
1 Other forms of heart disease (I30 - I52)	435	9.6	306	11.5	247	13.1
2 Cerebrovascular diseases (I60 - I69)	431	9.5	230	8.7	205	10.9
3 Tuberculosis (A15 - A19)	396	8.7	184	6.9	130	6.9
4 Influenza and pneumonia (J10 - J18)	264	5.8	173	6.5	116	6.1
5 Chronic lower respiratory diseases (J40 - J47)	236	5.2	150	5.6	94	5.0
6 Malignant neoplasms of digestive organs (C15 - C26)	222	4.9	149	5.6	91	4.8
7 Diabetes mellitus (E10 - E14)	205	4.5	131	4.9	90	4.8
8 Hypertensive diseases (I10 - I15)	180	4.0	92	3.5	86	4.6
9 Ischaemic heart diseases (I20 - I25)	174	3.8	75	2.8	73	3.9
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	112	2.5	65	2.4	43	2.3
... Other causes	1,888	41.6	1,101	41.5	712	37.7
... All causes	4,543	100.0	2,656	100.0	1,887	100.0
<b>Free State, female, 50-64 years</b>						
1 Other forms of heart disease (I30 - I52)	435	9.6	306	11.5	247	13.1
2 Cerebrovascular diseases (I60 - I69)	431	9.5	230	8.7	205	10.9
3 Tuberculosis (A15 - A19)	396	8.7	184	6.9	130	6.9
4 Influenza and pneumonia (J10 - J18)	264	5.8	173	6.5	116	6.1
5 Chronic lower respiratory diseases (J40 - J47)	236	5.2	150	5.6	94	5.0
6 Malignant neoplasms of digestive organs (C15 - C26)	222	4.9	149	5.6	91	4.8
7 Diabetes mellitus (E10 - E14)	205	4.5	131	4.9	90	4.8
8 Hypertensive diseases (I10 - I15)	180	4.0	92	3.5	86	4.6
9 Ischaemic heart diseases (I20 - I25)	174	3.8	75	2.8	73	3.9
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	112	2.5	65	2.4	43	2.3
... Other causes	1,888	41.6	1,101	41.5	712	37.7
... All causes	4,543	100.0	2,656	100.0	1,887	100.0
<b>Free State, both sexes, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	1,097	15.1	487	14.7	610	16.0
2 Cerebrovascular diseases (I60 - I69)	791	11.4	305	9.2	486	12.7
3 Chronic lower respiratory diseases (J40 - J47)	431	6.0	280	8.5	265	6.9
4 Influenza and pneumonia (J10 - J18)	325	4.5	213	6.4	212	5.5
5 Hypertensive diseases (I10 - I15)	387	5.4	162	4.9	208	5.4
6 Ischaemic heart diseases (I20 - I25)	334	4.7	153	4.6	172	4.5
7 Diabetes mellitus (E10 - E14)	323	4.5	122	3.7	151	4.0
8 Malignant neoplasms of digestive organs (C15 - C26)	240	3.4	115	3.5	87	2.3
9 Tuberculosis (A15 - A19)	149	2.1	108	3.3	87	2.3
10 Renal failure (N17 - N19)	138	1.9	101	3.1	72	1.9
... Other causes	2,816	39.5	1,263	38.2	1,472	38.5
... All causes	7,131	100.0	3,309	100.0	3,822	100.0



## APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1997, North West

	No.	%	No.	%
<b>North West, both sexes, all ages</b>				
1 Other forms of heart disease (I30 - I52)	1,944	7.9	1,214	8.9
2 Tuberculosis (A15 - A19)	1,922	7.8	947	6.9
3 Cerebrovascular diseases (I60 - I69)	1,518	6.2	710	5.2
4 Influenza and pneumonia (J10 - J18)	1,222	5.0	667	4.9
5 Hypertensive diseases (I10 - I15)	736	3.0	491	3.6
6 Chronic lower respiratory diseases (J40 - J47)	733	3.0	431	3.1
7 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	711	2.9	379	2.8
8 Malignant neoplasms of digestive organs (C15 - C26)	648	2.6	368	2.7
9 Diabetes mellitus (E10 - E14)	633	2.6	367	2.7
10 Human immunodeficiency virus (HIV) diseases (B20 - B24)	606	2.5	288	2.0
... Other causes	13,839	56.5	7,846	57.3
... All causes	24,512	100.0	13,688	100.0
<b>North West, male, all ages</b>				
1 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	711	19.6	367	18.7
2 Digestive system disorders of foetus and newborn (P75 - P78)	498	13.7	249	12.7
3 Intestinal infectious diseases (A00 - A09)	254	6.3	123	6.3
4 Other disorders originating in the perinatal period (P90 - P96)	208	5.7	117	6.0
5 Disorders related to length of gestation and foetal growth (P05 - P08)	166	4.6	88	4.5
6 Malnutrition (E40 - E46)	147	4.0	77	3.9
7 Influenza and pneumonia (J10 - J18)	112	3.1	74	3.8
8 Foetus & newborn affectd by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	103	2.8	54	2.7
9 Infections specific to the perinatal period (P35 - P39)	95	2.6	47	2.4
10 Tuberculosis (A15 - A19)	51	1.4	28	1.4
... Other causes	1,286	35.4	740	37.7
... All causes	3,631	100.0	1,964	100.0
<b>North West, both sexes, 0-14 years</b>				
1 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	711	19.6	367	18.7
2 Digestive system disorders of foetus and newborn (P75 - P78)	498	13.7	249	12.7
3 Intestinal infectious diseases (A00 - A09)	254	6.3	123	6.3
4 Other disorders originating in the perinatal period (P90 - P96)	208	5.7	117	6.0
5 Disorders related to length of gestation and foetal growth (P05 - P08)	166	4.6	88	4.5
6 Malnutrition (E40 - E46)	147	4.0	77	3.9
7 Influenza and pneumonia (J10 - J18)	112	3.1	74	3.8
8 Foetus & newborn affectd by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	103	2.8	54	2.7
9 Infections specific to the perinatal period (P35 - P39)	95	2.6	47	2.4
10 Tuberculosis (A15 - A19)	51	1.4	28	1.4
... Other causes	1,286	35.4	740	37.7
... All causes	3,631	100.0	1,964	100.0
<b>North West, male, 0-14 years</b>				
1 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	711	19.6	367	18.7
2 Digestive system disorders of foetus and newborn (P75 - P78)	498	13.7	249	12.7
3 Intestinal infectious diseases (A00 - A09)	254	6.3	123	6.3
4 Other disorders originating in the perinatal period (P90 - P96)	208	5.7	117	6.0
5 Disorders related to length of gestation and foetal growth (P05 - P08)	166	4.6	88	4.5
6 Malnutrition (E40 - E46)	147	4.0	77	3.9
7 Influenza and pneumonia (J10 - J18)	112	3.1	74	3.8
8 Foetus & newborn affectd by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	103	2.8	54	2.7
9 Infections specific to the perinatal period (P35 - P39)	95	2.6	47	2.4
10 Tuberculosis (A15 - A19)	51	1.4	28	1.4
... Other causes	1,286	35.4	740	37.7
... All causes	3,631	100.0	1,964	100.0
<b>North West, both sexes, 15-49 years</b>				
1 Tuberculosis (A15 - A19)	1,219	13.9	668	12.9
2 Influenza and pneumonia (J10 - J18)	554	6.3	316	6.1
3 Human immunodeficiency virus (HIV) diseases (B20 - B24)	523	6.0	282	5.5
4 Other forms of heart disease (I30 - I52)	443	5.1	213	4.1
5 Certain disorders involving the immune mechanism (D80 - D89)	287	3.3	130	2.5
6 Cerebrovascular diseases (I60 - I69)	264	3.0	115	2.2
7 Intestinal infectious diseases (A00 - A09)	167	1.7	87	1.7
8 Episodic and paroxysmal disorders (G40 - G47)	138	1.6	85	1.6
9 Malignant neoplasms of digestive organs (C15 - C26)	136	1.6	74	1.4
10 Diabetes mellitus (E10 - E14)	121	1.4	71	1.4
... Other causes	4,912	56.2	3,126	60.5
... All causes	8,744	100.0	5,167	100.0
<b>North West, male, 15-49 years</b>				
1 Tuberculosis (A15 - A19)	1,219	13.9	668	12.9
2 Influenza and pneumonia (J10 - J18)	554	6.3	316	6.1
3 Human immunodeficiency virus (HIV) diseases (B20 - B24)	523	6.0	282	5.5
4 Other forms of heart disease (I30 - I52)	443	5.1	213	4.1
5 Certain disorders involving the immune mechanism (D80 - D89)	287	3.3	130	2.5
6 Cerebrovascular diseases (I60 - I69)	264	3.0	115	2.2
7 Intestinal infectious diseases (A00 - A09)	167	1.7	87	1.7
8 Episodic and paroxysmal disorders (G40 - G47)	138	1.6	85	1.6
9 Malignant neoplasms of digestive organs (C15 - C26)	136	1.6	74	1.4
10 Diabetes mellitus (E10 - E14)	121	1.4	71	1.4
... Other causes	4,912	56.2	3,126	60.5
... All causes	8,744	100.0	5,167	100.0
<b>North West, both sexes, 50-64 years</b>				
1 Other forms of heart disease (I30 - I52)	446	10.4	324	12.2
2 Tuberculosis (A15 - A19)	406	9.5	273	10.3
3 Cerebrovascular diseases (I60 - I69)	369	8.6	198	7.4
4 Malignant neoplasms of digestive organs (C15 - C26)	243	5.7	166	6.2
5 Chronic lower respiratory diseases (J40 - J47)	208	4.8	136	5.1
6 Diabetes mellitus (E10 - E14)	204	4.8	110	4.1
7 Influenza and pneumonia (J10 - J18)	175	4.1	107	4.0
8 Ischaemic heart diseases (I20 - I25)	167	3.9	87	3.3
9 Hypertensive diseases (I10 - I15)	166	3.9	84	3.2
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	104	2.4	67	2.5
... Other causes	1,805	42.0	1,109	41.7
... All causes	4,293	100.0	2,661	100.0
<b>North West, male, 50-64 years</b>				
1 Other forms of heart disease (I30 - I52)	446	10.4	324	12.2
2 Tuberculosis (A15 - A19)	406	9.5	273	10.3
3 Cerebrovascular diseases (I60 - I69)	369	8.6	198	7.4
4 Malignant neoplasms of digestive organs (C15 - C26)	243	5.7	166	6.2
5 Chronic lower respiratory diseases (J40 - J47)	208	4.8	136	5.1
6 Diabetes mellitus (E10 - E14)	204	4.8	110	4.1
7 Influenza and pneumonia (J10 - J18)	175	4.1	107	4.0
8 Ischaemic heart diseases (I20 - I25)	167	3.9	87	3.3
9 Hypertensive diseases (I10 - I15)	166	3.9	84	3.2
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	104	2.4	67	2.5
... Other causes	1,805	42.0	1,109	41.7
... All causes	4,293	100.0	2,661	100.0
<b>North West, both sexes, 65 years and above</b>				
1 Other forms of heart disease (I30 - I52)	1,022	13.0	448	11.5
2 Cerebrovascular diseases (I60 - I69)	876	11.2	376	9.7
3 Hypertensive diseases (I10 - I15)	476	6.1	273	7.0
4 Chronic lower respiratory diseases (J40 - J47)	399	5.1	204	5.2
5 Influenza and pneumonia (J10 - J18)	381	4.9	196	5.0
6 Ischaemic heart diseases (I20 - I25)	325	4.1	182	4.7
7 Malignant neoplasms of digestive organs (C15 - C26)	306	3.9	176	4.5
8 Malignant neoplasms of digestive organs (C15 - C26)	267	3.4	146	3.7
9 Tuberculosis (A15 - A19)	246	3.1	112	2.9
10 Intestinal infectious diseases (A00 - A09)	148	1.9	80	2.1
... Other causes	3,398	43.3	1,703	43.7
... All causes	7,844	100.0	3,896	100.0
<b>North West, female, all ages</b>				
1 Other forms of heart disease (I30 - I52)	997	9.2	551	15.4
2 Cerebrovascular diseases (I60 - I69)	808	7.5	272	7.6
3 Tuberculosis (A15 - A19)	708	6.5	230	6.4
4 Influenza and pneumonia (J10 - J18)	555	5.1	207	5.8
5 Hypertensive diseases (I10 - I15)	488	4.5	172	4.8
6 Diabetes mellitus (E10 - E14)	375	3.5	134	3.7
7 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	344	3.2	87	2.4
8 Malignant neoplasms of digestive organs (C15 - C26)	334	3.1	87	2.4
9 Diabetes mellitus (E10 - E14)	249	2.3	73	2.0
10 Chronic lower respiratory diseases (J40 - J47)	242	2.2	63	1.8
... Other causes	5,724	52.9	1,734	48.5
... All causes	10,824	100.0	3,577	100.0
<b>North West, female, 0-14 years</b>				
1 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	344	20.6	344	20.6
2 Digestive system disorders of foetus and newborn (P75 - P78)	249	14.9	249	14.9
3 Intestinal infectious diseases (A00 - A09)	131	7.9	131	7.9
4 Other disorders originating in the perinatal period (P90 - P96)	91	5.5	91	5.5
5 Disorders related to length of gestation and foetal growth (P05 - P08)	78	4.7	78	4.7
6 Malnutrition (E40 - E46)	70	4.2	70	4.2
7 Foetus & newborn affectd by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	49	2.9	49	2.9
8 Infections specific to the perinatal period (P35 - P39)	48	2.9	48	2.9
9 Influenza and pneumonia (J10 - J18)	38	2.3	38	2.3
10 Certain disorders involving the immune mechanism (D80 - D89)	25	1.5	25	1.5
... Other causes	519	31.1	519	31.1
... All causes	1,667	100.0	1,667	100.0
<b>North West, female, 15-49 years</b>				
1 Tuberculosis (A15 - A19)	551	15.4	551	15.4
2 Influenza and pneumonia (J10 - J18)	272	7.6	272	7.6
3 Other forms of heart disease (I30 - I52)	230	6.4	230	6.4
4 Human immunodeficiency virus (HIV) diseases (B20 - B24)	207	5.8	207	5.8
5 Certain disorders involving the immune mechanism (D80 - D89)	172	4.8	172	4.8
6 Cerebrovascular diseases (I60 - I69)	134	3.7	134	3.7
7 Intestinal infectious diseases (A00 - A09)	87	2.4	87	2.4
8 Episodic and paroxysmal disorders (G40 - G47)	73	2.0	73	2.0
9 Diabetes mellitus (E10 - E14)	63	1.8	63	1.8
10 Hypertensive diseases (I10 - I15)	54	1.5	54	1.5
... Other causes	1,734	48.5	1,734	48.5
... All causes	3,577	100.0	3,577	100.0
<b>North West, female, 50-64 years</b>				
1 Other forms of heart disease (I30 - I52)	173	10.6	173	10.6
2 Cerebrovascular diseases (I60 - I69)	171	10.5	171	10.5
3 Diabetes mellitus (E10 - E14)	117	7.2	117	7.2
4 Hypertensive diseases (I10 - I15)	104	6.4	104	6.4
5 Malignant neoplasms of female, genital organs (C51 - C58)	90	5.5	90	5.5
6 Tuberculosis (A15 - A19)	82	5.0	82	5.0
7 Malignant neoplasms of digestive organs (C15 - C26)	77	4.7	77	4.7
8 Chronic lower respiratory diseases (J40 - J47)	72	4.4	72	4.4
9 Influenza and pneumonia (J10 - J18)	68	4.2	68	4.2
10 Ischaemic heart diseases (I20 - I25)	57	3.5	57	3.5
... Other causes	621	38.1	621	38.1
... All causes	1,632	100.0	1,632	100.0
<b>North West, female, 65 years and above</b>				
1 Other forms of heart disease (I30 - I52)	574	14.5	574	14.5
2 Cerebrovascular diseases (I60 - I69)	500	12.7	500	12.7
3 Hypertensive diseases (I10 - I15)	330	8.4	330	8.4
4 Diabetes mellitus (E10 - E14)	194	4.9	194	4.9
5 Influenza and pneumonia (J10 - J18)	177	4.5	177	4.5
6 Ischaemic heart diseases (I20 - I25)	143	3.6	143	3.6
7 Chronic lower respiratory diseases (J40 - J47)	126	3.2	126	3.2
8 Malignant neoplasms of digestive organs (C15 - C26)	91	2.3	91	2.3
9 Intestinal infectious diseases (A00 - A09)	89	2.3	89	2.3
10 Malignant neoplasms of female, genital organs (C51 - C58)	54	1.4	54	1.4
... Other causes	1,670	42.3	1,670	42.3
... All causes	3,948	100.0	3,948	100.0

## APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1997, Gauteng

	No.	%	No.	%	No.	%
<b>Gauteng, both sexes, all ages</b>						
1 Other forms of heart disease (I30 - I52)	3,741	5.6	1,822	4.8	1,919	6.8
2 Cerebrovascular diseases (I60 - I69)	3,176	4.8	1,791	4.7	1,716	6.1
3 Tuberculosis (A15 - A19)	2,834	4.3	1,460	3.8	1,781	6.2
4 Ischaemic heart diseases (I20 - I25)	2,320	3.5	1,441	3.8	1,043	3.7
5 Influenza and pneumonia (J10 - J18)	2,247	3.4	1,215	3.2	1,032	3.6
6 Diabetes mellitus (E10 - E14)	2,101	3.2	1,161	3.0	934	3.3
7 Malignant neoplasms of digestive organs (C15 - C26)	1,858	2.8	1,087	2.8	879	3.1
8 Chronic lower respiratory diseases (J40 - J47)	1,625	2.7	920	2.4	738	2.6
9 Human immunodeficiency virus (HIV) diseases (B20 - B24)	1,559	2.3	739	1.9	897	2.5
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	1,359	2.0	711	1.9	843	2.3
... Other causes	43,508	65.4	25,899	67.7	17,500	61.9
... All causes	66,528	100.0	38,246	100.0	28,282	100.0
<b>Gauteng, male, all ages</b>						
1 Other forms of heart disease (I30 - I52)	1,347	16.5	704	16.0	643	17.1
2 Cerebrovascular diseases (I60 - I69)	1,107	13.6	584	13.3	523	13.9
3 Tuberculosis (A15 - A19)	688	8.5	370	8.4	318	8.5
4 Ischaemic heart diseases (I20 - I25)	331	4.1	168	3.8	163	4.3
5 Influenza and pneumonia (J10 - J18)	256	3.1	128	2.9	130	3.5
6 Diabetes mellitus (E10 - E14)	204	2.5	118	2.7	92	2.5
7 Malignant neoplasms of digestive organs (C15 - C26)	195	2.4	103	2.3	87	2.3
8 Chronic lower respiratory diseases (J40 - J47)	183	2.2	98	2.2	86	2.3
9 Human immunodeficiency virus (HIV) diseases (B20 - B24)	159	2.0	96	2.2	67	1.8
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	144	1.8	92	2.1	61	1.6
... Other causes	3,526	43.3	1,931	44.0	1,580	42.1
... All causes	8,140	100.0	4,390	100.0	3,750	100.0
<b>Gauteng, female, 0-14 years</b>						
1 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	1,347	16.5	704	16.0	643	17.1
2 Other disorders originating in the perinatal period (P30 - P96)	1,107	13.6	584	13.3	523	13.9
3 Digestive system disorders of foetus and newborn (P75 - P78)	688	8.5	370	8.4	318	8.5
4 Infections specific to the perinatal period (P35 - P39)	331	4.1	168	3.8	163	4.3
5 Disorders related to length of gestation and foetal growth (P05 - P08)	256	3.1	128	2.9	130	3.5
6 Foetus & newborn affect'd by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	204	2.5	118	2.7	92	2.5
7 Intestinal infectious diseases (A00 - A09)	195	2.4	103	2.3	87	2.3
8 Human immunodeficiency virus (HIV) diseases (B20 - B24)	183	2.2	98	2.2	86	2.3
9 Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	159	2.0	96	2.2	67	1.8
10 Certain disorders involving the immune mechanism (D80 - D89)	144	1.8	92	2.1	61	1.6
... Other causes	3,526	43.3	1,931	44.0	1,580	42.1
... All causes	8,140	100.0	4,390	100.0	3,750	100.0
<b>Gauteng, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	1,922	7.5	1,155	6.9	767	8.9
2 Human immunodeficiency virus (HIV) diseases (B20 - B24)	1,060	4.2	562	3.3	498	5.8
3 Influenza and pneumonia (J10 - J18)	917	3.7	455	3.3	395	4.6
4 Other forms of heart disease (I30 - I52)	849	3.2	554	3.7	362	4.2
5 Cerebrovascular diseases (I60 - I69)	565	2.2	314	1.9	268	3.1
6 Certain disorders involving the immune mechanism (D80 - D89)	464	1.8	254	1.5	251	2.9
7 Malignant neoplasms of digestive organs (C15 - C26)	369	1.4	205	1.2	185	2.1
8 Diseases of liver (K70 - K77)	320	1.3	202	1.2	126	1.5
9 Diabetes mellitus (E10 - E14)	295	1.2	196	1.2	125	1.4
10 Ischaemic heart diseases (I20 - I25)	277	1.1	170	1.0	125	1.4
... Other causes	18,465	72.4	12,779	75.9	5,555	64.2
... All causes	25,503	100.0	16,846	100.0	8,657	100.0
<b>Gauteng, female, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	1,922	7.5	1,155	6.9	767	8.9
2 Human immunodeficiency virus (HIV) diseases (B20 - B24)	1,060	4.2	562	3.3	498	5.8
3 Influenza and pneumonia (J10 - J18)	917	3.7	455	3.3	395	4.6
4 Other forms of heart disease (I30 - I52)	849	3.2	554	3.7	362	4.2
5 Cerebrovascular diseases (I60 - I69)	565	2.2	314	1.9	268	3.1
6 Certain disorders involving the immune mechanism (D80 - D89)	464	1.8	254	1.5	251	2.9
7 Malignant neoplasms of digestive organs (C15 - C26)	369	1.4	205	1.2	185	2.1
8 Diseases of liver (K70 - K77)	320	1.3	202	1.2	126	1.5
9 Diabetes mellitus (E10 - E14)	295	1.2	196	1.2	125	1.4
10 Ischaemic heart diseases (I20 - I25)	277	1.1	170	1.0	125	1.4
... Other causes	18,465	72.4	12,779	75.9	5,555	64.2
... All causes	25,503	100.0	16,846	100.0	8,657	100.0
<b>Gauteng, both sexes, 50-64 years</b>						
1 Other forms of heart disease (I30 - I52)	882	7.1	504	6.7	407	8.3
2 Cerebrovascular diseases (I60 - I69)	875	7.1	488	6.5	378	7.7
3 Ischaemic heart diseases (I20 - I25)	658	5.3	468	6.3	347	7.1
4 Diabetes mellitus (E10 - E14)	647	5.2	411	5.5	217	4.4
5 Malignant neoplasms of digestive organs (C15 - C26)	605	4.9	396	5.3	209	4.3
6 Tuberculosis (A15 - A19)	560	4.5	300	4.0	202	4.1
7 Chronic lower respiratory diseases (J40 - J47)	470	3.8	296	4.0	174	3.5
8 Hypertensive diseases (I10 - I15)	388	3.1	280	3.7	170	3.5
9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	371	3.0	236	3.2	149	3.0
10 Influenza and pneumonia (J10 - J18)	357	2.9	186	2.5	138	2.8
... Other causes	6,575	53.1	3,914	52.3	2,518	51.3
... All causes	12,388	100.0	7,479	100.0	4,909	100.0
<b>Gauteng, female, 50-64 years</b>						
1 Other forms of heart disease (I30 - I52)	882	7.1	504	6.7	407	8.3
2 Cerebrovascular diseases (I60 - I69)	875	7.1	488	6.5	378	7.7
3 Ischaemic heart diseases (I20 - I25)	658	5.3	468	6.3	347	7.1
4 Diabetes mellitus (E10 - E14)	647	5.2	411	5.5	217	4.4
5 Malignant neoplasms of digestive organs (C15 - C26)	605	4.9	396	5.3	209	4.3
6 Tuberculosis (A15 - A19)	560	4.5	300	4.0	202	4.1
7 Chronic lower respiratory diseases (J40 - J47)	470	3.8	296	4.0	174	3.5
8 Hypertensive diseases (I10 - I15)	388	3.1	280	3.7	170	3.5
9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	371	3.0	236	3.2	149	3.0
10 Influenza and pneumonia (J10 - J18)	357	2.9	186	2.5	138	2.8
... Other causes	6,575	53.1	3,914	52.3	2,518	51.3
... All causes	12,388	100.0	7,479	100.0	4,909	100.0
<b>Gauteng, male, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	1,970	9.6	824	8.6	1,146	10.5
2 Cerebrovascular diseases (I60 - I69)	1,724	8.4	745	7.8	1,053	9.6
3 Ischaemic heart diseases (I20 - I25)	1,380	6.7	671	7.0	702	6.4
4 Diabetes mellitus (E10 - E14)	1,142	5.6	642	6.7	635	5.8
5 Chronic lower respiratory diseases (J40 - J47)	1,089	5.3	509	5.3	625	5.7
6 Hypertensive diseases (I10 - I15)	943	4.6	440	4.6	460	4.2
7 Malignant neoplasms of digestive organs (C15 - C26)	880	4.3	369	3.9	477	4.1
8 Influenza and pneumonia (J10 - J18)	829	4.0	343	3.6	371	3.4
9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	496	2.4	322	3.4	214	2.0
10 Renal failure (N17 - N19)	388	1.9	318	3.3	205	1.9
... Other causes	9,656	47.1	4,348	45.6	5,108	46.6
... All causes	20,497	100.0	9,531	100.0	10,966	100.0

## APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1997, Mpumalanga

	No.	%	No.	%	No.	%
<b>Mpumalanga, both sexes, all ages</b>						
1 Other forms of heart disease (I30 - I52)	1,445	7.4	833	7.5	719	8.5
2 Tuberculosis (A15 - A19)	1,198	6.1	726	6.5	553	6.5
3 Cerebrovascular diseases (I60 - I69)	1,023	5.2	485	4.4	374	4.4
4 Influenza and pneumonia (J10 - J18)	869	4.4	470	4.2	367	4.3
5 Diabetes mellitus (E10 - E14)	627	3.2	349	3.1	365	4.3
6 Intestinal infectious diseases (A00 - A09)	572	2.9	274	2.5	317	3.7
7 Chronic lower respiratory diseases (J40 - J47)	559	2.8	262	2.4	303	3.6
8 Hypertensive diseases (I10 - I15)	528	2.7	280	2.5	220	2.6
9 Resp. and cardiovase. disorders - perinatal period (P20 - P29)	469	2.4	255	2.3	210	2.5
10 Ischaemic heart diseases (I20 - I25)	437	2.2	249	2.2	210	2.5
... Other causes	11,921	60.7	6,975	62.6	4,862	57.2
... All causes	19,648	100.0	11,148	100.0	8,500	100.0
<b>Mpumalanga, male, all ages</b>						
1 Tuberculosis (A15 - A19)	1,445	7.4	833	7.5	719	8.5
2 Other forms of heart disease (I30 - I52)	1,198	6.1	726	6.5	553	6.5
3 Influenza and pneumonia (J10 - J18)	1,023	5.2	485	4.4	374	4.4
4 Cerebrovascular diseases (I60 - I69)	869	4.4	470	4.2	367	4.3
5 Chronic lower respiratory diseases (J40 - J47)	627	3.2	349	3.1	365	4.3
6 Ischaemic heart diseases (I20 - I25)	572	2.9	274	2.5	317	3.7
7 Malignant neoplasms of digestive organs (C15 - C26)	559	2.8	262	2.4	303	3.6
8 Diabetes mellitus (E10 - E14)	528	2.7	280	2.5	220	2.6
9 Intestinal infectious diseases (A00 - A09)	469	2.4	255	2.3	210	2.5
10 Resp. and cardiovase. disorders - perinatal period (P20 - P29)	437	2.2	249	2.2	210	2.5
... Other causes	11,921	60.7	6,975	62.6	4,862	57.2
... All causes	19,648	100.0	11,148	100.0	8,500	100.0
<b>Mpumalanga, female, all ages</b>						
1 Other forms of heart disease (I30 - I52)	833	7.5	485	4.4	374	4.4
2 Cerebrovascular diseases (I60 - I69)	726	6.5	470	4.2	367	4.3
3 Influenza and pneumonia (J10 - J18)	485	4.4	349	3.1	365	4.3
4 Diabetes mellitus (E10 - E14)	470	4.2	274	2.5	317	3.7
5 Tuberculosis (A15 - A19)	349	3.1	262	2.4	303	3.6
6 Intestinal infectious diseases (A00 - A09)	274	2.5	280	2.5	220	2.6
7 Hypertensive diseases (I10 - I15)	262	2.4	255	2.3	210	2.5
8 Resp. and cardiovase. disorders - perinatal period (P20 - P29)	280	2.5	249	2.2	210	2.5
9 Certain disorders involving the immune mechanism (D80 - D89)	255	2.3	249	2.2	210	2.5
10 Chronic lower respiratory diseases (J40 - J47)	249	2.2	6,975	62.6	4,862	57.2
... Other causes	6,975	62.6	11,148	100.0	8,500	100.0
... All causes	11,148	100.0	11,148	100.0	8,500	100.0
<b>Mpumalanga, male, 0-14 years</b>						
1 Resp. and cardiovase. disorders - perinatal period (P20 - P29)	469	15.5	249	15.6	220	15.4
2 Digestive system disorders of foetus and newborn (P75 - P78)	346	11.4	186	11.7	160	11.2
3 Disorders related to length of gestation and foetal growth (P05 - P08)	189	6.3	99	6.2	90	6.3
4 Intestinal infectious diseases (A00 - A09)	186	6.2	98	6.1	88	6.2
5 Other disorders originating in the perinatal period (P90 - P96)	149	4.9	76	4.8	73	5.1
6 Foetus & newborn affected by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	124	4.1	63	4.0	61	4.3
7 Malnutrition (E40 - E46)	85	2.8	41	2.6	49	3.4
8 Infections specific to the perinatal period (P35 - P39)	70	2.3	40	2.5	29	2.0
9 Influenza and pneumonia (J10 - J18)	69	2.3	36	2.3	29	2.0
10 Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	56	1.9	32	2.0	24	1.7
... Other causes	1,280	42.3	674	42.3	582	40.7
... All causes	3,023	100.0	1,594	100.0	1,429	100.0
<b>Mpumalanga, female, 0-14 years</b>						
1 Resp. and cardiovase. disorders - perinatal period (P20 - P29)	249	15.6	186	11.7	160	11.2
2 Digestive system disorders of foetus and newborn (P75 - P78)	189	6.3	99	6.2	90	6.3
3 Disorders related to length of gestation and foetal growth (P05 - P08)	186	6.2	98	6.1	88	6.2
4 Intestinal infectious diseases (A00 - A09)	149	4.9	76	4.8	73	5.1
5 Other disorders originating in the perinatal period (P90 - P96)	124	4.1	63	4.0	61	4.3
6 Foetus & newborn affected by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	85	2.8	41	2.6	49	3.4
7 Malnutrition (E40 - E46)	70	2.3	40	2.5	29	2.0
8 Infections specific to the perinatal period (P35 - P39)	69	2.3	36	2.3	29	2.0
9 Influenza and pneumonia (J10 - J18)	56	1.9	32	2.0	24	1.7
10 Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	1,280	42.3	674	42.3	582	40.7
... Other causes	1,280	42.3	674	42.3	582	40.7
... All causes	3,023	100.0	1,594	100.0	1,429	100.0
<b>Mpumalanga, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	706	9.6	441	9.7	265	9.5
2 Influenza and pneumonia (J10 - J18)	407	5.6	219	4.8	188	6.7
3 Human immunodeficiency virus [HIV] diseases (B20 - B24)	357	4.8	195	4.3	177	6.3
4 Other forms of heart disease (I30 - I52)	339	4.6	171	3.8	168	6.0
5 Certain disorders involving the immune mechanism (D80 - D89)	271	3.7	100	2.2	162	5.8
6 Intestinal infectious diseases (A00 - A09)	231	3.1	94	2.1	113	4.0
7 Cerebrovascular diseases (I60 - I69)	185	2.6	90	2.0	85	3.0
8 Diseases of liver (K70 - K77)	139	1.9	78	1.7	73	2.6
9 Diabetes mellitus (E10 - E14)	113	1.5	61	1.3	54	1.9
10 Episodic and paroxysmal disorders (G40 - G47)	103	1.4	60	1.3	51	1.8
... Other causes	4,522	61.7	3,024	66.7	1,464	52.3
... All causes	7,333	100.0	4,533	100.0	2,800	100.0
<b>Mpumalanga, female, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	441	9.7	219	4.8	188	6.7
2 Influenza and pneumonia (J10 - J18)	219	4.8	185	4.3	177	6.3
3 Human immunodeficiency virus [HIV] diseases (B20 - B24)	195	4.3	171	3.8	168	6.0
4 Other forms of heart disease (I30 - I52)	171	3.8	100	2.2	162	5.8
5 Certain disorders involving the immune mechanism (D80 - D89)	100	2.2	94	2.1	113	4.0
6 Intestinal infectious diseases (A00 - A09)	94	2.1	90	2.0	85	3.0
7 Cerebrovascular diseases (I60 - I69)	90	2.0	78	1.7	73	2.6
8 Diseases of liver (K70 - K77)	78	1.7	61	1.3	54	1.9
9 Diabetes mellitus (E10 - E14)	61	1.3	60	1.3	51	1.8
10 Chronic lower respiratory diseases (J40 - J47)	60	1.3	3,024	66.7	1,464	52.3
... Other causes	3,024	66.7	4,533	100.0	2,800	100.0
... All causes	4,533	100.0	4,533	100.0	2,800	100.0
<b>Mpumalanga, male, 50-64 years</b>						
1 Other forms of heart disease (I30 - I52)	323	9.3	231	10.9	147	10.9
2 Tuberculosis (A15 - A19)	285	8.2	176	8.3	137	10.2
3 Cerebrovascular diseases (I60 - I69)	277	8.0	140	6.6	102	7.6
4 Diabetes mellitus (E10 - E14)	188	5.4	107	5.0	78	5.8
5 Chronic lower respiratory diseases (J40 - J47)	163	4.7	101	4.8	61	4.5
6 Influenza and pneumonia (J10 - J18)	151	4.3	96	4.5	56	4.2
7 Malignant neoplasms of digestive organs (C15 - C26)	146	4.2	96	4.5	54	4.0
8 Hypertensive diseases (I10 - I15)	145	4.2	86	4.0	50	3.7
9 Ischaemic heart diseases (I20 - I25)	129	3.7	67	3.2	50	3.7
10 Diseases of liver (K70 - K77)	100	2.9	62	2.9	38	2.8
... Other causes	1,565	45.1	900	42.4	575	42.7
... All causes	3,472	100.0	2,124	100.0	1,348	100.0
<b>Mpumalanga, female, 50-64 years</b>						
1 Other forms of heart disease (I30 - I52)	231	10.9	176	8.3	137	10.2
2 Tuberculosis (A15 - A19)	176	8.3	140	6.6	102	7.6
3 Cerebrovascular diseases (I60 - I69)	140	6.6	107	5.0	78	5.8
4 Diabetes mellitus (E10 - E14)	107	5.0	101	4.8	61	4.5
5 Chronic lower respiratory diseases (J40 - J47)	101	4.8	96	4.5	56	4.2
6 Influenza and pneumonia (J10 - J18)	96	4.5	96	4.5	54	4.0
7 Malignant neoplasms of digestive organs (C15 - C26)	96	4.5	86	4.0	50	3.7
8 Hypertensive diseases (I10 - I15)	86	4.0	67	3.2	50	3.7
9 Ischaemic heart diseases (I20 - I25)	67	3.2	62	2.9	38	2.8
10 Diseases of liver (K70 - K77)	62	2.9	62	2.9	38	2.8
... Other causes	900	42.4	900	42.4	575	42.7
... All causes	2,124	100.0	2,124	100.0	1,348	100.0
<b>Mpumalanga, male, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	757	13.0	369	12.7	388	11.3
2 Cerebrovascular diseases (I60 - I69)	558	9.6	229	7.9	209	7.2
3 Diabetes mellitus (E10 - E14)	322	5.5	193	6.7	187	6.4
4 Hypertensive diseases (I10 - I15)	302	5.2	141	4.9	112	3.8
5 Chronic lower respiratory diseases (J40 - J47)	293	5.0	120	4.1	107	3.4
6 Influenza and pneumonia (J10 - J18)	242	4.2	115	4.0	100	3.0
7 Ischaemic heart diseases (I20 - I25)	232	4.0	115	4.0	82	2.8
8 Tuberculosis (A15 - A19)	181	3.1	113	3.9	71	2.4
9 Malignant neoplasms of digestive organs (C15 - C26)	176	3.0	105	3.6	53	1.8
10 Intestinal infectious diseases (A00 - A09)	132	2.3	76	2.6	51	1.8
... Other causes	2,625	45.1	1,301	44.9	1,285	44.0
... All causes	5,820	100.0	2,897	100.0	2,923	100.0
<b>Mpumalanga, female, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	388	11.3	369	12.7	388	11.3
2 Cerebrovascular diseases (I60 - I69)	209	7.2	229	7.9	209	7.2
3 Diabetes mellitus (E10 - E14)	187	6.4	193	6.7	187	6.4
4 Hypertensive diseases (I10 - I15)	112	3.8	141	4.9	112	3.8
5 Chronic lower respiratory diseases (J40 - J47)	107	3.4	120	4.1	107	3.4
6 Influenza and pneumonia (J10 - J18)	100	3.0	115	4.0	100	3.0
7 Ischaemic heart diseases (I20 - I25)	82	2.8	115	4.0	82	2.8
8 Tuberculosis (A15 - A19)	71	2.4	113	3.9	71	2.4
9 Malignant neoplasms of digestive organs (C15 - C26)	53	1.8	105	3.6	53	1.8
10 Intestinal infectious diseases (A00 - A09)	51	1.8	76	2.6	51	1.8
... Other causes	1,285	44.0	1,301	44.9	1,285	44.0
... All causes	2,923	100.0	2,897	100.0	2,923	100.0

## APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1997, Limpopo

	No.	%	No.	%	No.	%
<b>Limpopo, both sexes, all ages</b>						
1 Other forms of heart disease (I30 - I52)	1,391	6.3	810	6.8	1,193	7.2
2 Cerebrovascular diseases (I60 - I69)	1,203	5.5	656	5.5	1,564	6.6
3 Tuberculosis (A15 - A19)	1,193	5.4	563	4.8	1,269	5.1
4 Influenza and pneumonia (J10 - J18)	985	4.5	537	4.5	1,068	4.2
5 Diabetes mellitus (E10 - E14)	774	3.5	386	3.3	822	3.2
6 Ischaemic heart diseases (I20 - I25)	728	3.3	359	3.0	831	3.2
7 Intestinal infectious diseases (A00 - A09)	703	3.2	342	2.9	774	3.0
8 Ischaemic heart diseases (I20 - I25)	669	3.0	327	2.8	737	2.9
9 Chronic lower respiratory diseases (J40 - J47)	575	2.6	319	2.7	601	2.2
10 Malignant neoplasms of digestive organs (C15 - C26)	508	2.3	277	2.4	592	2.2
... Other causes	13,248	60.3	7,175	60.6	15,992	60.1
... All causes	21,977	100.0	11,831	100.0	26,970	100.0
<b>Limpopo, male, all ages</b>						
1 Tuberculosis (A15 - A19)	1,391	6.3	810	6.8	1,193	7.2
2 Other forms of heart disease (I30 - I52)	1,203	5.5	656	5.5	1,564	6.6
3 Influenza and pneumonia (J10 - J18)	985	4.5	537	4.5	1,068	4.2
4 Cerebrovascular diseases (I60 - I69)	985	4.5	537	4.5	1,068	4.2
5 Ischaemic heart diseases (I20 - I25)	774	3.5	386	3.3	822	3.2
6 Chronic lower respiratory diseases (J40 - J47)	728	3.3	359	3.0	831	3.2
7 Diabetes mellitus (E10 - E14)	703	3.2	342	2.9	774	3.0
8 Intestinal infectious diseases (A00 - A09)	669	3.0	327	2.8	737	2.9
9 Malignant neoplasms of digestive organs (C15 - C26)	575	2.6	319	2.7	601	2.2
10 Diseases of liver (K70 - K77)	508	2.3	277	2.4	592	2.2
... Other causes	13,248	60.3	7,175	60.6	15,992	60.1
... All causes	21,977	100.0	11,831	100.0	26,970	100.0
<b>Limpopo, female, all ages</b>						
1 Other forms of heart disease (I30 - I52)	1,391	6.3	810	6.8	1,193	7.2
2 Cerebrovascular diseases (I60 - I69)	1,203	5.5	656	5.5	1,564	6.6
3 Diabetes mellitus (E10 - E14)	1,193	5.4	563	4.8	1,269	5.1
4 Influenza and pneumonia (J10 - J18)	985	4.5	537	4.5	1,068	4.2
5 Ischaemic heart diseases (I20 - I25)	774	3.5	386	3.3	822	3.2
6 Intestinal infectious diseases (A00 - A09)	728	3.3	359	3.0	831	3.2
7 Hypertensive diseases (I10 - I15)	703	3.2	342	2.9	774	3.0
8 Ischaemic heart diseases (I20 - I25)	669	3.0	327	2.8	737	2.9
9 Malignant neoplasms of female genital organs (C51 - C58)	575	2.6	319	2.7	601	2.2
10 Chronic lower respiratory diseases (J40 - J47)	508	2.3	277	2.4	592	2.2
... Other causes	13,248	60.3	7,175	60.6	15,992	60.1
... All causes	21,977	100.0	11,831	100.0	26,970	100.0
<b>Limpopo, male, 0-14 years</b>						
1 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	301	12.8	152	12.0	349	13.6
2 Digestive system disorders of foetus and newborn (P75 - P78)	223	9.5	122	9.7	241	9.2
3 Intestinal infectious diseases (A00 - A09)	194	8.2	104	8.2	208	8.2
4 Malnutrition (E40 - E46)	109	4.6	64	5.1	143	5.2
5 Influenza and pneumonia (J10 - J18)	98	4.2	41	3.2	139	4.5
6 Other disorders originating in the perinatal period (P90 - P96)	80	3.4	39	3.1	119	4.1
7 Foetus & newborn affect'd by matern. factors & complic. of preg. lab. & deliv. (P00 - P04)	78	3.3	38	3.0	116	3.8
8 Disorders related to length of gestation and foetal growth (P05 - P08)	61	2.6	37	2.9	108	3.3
9 Infections specific to the perinatal period (P35 - P39)	46	2.0	29	2.3	75	2.0
10 Inflammatory diseases of the central nervous system (G00 - G09)	40	1.7	18	1.4	68	1.6
... Other causes	1,124	47.7	618	49.0	1,742	50.6
... All causes	2,354	100.0	1,262	100.0	3,096	100.0
<b>Limpopo, male, 0-14 years</b>						
1 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	301	12.8	152	12.0	349	13.6
2 Digestive system disorders of foetus and newborn (P75 - P78)	223	9.5	122	9.7	241	9.2
3 Intestinal infectious diseases (A00 - A09)	194	8.2	104	8.2	208	8.2
4 Malnutrition (E40 - E46)	109	4.6	64	5.1	143	5.2
5 Influenza and pneumonia (J10 - J18)	98	4.2	41	3.2	139	4.5
6 Other disorders originating in the perinatal period (P90 - P96)	80	3.4	39	3.1	119	4.1
7 Foetus & newborn affect'd by matern. factors & complic. of preg. lab. & deliv. (P00 - P04)	78	3.3	38	3.0	116	3.8
8 Disorders related to length of gestation and foetal growth (P05 - P08)	61	2.6	37	2.9	108	3.3
9 Infections specific to the perinatal period (P35 - P39)	46	2.0	29	2.3	75	2.0
10 Inflammatory diseases of the central nervous system (G00 - G09)	40	1.7	18	1.4	68	1.6
... Other causes	1,124	47.7	618	49.0	1,742	50.6
... All causes	2,354	100.0	1,262	100.0	3,096	100.0
<b>Limpopo, female, 0-14 years</b>						
1 Resp. and cardiovasc. disorders - perinatal period (P20 - P29)	301	12.8	152	12.0	349	13.6
2 Digestive system disorders of foetus and newborn (P75 - P78)	223	9.5	122	9.7	241	9.2
3 Intestinal infectious diseases (A00 - A09)	194	8.2	104	8.2	208	8.2
4 Malnutrition (E40 - E46)	109	4.6	64	5.1	143	5.2
5 Influenza and pneumonia (J10 - J18)	98	4.2	41	3.2	139	4.5
6 Other disorders originating in the perinatal period (P90 - P96)	80	3.4	39	3.1	119	4.1
7 Foetus & newborn affect'd by matern. factors & complic. of preg. lab. & deliv. (P00 - P04)	78	3.3	38	3.0	116	3.8
8 Disorders related to length of gestation and foetal growth (P05 - P08)	61	2.6	37	2.9	108	3.3
9 Infections specific to the perinatal period (P35 - P39)	46	2.0	29	2.3	75	2.0
10 Inflammatory diseases of the central nervous system (G00 - G09)	40	1.7	18	1.4	68	1.6
... Other causes	1,124	47.7	618	49.0	1,742	50.6
... All causes	2,354	100.0	1,262	100.0	3,096	100.0
<b>Limpopo, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	617	9.2	380	9.5	797	8.8
2 Influenza and pneumonia (J10 - J18)	363	5.4	190	4.8	453	6.4
3 Other forms of heart disease (I30 - I52)	260	3.9	127	3.2	387	4.9
4 Human immunodeficiency virus (HIV) diseases (B20 - B24)	238	3.6	115	2.9	353	4.6
5 Intestinal infectious diseases (A00 - A09)	202	3.0	103	2.6	295	3.9
6 Cerebrovascular diseases (I60 - I69)	176	2.6	96	2.4	272	3.3
7 Certain disorders involving the immune mechanism (D80 - D89)	157	2.3	91	2.3	248	3.7
8 Episodic and paroxysmal disorders (G40 - G47)	131	2.0	78	2.0	209	2.7
9 Diabetes mellitus (E10 - E14)	130	1.9	76	1.9	206	2.4
10 Diseases of liver (K70 - K77)	130	1.9	74	1.9	204	2.4
... Other causes	4,293	64.1	2,668	66.7	5,961	65.2
... All causes	6,697	100.0	3,988	100.0	9,650	100.0
<b>Limpopo, female, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	617	9.2	380	9.5	797	8.8
2 Influenza and pneumonia (J10 - J18)	363	5.4	190	4.8	453	6.4
3 Other forms of heart disease (I30 - I52)	260	3.9	127	3.2	387	4.9
4 Human immunodeficiency virus (HIV) diseases (B20 - B24)	238	3.6	115	2.9	353	4.6
5 Intestinal infectious diseases (A00 - A09)	202	3.0	103	2.6	295	3.9
6 Cerebrovascular diseases (I60 - I69)	176	2.6	96	2.4	272	3.3
7 Certain disorders involving the immune mechanism (D80 - D89)	157	2.3	91	2.3	248	3.7
8 Episodic and paroxysmal disorders (G40 - G47)	131	2.0	78	2.0	209	2.7
9 Diabetes mellitus (E10 - E14)	130	1.9	76	1.9	206	2.4
10 Diseases of liver (K70 - K77)	130	1.9	74	1.9	204	2.4
... Other causes	4,293	64.1	2,668	66.7	5,961	65.2
... All causes	6,697	100.0	3,988	100.0	9,650	100.0
<b>Limpopo, male, 50-64 years</b>						
1 Other forms of heart disease (I30 - I52)	293	7.4	229	9.7	316	8.6
2 Tuberculosis (A15 - A19)	292	7.4	166	7.0	418	8.0
3 Cerebrovascular diseases (I60 - I69)	251	6.1	133	5.6	384	7.9
4 Diabetes mellitus (E10 - E14)	240	6.1	125	5.3	365	6.6
5 Hypertensive diseases (I10 - I15)	207	5.2	106	4.5	272	4.5
6 Ischaemic heart diseases (I20 - I25)	178	4.5	106	4.5	274	4.5
7 Influenza and pneumonia (J10 - J18)	172	4.4	104	4.4	276	4.3
8 Malignant neoplasms of digestive organs (C15 - C26)	158	4.0	104	4.4	262	3.5
9 Chronic lower respiratory diseases (J40 - J47)	149	3.8	102	4.3	251	3.3
10 Diseases of liver (K70 - K77)	137	3.5	97	4.1	234	2.8
... Other causes	1,874	47.4	1,089	46.1	2,963	45.2
... All causes	3,951	100.0	2,361	100.0	5,914	100.0
<b>Limpopo, female, 50-64 years</b>						
1 Other forms of heart disease (I30 - I52)	293	7.4	229	9.7	316	8.6
2 Tuberculosis (A15 - A19)	292	7.4	166	7.0	418	8.0
3 Cerebrovascular diseases (I60 - I69)	251	6.1	133	5.6	384	7.9
4 Diabetes mellitus (E10 - E14)	240	6.1	125	5.3	365	6.6
5 Hypertensive diseases (I10 - I15)	207	5.2	106	4.5	272	4.5
6 Ischaemic heart diseases (I20 - I25)	178	4.5	106	4.5	274	4.5
7 Influenza and pneumonia (J10 - J18)	172	4.4	104	4.4	276	4.3
8 Malignant neoplasms of digestive organs (C15 - C26)	158	4.0	104	4.4	262	3.5
9 Chronic lower respiratory diseases (J40 - J47)	149	3.8	102	4.3	251	3.3
10 Diseases of liver (K70 - K77)	137	3.5	97	4.1	234	2.8
... Other causes	1,874	47.4	1,089	46.1	2,963	45.2
... All causes	3,951	100.0	2,361	100.0	5,914	100.0
<b>Limpopo, male, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	812	9.0	346	8.2	1,068	9.8
2 Cerebrovascular diseases (I60 - I69)	762	8.5	300	7.1	1,022	9.7
3 Ischaemic heart diseases (I20 - I25)	454	5.1	226	5.4	628	4.8
4 Diabetes mellitus (E10 - E14)	399	4.4	199	4.7	628	4.8
5 Influenza and pneumonia (J10 - J18)	352	3.9	196	4.7	548	4.8
6 Hypertensive diseases (I10 - I15)	330	3.7	190	4.5	520	3.2
7 Chronic lower respiratory diseases (J40 - J47)	301	3.4	171	4.1	472	3.0
8 Tuberculosis (A15 - A19)	265	3.0	144	3.4	409	2.2
9 Intestinal infectious diseases (A00 - A09)	231	2.6	126	3.0	357	1.7
10 Malignant neoplasms of digestive organs (C15 - C26)	226	2.5	121	2.9	347	1.7
... Other causes	4,843	54.0	2,191	52.0	7,034	55.2
... All causes	8,975	100.0	4,210	100.0	12,009	100.0
<b>Limpopo, female, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	812	9.0	346	8.2	1,068	9.8
2 Cerebrovascular diseases (I60 - I69)	762	8.5	300	7.1	1,022	9.7
3 Ischaemic heart diseases (I20 - I25)	454	5.1	226	5.4	628	4.8
4 Diabetes mellitus (E10 - E14)	399	4.4	199	4.7	628	4.8
5 Influenza and pneumonia (J10 - J18)	352	3.9	196	4.7	548	4.8
6 Hypertensive diseases (I10 - I15)	330	3.7	190	4.5	520	3.2
7 Chronic lower respiratory diseases (J40 - J47)	301	3.4	171	4.1	472	3.0
8 Tuberculosis (A15 - A19)	265	3.0	144	3.4	409	2.2
9 Intestinal infectious diseases (A00 - A09)	231	2.6	126	3.0	357	1.7
10 Malignant neoplasms of digestive organs (C15 - C26)	226	2.5	121	2.9	347	1.7
... Other causes	4,843	54.0	2,191	52.0	7,034	55.2
... All causes	8,975	100.0	4,210	100.0	12,009	10

## APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1999, South Africa

	No.	%	No.	%	No.	%
<b>All provinces, both sexes, all ages</b>						
1 Tuberculosis (A15 - A19)	33,685	8.9	20,526	10.0	13,159	7.6
2 Influenza and pneumonia (J10 - J18)	19,964	5.3	9,577	4.7	11,151	6.5
3 Other forms of heart disease (I30 - I52)	19,807	5.3	9,274	4.5	10,690	6.2
4 Cerebrovascular diseases (I60 - I69)	18,906	5.0	8,656	4.2	9,329	5.4
5 Chronic lower respiratory diseases (J40 - J47)	12,498	3.3	7,583	3.7	7,563	4.4
6 Diabetes mellitus (E10 - E14)	12,477	3.3	6,623	3.2	5,959	3.5
7 Ischaemic heart diseases (I20 - I25)	11,366	3.0	5,573	2.7	5,718	3.3
8 Intestinal infectious diseases (A00 - A09)	10,965	2.9	5,006	2.4	4,927	2.9
9 Human immunodeficiency virus [HIV] diseases (B20 - B24)	9,772	2.6	4,914	2.4	4,915	2.8
10 Hypertensive diseases (I10 - I15)	8,375	2.5	4,845	2.4	4,743	2.7
... Other causes	218,285	57.9	121,955	59.6	94,414	54.7
... All causes	377,100	100.0	204,532	100.0	172,568	100.0
<b>All provinces, male, all ages</b>						
1 Tuberculosis (A15 - A19)	33,685	8.9	20,526	10.0	13,159	7.6
2 Influenza and pneumonia (J10 - J18)	19,964	5.3	9,577	4.7	11,151	6.5
3 Other forms of heart disease (I30 - I52)	19,807	5.3	9,274	4.5	10,690	6.2
4 Cerebrovascular diseases (I60 - I69)	18,906	5.0	8,656	4.2	9,329	5.4
5 Chronic lower respiratory diseases (J40 - J47)	12,498	3.3	7,583	3.7	7,563	4.4
6 Diabetes mellitus (E10 - E14)	12,477	3.3	6,623	3.2	5,959	3.5
7 Ischaemic heart diseases (I20 - I25)	11,366	3.0	5,573	2.7	5,718	3.3
8 Intestinal infectious diseases (A00 - A09)	10,965	2.9	5,006	2.4	4,927	2.9
9 Human immunodeficiency virus [HIV] diseases (B20 - B24)	9,772	2.6	4,914	2.4	4,915	2.8
10 Hypertensive diseases (I10 - I15)	8,375	2.5	4,845	2.4	4,743	2.7
... Other causes	218,285	57.9	121,955	59.6	94,414	54.7
... All causes	377,100	100.0	204,532	100.0	172,568	100.0
<b>All provinces, female, all ages</b>						
1 Tuberculosis (A15 - A19)	33,685	8.9	20,526	10.0	13,159	7.6
2 Influenza and pneumonia (J10 - J18)	19,964	5.3	9,577	4.7	11,151	6.5
3 Other forms of heart disease (I30 - I52)	19,807	5.3	9,274	4.5	10,690	6.2
4 Cerebrovascular diseases (I60 - I69)	18,906	5.0	8,656	4.2	9,329	5.4
5 Chronic lower respiratory diseases (J40 - J47)	12,498	3.3	7,583	3.7	7,563	4.4
6 Diabetes mellitus (E10 - E14)	12,477	3.3	6,623	3.2	5,959	3.5
7 Ischaemic heart diseases (I20 - I25)	11,366	3.0	5,573	2.7	5,718	3.3
8 Intestinal infectious diseases (A00 - A09)	10,965	2.9	5,006	2.4	4,927	2.9
9 Human immunodeficiency virus [HIV] diseases (B20 - B24)	9,772	2.6	4,914	2.4	4,915	2.8
10 Hypertensive diseases (I10 - I15)	8,375	2.5	4,845	2.4	4,743	2.7
... Other causes	218,285	57.9	121,955	59.6	94,414	54.7
... All causes	377,100	100.0	204,532	100.0	172,568	100.0
<b>All provinces, both sexes, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	7,852	17.1	4,086	16.9	3,766	17.4
2 Digestive system disorders of foetus and newborn (P75 - P78)	6,220	13.5	3,287	13.5	2,953	13.6
3 Other disorders originating in the perinatal period (P90 - P96)	3,266	7.1	1,669	6.9	1,597	7.4
4 Intestinal infectious diseases (A00 - A09)	2,626	5.7	1,308	5.4	1,318	6.1
5 Disorders related to length of gestation and foetal growth (P05 - P08)	1,537	3.3	778	3.2	759	3.5
6 Malnutrition (E40 - E46)	1,442	3.1	747	3.1	708	3.3
7 Infections specific to the perinatal period (P35 - P39)	1,430	3.1	734	3.0	683	3.2
8 Influenza and pneumonia (J10 - J18)	1,270	2.8	668	2.8	617	2.8
9 Certain disorders involving the immune mechanism (D80 - D89)	1,220	2.7	616	2.5	602	2.8
10 Foetus & newborn affected by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	1,103	2.4	603	2.5	487	2.2
... Other causes	17,947	39.1	9,763	40.3	8,184	37.8
... All causes	45,913	100.0	24,239	100.0	21,674	100.0
<b>All provinces, male, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	7,852	17.1	4,086	16.9	3,766	17.4
2 Digestive system disorders of foetus and newborn (P75 - P78)	6,220	13.5	3,287	13.5	2,953	13.6
3 Other disorders originating in the perinatal period (P90 - P96)	3,266	7.1	1,669	6.9	1,597	7.4
4 Intestinal infectious diseases (A00 - A09)	2,626	5.7	1,308	5.4	1,318	6.1
5 Disorders related to length of gestation and foetal growth (P05 - P08)	1,537	3.3	778	3.2	759	3.5
6 Malnutrition (E40 - E46)	1,442	3.1	747	3.1	708	3.3
7 Infections specific to the perinatal period (P35 - P39)	1,430	3.1	734	3.0	683	3.2
8 Influenza and pneumonia (J10 - J18)	1,270	2.8	668	2.8	617	2.8
9 Certain disorders involving the immune mechanism (D80 - D89)	1,220	2.7	616	2.5	602	2.8
10 Foetus & newborn affected by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	1,103	2.4	603	2.5	487	2.2
... Other causes	17,947	39.1	9,763	40.3	8,184	37.8
... All causes	45,913	100.0	24,239	100.0	21,674	100.0
<b>All provinces, female, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	7,852	17.1	4,086	16.9	3,766	17.4
2 Digestive system disorders of foetus and newborn (P75 - P78)	6,220	13.5	3,287	13.5	2,953	13.6
3 Other disorders originating in the perinatal period (P90 - P96)	3,266	7.1	1,669	6.9	1,597	7.4
4 Intestinal infectious diseases (A00 - A09)	2,626	5.7	1,308	5.4	1,318	6.1
5 Disorders related to length of gestation and foetal growth (P05 - P08)	1,537	3.3	778	3.2	759	3.5
6 Malnutrition (E40 - E46)	1,442	3.1	747	3.1	708	3.3
7 Infections specific to the perinatal period (P35 - P39)	1,430	3.1	734	3.0	683	3.2
8 Influenza and pneumonia (J10 - J18)	1,270	2.8	668	2.8	617	2.8
9 Certain disorders involving the immune mechanism (D80 - D89)	1,220	2.7	616	2.5	602	2.8
10 Foetus & newborn affected by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	1,103	2.4	603	2.5	487	2.2
... Other causes	17,947	39.1	9,763	40.3	8,184	37.8
... All causes	45,913	100.0	24,239	100.0	21,674	100.0
<b>All provinces, both sexes, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	23,336	15.2	13,338	14.9	9,998	15.7
2 Influenza and pneumonia (J10 - J18)	9,782	6.4	4,715	5.3	5,067	7.9
3 Human immunodeficiency virus [HIV] diseases (B20 - B24)	8,159	5.3	3,961	4.4	4,198	6.6
4 Certain disorders involving the immune mechanism (D80 - D89)	6,584	4.3	2,828	3.2	3,756	5.9
5 Intestinal infectious diseases (A00 - A09)	4,924	3.2	2,309	2.6	2,788	4.4
6 Other forms of heart disease (I30 - I52)	4,548	3.0	2,136	2.4	2,239	3.5
7 Cerebrovascular diseases (I60 - I69)	3,729	2.4	1,953	2.2	1,776	2.8
8 Chronic lower respiratory diseases (J40 - J47)	2,700	1.8	1,523	1.7	1,177	1.8
9 Other viral diseases (B25 - B34)	1,995	1.3	1,276	1.4	1,132	1.8
10 Diseases of liver (K70 - K77)	1,960	1.3	1,106	1.2	1,009	1.6
... Other causes	85,512	55.8	54,232	60.7	30,712	48.1
... All causes	153,229	100.0	89,377	100.0	63,852	100.0
<b>All provinces, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	23,336	15.2	13,338	14.9	9,998	15.7
2 Influenza and pneumonia (J10 - J18)	9,782	6.4	4,715	5.3	5,067	7.9
3 Human immunodeficiency virus [HIV] diseases (B20 - B24)	8,159	5.3	3,961	4.4	4,198	6.6
4 Certain disorders involving the immune mechanism (D80 - D89)	6,584	4.3	2,828	3.2	3,756	5.9
5 Intestinal infectious diseases (A00 - A09)	4,924	3.2	2,309	2.6	2,788	4.4
6 Other forms of heart disease (I30 - I52)	4,548	3.0	2,136	2.4	2,239	3.5
7 Cerebrovascular diseases (I60 - I69)	3,729	2.4	1,953	2.2	1,776	2.8
8 Chronic lower respiratory diseases (J40 - J47)	2,700	1.8	1,523	1.7	1,177	1.8
9 Other viral diseases (B25 - B34)	1,995	1.3	1,276	1.4	1,132	1.8
10 Diseases of liver (K70 - K77)	1,960	1.3	1,106	1.2	1,009	1.6
... Other causes	85,512	55.8	54,232	60.7	30,712	48.1
... All causes	153,229	100.0	89,377	100.0	63,852	100.0
<b>All provinces, female, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	23,336	15.2	13,338	14.9	9,998	15.7
2 Influenza and pneumonia (J10 - J18)	9,782	6.4	4,715	5.3	5,067	7.9
3 Human immunodeficiency virus [HIV] diseases (B20 - B24)	8,159	5.3	3,961	4.4	4,198	6.6
4 Certain disorders involving the immune mechanism (D80 - D89)	6,584	4.3	2,828	3.2	3,756	5.9
5 Intestinal infectious diseases (A00 - A09)	4,924	3.2	2,309	2.6	2,788	4.4
6 Other forms of heart disease (I30 - I52)	4,548	3.0	2,136	2.4	2,239	3.5
7 Cerebrovascular diseases (I60 - I69)	3,729	2.4	1,953	2.2	1,776	2.8
8 Chronic lower respiratory diseases (J40 - J47)	2,700	1.8	1,523	1.7	1,177	1.8
9 Other viral diseases (B25 - B34)	1,995	1.3	1,276	1.4	1,132	1.8
10 Diseases of liver (K70 - K77)	1,960	1.3	1,106	1.2	1,009	1.6
... Other causes	85,512	55.8	54,232	60.7	30,712	48.1
... All causes	153,229	100.0	89,377	100.0	63,852	100.0
<b>All provinces, both sexes, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	6,049	9.1	4,462	11.0	2,384	9.0
2 Cerebrovascular diseases (I60 - I69)	4,864	7.3	2,512	6.2	2,377	9.0
3 Other forms of heart disease (I30 - I52)	4,505	6.7	2,480	6.1	1,993	7.6
4 Diabetes mellitus (E10 - E14)	4,094	6.1	2,327	5.8	1,587	6.0
5 Chronic lower respiratory diseases (J40 - J47)	3,428	5.1	2,168	5.4	1,315	5.0
6 Malignant neoplasms of digestive organs (C15 - C26)	3,146	4.7	2,058	5.1	1,101	4.2
7 Ischaemic heart diseases (I20 - I25)	3,124	4.7	1,717	4.2	1,088	4.1
8 Influenza and pneumonia (J10 - J18)	2,643	4.0	1,682	4.2	993	3.8
9 Hypertensive diseases (I10 - I15)	2,489	3.7	1,519	3.8	956	3.6
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	1,995	3.0	1,174	2.9	951	3.6
... Other causes	30,447	45.6	18,312	45.3	11,619	44.1
... All causes	66,785	100.0	40,421	100.0	26,364	100.0
<b>All provinces, male, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	6,049	9.1	4,462	11.0	2,384	9.0
2 Cerebrovascular diseases (I60 - I69)	4,864	7.3	2,512	6.2	2,377	9.0
3 Other forms of heart disease (I30 - I52)	4,505	6.7	2,480	6.1	1,993	7.6
4 Diabetes mellitus (E10 - E14)	4,094	6.1	2,327	5.8	1,587	6.0
5 Chronic lower respiratory diseases (J40 - J47)	3,428	5.1	2,168	5.4	1,315	5.0
6 Malignant neoplasms of digestive organs (C15 - C26)	3,146	4.7	2,058	5.1	1,101	4.2
7 Ischaemic heart diseases (I20 - I25)	3,124	4.7	1,717	4.2	1,088	4.1
8 Influenza and pneumonia (J10 - J18)	2,643	4.0	1,682	4.2	993	3.8
9 Hypertensive diseases (I10 - I15)	2,489	3.7	1,519	3.8	956	3.6
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	1,995	3.0	1,174	2.9	951	3.6
... Other causes	30,447	45.6	18,312	45.3	11,619	44.1
... All causes	66,785	100.0	40,421	100.0	26,364	100.0
<b>All provinces, female, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	6,049	9.1	4,462	11.0	2,384	9.0
2 Cerebrovascular diseases (I60 - I69)	4,864	7.3	2,512	6.2	2,377	9.0
3 Other forms of heart disease (I30 - I52)	4,505	6.7	2,480	6.1	1,993	7.6

### APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1999, Western Cape

	No.	%	No.	%	No.	%
<b>Western Cape, both sexes, all ages</b>						
1 Ischaemic heart diseases (I20 - I25)	2,554	6.8	1,649	7.7	1,338	8.2
2 Tuberculosis (A15 - A19)	2,533	6.7	1,482	6.8	1,310	8.0
3 Cerebrovascular diseases (I60 - I69)	2,462	6.5	1,124	5.2	1,092	6.7
4 Diabetes mellitus (E10 - E14)	2,060	5.5	990	4.6	939	5.8
5 Other forms of heart disease (I30 - I52)	1,682	4.5	979	4.6	884	5.4
6 Chronic lower respiratory diseases (J40 - J47)	1,561	4.1	850	4.0	827	3.9
7 Malignant neoplasms of digestive organs (C15 - C26)	1,484	3.9	750	3.5	571	3.5
8 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	1,360	3.6	743	3.5	490	3.0
9 Human immunodeficiency virus [HIV] diseases (B20 - B24)	919	2.4	429	2.0	486	3.0
10 Hypertensive diseases (I10 - I15)	795	2.1	380	1.8	401	2.5
... Other causes	20,341	53.9	12,113	56.4	8,137	50.0
... All causes	37,751	100.0	21,476	100.0	16,275	100.0
<b>Western Cape, male, all ages</b>						
1 Tuberculosis (A15 - A19)	1,482	6.8	1,482	6.8	1,338	8.2
2 Ischaemic heart diseases (I20 - I25)	1,421	6.2	1,421	6.2	1,310	8.0
3 Cerebrovascular diseases (I60 - I69)	1,124	5.2	1,124	5.2	1,092	6.7
4 Diabetes mellitus (E10 - E14)	990	4.6	990	4.6	939	5.8
5 Other forms of heart disease (I30 - I52)	979	4.6	979	4.6	884	5.4
6 Chronic lower respiratory diseases (J40 - J47)	850	4.0	850	4.0	827	3.9
7 Malignant neoplasms of digestive organs (C15 - C26)	750	3.5	750	3.5	571	3.5
8 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	743	3.5	743	3.5	490	3.0
9 Human immunodeficiency virus [HIV] diseases (B20 - B24)	429	2.0	429	2.0	486	3.0
10 Hypertensive diseases (I10 - I15)	380	1.8	380	1.8	401	2.5
... Other causes	12,113	56.4	12,113	56.4	8,137	50.0
... All causes	21,476	100.0	21,476	100.0	16,275	100.0
<b>Western Cape, female, all ages</b>						
1 Cerebrovascular diseases (I60 - I69)	1,338	8.2	1,338	8.2	1,338	8.2
2 Diabetes mellitus (E10 - E14)	1,310	8.0	1,310	8.0	1,310	8.0
3 Ischaemic heart diseases (I20 - I25)	1,092	6.7	1,092	6.7	1,092	6.7
4 Other forms of heart disease (I30 - I52)	939	5.8	939	5.8	939	5.8
5 Tuberculosis (A15 - A19)	884	5.4	884	5.4	884	5.4
6 Malignant neoplasms of digestive organs (C15 - C26)	827	3.9	827	3.9	827	3.9
7 Chronic lower respiratory diseases (J40 - J47)	827	3.9	827	3.9	827	3.9
8 Human immunodeficiency virus [HIV] diseases (B20 - B24)	490	3.0	490	3.0	490	3.0
9 Hypertensive diseases (I10 - I15)	486	3.0	486	3.0	486	3.0
10 Influenza and pneumonia (J10 - J18)	401	2.5	401	2.5	401	2.5
... Other causes	8,137	50.0	8,137	50.0	8,137	50.0
... All causes	16,275	100.0	16,275	100.0	16,275	100.0
<b>Western Cape, male, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	487	14.3	259	14.1	228	14.6
2 Digestive system disorders of foetus and newborn (P75 - P78)	217	12.3	221	12.0	196	12.6
3 Other disorders originating in the perinatal period (P90 - P96)	475	8.1	146	7.9	129	8.3
4 Infections specific to the perinatal period (P35 - P39)	147	4.3	86	4.7	75	4.8
5 Disorders related to length of gestation and foetal growth (P05 - P08)	128	3.8	67	3.6	61	3.9
6 Human immunodeficiency virus [HIV] diseases (B20 - B24)	119	3.5	53	2.9	52	3.3
7 Intestinal infectious diseases (A00 - A09)	94	2.8	51	2.7	44	2.8
8 Foetus & newborn affect'd by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	94	2.8	50	2.7	43	2.8
9 Haemorrhagic and haematological disorders of foetus and newborn (P50 - P61)	61	1.8	35	1.9	31	2.0
10 Certain disorders involving the immune mechanism (D80 - D89)	56	1.6	32	1.7	25	1.6
... Other causes	1,467	43.2	841	45.7	674	43.3
... All causes	3,399	100.0	1,841	100.0	1,558	100.0
<b>Western Cape, female, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	259	14.1	259	14.1	228	14.6
2 Digestive system disorders of foetus and newborn (P75 - P78)	221	12.0	221	12.0	196	12.6
3 Other disorders originating in the perinatal period (P90 - P96)	146	7.9	146	7.9	129	8.3
4 Infections specific to the perinatal period (P35 - P39)	86	4.7	86	4.7	75	4.8
5 Disorders related to length of gestation and foetal growth (P05 - P08)	67	3.6	67	3.6	61	3.9
6 Human immunodeficiency virus [HIV] diseases (B20 - B24)	53	2.9	53	2.9	52	3.3
7 Intestinal infectious diseases (A00 - A09)	51	2.7	51	2.7	44	2.8
8 Foetus & newborn affect'd by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	50	2.7	50	2.7	43	2.8
9 Congenital malformations of the circulatory system (Q20 - Q28)	35	1.9	35	1.9	31	2.0
10 Tuberculosis (A15 - A19)	32	1.7	32	1.7	25	1.6
... Other causes	841	45.7	841	45.7	674	43.3
... All causes	1,841	100.0	1,841	100.0	1,558	100.0
<b>Western Cape, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	1,568	12.4	983	11.8	561	13.7
2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	708	5.6	309	3.7	399	9.4
3 Cerebrovascular diseases (I60 - I69)	343	2.7	186	2.2	157	3.7
4 Ischaemic heart diseases (I20 - I25)	252	2.0	175	2.1	121	2.9
5 Other forms of heart disease (I30 - I52)	244	1.9	155	1.9	116	2.7
6 Chronic lower respiratory diseases (J40 - J47)	230	1.8	146	1.7	108	2.5
7 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	224	1.8	145	1.7	104	2.4
8 Other forms of heart disease (I30 - I52)	200	1.6	128	1.5	102	2.4
9 Diseases of liver (K70 - K77)	194	1.5	115	1.4	96	2.3
10 Certain disorders involving the immune mechanism (D80 - D89)	183	1.5	103	1.2	79	1.9
... Other causes	183	1.5	5,907	70.7	2,382	56.1
... All causes	8,252	65.5	8,352	100.0	4,245	100.0
<b>Western Cape, female, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	1,568	12.4	983	11.8	561	13.7
2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	708	5.6	309	3.7	399	9.4
3 Cerebrovascular diseases (I60 - I69)	343	2.7	186	2.2	157	3.7
4 Ischaemic heart diseases (I20 - I25)	252	2.0	175	2.1	121	2.9
5 Other forms of heart disease (I30 - I52)	244	1.9	155	1.9	116	2.7
6 Chronic lower respiratory diseases (J40 - J47)	230	1.8	146	1.7	108	2.5
7 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	224	1.8	145	1.7	104	2.4
8 Other forms of heart disease (I30 - I52)	200	1.6	128	1.5	102	2.4
9 Diseases of breast (C50)	194	1.5	115	1.4	96	2.3
10 Malignant neoplasms of digestive organs (C15 - C26)	183	1.5	103	1.2	79	1.9
... Other causes	183	1.5	5,907	70.7	2,382	56.1
... All causes	8,252	65.5	8,352	100.0	4,245	100.0
<b>Western Cape, male, 50-64 years</b>						
1 Ischaemic heart diseases (I20 - I25)	673	8.6	462	9.7	397	12.9
2 Diabetes mellitus (E10 - E14)	664	8.5	423	8.9	289	9.4
3 Tuberculosis (A15 - A19)	602	7.7	405	8.5	211	6.8
4 Cerebrovascular diseases (I60 - I69)	601	7.7	312	6.5	185	6.0
5 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	554	7.1	303	6.5	179	5.8
6 Malignant neoplasms of digestive organs (C15 - C26)	496	6.3	303	6.4	169	5.5
7 Chronic lower respiratory diseases (J40 - J47)	466	5.9	287	5.6	163	5.3
8 Other forms of heart disease (I30 - I52)	362	4.6	193	4.1	149	4.8
9 Hypertensive diseases (I10 - I15)	185	2.4	111	2.3	116	3.8
10 Malignant neoplasms of ill-defined, secondary and unspecified sites (C76 - C80)	182	2.3	100	2.1	102	3.3
... Other causes	3,069	39.1	1,877	39.4	1,027	33.2
... All causes	7,853	100.0	4,764	100.0	3,089	100.0
<b>Western Cape, female, 50-64 years</b>						
1 Diabetes mellitus (E10 - E14)	397	12.9	462	9.7	397	12.9
2 Cerebrovascular diseases (I60 - I69)	289	9.4	423	8.9	289	9.4
3 Ischaemic heart diseases (I20 - I25)	211	6.8	405	8.5	211	6.8
4 Malignant neoplasms of digestive organs (C15 - C26)	185	6.0	312	6.5	185	6.0
5 Tuberculosis (A15 - A19)	179	5.8	303	6.5	179	5.8
6 Other forms of heart disease (I30 - I52)	169	5.5	303	6.4	169	5.5
7 Chronic lower respiratory diseases (J40 - J47)	163	5.3	287	5.6	163	5.3
8 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	149	4.8	193	4.1	149	4.8
9 Malignant neoplasms of breast (C50)	116	3.8	111	2.3	116	3.8
10 Hypertensive diseases (I10 - I15)	102	3.3	100	2.1	102	3.3
... Other causes	1,027	33.2	1,877	39.4	1,027	33.2
... All causes	3,089	100.0	4,764	100.0	3,089	100.0
<b>Western Cape, male, 65 years and above</b>						
1 Ischaemic heart diseases (I20 - I25)	888	12.0	822	12.6	888	12.0
2 Diabetes mellitus (E10 - E14)	808	10.9	618	9.5	808	10.9
3 Ischaemic heart diseases (I20 - I25)	641	8.7	524	8.0	641	8.7
4 Other forms of heart disease (I30 - I52)	804	10.9	428	6.6	804	10.9
5 Malignant neoplasms of digestive organs (C15 - C26)	362	4.5	413	6.3	362	4.5
6 Hypertensive diseases (I10 - I15)	335	4.5	400	6.1	335	4.5
7 Chronic lower respiratory diseases (J40 - J47)	332	4.5	390	6.0	332	4.5
8 Influenza and pneumonia (J10 - J18)	240	3.3	241	3.7	240	3.3
9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	185	2.5	227	3.5	185	2.5
10 Tuberculosis (A15 - A19)	149	2.0	192	2.9	149	2.0
... Other causes	2,639	35.7	2,264	34.7	2,639	35.7
... All causes	7,383	100.0	6,519	100.0	7,383	100.0
<b>Western Cape, female, 65 years and above</b>						
1 Cerebrovascular diseases (I60 - I69)	888	12.0	822	12.6	888	12.0
2 Diabetes mellitus (E10 - E14)	808	10.9	618	9.5	808	10.9
3 Ischaemic heart diseases (I20 - I25)	641	8.7	524	8.0	641	8.7
4 Other forms of heart disease (I30 - I52)	804	10.9	428	6.6	804	10.9
5 Malignant neoplasms of digestive organs (C15 - C26)	362	4.5	413	6.3	362	4.5
6 Hypertensive diseases (I10 - I15)	335	4.5	400	6.1	335	4.5
7 Chronic lower respiratory diseases (J40 - J47)	332	4.5	390	6.0	332	4.5
8 Influenza and pneumonia (J10 - J18)	240	3.3	241	3.7	240	3.3
9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	185	2.5	227	3.5	185	2.5
10 Malignant neoplasms of breast (C50)	149	2.0	192	2.9	149	2.0
... Other causes	2,639	35.7	2,264	34.7	2,639	35.7
... All causes	7,383	100.0	6,519	100.0	7,383	100.0

## APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1999, Eastern Cape

	No.	%	No.	%	No.	%
<b>Eastern Cape, both sexes, all ages</b>						
1 Tuberculosis (A15 - A19)	6,162	11.6	3,733	13.1	2,429	9.8
2 Cerebrovascular diseases (I60 - I69)	2,980	5.6	1,582	5.6	1,668	6.8
3 Chronic lower respiratory diseases (J40 - J47)	2,759	5.2	1,312	4.6	1,396	5.7
4 Other forms of heart disease (I30 - I52)	2,533	4.8	1,137	4.0	1,177	4.8
5 Influenza and pneumonia (J10 - J18)	1,875	3.5	1,008	3.5	1,143	4.6
6 Diabetes mellitus (E10 - E14)	1,852	3.5	886	3.1	989	4.0
7 Malignant neoplasms of digestive organs (C15 - C26)	1,805	3.4	709	2.5	853	3.5
8 Ischaemic heart diseases (I20 - I25)	1,411	2.7	679	2.4	797	3.2
9 Hypertensive diseases (I10 - I15)	1,379	2.6	659	2.3	756	3.0
10 Ischaemic heart diseases (I20 - I25)	1,191	2.2	526	1.8	552	2.3
... Other causes	29,222	55.0	16,231	57.0	12,947	52.4
... All causes	53,169	100.0	28,482	100.0	24,707	100.0
<b>Eastern Cape, male, all ages</b>						
1 Tuberculosis (A15 - A19)	6,162	11.6	3,733	13.1	2,429	9.8
2 Chronic lower respiratory diseases (J40 - J47)	2,980	5.6	1,582	5.6	1,668	6.8
3 Cerebrovascular diseases (I60 - I69)	2,759	5.2	1,312	4.6	1,396	5.7
4 Other forms of heart disease (I30 - I52)	2,533	4.8	1,137	4.0	1,177	4.8
5 Malignant neoplasms of digestive organs (C15 - C26)	1,875	3.5	1,008	3.5	1,143	4.6
6 Influenza and pneumonia (J10 - J18)	1,852	3.5	886	3.1	989	4.0
7 Diabetes mellitus (E10 - E14)	1,805	3.4	709	2.5	853	3.5
8 Ischaemic heart diseases (I20 - I25)	1,411	2.7	679	2.4	797	3.2
9 Hypertensive diseases (I10 - I15)	1,379	2.6	659	2.3	756	3.0
10 Ischaemic heart diseases (I20 - I25)	1,191	2.2	526	1.8	552	2.3
... Other causes	29,222	55.0	16,231	57.0	12,947	52.4
... All causes	53,169	100.0	28,482	100.0	24,707	100.0
<b>Eastern Cape, female, all ages</b>						
1 Tuberculosis (A15 - A19)	6,162	11.6	3,733	13.1	2,429	9.8
2 Chronic lower respiratory diseases (J40 - J47)	2,980	5.6	1,582	5.6	1,668	6.8
3 Cerebrovascular diseases (I60 - I69)	2,759	5.2	1,312	4.6	1,396	5.7
4 Other forms of heart disease (I30 - I52)	2,533	4.8	1,137	4.0	1,177	4.8
5 Malignant neoplasms of digestive organs (C15 - C26)	1,875	3.5	1,008	3.5	1,143	4.6
6 Influenza and pneumonia (J10 - J18)	1,852	3.5	886	3.1	989	4.0
7 Diabetes mellitus (E10 - E14)	1,805	3.4	709	2.5	853	3.5
8 Ischaemic heart diseases (I20 - I25)	1,411	2.7	679	2.4	797	3.2
9 Hypertensive diseases (I10 - I15)	1,379	2.6	659	2.3	756	3.0
10 Ischaemic heart diseases (I20 - I25)	1,191	2.2	526	1.8	552	2.3
... Other causes	29,222	55.0	16,231	57.0	12,947	52.4
... All causes	53,169	100.0	28,482	100.0	24,707	100.0
<b>Eastern Cape, male, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	658	14.4	346	13.8	310	15.0
2 Digestive system disorders of foetus and newborn (P75 - P78)	526	11.5	274	10.9	252	12.2
3 Infectious diseases (A00 - A09)	280	6.1	151	6.0	136	6.6
4 Other disorders originating in the perinatal period (P90 - P96)	255	5.6	144	5.8	104	5.0
5 Malnutrition (E40 - E46)	137	3.0	68	2.7	71	3.4
6 Infections specific to the perinatal period (P35 - P39)	119	2.6	66	2.6	51	2.5
7 Influenza and pneumonia (J10 - J18)	107	2.3	62	2.5	50	2.4
8 Human immunodeficiency virus [HIV] diseases (B20 - B24)	100	2.2	54	2.2	45	2.2
9 Disorders related to length of gestation and foetal growth (P05 - P08)	94	2.1	51	2.0	44	2.1
10 Tuberculosis (A15 - A19)	89	2.0	50	2.0	39	1.9
11 Foetus & newborn affect'd by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	89	2.0	50	2.0	39	1.9
12 Human immunodeficiency virus [HIV] diseases (B20 - B24)	89	2.0	50	2.0	39	1.9
... Other causes	2,023	44.3	1,137	45.4	959	46.5
... All causes	4,564	100.0	2,503	100.0	2,061	100.0
<b>Eastern Cape, female, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	658	14.4	346	13.8	310	15.0
2 Digestive system disorders of foetus and newborn (P75 - P78)	526	11.5	274	10.9	252	12.2
3 Infectious diseases (A00 - A09)	280	6.1	151	6.0	136	6.6
4 Other disorders originating in the perinatal period (P90 - P96)	255	5.6	144	5.8	104	5.0
5 Malnutrition (E40 - E46)	137	3.0	68	2.7	71	3.4
6 Infections specific to the perinatal period (P35 - P39)	119	2.6	66	2.6	51	2.5
7 Influenza and pneumonia (J10 - J18)	107	2.3	62	2.5	50	2.4
8 Human immunodeficiency virus [HIV] diseases (B20 - B24)	100	2.2	54	2.2	45	2.2
9 Disorders related to length of gestation and foetal growth (P05 - P08)	94	2.1	51	2.0	44	2.1
10 Tuberculosis (A15 - A19)	89	2.0	50	2.0	39	1.9
11 Foetus & newborn affect'd by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	89	2.0	50	2.0	39	1.9
12 Human immunodeficiency virus [HIV] diseases (B20 - B24)	89	2.0	50	2.0	39	1.9
... Other causes	2,023	44.3	1,137	45.4	959	46.5
... All causes	4,564	100.0	2,503	100.0	2,061	100.0
<b>Eastern Cape, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	3,493	17.9	1,995	17.7	1,498	18.2
2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	816	4.2	343	3.0	490	5.9
3 Influenza and pneumonia (J10 - J18)	787	4.0	326	2.9	444	5.4
4 Certain disorders involving the immune mechanism (D80 - D89)	636	3.3	288	2.4	395	4.8
5 Infectious diseases (A00 - A09)	622	3.2	285	2.4	369	4.5
6 Cerebrovascular diseases (I60 - I69)	501	2.6	253	2.2	232	2.8
7 Other forms of heart disease (I30 - I52)	459	2.4	247	2.2	212	2.6
8 Chronic lower respiratory diseases (J40 - J47)	447	2.3	241	2.1	182	2.2
9 Episodic and paroxysmal disorders (G40 - G47)	326	1.7	207	1.8	149	1.8
10 Malignant neoplasms of digestive organs (C15 - C26)	287	1.5	188	1.7	138	1.7
... Other causes	11,132	57.1	6,937	61.6	4,126	50.1
... All causes	19,506	100.0	11,270	100.0	8,236	100.0
<b>Eastern Cape, female, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	3,493	17.9	1,995	17.7	1,498	18.2
2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	816	4.2	343	3.0	490	5.9
3 Influenza and pneumonia (J10 - J18)	787	4.0	326	2.9	444	5.4
4 Certain disorders involving the immune mechanism (D80 - D89)	636	3.3	288	2.4	395	4.8
5 Infectious diseases (A00 - A09)	622	3.2	285	2.4	369	4.5
6 Cerebrovascular diseases (I60 - I69)	501	2.6	253	2.2	232	2.8
7 Other forms of heart disease (I30 - I52)	459	2.4	247	2.2	212	2.6
8 Chronic lower respiratory diseases (J40 - J47)	447	2.3	241	2.1	182	2.2
9 Episodic and paroxysmal disorders (G40 - G47)	326	1.7	207	1.8	149	1.8
10 Malignant neoplasms of digestive organs (C15 - C26)	287	1.5	188	1.7	138	1.7
... Other causes	11,132	57.1	6,937	61.6	4,126	50.1
... All causes	19,506	100.0	11,270	100.0	8,236	100.0
<b>Eastern Cape, male, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	1,318	13.0	956	15.8	362	8.8
2 Chronic lower respiratory diseases (J40 - J47)	723	7.1	456	7.5	351	8.6
3 Cerebrovascular diseases (I60 - I69)	701	6.9	375	6.2	348	8.5
4 Diabetes mellitus (E10 - E14)	598	5.8	339	5.6	260	6.3
5 Malignant neoplasms of digestive organs (C15 - C26)	573	5.6	292	4.8	245	6.0
6 Other forms of heart disease (I30 - I52)	552	5.4	247	4.1	234	5.7
7 Hypertensive diseases (I10 - I15)	374	3.7	234	3.9	209	5.1
8 Ischaemic heart diseases (I20 - I25)	359	3.5	229	3.8	132	3.2
9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	306	3.0	165	2.7	125	3.1
10 Influenza and pneumonia (J10 - J18)	259	2.5	160	2.6	99	2.4
... Other causes	4,394	43.3	2,609	43.0	1,730	42.2
... All causes	10,157	100.0	6,062	100.0	4,095	100.0
<b>Eastern Cape, female, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	1,318	13.0	956	15.8	362	8.8
2 Chronic lower respiratory diseases (J40 - J47)	723	7.1	456	7.5	351	8.6
3 Cerebrovascular diseases (I60 - I69)	701	6.9	375	6.2	348	8.5
4 Diabetes mellitus (E10 - E14)	598	5.8	339	5.6	260	6.3
5 Malignant neoplasms of digestive organs (C15 - C26)	573	5.6	292	4.8	245	6.0
6 Other forms of heart disease (I30 - I52)	552	5.4	247	4.1	234	5.7
7 Hypertensive diseases (I10 - I15)	374	3.7	234	3.9	209	5.1
8 Ischaemic heart diseases (I20 - I25)	359	3.5	229	3.8	132	3.2
9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	306	3.0	165	2.7	125	3.1
10 Influenza and pneumonia (J10 - J18)	259	2.5	160	2.6	99	2.4
... Other causes	4,394	43.3	2,609	43.0	1,730	42.2
... All causes	10,157	100.0	6,062	100.0	4,095	100.0
<b>Eastern Cape, both sexes, 65 years and above</b>						
1 Cerebrovascular diseases (I60 - I69)	1,742	9.2	848	9.8	1,081	10.5
2 Chronic lower respiratory diseases (J40 - J47)	1,584	8.4	732	8.5	906	8.8
3 Other forms of heart disease (I30 - I52)	1,483	7.8	661	7.7	736	7.1
4 Tuberculosis (A15 - A19)	1,262	6.7	577	6.7	641	6.2
5 Diabetes mellitus (E10 - E14)	971	5.1	478	5.5	543	5.3
6 Malignant neoplasms of digestive organs (C15 - C26)	942	5.0	348	4.0	530	5.1
7 Hypertensive diseases (I10 - I15)	820	4.3	330	3.8	464	4.5
8 Influenza and pneumonia (J10 - J18)	722	3.8	321	3.7	401	3.9
9 Ischaemic heart diseases (I20 - I25)	672	3.5	277	3.2	324	3.1
10 Infectious diseases (A00 - A09)	375	2.0	217	2.5	209	2.0
... Other causes	8,369	44.2	3,838	44.5	4,480	43.4
... All causes	18,942	100.0	8,627	100.0	10,315	100.0
<b>Eastern Cape, male, 65 years and above</b>						
1 Cerebrovascular diseases (I60 - I69)	1,742	9.2	848	9.8	1,081	10.5
2 Chronic lower respiratory diseases (J40 - J47)	1,584	8.4	732	8.5	906	8.8
3 Other forms of heart disease (I30 - I52)	1,483	7.8	661	7.7	736	7.1
4 Tuberculosis (A15 - A19)	1,262	6.7	577	6.7	641	6.2
5 Diabetes mellitus (E10 - E14)	971	5.1	478	5.5	543	5.3
6 Malignant neoplasms of digestive organs (C15 - C26)	942	5.0	348	4.0	530	5.1
7 Hypertensive diseases (I10 - I15)	820	4.3	330	3.8	464	4.5
8 Influenza and pneumonia (J10 - J18)	722	3.8	321	3.7	401	3.9
9 Ischaemic heart diseases (I20 - I25)	672	3.5	277	3.2	324	3.1
10 Infectious diseases (A00 - A09)	375	2.0	217	2.5	209	2.0
... Other causes	8,369	44.2	3,838	44.5	4,480	43.4
... All causes	18,942	100.0	8,627	100.0	10,315	100.0
<b>Eastern Cape, female, 65 years and above</b>						
1 Cerebrovascular diseases (I60 - I69)	1,742	9.2	848	9.8	1,081	10.5
2 Chronic lower respiratory diseases (J40 - J47)	1,584	8.4	732	8.5	906	8.8
3 Other forms of heart disease (I30 - I52)	1,483	7.8	661	7.7	736	7.1
4 Tuberculosis (A15 - A19)	1,262	6.7	577	6.7	641	6.2
5 Diabetes mellitus (E10 - E14)	971	5.1	478	5.5	543	5.3
6 Malignant neoplasms of digestive organs (C15 - C26)	942	5.0	348	4.0	530	

### APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1999, Northern Cape

	Northern Cape, both sexes, all ages		Northern Cape, male, all ages		Northern Cape, female, all ages	
	No.	%	No.	%	No.	%
1 Tuberculosis (A15 - A19)	819	9.0	506	10.1	326	7.9
2 Cerebrovascular diseases (I60 - I69)	567	6.2	272	5.4	313	7.6
3 Other forms of heart disease (I30 - I52)	550	6.0	285	5.3	285	6.9
4 Influenza and pneumonia (J10 - J18)	540	5.9	251	5.0	274	6.5
5 Ischaemic heart diseases (I20 - I25)	403	4.4	241	4.8	188	4.2
6 Chronic lower respiratory diseases (J40 - J47)	377	4.1	229	4.6	162	3.9
7 Malignant neoplasms of digestive organs (C15 - C26)	304	3.3	187	3.7	162	3.9
8 Human immunodeficiency virus [HIV] diseases (B20 - B24)	278	3.0	130	2.6	141	3.4
9 Diabetes mellitus (E10 - E14)	251	2.8	126	2.5	117	3.1
10 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	235	2.6	116	2.3	126	2.8
... Other causes	4,791	52.6	2,678	53.5	2,040	49.6
... All causes	9,115	100.0	5,001	100.0	4,114	100.0
<b>Northern Cape, both sexes, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	235	20.9	126	21.2	109	20.6
2 Digestive system disorders of foetus and newborn (P75 - P78)	186	16.5	90	15.1	96	18.1
3 Malnutrition (E40 - E46)	60	5.3	31	5.2	29	5.5
4 Intestinal infectious diseases (A00 - A09)	56	5.0	29	4.9	27	5.1
5 Disorders related to length of gestation and foetal growth (P05 - P08)	47	4.2	24	4.0	23	4.3
6 Infections specific to the perinatal period (P35 - P39)	36	3.2	17	2.9	19	3.6
7 Human immunodeficiency virus [HIV] diseases (B20 - B24)	32	2.8	17	2.9	15	2.8
8 Other disorders originating in the perinatal period (P90 - P96)	30	2.7	15	2.5	15	2.8
9 Tuberculosis (A15 - A19)	22	2.0	12	2.0	15	2.8
10 Influenza and pneumonia (J10 - J18)	18	1.6	12	2.0	10	1.9
... Other causes	402	35.8	10	1.7	9	1.701
... All causes	1,124	100.0	8	1.3	156	29.5
<b>Northern Cape, both sexes, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	530	15.7	305	15.6	225	15.7
2 Influenza and pneumonia (J10 - J18)	253	7.5	124	6.3	138	9.6
3 Human immunodeficiency virus [HIV] diseases (B20 - B24)	224	6.6	86	4.4	129	9.0
4 Other forms of heart disease (I30 - I52)	118	3.5	57	2.9	70	4.9
5 Cerebrovascular diseases (I60 - I69)	109	3.2	55	2.8	61	4.3
6 Certain disorders involving the immune mechanism (D80 - D89)	102	3.0	47	2.4	54	3.8
7 Diseases of liver (K70 - K77)	82	2.4	45	2.3	38	2.7
8 Chronic lower respiratory diseases (J40 - J47)	80	2.4	44	2.3	33	2.3
9 Ischaemic heart diseases (I20 - I25)	70	2.1	38	1.9	32	2.2
10 Episodic and paroxysmal disorders (G40 - G47)	60	1.8	33	1.7	31	2.2
... Other causes	1,758	51.9	1,120	57.3	621	43.4
... All causes	3,386	100.0	1,954	100.0	1,432	100.0
<b>Northern Cape, both sexes, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	194	10.8	138	12.9	78	10.7
2 Cerebrovascular diseases (I60 - I69)	139	7.7	90	8.4	56	7.7
3 Chronic lower respiratory diseases (J40 - J47)	126	7.0	74	6.9	52	7.1
4 Other forms of heart disease (I30 - I52)	122	6.8	71	6.7	51	7.0
5 Malignant neoplasms of digestive organs (C15 - C26)	111	6.2	62	5.8	44	6.0
6 Ischaemic heart diseases (I20 - I25)	102	5.7	61	5.7	40	5.5
7 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	93	5.2	60	5.6	37	5.1
8 Influenza and pneumonia (J10 - J18)	78	4.3	49	4.6	36	4.9
9 Diabetes mellitus (E10 - E14)	73	4.1	30	2.8	33	4.5
10 Malignant neoplasms of female genital organs (C51 - C58)	52	2.9	29	2.7	29	4.0
... Other causes	708	39.4	402	37.7	276	37.7
... All causes	1,798	100.0	1,066	100.0	732	100.0
<b>Northern Cape, both sexes, 65 years and above</b>						
1 Cerebrovascular diseases (I60 - I69)	313	11.2	133	9.6	190	13.4
2 Other forms of heart disease (I30 - I52)	303	10.8	123	8.9	170	12.0
3 Ischaemic heart diseases (I20 - I25)	231	8.2	122	8.8	109	7.7
4 Influenza and pneumonia (J10 - J18)	191	6.8	112	8.1	100	7.0
5 Chronic lower respiratory diseases (J40 - J47)	168	6.0	91	6.6	95	6.7
6 Malignant neoplasms of digestive organs (C15 - C26)	143	5.1	80	5.8	95	6.7
7 Hypertensive diseases (I10 - I15)	139	5.0	56	4.0	63	4.4
8 Diabetes mellitus (E10 - E14)	136	4.8	55	4.0	56	3.9
9 Tuberculosis (A15 - A19)	73	2.6	47	3.4	36	2.5
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	69	2.5	44	3.2	28	2.0
... Other causes	1,041	37.1	523	37.7	479	33.7
... All causes	2,807	100.0	1,386	100.0	1,421	100.0

## APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1999, Free State

	Free State, both sexes, all ages		Free State, male, all ages		Free State, female, all ages	
	No.	%	No.	%	No.	%
1 Tuberculosis (A15 - A19)	3,014	9.6	1,855	11.1	1,159	9.5
2 Influenza and pneumonia (J10 - J18)	2,765	8.2	1,368	8.2	1,397	9.5
3 Other forms of heart disease (I30 - I52)	1,959	6.2	880	5.3	1,079	7.9
4 Cerebrovascular diseases (I60 - I69)	1,708	5.4	786	4.7	922	6.6
5 Human immunodeficiency virus [HIV] diseases (B20 - B24)	1,663	5.3	730	4.4	933	6.6
6 Certain disorders involving the immune mechanism (D80 - D89)	1,248	4.0	579	3.5	669	4.5
7 Intestinal infectious diseases (A00 - A09)	1,145	3.6	549	3.3	596	4.3
8 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	894	2.8	517	3.1	377	3.3
9 Chronic lower respiratory diseases (J40 - J47)	848	2.7	442	2.7	406	3.0
10 Digestive system disorders of foetus and newborn (P75 - P78)	828	2.6	432	2.6	396	3.0
... Other causes	15,355	48.9	8,534	51.2	6,821	44.6
... All causes	31,425	100.0	16,672	100.0	14,753	100.0
<b>Free State, both sexes, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	894	19.9	442	19.1	452	20.9
2 Digestive system disorders of foetus and newborn (P75 - P78)	828	18.5	432	18.6	396	18.3
3 Intestinal infectious diseases (A00 - A09)	322	7.2	161	6.9	161	7.4
4 Disorders related to length of gestation and foetal growth (P05 - P08)	218	4.9	115	5.0	118	5.5
5 Other disorders originating in the perinatal period (P90 - P96)	212	4.7	101	4.4	111	5.1
6 Malnutrition (E40 - E46)	206	4.6	100	4.3	91	4.2
7 Influenza and pneumonia (J10 - J18)	166	3.7	86	3.7	80	3.7
8 Certain disorders involving the immune mechanism (D80 - D89)	135	3.0	72	3.1	65	3.0
9 Human immunodeficiency virus [HIV] diseases (B20 - B24)	116	2.6	56	2.4	63	2.9
10 Infections specific to the perinatal period (P35 - P39)	112	2.5	51	2.2	63	2.9
... Other causes	1,274	28.4	702	30.3	572	26.4
... All causes	4,483	100.0	2,318	100.0	2,165	100.0
<b>Free State, both sexes, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	2,283	16.0	1,308	16.8	975	15.1
2 Influenza and pneumonia (J10 - J18)	1,676	11.8	779	10.0	897	13.9
3 Human immunodeficiency virus [HIV] diseases (B20 - B24)	1,440	10.1	654	8.8	786	11.7
4 Certain disorders involving the immune mechanism (D80 - D89)	1,032	7.3	483	5.8	559	9.0
5 Intestinal infectious diseases (A00 - A09)	509	3.6	225	2.9	297	4.6
6 Other forms of heart disease (I30 - I52)	467	3.3	212	2.7	242	3.8
7 Cerebrovascular diseases (I60 - I69)	392	2.8	200	2.6	192	3.0
8 Diseases of liver (K70 - K77)	173	1.2	108	1.4	108	1.6
9 Inflammatory diseases of the central nervous system (G00 - G09)	156	1.1	78	1.0	78	1.2
10 Chronic lower respiratory diseases (J40 - J47)	133	0.9	77	1.0	71	1.1
... Other causes	5,971	42.0	3,669	47.1	2,252	35.0
... All causes	14,232	100.0	7,793	100.0	6,439	100.0
<b>Free State, both sexes, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	501	9.9	390	12.8	202	10.1
2 Other forms of heart disease (I30 - I52)	423	8.4	236	7.7	196	9.8
3 Cerebrovascular diseases (I60 - I69)	419	8.3	227	7.4	149	7.5
4 Influenza and pneumonia (J10 - J18)	377	7.5	217	7.1	141	7.1
5 Chronic lower respiratory diseases (J40 - J47)	234	4.6	167	5.5	111	5.6
6 Diabetes mellitus (E10 - E14)	233	4.6	134	4.4	103	5.2
7 Hypertensive diseases (I10 - I15)	198	3.9	121	4.0	101	5.1
8 Malignant neoplasms of digestive organs (C15 - C26)	182	3.6	95	3.1	67	3.4
9 Ischaemic heart diseases (I20 - I25)	180	3.6	84	2.7	59	3.0
10 Diseases of liver (K70 - K77)	114	2.3	82	2.7	50	2.5
... Other causes	2,192	43.4	1,304	42.7	817	40.9
... All causes	5,063	100.0	3,057	100.0	1,996	100.0
<b>Free State, both sexes, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	1,051	13.7	420	12.0	631	15.2
2 Cerebrovascular diseases (I60 - I69)	842	11.5	305	8.7	537	13.9
3 Influenza and pneumonia (J10 - J18)	546	7.1	304	8.7	316	7.6
4 Chronic lower respiratory diseases (J40 - J47)	468	6.1	267	7.6	279	6.7
5 Hypertensive diseases (I10 - I15)	462	6.0	210	6.0	237	5.7
6 Ischaemic heart diseases (I20 - I25)	402	5.3	161	4.6	192	4.6
7 Diabetes mellitus (E10 - E14)	364	4.8	146	4.2	163	3.9
8 Malignant neoplasms of digestive organs (C15 - C26)	264	3.4	132	3.8	121	2.9
9 Intestinal infectious diseases (A00 - A09)	211	2.8	127	3.6	103	2.5
10 Tuberculosis (A15 - A19)	187	2.4	106	3.0	70	1.7
... Other causes	2,820	36.8	1,326	37.8	1,463	35.2
... All causes	7,657	100.0	3,504	100.0	4,153	100.0

**APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1999, KwaZulu-Natal**

	KwaZulu Natal, both sexes, all ages		KwaZulu Natal, male, all ages		KwaZulu Natal, female, all ages	
	No.	%	No.	%	No.	%
1 Tuberculosis (A15 - A19)	9,114	10.8	5,383	11.9	3,731	9.5
2 Other forms of heart disease (I30 - I52)	4,324	5.1	2,041	4.5	2,283	6.3
3 Cerebrovascular diseases (I60 - I69)	4,204	5.0	1,906	4.2	2,298	5.8
4 Influenza and pneumonia (J10 - J18)	3,759	4.4	1,717	3.8	1,842	4.6
5 Intestinal infectious diseases (A00 - A09)	3,255	3.8	1,479	3.3	1,776	4.5
6 Diabetes mellitus (E10 - E14)	2,949	3.5	1,474	3.3	1,475	4.5
7 Chronic lower respiratory diseases (J40 - J47)	2,538	3.0	1,125	2.5	1,413	3.7
8 Certain disorders involving the immune mechanism (D80 - D89)	1,907	2.3	1,035	2.3	1,064	2.7
9 Human immunodeficiency virus [HIV] diseases (B20 - B24)	1,886	2.2	1,013	2.2	1,062	2.7
10 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	1,862	2.2	997	2.2	865	2.2
... Other causes	48,818	57.7	26,987	59.8	21,439	54.3
... All causes	84,646	100.0	45,167	100.0	39,479	100.0
<b>KwaZulu Natal, both sexes, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	1,882	16.0	987	16.0	885	16.1
2 Digestive system disorders of foetus and newborn (P75 - P78)	1,615	13.8	880	14.1	735	13.3
3 Other disorders originating in the perinatal period (P90 - P96)	939	8.0	490	7.9	449	8.2
4 Intestinal infectious diseases (A00 - A09)	802	6.8	401	6.4	401	7.3
5 Malnutrition (E40 - E46)	378	3.2	198	3.2	191	3.5
6 Disorders related to length of gestation and foetal growth (P05 - P08)	364	3.1	187	3.0	181	3.3
7 Foetus & newborn affected by maternal factors & comp. of preg., lab. & deliv. (P00 - P04)	354	3.0	187	3.0	177	3.2
8 Infections specific to the perinatal period (P35 - P39)	352	3.0	171	2.7	156	2.8
9 Influenza and pneumonia (J10 - J18)	324	2.8	168	2.7	156	2.8
10 Certain disorders involving the immune mechanism (D80 - D89)	266	2.3	133	2.1	133	2.4
... Other causes	4,467	38.0	118	1.9	2,045	37.1
... All causes	11,743	100.0	2,304	37.0	5,509	100.0
<b>KwaZulu Natal, both sexes, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	6,942	18.4	3,887	18.0	3,045	18.8
2 Influenza and pneumonia (J10 - J18)	2,057	5.4	989	4.6	1,068	6.5
3 Intestinal infectious diseases (A00 - A09)	1,630	4.3	818	3.8	923	5.7
4 Human immunodeficiency virus [HIV] diseases (B20 - B24)	1,561	4.1	707	3.3	883	5.5
5 Certain disorders involving the immune mechanism (D80 - D89)	1,525	4.0	632	2.9	743	4.6
6 Other forms of heart disease (I30 - I52)	1,101	2.9	588	2.8	503	3.1
7 Chronic lower respiratory diseases (J40 - J47)	928	2.5	487	2.2	441	2.7
8 Cerebrovascular diseases (I60 - I69)	827	2.2	433	2.0	394	2.4
9 Other viral diseases (B25 - B34)	636	1.7	280	1.3	382	2.4
10 Inflammatory diseases of the central nervous system (G00 - G09)	570	1.5	268	1.2	302	1.9
... Other causes	20,035	53.0	12,535	57.9	7,474	46.3
... All causes	37,812	100.0	21,654	100.0	16,158	100.0
<b>KwaZulu Natal, both sexes, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	1,313	9.4	948	11.3	660	11.7
2 Diabetes mellitus (E10 - E14)	1,099	7.8	601	7.2	544	9.7
3 Other forms of heart disease (I30 - I52)	1,097	7.8	517	6.2	496	8.8
4 Cerebrovascular diseases (I60 - I69)	1,061	7.6	439	5.2	365	6.5
5 Chronic lower respiratory diseases (J40 - J47)	609	4.3	431	5.1	246	4.4
6 Ischaemic heart diseases (I20 - I25)	496	3.5	362	4.3	180	3.2
7 Influenza and pneumonia (J10 - J18)	496	3.5	341	4.1	178	3.2
8 Malignant neoplasms of digestive organs (C15 - C26)	487	3.5	326	3.9	170	3.0
9 Hypertensive diseases (I10 - I15)	436	3.1	213	2.5	152	2.7
10 Intestinal infectious diseases (A00 - A09)	372	2.7	202	2.4	146	2.6
... Other causes	6,559	46.8	4,013	47.8	2,495	44.3
... All causes	14,025	100.0	8,393	100.0	5,632	100.0
<b>KwaZulu Natal, both sexes, 65 years and above</b>						
1 Cerebrovascular diseases (I60 - I69)	2,289	10.9	805	9.1	1,536	12.6
2 Other forms of heart disease (I30 - I52)	2,055	9.8	753	8.5	1,250	10.3
3 Diabetes mellitus (E10 - E14)	1,436	6.8	525	5.9	956	7.8
4 Hypertensive diseases (I10 - I15)	981	4.7	480	5.4	685	5.6
5 Chronic lower respiratory diseases (J40 - J47)	943	4.5	466	5.2	469	3.9
6 Ischaemic heart diseases (I20 - I25)	919	4.4	437	4.9	413	3.4
7 Influenza and pneumonia (J10 - J18)	882	4.2	413	4.6	458	3.7
8 Tuberculosis (A15 - A19)	677	3.2	316	3.6	272	2.2
9 Malignant neoplasms of digestive organs (C15 - C26)	577	2.7	286	3.3	261	2.1
10 Intestinal infectious diseases (A00 - A09)	451	2.1	196	2.2	240	2.0
... Other causes	9,856	46.8	4,199	47.3	5,640	46.3
... All causes	21,066	100.0	8,886	100.0	12,180	100.0

## APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1999, North West

	No.	%	No.	%	No.	%
<b>North West, both sexes, all ages</b>						
1 Tuberculosis (A15 - A19)	3,225	10.1	1,888	11.0	<b>North West, female, all ages</b>	
2 Influenza and pneumonia (J10 - J18)	2,279	7.1	1,183	6.9	1 Tuberculosis (A15 - A19)	1,337
3 Other forms of heart disease (I30 - I52)	1,994	6.2	929	5.4	2 Influenza and pneumonia (J10 - J18)	1,086
4 Cerebrovascular diseases (I60 - I69)	1,829	5.7	816	4.8	3 Other forms of heart disease (I30 - I52)	1,065
5 Chronic lower respiratory diseases (J40 - J47)	1,199	3.7	606	3.5	4 Cerebrovascular diseases (I60 - I69)	1,013
6 Malignant neoplasms involving the immune mechanism (D80 - D89)	1,122	3.5	509	3.0	5 Certain disorders involving the immune mechanism (D80 - D89)	712
7 Infectious diseases (I10 - I15)	1,037	3.2	487	2.8	6 Hypertensive diseases (I10 - I15)	623
8 Chronic lower respiratory diseases (J40 - J47)	921	2.9	485	2.8	7 Intestinal infectious diseases (A00 - A09)	613
9 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	804	2.6	476	2.8	8 Diabetes mellitus (E10 - E14)	492
10 Ischaemic heart diseases (I20 - I25)	16,649	52.0	9,309	54.3	9 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	428
... Other causes	31,993	100.0	17,156	100.0	10 Digestive system disorders of foetus and newborn (P75 - P78)	371
... All causes					... Other causes	7,087
					... All causes	14,837
						100.0
<b>North West, male, all ages</b>						
1 Tuberculosis (A15 - A19)	904	19.6	476	19.8	<b>North West, female, 0-14 years</b>	
2 Digestive system disorders of foetus and newborn (P75 - P78)	740	16.0	369	15.4	1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	428
3 Intestinal infectious diseases (A00 - A09)	340	7.4	161	6.7	2 Digestive system disorders of foetus and newborn (P75 - P78)	371
4 Disorders related to length of gestation and foetal growth (P05 - P08)	239	5.2	121	5.0	3 Intestinal infectious diseases (A00 - A09)	179
5 Malnutrition (E40 - E46)	214	4.6	114	4.8	4 Disorders related to length of gestation and foetal growth (P05 - P08)	118
6 Other disorders originating in the perinatal period (P90 - P96)	203	4.4	112	4.7	5 Malnutrition (E40 - E46)	100
7 Certain disorders involving the immune mechanism (D80 - D89)	155	3.4	77	3.2	6 Other disorders originating in the perinatal period (P90 - P96)	91
8 Influenza and pneumonia (J10 - J18)	150	3.2	73	3.0	7 Certain disorders involving the immune mechanism (D80 - D89)	78
9 Infections specific to the perinatal period (P35 - P39)	140	3.0	70	2.9	8 Influenza and pneumonia (J10 - J18)	77
10 Foetus & newborn affected by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	98	2.1	43	1.8	9 Infections specific to the perinatal period (P35 - P39)	70
... Other causes	1,441	31.2	783	32.6	10 Foetus & newborn affected by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	55
... All causes	4,624	100.0	2,399	100.0	... Other causes	658
					... All causes	2,225
						100.0
<b>North West, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	2,323	17.5	1,236	17.1	<b>North West, female, 15-49 years</b>	
2 Influenza and pneumonia (J10 - J18)	1,242	9.3	572	7.9	1 Tuberculosis (A15 - A19)	1,087
3 Human immunodeficiency virus [HIV] diseases (B20 - B24)	949	7.1	374	5.2	2 Influenza and pneumonia (J10 - J18)	670
4 Certain disorders involving the immune mechanism (D80 - D89)	662	5.0	364	5.0	3 Certain disorders involving the immune mechanism (D80 - D89)	585
5 Other forms of heart disease (I30 - I52)	539	4.1	245	3.4	4 Other forms of heart disease (I30 - I52)	294
6 Intestinal infectious diseases (A00 - A09)	467	3.5	200	2.8	5 Human immunodeficiency virus [HIV] diseases (B20 - B24)	288
7 Intestinal infectious diseases (A00 - A09)	325	2.4	173	2.4	6 Intestinal infectious diseases (A00 - A09)	267
8 Chronic lower respiratory diseases (J40 - J47)	203	1.5	101	1.4	7 Cerebrovascular diseases (I60 - I69)	152
9 Diseases of liver (K70 - K77)	157	1.2	99	1.4	8 Chronic lower respiratory diseases (J40 - J47)	105
10 Episodic and paroxysmal disorders (G40 - G47)	153	1.2	98	1.4	9 Aplastic and other anaemias (D60 - D64)	94
... Other causes	6,264	47.2	3,753	52.0	10 Other viral diseases (B25 - B34)	93
... All causes	13,284	100.0	7,215	100.0	... Other causes	2,434
					... All causes	6,069
						100.0
<b>North West, both sexes, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	546	10.3	399	12.1	<b>North West, female, 50-64 years</b>	
2 Other forms of heart disease (I30 - I52)	437	8.2	240	7.3	1 Cerebrovascular diseases (I60 - I69)	205
3 Cerebrovascular diseases (I60 - I69)	434	8.2	236	7.2	2 Other forms of heart disease (I30 - I52)	197
4 Influenza and pneumonia (J10 - J18)	343	6.5	229	7.0	3 Tuberculosis (A15 - A19)	147
5 Chronic lower respiratory diseases (J40 - J47)	269	5.1	196	6.0	4 Diabetes mellitus (E10 - E14)	146
6 Malignant neoplasms of digestive organs (C15 - C26)	248	4.7	166	5.1	5 Hypertensive diseases (I10 - I15)	119
7 Diabetes mellitus (E10 - E14)	241	4.5	150	4.6	6 Influenza and pneumonia (J10 - J18)	107
8 Hypertensive diseases (I10 - I15)	239	4.5	120	3.7	7 Malignant neoplasms of digestive organs (C15 - C26)	82
9 Ischaemic heart diseases (I20 - I25)	223	4.2	98	3.0	8 Malignant neoplasms of female genital organs (C51 - C58)	77
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	129	2.4	95	2.9	9 Ischaemic heart diseases (I20 - I25)	73
... Other causes	2,203	41.5	1,357	41.3	10 Chronic lower respiratory diseases (J40 - J47)	73
... All causes	5,312	100.0	3,286	100.0	... Other causes	800
					... All causes	2,026
						100.0
<b>North West, both sexes, 65 years and above</b>						
1 Cerebrovascular diseases (I60 - I69)	1,055	12.0	435	10.2	<b>North West, female, 65 years and above</b>	
2 Other forms of heart disease (I30 - I52)	995	11.3	307	9.6	1 Cerebrovascular diseases (I60 - I69)	648
3 Hypertensive diseases (I10 - I15)	677	7.7	408	7.2	2 Other forms of heart disease (I30 - I52)	560
4 Influenza and pneumonia (J10 - J18)	544	6.2	302	7.1	3 Hypertensive diseases (I10 - I15)	444
5 Ischaemic heart diseases (I20 - I25)	460	5.2	237	5.6	4 Diabetes mellitus (E10 - E14)	288
6 Chronic lower respiratory diseases (J40 - J47)	440	5.0	233	5.5	5 Influenza and pneumonia (J10 - J18)	242
7 Tuberculosis (A15 - A19)	425	4.8	219	5.1	6 Ischaemic heart diseases (I20 - I25)	223
8 Malignant neoplasms of digestive organs (C15 - C26)	321	3.7	211	5.0	7 Chronic lower respiratory diseases (J40 - J47)	130
9 Tuberculosis (A15 - A19)	287	3.3	137	3.2	8 Malignant neoplasms of digestive organs (C15 - C26)	112
10 Intestinal infectious diseases (A00 - A09)	190	2.2	114	2.7	9 Intestinal infectious diseases (A00 - A09)	101
... Other causes	3,379	38.5	1,653	38.8	10 Malignant neoplasms of female genital organs (C51 - C58)	86
... All causes	8,773	100.0	4,256	100.0	... Other causes	1,683
					... All causes	4,517
						100.0

## APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1999, Gauteng

	No.	%	No.	%	No.	%
<b>Gauteng, both sexes, all ages</b>						
1 Tuberculosis (A15 - A19)	4,850	6.5	3,028	7.3	1,822	6.6
2 Other forms of heart disease (I30 - I52)	4,175	5.6	1,984	4.8	2,191	6.6
3 Influenza and pneumonia (J10 - J18)	3,797	5.1	1,959	4.7	1,838	5.6
4 Cerebrovascular diseases (I60 - I69)	3,373	4.5	1,501	3.6	1,872	5.5
5 Ischaemic heart diseases (I20 - I25)	2,474	3.3	1,495	3.6	1,822	5.5
6 Diabetes mellitus (E10 - E14)	2,359	3.2	1,198	2.9	1,012	3.1
7 Human immunodeficiency virus [HIV] diseases (B20 - B24)	2,008	2.7	1,088	2.6	894	3.0
8 Chronic lower respiratory diseases (J40 - J47)	1,840	2.5	1,042	2.5	979	3.0
9 Malignant neoplasms of digestive organs (C15 - C26)	1,840	2.5	1,031	2.5	804	2.4
10 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	1,652	2.1	863	2.1	799	2.4
... Other causes	46,035	61.7	26,417	63.5	799	2.4
... All causes	74,593	100.0	41,596	100.0	18,559	56.2
					32,987	100.0
<b>Gauteng, male, all ages</b>						
1 Tuberculosis (A15 - A19)	4,850	6.5	3,028	7.3	1,822	6.6
2 Other forms of heart disease (I30 - I52)	4,175	5.6	1,984	4.8	2,191	6.6
3 Influenza and pneumonia (J10 - J18)	3,797	5.1	1,959	4.7	1,838	5.6
4 Cerebrovascular diseases (I60 - I69)	3,373	4.5	1,501	3.6	1,872	5.5
5 Ischaemic heart diseases (I20 - I25)	2,474	3.3	1,495	3.6	1,822	5.5
6 Diabetes mellitus (E10 - E14)	2,359	3.2	1,198	2.9	1,012	3.1
7 Human immunodeficiency virus [HIV] diseases (B20 - B24)	2,008	2.7	1,088	2.6	894	3.0
8 Chronic lower respiratory diseases (J40 - J47)	1,840	2.5	1,042	2.5	979	3.0
9 Malignant neoplasms of digestive organs (C15 - C26)	1,840	2.5	1,031	2.5	804	2.4
10 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	1,652	2.1	863	2.1	799	2.4
... Other causes	46,035	61.7	26,417	63.5	799	2.4
... All causes	74,593	100.0	41,596	100.0	18,559	56.2
					32,987	100.0
<b>Gauteng, female, all ages</b>						
1 Tuberculosis (A15 - A19)	4,850	6.5	3,028	7.3	1,822	6.6
2 Other forms of heart disease (I30 - I52)	4,175	5.6	1,984	4.8	2,191	6.6
3 Influenza and pneumonia (J10 - J18)	3,797	5.1	1,959	4.7	1,838	5.6
4 Cerebrovascular diseases (I60 - I69)	3,373	4.5	1,501	3.6	1,872	5.5
5 Ischaemic heart diseases (I20 - I25)	2,474	3.3	1,495	3.6	1,822	5.5
6 Diabetes mellitus (E10 - E14)	2,359	3.2	1,198	2.9	1,012	3.1
7 Human immunodeficiency virus [HIV] diseases (B20 - B24)	2,008	2.7	1,088	2.6	894	3.0
8 Chronic lower respiratory diseases (J40 - J47)	1,840	2.5	1,042	2.5	979	3.0
9 Malignant neoplasms of digestive organs (C15 - C26)	1,840	2.5	1,031	2.5	804	2.4
10 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	1,652	2.1	863	2.1	799	2.4
... Other causes	46,035	61.7	26,417	63.5	799	2.4
... All causes	74,593	100.0	41,596	100.0	18,559	56.2
					32,987	100.0
<b>Gauteng, male, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	1,652	17.8	853	17.5	799	18.2
2 Other disorders originating in the perinatal period (P90 - P96)	1,016	10.9	528	10.8	494	11.2
3 Digestive system disorders of foetus and newborn (P75 - P78)	995	10.7	522	10.7	467	10.6
4 Infections specific to the perinatal period (P35 - P39)	354	3.8	184	3.8	174	4.0
5 Certain disorders involving the immune mechanism (D80 - D89)	326	3.5	152	3.1	170	3.9
6 Intestinal infectious diseases (A00 - A09)	284	3.1	135	2.8	165	3.8
7 Other viral diseases (B25 - B34)	254	2.7	121	2.5	119	2.7
8 Disorders related to length of gestation and foetal growth (P05 - P08)	233	2.5	121	2.5	112	2.5
9 Influenza and pneumonia (J10 - J18)	214	2.3	119	2.4	95	2.2
10 Foetus & newborn affected by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	193	2.1	115	2.4	94	2.1
... Other causes	3,764	40.5	1,953	40.0	1,708	38.8
... All causes	9,285	100.0	4,888	100.0	4,397	100.0
<b>Gauteng, female, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	1,652	17.8	853	17.5	799	18.2
2 Other disorders originating in the perinatal period (P90 - P96)	1,016	10.9	528	10.8	494	11.2
3 Digestive system disorders of foetus and newborn (P75 - P78)	995	10.7	522	10.7	467	10.6
4 Infections specific to the perinatal period (P35 - P39)	354	3.8	184	3.8	174	4.0
5 Certain disorders involving the immune mechanism (D80 - D89)	326	3.5	152	3.1	170	3.9
6 Intestinal infectious diseases (A00 - A09)	284	3.1	135	2.8	165	3.8
7 Other viral diseases (B25 - B34)	254	2.7	121	2.5	119	2.7
8 Disorders related to length of gestation and foetal growth (P05 - P08)	233	2.5	121	2.5	112	2.5
9 Influenza and pneumonia (J10 - J18)	214	2.3	119	2.4	95	2.2
10 Foetus & newborn affected by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	193	2.1	115	2.4	94	2.1
... Other causes	3,764	40.5	1,953	40.0	1,708	38.8
... All causes	9,285	100.0	4,888	100.0	4,397	100.0
<b>Gauteng, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	3,607	11.5	2,129	11.1	1,478	12.2
2 Influenza and pneumonia (J10 - J18)	1,999	6.4	1,032	5.4	967	8.0
3 Human immunodeficiency virus [HIV] diseases (B20 - B24)	1,702	5.4	856	4.5	846	7.0
4 Other forms of heart disease (I30 - I52)	1,017	3.2	540	2.8	498	4.1
5 Certain disorders involving the immune mechanism (D80 - D89)	949	3.0	451	2.4	477	3.9
6 Cerebrovascular diseases (I60 - I69)	721	2.3	379	2.0	369	3.0
7 Intestinal infectious diseases (A00 - A09)	672	2.1	303	1.6	342	2.8
8 Other viral diseases (B25 - B34)	583	1.9	274	1.4	309	2.5
9 Diseases of liver (K70 - K77)	366	1.2	229	1.2	209	1.7
10 Inflammatory diseases of the central nervous system (G00 - G09)	361	1.2	228	1.2	172	1.4
... Other causes	19,331	61.7	12,765	66.5	6,455	53.3
... All causes	31,308	100.0	19,186	100.0	12,122	100.0
<b>Gauteng, female, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	3,607	11.5	2,129	11.1	1,478	12.2
2 Influenza and pneumonia (J10 - J18)	1,999	6.4	1,032	5.4	967	8.0
3 Human immunodeficiency virus [HIV] diseases (B20 - B24)	1,702	5.4	856	4.5	846	7.0
4 Other forms of heart disease (I30 - I52)	1,017	3.2	540	2.8	498	4.1
5 Certain disorders involving the immune mechanism (D80 - D89)	949	3.0	451	2.4	477	3.9
6 Cerebrovascular diseases (I60 - I69)	721	2.3	379	2.0	369	3.0
7 Intestinal infectious diseases (A00 - A09)	672	2.1	303	1.6	342	2.8
8 Other viral diseases (B25 - B34)	583	1.9	274	1.4	309	2.5
9 Diseases of liver (K70 - K77)	366	1.2	229	1.2	209	1.7
10 Inflammatory diseases of the central nervous system (G00 - G09)	361	1.2	228	1.2	172	1.4
... Other causes	19,331	61.7	12,765	66.5	6,455	53.3
... All causes	31,308	100.0	19,186	100.0	12,122	100.0
<b>Gauteng, male, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	907	6.9	609	7.5	402	7.8
2 Other forms of heart disease (I30 - I52)	848	6.4	536	6.6	383	7.5
3 Tuberculosis (A15 - A19)	794	6.0	495	6.1	371	7.2
4 Diabetes mellitus (E10 - E14)	739	5.6	446	5.5	240	4.7
5 Malignant neoplasms of digestive organs (C15 - C26)	658	5.0	418	5.2	226	4.4
6 Ischaemic heart diseases (I20 - I25)	655	5.0	388	4.8	219	4.3
7 Chronic lower respiratory diseases (J40 - J47)	587	4.4	356	4.4	208	4.1
8 Influenza and pneumonia (J10 - J18)	535	4.0	327	4.0	199	3.9
9 Hypertensive diseases (I10 - I15)	421	3.2	307	3.8	185	3.6
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	402	3.0	215	2.7	178	3.5
... Other causes	6,670	50.5	3,990	49.3	2,518	49.1
... All causes	13,216	100.0	8,087	100.0	5,129	100.0
<b>Gauteng, female, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	907	6.9	609	7.5	402	7.8
2 Other forms of heart disease (I30 - I52)	848	6.4	536	6.6	383	7.5
3 Tuberculosis (A15 - A19)	794	6.0	495	6.1	371	7.2
4 Diabetes mellitus (E10 - E14)	739	5.6	446	5.5	240	4.7
5 Malignant neoplasms of digestive organs (C15 - C26)	658	5.0	418	5.2	226	4.4
6 Ischaemic heart diseases (I20 - I25)	655	5.0	388	4.8	219	4.3
7 Chronic lower respiratory diseases (J40 - J47)	587	4.4	356	4.4	208	4.1
8 Influenza and pneumonia (J10 - J18)	535	4.0	327	4.0	199	3.9
9 Hypertensive diseases (I10 - I15)	421	3.2	307	3.8	185	3.6
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	402	3.0	215	2.7	178	3.5
... Other causes	6,670	50.5	3,990	49.3	2,518	49.1
... All causes	13,216	100.0	8,087	100.0	5,129	100.0
<b>Gauteng, male, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	2,189	10.5	877	9.3	1,312	11.6
2 Cerebrovascular diseases (I60 - I69)	1,784	8.6	769	8.2	1,118	9.9
3 Ischaemic heart diseases (I20 - I25)	1,496	7.2	686	7.1	801	7.1
4 Diabetes mellitus (E10 - E14)	1,275	6.1	624	6.6	727	6.4
5 Chronic lower respiratory diseases (J40 - J47)	1,085	5.2	479	5.1	671	5.9
6 Influenza and pneumonia (J10 - J18)	1,049	5.0	474	5.0	570	5.0
7 Hypertensive diseases (I10 - I15)	1,004	4.8	457	4.8	461	4.1
8 Malignant neoplasms of digestive organs (C15 - C26)	861	4.1	338	3.6	404	3.6
9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	483	2.3	314	3.3	214	1.9
10 Renal failure (N17 - N19)	392	1.9	314	3.3	198	1.7
... Other causes	9,166	44.1	4,104	43.5	4,873	42.9
... All causes	20,784	100.0	9,435	100.0	11,349	100.0
<b>Gauteng, female, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	2,189	10.5	877	9.3	1,312	11.6
2 Cerebrovascular diseases (I60 - I69)	1,784	8.6	769	8.2	1,118	9.9
3 Ischaemic heart diseases (I20 - I25)	1,496	7.2	686	7.1	801	7.1
4 Diabetes mellitus (E10 - E14)	1,275	6.1	624	6.6	727	6.4
5 Chronic lower respiratory diseases (J40 - J47)	1,085	5.2	479	5.1	671	5.9
6 Influenza and pneumonia (J10 - J18)	1,049	5.0	474	5.0	570	5.0
7 Hypertensive diseases (I10 - I15)	1,004	4.8	457	4.8	461	4.1
8 Malignant neoplasms of digestive organs (C15 - C26)	861	4.1	338	3.6	404	3.6
9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	483	2.3	314	3.3	214	1.9
10 Renal failure (N17 - N19)	392	1.9	314	3.3	198	1.7
... Other causes	9,166	44.1	4,104	43.5	4,873	42.9
... All causes	20,784	100.0	9,435	100.0	11,349	100.0

### APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1999, Mpumalanga

	No.	%	No.	%	No.	%
<b>Mpumalanga, both sexes, all ages</b>						
1 Tuberculosis (A15 - A19)	2,166	8.5	1,309	9.4	1,309	9.4
2 Influenza and pneumonia (J10 - J18)	1,416	5.5	740	5.3	740	5.3
3 Other forms of heart disease (I30 - I52)	1,317	5.1	626	4.5	626	4.5
4 Cerebrovascular diseases (I60 - I69)	1,304	5.1	617	4.4	617	4.4
5 Certain disorders involving the immune mechanism (D80 - D89)	1,041	4.1	523	3.7	523	3.7
6 Intestinal infectious diseases (A00 - A09)	946	3.7	471	3.4	471	3.4
7 Hypertensive diseases (I10 - I15)	807	3.2	446	3.2	446	3.2
8 Human immunodeficiency virus [HIV] diseases (B20 - B24)	764	3.0	365	2.6	365	2.6
9 Chronic lower respiratory diseases (J40 - J47)	751	2.9	351	2.5	351	2.5
10 Diabetes mellitus (E10 - E14)	725	2.8	332	2.4	332	2.4
... Other causes	14,350	56.1	8,182	58.6	8,182	58.6
... All causes	25,587	100.0	13,962	100.0	13,962	100.0
<b>Mpumalanga, male, all ages</b>						
1 Tuberculosis (A15 - A19)	1,416	5.5	740	5.3	740	5.3
2 Influenza and pneumonia (J10 - J18)	1,317	5.1	626	4.5	626	4.5
3 Other forms of heart disease (I30 - I52)	1,304	5.1	617	4.4	617	4.4
4 Cerebrovascular diseases (I60 - I69)	1,304	5.1	617	4.4	617	4.4
5 Certain disorders involving the immune mechanism (D80 - D89)	1,041	4.1	523	3.7	523	3.7
6 Intestinal infectious diseases (A00 - A09)	946	3.7	471	3.4	471	3.4
7 Hypertensive diseases (I10 - I15)	807	3.2	446	3.2	446	3.2
8 Human immunodeficiency virus [HIV] diseases (B20 - B24)	764	3.0	365	2.6	365	2.6
9 Chronic lower respiratory diseases (J40 - J47)	751	2.9	351	2.5	351	2.5
10 Diabetes mellitus (E10 - E14)	725	2.8	332	2.4	332	2.4
... Other causes	14,350	56.1	8,182	58.6	8,182	58.6
... All causes	25,587	100.0	13,962	100.0	13,962	100.0
<b>Mpumalanga, female, all ages</b>						
1 Tuberculosis (A15 - A19)	857	7.4	857	7.4	857	7.4
2 Other forms of heart disease (I30 - I52)	691	5.9	691	5.9	691	5.9
3 Cerebrovascular diseases (I60 - I69)	687	5.9	687	5.9	687	5.9
4 Influenza and pneumonia (J10 - J18)	616	5.3	616	5.3	616	5.3
5 Certain disorders involving the immune mechanism (D80 - D89)	518	4.5	518	4.5	518	4.5
6 Intestinal infectious diseases (A00 - A09)	500	4.3	500	4.3	500	4.3
7 Hypertensive diseases (I10 - I15)	496	4.3	496	4.3	496	4.3
8 Diabetes mellitus (E10 - E14)	422	3.6	422	3.6	422	3.6
9 Human immunodeficiency virus [HIV] diseases (B20 - B24)	399	3.4	399	3.4	399	3.4
10 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	330	2.8	330	2.8	330	2.8
... Other causes	6,049	52.0	6,049	52.0	6,049	52.0
... All causes	11,625	100.0	11,625	100.0	11,625	100.0
<b>Mpumalanga, male, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	652	17.9	322	17.1	322	17.1
2 Digestive system disorders of foetus and newborn (P75 - P78)	599	16.4	317	16.8	317	16.8
3 Intestinal infectious diseases (A00 - A09)	239	6.5	122	6.5	122	6.5
4 Other disorders originating in the perinatal period (P90 - P96)	194	5.3	89	4.7	89	4.7
5 Disorders related to length of gestation and foetal growth (P05 - P08)	134	3.7	76	4.0	76	4.0
6 Certain disorders involving the immune mechanism (D80 - D89)	116	3.2	65	3.5	65	3.5
7 Malnutrition (E40 - E46)	105	2.9	55	2.9	55	2.9
8 Foetus & newborn affected by maternal factors & complic. of preg., lab. & deliv. (P00 - P04)	99	2.7	51	2.7	51	2.7
9 Infections specific to the perinatal period (P35 - P39)	97	2.7	50	2.7	50	2.7
10 Influenza and pneumonia (J10 - J18)	86	2.4	49	2.6	49	2.6
... Other causes	1,329	36.4	688	36.5	688	36.5
... All causes	3,650	100.0	1,884	100.0	1,884	100.0
<b>Mpumalanga, female, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	330	18.7	330	18.7	330	18.7
2 Digestive system disorders of foetus and newborn (P75 - P78)	282	17.1	282	17.1	282	17.1
3 Intestinal infectious diseases (A00 - A09)	117	6.6	117	6.6	117	6.6
4 Other disorders originating in the perinatal period (P90 - P96)	105	5.9	105	5.9	105	5.9
5 Disorders related to length of gestation and foetal growth (P05 - P08)	66	3.7	66	3.7	66	3.7
6 Certain disorders involving the immune mechanism (D80 - D89)	58	3.3	58	3.3	58	3.3
7 Malnutrition (E40 - E46)	50	2.8	50	2.8	50	2.8
8 Foetus & newborn affected by maternal factors & complic. of preg., lab. & deliv. (P00 - P04)	49	2.8	49	2.8	49	2.8
9 Infections specific to the perinatal period (P35 - P39)	46	2.6	46	2.6	46	2.6
10 Influenza and pneumonia (J10 - J18)	34	1.9	34	1.9	34	1.9
... Other causes	629	35.6	629	35.6	629	35.6
... All causes	1,766	100.0	1,766	100.0	1,766	100.0
<b>Mpumalanga, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	1,478	13.4	824	13.0	824	13.0
2 Certain disorders involving the immune mechanism (D80 - D89)	839	7.6	422	6.7	422	6.7
3 Influenza and pneumonia (J10 - J18)	751	6.8	377	6.0	377	6.0
4 Human immunodeficiency virus [HIV] diseases (B20 - B24)	645	5.8	306	4.8	306	4.8
5 Intestinal infectious diseases (A00 - A09)	409	3.7	177	2.8	177	2.8
6 Other forms of heart disease (I30 - I52)	302	2.7	148	2.3	148	2.3
7 Cerebrovascular diseases (I60 - I69)	281	2.5	133	2.1	133	2.1
8 Chronic lower respiratory diseases (J40 - J47)	166	1.5	104	1.6	104	1.6
9 Malignant neoplasms of digestive organs (C15 - C26)	163	1.5	104	1.6	104	1.6
10 Diseases of liver (K70 - K77)	157	1.4	96	1.5	96	1.5
... Other causes	5,835	52.9	3,630	57.4	3,630	57.4
... All causes	11,026	100.0	6,321	100.0	6,321	100.0
<b>Mpumalanga, female, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	654	13.9	654	13.9	654	13.9
2 Certain disorders involving the immune mechanism (D80 - D89)	417	8.9	417	8.9	417	8.9
3 Influenza and pneumonia (J10 - J18)	374	7.9	374	7.9	374	7.9
4 Human immunodeficiency virus [HIV] diseases (B20 - B24)	339	7.2	339	7.2	339	7.2
5 Intestinal infectious diseases (A00 - A09)	232	4.9	232	4.9	232	4.9
6 Other forms of heart disease (I30 - I52)	169	3.6	169	3.6	169	3.6
7 Cerebrovascular diseases (I60 - I69)	133	2.8	133	2.8	133	2.8
8 Chronic lower respiratory diseases (J40 - J47)	80	1.7	80	1.7	80	1.7
9 Malignant neoplasms of digestive organs (C15 - C26)	67	1.4	67	1.4	67	1.4
10 Diabetes mellitus (E10 - E14)	65	1.4	65	1.4	65	1.4
... Other causes	2,175	46.2	2,175	46.2	2,175	46.2
... All causes	4,705	100.0	4,705	100.0	4,705	100.0
<b>Mpumalanga, male, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	415	9.7	306	11.8	306	11.8
2 Other forms of heart disease (I30 - I52)	318	7.4	171	6.6	171	6.6
3 Cerebrovascular diseases (I60 - I69)	299	7.0	171	6.6	171	6.6
4 Chronic lower respiratory diseases (J40 - J47)	249	5.8	142	5.5	142	5.5
5 Influenza and pneumonia (J10 - J18)	225	5.2	167	6.5	167	6.5
6 Malignant neoplasms of digestive organs (C15 - C26)	218	5.1	125	4.8	125	4.8
7 Hypertensive diseases (I10 - I15)	217	5.1	110	4.2	110	4.2
8 Malignant neoplasms of digestive organs (C15 - C26)	175	4.1	102	3.9	102	3.9
9 Ischaemic heart diseases (I20 - I25)	165	3.8	91	3.5	91	3.5
10 Diseases of liver (K70 - K77)	132	3.1	90	3.5	90	3.5
... Other causes	1,874	43.7	1,114	43.0	1,114	43.0
... All causes	4,287	100.0	2,589	100.0	2,589	100.0
<b>Mpumalanga, female, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	147	8.7	147	8.7	147	8.7
2 Cerebrovascular diseases (I60 - I69)	134	7.9	134	7.9	134	7.9
3 Other forms of heart disease (I30 - I52)	128	7.5	128	7.5	128	7.5
4 Chronic lower respiratory diseases (J40 - J47)	115	6.8	115	6.8	115	6.8
5 Diabetes mellitus (E10 - E14)	109	6.4	109	6.4	109	6.4
6 Influenza and pneumonia (J10 - J18)	82	4.8	82	4.8	82	4.8
7 Hypertensive diseases (I10 - I15)	76	4.5	76	4.5	76	4.5
8 Malignant neoplasms of digestive organs (C15 - C26)	72	4.2	72	4.2	72	4.2
9 Ischaemic heart diseases (I20 - I25)	55	3.2	55	3.2	55	3.2
10 Diseases of liver (K70 - K77)	50	2.9	50	2.9	50	2.9
... Other causes	730	43.0	730	43.0	730	43.0
... All causes	1,698	100.0	1,698	100.0	1,698	100.0
<b>Mpumalanga, male, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	690	10.4	309	9.8	309	9.8
2 Cerebrovascular diseases (I60 - I69)	690	10.4	295	9.3	295	9.3
3 Hypertensive diseases (I10 - I15)	466	7.0	187	5.9	187	5.9
4 Diabetes mellitus (E10 - E14)	370	5.6	184	5.8	184	5.8
5 Influenza and pneumonia (J10 - J18)	361	5.4	156	4.9	156	4.9
6 Chronic lower respiratory diseases (J40 - J47)	316	4.8	148	4.7	148	4.7
7 Ischaemic heart diseases (I20 - I25)	293	4.4	147	4.6	147	4.6
8 Malignant neoplasms of digestive organs (C15 - C26)	229	3.5	132	4.2	132	4.2
9 Tuberculosis (A15 - A19)	224	3.4	128	4.0	128	4.0
10 Intestinal infectious diseases (A00 - A09)	200	3.0	90	2.8	90	2.8
... Other causes	2,785	42.0	1,382	43.9	1,382	43.9
... All causes	6,624	100.0	3,168	100.0	3,168	100.0
<b>Mpumalanga, female, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	395	11.4	395	11.4	395	11.4
2 Cerebrovascular diseases (I60 - I69)	381	11.0	381	11.0	381	11.0
3 Hypertensive diseases (I10 - I15)	319	9.2	319	9.2	319	9.2
4 Diabetes mellitus (E10 - E14)	222	6.4	222	6.4	222	6.4
5 Influenza and pneumonia (J10 - J18)	177	5.1	177	5.1	177	5.1
6 Chronic lower respiratory diseases (J40 - J47)	161	4.7	161	4.7	161	4.7
7 Ischaemic heart diseases (I20 - I25)	129	3.7	129	3.7	129	3.7
8 Malignant neoplasms of digestive organs (C15 - C26)	110	3.2	110	3.2	110	3.2
9 Tuberculosis (A15 - A19)	101	2.9	101	2.9	101	2.9
10 Intestinal infectious diseases (A00 - A09)	73	2.1	73	2.1	73	2.1
... Other causes	1,388	40.2	1,388	40.2	1,388	40.2
... All causes	3,456	100.0	3,456	100.0	3,456	100.0

## APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 1999, Limpopo

	No.	%	No.	%	No.	%
<b>Limpopo, both sexes, all ages</b>						
1 Tuberculosis (A15 - A19)	1,802	6.3	1,175	7.8	1,175	7.8
2 Influenza and pneumonia (J10 - J18)	1,694	5.9	883	5.9	883	5.9
3 Other forms of heart disease (I30 - I52)	1,430	5.0	669	4.4	669	4.4
4 Cerebrovascular diseases (I60 - I69)	1,380	4.8	598	4.0	598	4.0
5 Intestinal infectious diseases (A00 - A09)	1,120	3.9	509	3.4	509	3.4
6 Hypertensive diseases (I10 - I15)	1,047	3.6	498	3.3	498	3.3
7 Ischaemic heart diseases (I20 - I25)	944	3.3	495	3.3	495	3.3
8 Diabetes mellitus (E10 - E14)	780	2.7	462	3.1	462	3.1
9 Chronic lower respiratory diseases (J40 - J47)	743	2.6	391	2.5	391	2.5
10 Malignant neoplasms of digestive organs (C15 - C26)	688	2.3	381	2.5	381	2.5
... Other causes	17,213	59.7	8,979	59.7	8,979	59.7
... All causes	28,821	100.0	15,040	100.0	15,040	100.0
<b>Limpopo, male, all ages</b>						
1 Tuberculosis (A15 - A19)	1,802	6.3	1,175	7.8	1,175	7.8
2 Influenza and pneumonia (J10 - J18)	1,694	5.9	883	5.9	883	5.9
3 Other forms of heart disease (I30 - I52)	1,430	5.0	669	4.4	669	4.4
4 Cerebrovascular diseases (I60 - I69)	1,380	4.8	598	4.0	598	4.0
5 Intestinal infectious diseases (A00 - A09)	1,120	3.9	509	3.4	509	3.4
6 Hypertensive diseases (I10 - I15)	1,047	3.6	498	3.3	498	3.3
7 Ischaemic heart diseases (I20 - I25)	944	3.3	495	3.3	495	3.3
8 Diabetes mellitus (E10 - E14)	780	2.7	462	3.1	462	3.1
9 Chronic lower respiratory diseases (J40 - J47)	743	2.6	391	2.5	391	2.5
10 Malignant neoplasms of digestive organs (C15 - C26)	688	2.3	381	2.5	381	2.5
... Other causes	17,213	59.7	8,979	59.7	8,979	59.7
... All causes	28,821	100.0	15,040	100.0	15,040	100.0
<b>Limpopo, female, all ages</b>						
1 Tuberculosis (A15 - A19)	1,802	6.3	1,175	7.8	1,175	7.8
2 Influenza and pneumonia (J10 - J18)	1,694	5.9	883	5.9	883	5.9
3 Other forms of heart disease (I30 - I52)	1,430	5.0	669	4.4	669	4.4
4 Cerebrovascular diseases (I60 - I69)	1,380	4.8	598	4.0	598	4.0
5 Intestinal infectious diseases (A00 - A09)	1,120	3.9	509	3.4	509	3.4
6 Hypertensive diseases (I10 - I15)	1,047	3.6	498	3.3	498	3.3
7 Ischaemic heart diseases (I20 - I25)	944	3.3	495	3.3	495	3.3
8 Diabetes mellitus (E10 - E14)	780	2.7	462	3.1	462	3.1
9 Chronic lower respiratory diseases (J40 - J47)	743	2.6	391	2.5	391	2.5
10 Malignant neoplasms of digestive organs (C15 - C26)	688	2.3	381	2.5	381	2.5
... Other causes	17,213	59.7	8,979	59.7	8,979	59.7
... All causes	28,821	100.0	15,040	100.0	15,040	100.0
<b>Limpopo, both sexes, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	490	16.1	285	16.8	285	16.8
2 Digestive system disorders of foetus and newborn (P75 - P78)	314	10.3	156	9.9	156	9.9
3 Intestinal infectious diseases (A00 - A09)	234	7.7	114	7.2	114	7.2
4 Influenza and pneumonia (J10 - J18)	169	5.6	92	5.8	92	5.8
5 Malnutrition (E40 - E46)	119	3.9	54	3.4	54	3.4
6 Other disorders originating in the perinatal period (P90 - P96)	117	3.8	50	3.2	50	3.2
7 Disorders related to length of gestation and foetal growth (P05 - P08)	80	2.6	46	2.9	46	2.9
8 Infections specific to the perinatal period (P35 - P39)	73	2.4	44	2.8	44	2.8
9 Foetus & newborn affected by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	69	2.3	36	2.3	36	2.3
10 Inflammatory diseases of the central nervous system (G00 - G09)	641	22.2	34	2.2	34	2.2
... Other causes	641	21.1	316	20.0	316	20.0
... All causes	3,041	100.0	1,577	100.0	1,577	100.0
<b>Limpopo, male, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	490	16.1	285	16.8	285	16.8
2 Digestive system disorders of foetus and newborn (P75 - P78)	314	10.3	156	9.9	156	9.9
3 Intestinal infectious diseases (A00 - A09)	234	7.7	114	7.2	114	7.2
4 Influenza and pneumonia (J10 - J18)	169	5.6	92	5.8	92	5.8
5 Malnutrition (E40 - E46)	119	3.9	54	3.4	54	3.4
6 Other disorders originating in the perinatal period (P90 - P96)	117	3.8	50	3.2	50	3.2
7 Disorders related to length of gestation and foetal growth (P05 - P08)	80	2.6	46	2.9	46	2.9
8 Infections specific to the perinatal period (P35 - P39)	73	2.4	44	2.8	44	2.8
9 Foetus & newborn affected by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	69	2.3	36	2.3	36	2.3
10 Inflammatory diseases of the central nervous system (G00 - G09)	641	22.2	34	2.2	34	2.2
... Other causes	641	21.1	316	20.0	316	20.0
... All causes	3,041	100.0	1,577	100.0	1,577	100.0
<b>Limpopo, female, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	490	16.1	285	16.8	285	16.8
2 Digestive system disorders of foetus and newborn (P75 - P78)	314	10.3	156	9.9	156	9.9
3 Intestinal infectious diseases (A00 - A09)	234	7.7	114	7.2	114	7.2
4 Influenza and pneumonia (J10 - J18)	169	5.6	92	5.8	92	5.8
5 Malnutrition (E40 - E46)	119	3.9	54	3.4	54	3.4
6 Other disorders originating in the perinatal period (P90 - P96)	117	3.8	50	3.2	50	3.2
7 Disorders related to length of gestation and foetal growth (P05 - P08)	80	2.6	46	2.9	46	2.9
8 Infections specific to the perinatal period (P35 - P39)	73	2.4	44	2.8	44	2.8
9 Foetus & newborn affected by matern. factors & complic. of preg., lab. & deliv. (P00 - P04)	69	2.3	36	2.3	36	2.3
10 Inflammatory diseases of the central nervous system (G00 - G09)	641	22.2	34	2.2	34	2.2
... Other causes	641	21.1	316	20.0	316	20.0
... All causes	3,041	100.0	1,577	100.0	1,577	100.0
<b>Limpopo, both sexes, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	1,116	11.1	661	11.7	661	11.7
2 Influenza and pneumonia (J10 - J18)	817	8.1	391	6.9	391	6.9
3 Intestinal infectious diseases (A00 - A09)	445	4.4	207	3.6	207	3.6
4 Human immunodeficiency virus (HIV) diseases (B20 - B24)	401	4.0	197	3.5	197	3.5
5 Certain disorders involving the immune mechanism (D80 - D89)	359	3.6	161	2.9	161	2.9
6 Other forms of heart disease (I30 - I52)	301	3.0	136	2.4	136	2.4
7 Hypertensive diseases (I10 - I15)	255	2.5	134	2.4	134	2.4
8 Cerebrovascular diseases (I60 - I69)	230	2.3	133	2.4	133	2.4
9 Protozoal diseases (B50 - B64)	217	2.2	120	2.1	120	2.1
10 Chronic lower respiratory diseases (J40 - J47)	198	2.0	119	2.1	119	2.1
... Other causes	2,565	25.5	1,226	21.8	1,226	21.8
... All causes	10,078	100.0	5,632	100.0	5,632	100.0
<b>Limpopo, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	1,116	11.1	661	11.7	661	11.7
2 Influenza and pneumonia (J10 - J18)	817	8.1	391	6.9	391	6.9
3 Intestinal infectious diseases (A00 - A09)	445	4.4	207	3.6	207	3.6
4 Human immunodeficiency virus (HIV) diseases (B20 - B24)	401	4.0	197	3.5	197	3.5
5 Certain disorders involving the immune mechanism (D80 - D89)	359	3.6	161	2.9	161	2.9
6 Other forms of heart disease (I30 - I52)	301	3.0	136	2.4	136	2.4
7 Hypertensive diseases (I10 - I15)	255	2.5	134	2.4	134	2.4
8 Cerebrovascular diseases (I60 - I69)	230	2.3	133	2.4	133	2.4
9 Protozoal diseases (B50 - B64)	217	2.2	120	2.1	120	2.1
10 Chronic lower respiratory diseases (J40 - J47)	198	2.0	119	2.1	119	2.1
... Other causes	2,565	25.5	1,226	21.8	1,226	21.8
... All causes	10,078	100.0	5,632	100.0	5,632	100.0
<b>Limpopo, female, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	1,116	11.1	661	11.7	661	11.7
2 Influenza and pneumonia (J10 - J18)	817	8.1	391	6.9	391	6.9
3 Intestinal infectious diseases (A00 - A09)	445	4.4	207	3.6	207	3.6
4 Human immunodeficiency virus (HIV) diseases (B20 - B24)	401	4.0	197	3.5	197	3.5
5 Certain disorders involving the immune mechanism (D80 - D89)	359	3.6	161	2.9	161	2.9
6 Other forms of heart disease (I30 - I52)	301	3.0	136	2.4	136	2.4
7 Hypertensive diseases (I10 - I15)	255	2.5	134	2.4	134	2.4
8 Cerebrovascular diseases (I60 - I69)	230	2.3	133	2.4	133	2.4
9 Protozoal diseases (B50 - B64)	217	2.2	120	2.1	120	2.1
10 Chronic lower respiratory diseases (J40 - J47)	198	2.0	119	2.1	119	2.1
... Other causes	2,565	25.5	1,226	21.8	1,226	21.8
... All causes	10,078	100.0	5,632	100.0	5,632	100.0
<b>Limpopo, both sexes, 50-64 years</b>						
1 Hypertensive diseases (I10 - I15)	368	7.2	293	9.4	293	9.4
2 Tuberculosis (A15 - A19)	366	7.2	200	6.4	200	6.4
3 Cerebrovascular diseases (I60 - I69)	321	6.3	181	5.8	181	5.8
4 Other forms of heart disease (I30 - I52)	306	6.0	172	5.5	172	5.5
5 Ischaemic heart diseases (I20 - I25)	271	5.3	152	4.9	152	4.9
6 Influenza and pneumonia (J10 - J18)	224	4.4	150	4.8	150	4.8
7 Diabetes mellitus (E10 - E14)	222	4.4	147	4.7	147	4.7
8 Malignant neoplasms of digestive organs (C15 - C26)	216	4.2	129	4.1	129	4.1
9 Chronic lower respiratory diseases (J40 - J47)	187	3.7	117	3.8	117	3.8
10 Diseases of liver (K70 - K77)	168	3.3	109	3.5	109	3.5
... Other causes	1,412	27.8	817	26.2	817	26.2
... All causes	5,084	100.0	3,117	100.0	3,117	100.0
<b>Limpopo, male, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	368	7.2	293	9.4	293	9.4
2 Hypertensive diseases (I10 - I15)	366	7.2	200	6.4	200	6.4
3 Other forms of heart disease (I30 - I52)	321	6.3	181	5.8	181	5.8
4 Ischaemic heart diseases (I20 - I25)	306	6.0	172	5.5	172	5.5
5 Cerebrovascular diseases (I60 - I69)	271	5.3	152	4.9	152	4.9
6 Malignant neoplasms of digestive organs (C15 - C26)	224	4.4	150	4.8	150	4.8
7 Influenza and pneumonia (J10 - J18)	222	4.4	147	4.7	147	4.7
8 Chronic lower respiratory diseases (J40 - J47)	216	4.2	129	4.1	129	4.1
9 Chronic lower respiratory diseases (J40 - J47)	187	3.7	117	3.8	117	3.8
10 Diabetes mellitus (E10 - E14)	168	3.3	109	3.5	109	3.5
... Other causes	1,412	27.8	817	26.2	817	26.2
... All causes	5,084	100.0	3,117	100.0	3,117	100.0
<b>Limpopo, female, 50-64 years</b>						
1 Hypertensive diseases (I10 - I15)	368	7.2	293	9.4	293	9.4
2 Tuberculosis (A15 - A19)	366	7.2	200	6.4	200	6.4
3 Cerebrovascular diseases (I60 - I69)	321	6.3	181	5.8	181	5.8
4 Other forms of heart disease (I30 - I52)	306	6.0	172	5.5	172	5.5
5 Ischaemic heart diseases (I20 - I25)	271	5.3	152	4.9	152	4.9
6 Influenza and pneumonia (J10 - J18)	224	4.4	150	4.8	150	4.8
7 Diabetes mellitus (E10 - E14)	222	4.4	147	4.7	147	4.7
8 Malignant neoplasms of digestive organs (C15 - C26)	216	4.2	129	4.1	129	4.1
9 Chronic lower respiratory diseases (J40 - J47)	187	3.7	117	3.8	117	3.8
10 Diseases of liver (K70 - K77)	168	3.3	109	3.5	109	3.5
... Other causes	1,412	27.8	817	26.2	817	26.2
... All causes	5,084	100.0	3,117	100.0	3,117	100.0

### APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 2001, South Africa

	No.	%	No.	%	No.	%
<b>All provinces, both sexes, all ages</b>						
1 Tuberculosis (A15 - A19)	50,402	11.2	28,892	12.3	21,510	10.1
2 Influenza and pneumonia (J10 - J18)	31,255	7.0	14,911	6.4	16,344	7.6
3 Other forms of heart disease (I30 - I52)	22,496	5.0	10,326	4.4	13,050	6.1
4 Cerebrovascular diseases (I60 - I69)	22,474	5.0	9,424	4.0	12,170	5.7
5 Intestinal infectious diseases (A00 - A09)	16,915	3.6	8,765	3.7	8,855	4.1
6 Chronic lower respiratory diseases (J40 - J47)	14,597	3.3	7,080	3.0	8,828	4.1
7 Diabetes mellitus (E10 - E14)	14,499	3.2	6,815	2.9	6,623	3.1
8 Ischaemic heart diseases (I20 - I25)	11,739	2.6	5,671	2.4	6,367	3.0
9 Certain disorders involving the immune mechanism (D80 - D89)	11,568	2.6	5,523	2.4	5,832	2.7
10 Hypertensive diseases (I10 - I15)	10,704	2.4	5,201	2.2	4,924	2.3
... Other causes	242,659	54.1	132,051	56.3	109,166	51.1
... All causes	448,308	100.0	234,639	100.0	213,669	100.0
<b>All provinces, male, all ages</b>						
1 Tuberculosis (A15 - A19)	28,892	11.2	14,911	6.4	14,911	6.4
2 Influenza and pneumonia (J10 - J18)	14,911	6.4	7,080	3.0	7,080	3.0
3 Other forms of heart disease (I30 - I52)	10,326	4.4	4,924	2.0	4,924	2.0
4 Cerebrovascular diseases (I60 - I69)	9,424	4.0	4,213	1.8	4,213	1.8
5 Intestinal infectious diseases (A00 - A09)	8,765	3.7	4,080	1.7	4,080	1.7
6 Chronic lower respiratory diseases (J40 - J47)	7,080	3.0	3,375	1.5	3,375	1.5
7 Diabetes mellitus (E10 - E14)	6,815	2.9	3,151	1.4	3,151	1.4
8 Ischaemic heart diseases (I20 - I25)	5,671	2.4	2,591	1.1	2,591	1.1
9 Certain disorders involving the immune mechanism (D80 - D89)	5,523	2.4	2,491	1.1	2,491	1.1
10 Hypertensive diseases (I10 - I15)	5,201	2.2	2,375	1.0	2,375	1.0
... Other causes	132,051	56.3	63,375	27.0	63,375	27.0
... All causes	234,639	100.0	118,375	50.0	118,375	50.0
<b>All provinces, female, all ages</b>						
1 Tuberculosis (A15 - A19)	28,892	12.3	14,911	6.4	14,911	6.4
2 Influenza and pneumonia (J10 - J18)	14,911	6.4	7,080	3.0	7,080	3.0
3 Other forms of heart disease (I30 - I52)	10,326	4.4	4,924	2.0	4,924	2.0
4 Cerebrovascular diseases (I60 - I69)	9,424	4.0	4,213	1.8	4,213	1.8
5 Intestinal infectious diseases (A00 - A09)	8,765	3.7	4,080	1.7	4,080	1.7
6 Chronic lower respiratory diseases (J40 - J47)	7,080	3.0	3,375	1.5	3,375	1.5
7 Diabetes mellitus (E10 - E14)	6,815	2.9	3,151	1.4	3,151	1.4
8 Ischaemic heart diseases (I20 - I25)	5,671	2.4	2,591	1.1	2,591	1.1
9 Certain disorders involving the immune mechanism (D80 - D89)	5,523	2.4	2,491	1.1	2,491	1.1
10 Hypertensive diseases (I10 - I15)	5,201	2.2	2,375	1.0	2,375	1.0
... Other causes	132,051	56.3	63,375	27.0	63,375	27.0
... All causes	234,639	100.0	118,375	50.0	118,375	50.0
<b>All provinces, both sexes, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	9,297	19.2	4,838	18.9	4,459	19.5
2 Digestive system disorders of foetus and newborn (P75 - P78)	5,445	11.2	2,880	11.2	2,565	11.2
3 Other disorders originating in the perinatal period (P90 - P96)	3,381	7.0	1,754	6.8	1,627	7.1
4 Intestinal infectious diseases (A00 - A09)	2,793	5.8	1,442	5.6	1,351	5.9
5 Influenza and pneumonia (J10 - J18)	1,916	3.9	939	3.7	897	4.3
6 Certain disorders involving the immune mechanism (D80 - D89)	1,768	3.6	870	3.4	898	3.9
7 Infections specific to the perinatal period (P35 - P39)	1,604	3.3	856	3.3	748	3.3
8 Malnutrition (E40 - E46)	1,495	3.1	865	3.0	730	3.2
9 Disorders related to length of gestation and foetal growth (P05 - P08)	1,401	2.9	748	2.9	653	2.9
10 Tuberculosis (A15 - A19)	1,109	2.3	590	2.3	519	2.3
... Other causes	18,299	37.7	9,954	38.8	8,345	36.5
... All causes	48,508	100.0	25,636	100.0	22,872	100.0
<b>All provinces, male, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	9,297	19.2	4,838	18.9	4,459	19.5
2 Digestive system disorders of foetus and newborn (P75 - P78)	5,445	11.2	2,880	11.2	2,565	11.2
3 Other disorders originating in the perinatal period (P90 - P96)	3,381	7.0	1,754	6.8	1,627	7.1
4 Intestinal infectious diseases (A00 - A09)	2,793	5.8	1,442	5.6	1,351	5.9
5 Influenza and pneumonia (J10 - J18)	1,916	3.9	939	3.7	897	4.3
6 Certain disorders involving the immune mechanism (D80 - D89)	1,768	3.6	870	3.4	898	3.9
7 Infections specific to the perinatal period (P35 - P39)	1,604	3.3	856	3.3	748	3.3
8 Malnutrition (E40 - E46)	1,495	3.1	865	3.0	730	3.2
9 Disorders related to length of gestation and foetal growth (P05 - P08)	1,401	2.9	748	2.9	653	2.9
10 Tuberculosis (A15 - A19)	1,109	2.3	590	2.3	519	2.3
... Other causes	18,299	37.7	9,954	38.8	8,345	36.5
... All causes	48,508	100.0	25,636	100.0	22,872	100.0
<b>All provinces, female, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	9,297	19.2	4,838	18.9	4,459	19.5
2 Digestive system disorders of foetus and newborn (P75 - P78)	5,445	11.2	2,880	11.2	2,565	11.2
3 Other disorders originating in the perinatal period (P90 - P96)	3,381	7.0	1,754	6.8	1,627	7.1
4 Intestinal infectious diseases (A00 - A09)	2,793	5.8	1,442	5.6	1,351	5.9
5 Influenza and pneumonia (J10 - J18)	1,916	3.9	939	3.7	897	4.3
6 Certain disorders involving the immune mechanism (D80 - D89)	1,768	3.6	870	3.4	898	3.9
7 Infections specific to the perinatal period (P35 - P39)	1,604	3.3	856	3.3	748	3.3
8 Malnutrition (E40 - E46)	1,495	3.1	865	3.0	730	3.2
9 Disorders related to length of gestation and foetal growth (P05 - P08)	1,401	2.9	748	2.9	653	2.9
10 Tuberculosis (A15 - A19)	1,109	2.3	590	2.3	519	2.3
... Other causes	18,299	37.7	9,954	38.8	8,345	36.5
... All causes	48,508	100.0	25,636	100.0	22,872	100.0
<b>All provinces, both sexes, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	37,798	19.0	20,325	18.7	17,473	19.3
2 Influenza and pneumonia (J10 - J18)	18,575	9.3	8,405	7.7	10,170	11.2
3 Certain disorders involving the immune mechanism (D80 - D89)	8,925	4.5	3,835	3.5	5,090	5.6
4 Intestinal infectious diseases (A00 - A09)	8,536	4.3	3,545	3.3	4,991	5.5
5 Human immunodeficiency virus [HIV] diseases (B20 - B24)	7,545	3.8	3,542	3.3	4,003	4.4
6 Other forms of heart disease (I30 - I52)	5,861	2.8	2,809	2.6	2,852	3.1
7 Cerebrovascular diseases (I60 - I69)	3,824	1.9	1,882	1.7	2,160	2.4
8 Other viral diseases (B25 - B34)	3,679	1.8	1,656	1.5	1,942	2.1
9 Chronic lower respiratory diseases (J40 - J47)	3,079	1.5	1,519	1.4	1,473	1.6
10 Inflammatory diseases of the central nervous system (G00 - G09)	2,968	1.5	1,485	1.4	1,423	1.6
... Other causes	98,689	49.5	59,533	54.9	39,156	43.2
... All causes	199,269	100.0	108,536	100.0	90,733	100.0
<b>All provinces, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	37,798	19.0	20,325	18.7	17,473	19.3
2 Influenza and pneumonia (J10 - J18)	18,575	9.3	8,405	7.7	10,170	11.2
3 Certain disorders involving the immune mechanism (D80 - D89)	8,925	4.5	3,835	3.5	5,090	5.6
4 Intestinal infectious diseases (A00 - A09)	8,536	4.3	3,545	3.3	4,991	5.5
5 Human immunodeficiency virus [HIV] diseases (B20 - B24)	7,545	3.8	3,542	3.3	4,003	4.4
6 Other forms of heart disease (I30 - I52)	5,861	2.8	2,809	2.6	2,852	3.1
7 Cerebrovascular diseases (I60 - I69)	3,824	1.9	1,882	1.7	2,160	2.4
8 Other viral diseases (B25 - B34)	3,679	1.8	1,656	1.5	1,942	2.1
9 Chronic lower respiratory diseases (J40 - J47)	3,079	1.5	1,519	1.4	1,473	1.6
10 Inflammatory diseases of the central nervous system (G00 - G09)	2,968	1.5	1,485	1.4	1,423	1.6
... Other causes	98,689	49.5	59,533	54.9	39,156	43.2
... All causes	199,269	100.0	108,536	100.0	90,733	100.0
<b>All provinces, female, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	37,798	19.0	20,325	18.7	17,473	19.3
2 Influenza and pneumonia (J10 - J18)	18,575	9.3	8,405	7.7	10,170	11.2
3 Certain disorders involving the immune mechanism (D80 - D89)	8,925	4.5	3,835	3.5	5,090	5.6
4 Intestinal infectious diseases (A00 - A09)	8,536	4.3	3,545	3.3	4,991	5.5
5 Human immunodeficiency virus [HIV] diseases (B20 - B24)	7,545	3.8	3,542	3.3	4,003	4.4
6 Other forms of heart disease (I30 - I52)	5,861	2.8	2,809	2.6	2,852	3.1
7 Cerebrovascular diseases (I60 - I69)	3,824	1.9	1,882	1.7	2,160	2.4
8 Other viral diseases (B25 - B34)	3,679	1.8	1,656	1.5	1,942	2.1
9 Chronic lower respiratory diseases (J40 - J47)	3,079	1.5	1,519	1.4	1,473	1.6
10 Inflammatory diseases of the central nervous system (G00 - G09)	2,968	1.5	1,485	1.4	1,423	1.6
... Other causes	98,689	49.5	59,533	54.9	39,156	43.2
... All causes	199,269	100.0	108,536	100.0	90,733	100.0
<b>All provinces, both sexes, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	7,546	9.8	5,432	11.8	2,854	9.2
2 Cerebrovascular diseases (I60 - I69)	5,702	7.4	2,848	6.2	2,672	8.6
3 Other forms of heart disease (I30 - I52)	4,859	6.3	2,792	6.1	2,191	7.0
4 Diabetes mellitus (E10 - E14)	4,721	6.1	2,668	5.8	2,114	6.8
5 Chronic lower respiratory diseases (J40 - J47)	4,179	5.4	2,576	5.6	1,541	5.0
6 Influenza and pneumonia (J10 - J18)	4,117	5.3	2,282	4.9	1,520	4.9
7 Ischaemic heart diseases (I20 - I25)	3,322	4.3	2,069	4.5	1,387	4.5
8 Malignant neoplasms of digestive organs (C15 - C26)	3,156	4.1	2,049	4.4	1,169	3.8
9 Hypertensive diseases (I10 - I15)	2,852	3.7	1,511	3.3	1,087	3.5
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	2,009	2.6	1,332	2.9	1,040	3.3
... Other causes	34,755	45.0	20,569	44.6	13,515	43.5
... All causes	77,218	100.0	46,128	100.0	31,090	100.0
<b>All provinces, male, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	7,546	9.8	5,432	11.8	2,854	9.2
2 Cerebrovascular diseases (I60 - I69)	5,702	7.4	2,848	6.2	2,672	8.6
3 Other forms of heart disease (I30 - I52)	4,859	6.3	2,792	6.1	2,191	7.0
4 Diabetes mellitus (E10 - E14)	4,721	6.1	2,668	5.8	2,114	6.8
5 Chronic lower respiratory diseases (J40 - J47)	4,179	5.4	2,576	5.6	1,541	5.0
6 Influenza and pneumonia (J10 - J18)	4,117	5.3	2,282	4.9	1,520	4.9
7 Ischaemic heart diseases (I20 - I25)	3,322	4.3	2,069	4.5	1,387	4.5
8 Malignant neoplasms of digestive organs (C15 - C26)	3,156	4.1	2,049	4.4	1,169	3.8
9 Hypertensive diseases (I10 - I15)	2,852	3.7	1,511	3.3	1,087	3.5
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	2,009	2.6	1,332	2.9	1,040	3.3
... Other causes	34,755	45.0	20,569	44.6	13,515	43.5
... All causes	77,218	100.0	46,128	100.0	31,090	100.0
<b>All provinces, female, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	7,546	9.8	5,432	11.8	2,854	9.2
2 Cerebrovascular diseases (I60 - I69)	5,702	7.4	2,848	6.2	2,672	8.6
3 Other forms of heart disease (I30 - I52)	4,859	6.3	2,792	6.1	2,191	7.0
4 Diabetes mellitus (E10 - E14)	4,721	6.1	2,6			

## APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 2001, Western Cape

	Western Cape, both sexes, all ages		Western Cape, male, all ages		Western Cape, female, all ages			
	No.	%	No.	%	No.	%		
1 Tuberculosis (A15 - A19)	3,378	8.3	1 Tuberculosis (A15 - A19)	2,123	9.2	1 Cerebrovascular diseases (I60 - I69)	1,482	8.3
2 Ischaemic heart diseases (I20 - I25)	2,743	6.7	2 Ischaemic heart diseases (I20 - I25)	1,585	6.9	2 Diabetes mellitus (E10 - E14)	1,353	7.6
3 Cerebrovascular diseases (I60 - I69)	2,657	6.5	3 Cerebrovascular diseases (I60 - I69)	1,175	5.1	3 Tuberculosis (A15 - A19)	1,255	7.1
4 Diabetes mellitus (E10 - E14)	2,219	5.4	4 Chronic lower respiratory diseases (J40 - J47)	1,147	5.0	4 Ischaemic heart diseases (I20 - I25)	1,157	6.5
5 Chronic lower respiratory diseases (J40 - J47)	1,752	4.3	5 Malignant neoplasms of digestive organs (C15 - C26)	946	4.1	5 Other forms of heart disease (I30 - I52)	937	5.3
6 Other forms of heart disease (I30 - I52)	1,686	4.1	6 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	941	4.1	6 Malignant neoplasms of digestive organs (C15 - C26)	643	3.6
7 Malignant neoplasms of digestive organs (C15 - C26)	1,589	3.9	7 Diabetes mellitus (E10 - E14)	866	3.8	7 Chronic lower respiratory diseases (J40 - J47)	605	3.4
8 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	1,358	3.3	8 Other forms of heart disease (I30 - I52)	749	3.2	8 Human immunodeficiency virus [HIV] diseases (B20 - B24)	560	3.2
9 Human immunodeficiency virus [HIV] diseases (B20 - B24)	1,044	2.6	9 Other forms of heart disease (I30 - I52)	487	2.1	9 Hypertensive diseases (I10 - I15)	543	3.1
10 Influenza and pneumonia (J10 - J18)	976	2.4	10 Influenza and pneumonia (J10 - J18)	484	2.1	10 Influenza and pneumonia (J10 - J18)	489	2.8
... Other causes	21,401	52.4	... Other causes	12,547	54.4	... Other causes	8,728	49.2
... All causes	40,803	100.0	... All causes	23,050	100.0	... All causes	17,753	100.0
<b>Western Cape, both sexes, 0-14 years</b>								
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	451	13.7	1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	245	13.6	1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	206	13.7
2 Digestive system disorders of foetus and newborn (P75 - P78)	310	9.4	2 Digestive system disorders of foetus and newborn (P75 - P78)	150	8.3	2 Digestive system disorders of foetus and newborn (P75 - P78)	160	10.7
3 Other disorders originating in the perinatal period (P90 - P96)	284	8.6	3 Other disorders originating in the perinatal period (P90 - P96)	146	8.1	3 Other disorders originating in the perinatal period (P90 - P96)	138	9.2
4 Human immunodeficiency virus [HIV] diseases (B20 - B24)	186	4.4	4 Infections specific to the perinatal period (P35 - P39)	86	4.8	4 Human immunodeficiency virus [HIV] diseases (B20 - B24)	65	4.3
5 Disorders related to length of gestation and foetal growth (P05 - P08)	138	4.2	5 Disorders related to length of gestation and foetal growth (P05 - P08)	82	4.6	5 Disorders related to length of gestation and foetal growth (P05 - P08)	56	3.7
6 Infections specific to the perinatal period (P35 - P39)	138	4.2	6 Human immunodeficiency virus [HIV] diseases (B20 - B24)	81	4.5	6 Infections specific to the perinatal period (P35 - P39)	52	3.5
7 Other forms of heart disease (I30 - I52)	91	2.8	7 Certain disorders involving the immune mechanism (D80 - D89)	51	2.8	7 Intestinal infectious diseases (A00 - A09)	43	2.9
8 Intestinal infectious diseases (A00 - A09)	91	2.8	8 Intestinal infectious diseases (A00 - A09)	48	2.7	8 Certain disorders involving the immune mechanism (D80 - D89)	40	2.7
9 Certain disorders involving the immune mechanism (D80 - D89)	71	2.2	9 Congenital malformations of the circulatory system (Q20 - Q28)	42	2.3	9 Tuberculosis (A15 - A19)	37	2.5
10 Congenital malformations of the circulatory system (Q20 - Q28)	63	1.9	10 Malnutrition (E40 - E46)	33	1.8	10 Other viral diseases (B25 - B34)	32	2.1
1 Tuberculosis (A15 - A19)	62	1.9	... Other causes	836	46.4	... Other causes	671	44.7
2 Other viral diseases (B25 - B34)	56	1.7	... All causes	1,800	100.0	... All causes	1,500	100.0
3 Other causes	1,399	42.4						
... All causes	3,300	100.0						
<b>Western Cape, male, 15-49 years</b>								
1 Tuberculosis (A15 - A19)	2,288	15.9	1 Tuberculosis (A15 - A19)	1,351	14.6	1 Tuberculosis (A15 - A19)	937	18.1
2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	796	5.5	2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	344	3.7	2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	454	8.8
3 Certain disorders involving the immune mechanism (D80 - D89)	327	2.3	3 Ischaemic heart diseases (I20 - I25)	219	2.4	3 Certain disorders involving the immune mechanism (D80 - D89)	188	3.6
4 Influenza and pneumonia (J10 - J18)	319	2.2	4 Other forms of heart disease (I30 - I52)	162	1.8	4 Cerebrovascular diseases (I60 - I69)	161	3.1
5 Cerebrovascular diseases (I60 - I69)	313	2.2	5 Influenza and pneumonia (J10 - J18)	162	1.8	5 Other viral diseases (B25 - B34)	160	3.1
6 Ischaemic heart diseases (I20 - I25)	299	2.1	6 Malignant neoplasms of digestive organs (C15 - C26)	162	1.8	6 Influenza and pneumonia (J10 - J18)	157	3.0
7 Other viral diseases (B25 - B34)	283	2.0	7 Chronic lower respiratory diseases (J40 - J47)	161	1.7	7 Malignant neoplasms of breast (C50)	121	2.3
8 Chronic lower respiratory diseases (J40 - J47)	276	1.9	8 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	155	1.7	8 Chronic lower respiratory diseases (J40 - J47)	115	2.2
9 Other forms of heart disease (I30 - I52)	272	1.9	9 Certain disorders involving the immune mechanism (D80 - D89)	152	1.6	9 Malignant neoplasms of female genital organs (C51 - C58)	114	2.2
10 Malignant neoplasms of digestive organs (C15 - C26)	244	1.7	10 Diseases of liver (K70 - K77)	139	1.5	10 Other forms of heart disease (I30 - I52)	110	2.1
... Other causes	8,999	62.4	... Other causes	124	1.3	... Other causes	2,847	51.3
... All causes	14,418	100.0	... All causes	6,123	66.2	... All causes	5,164	100.0
<b>Western Cape, female, 15-49 years</b>								
1 Tuberculosis (A15 - A19)	2,288	15.9	1 Tuberculosis (A15 - A19)	1,351	14.6	1 Tuberculosis (A15 - A19)	937	18.1
2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	796	5.5	2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	344	3.7	2 Human immunodeficiency virus [HIV] diseases (B20 - B24)	454	8.8
3 Certain disorders involving the immune mechanism (D80 - D89)	327	2.3	3 Ischaemic heart diseases (I20 - I25)	219	2.4	3 Certain disorders involving the immune mechanism (D80 - D89)	188	3.6
4 Influenza and pneumonia (J10 - J18)	319	2.2	4 Other forms of heart disease (I30 - I52)	162	1.8	4 Cerebrovascular diseases (I60 - I69)	161	3.1
5 Cerebrovascular diseases (I60 - I69)	313	2.2	5 Influenza and pneumonia (J10 - J18)	162	1.8	5 Other viral diseases (B25 - B34)	160	3.1
6 Ischaemic heart diseases (I20 - I25)	299	2.1	6 Malignant neoplasms of digestive organs (C15 - C26)	162	1.8	6 Influenza and pneumonia (J10 - J18)	157	3.0
7 Other viral diseases (B25 - B34)	283	2.0	7 Chronic lower respiratory diseases (J40 - J47)	161	1.7	7 Malignant neoplasms of breast (C50)	121	2.3
8 Chronic lower respiratory diseases (J40 - J47)	276	1.9	8 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	155	1.7	8 Chronic lower respiratory diseases (J40 - J47)	115	2.2
9 Other forms of heart disease (I30 - I52)	272	1.9	9 Certain disorders involving the immune mechanism (D80 - D89)	152	1.6	9 Malignant neoplasms of female genital organs (C51 - C58)	114	2.2
10 Malignant neoplasms of digestive organs (C15 - C26)	244	1.7	10 Diseases of liver (K70 - K77)	139	1.5	10 Other forms of heart disease (I30 - I52)	110	2.1
... Other causes	8,999	62.4	... Other causes	124	1.3	... Other causes	2,847	51.3
... All causes	14,418	100.0	... All causes	6,123	66.2	... All causes	5,164	100.0
<b>Western Cape, both sexes, 50-64 years</b>								
1 Ischaemic heart diseases (I20 - I25)	739	8.7	1 Tuberculosis (A15 - A19)	524	10.1	1 Diabetes mellitus (E10 - E14)	396	11.9
2 Tuberculosis (A15 - A19)	715	8.4	2 Ischaemic heart diseases (I20 - I25)	507	9.7	2 Cerebrovascular diseases (I60 - I69)	313	9.4
3 Diabetes mellitus (E10 - E14)	689	8.1	3 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	403	7.7	3 Ischaemic heart diseases (I20 - I25)	232	7.0
4 Cerebrovascular diseases (I60 - I69)	651	7.6	4 Chronic lower respiratory diseases (J40 - J47)	401	7.7	4 Tuberculosis (A15 - A19)	191	5.7
5 Chronic lower respiratory diseases (J40 - J47)	584	6.8	5 Cerebrovascular diseases (I60 - I69)	338	6.5	5 Chronic lower respiratory diseases (J40 - J47)	183	5.5
6 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	564	6.6	6 Malignant neoplasms of digestive organs (C15 - C26)	332	6.4	6 Malignant neoplasms of digestive organs (C15 - C26)	172	5.2
7 Malignant neoplasms of digestive organs (C15 - C26)	534	5.9	7 Diabetes mellitus (E10 - E14)	293	5.6	7 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	161	4.8
8 Other forms of heart disease (I30 - I52)	509	4.0	8 Other forms of heart disease (I30 - I52)	188	3.6	8 Other forms of heart disease (I30 - I52)	151	4.5
9 Hypertensive diseases (I10 - I15)	213	2.5	9 Influenza and pneumonia (J10 - J18)	118	2.3	9 Malignant neoplasms of female genital organs (C51 - C58)	143	4.3
10 Influenza and pneumonia (J10 - J18)	172	2.0	10 Diseases of liver (K70 - K77)	113	2.2	10 Malignant neoplasms of breast (C50)	136	4.1
... Other causes	3,356	39.4	... Other causes	1,986	38.2	... Other causes	1,245	37.5
... All causes	8,526	100.0	... All causes	5,203	100.0	... All causes	3,323	100.0
<b>Western Cape, male, 65 years and above</b>								
1 Ischaemic heart diseases (I20 - I25)	1,704	11.7	1 Ischaemic heart diseases (I20 - I25)	859	12.6	1 Cerebrovascular diseases (I60 - I69)	1,006	13.0
2 Cerebrovascular diseases (I60 - I69)	1,686	11.6	2 Cerebrovascular diseases (I60 - I69)	680	10.0	2 Diabetes mellitus (E10 - E14)	858	11.0
3 Diabetes mellitus (E10 - E14)	1,324	9.1	3 Chronic lower respiratory diseases (J40 - J47)	579	8.5	3 Ischaemic heart diseases (I20 - I25)	845	10.9
4 Other forms of heart disease (I30 - I52)	1,056	7.3	4 Diabetes mellitus (E10 - E14)	466	6.9	4 Other forms of heart disease (I30 - I52)	665	8.6
5 Chronic lower respiratory diseases (J40 - J47)	885	6.1	5 Malignant neoplasms of digestive organs (C15 - C26)	449	6.6	5 Malignant neoplasms of digestive organs (C15 - C26)	389	5.0
6 Malignant neoplasms of digestive organs (C15 - C26)	838	5.8	6 Other forms of heart disease (I30 - I52)	391	5.8	6 Hypertensive diseases (I10 - I15)	372	4.8
7 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	583	4.0	7 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	382	5.6	7 Chronic lower respiratory diseases (J40 - J47)	306	3.9
8 Hypertensive diseases (I10 - I15)	529	3.6	8 Malignant neoplasms of female genital organs (C50 - C63)	244	3.6	8 Influenza and pneumonia (J10 - J18)	253	3.3
9 Influenza and pneumonia (J10 - J18)	446	3.1	9 Tuberculosis (A15 - A19)	222	3.3	9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	201	2.6
10 Tuberculosis (A15 - A19)	312	2.1	10 Influenza and pneumonia (J10 - J18)	193	2.8	10 Malignant neoplasms of breast (C50)	182	2.3
... Other causes	5,196	35.7	... Other causes	2,328	34.3	... Other causes	2,689	34.6
... All causes	14,559	100.0	... All causes	6,793	100.0	... All causes	7,766	100.0

## APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 2001, Eastern Cape

	Eastern Cape, both sexes, all ages		Eastern Cape, male, all ages		Eastern Cape, female, all ages	
	No.	%	No.	%	No.	%
1 Tuberculosis (A15 - A19)	8,539	13.1	4,754	14.4	3,785	11.8
2 Chronic lower respiratory diseases (J40 - J47)	3,380	5.2	1,908	5.8	1,983	6.2
3 Cerebrovascular diseases (I60 - I69)	3,342	5.1	1,376	4.2	1,750	5.5
4 Other forms of heart disease (I30 - I52)	3,112	4.8	1,362	4.1	1,651	5.1
5 Influenza and pneumonia (J10 - J18)	3,027	4.6	1,359	4.1	1,472	4.6
6 Diabetes mellitus (E10 - E14)	2,054	3.2	1,020	3.1	1,310	4.1
7 Malignant neoplasms of digestive organs (C15 - C26)	1,868	2.9	744	2.3	1,035	3.2
8 Intestinal infectious diseases (A00 - A09)	1,758	2.7	723	2.2	1,034	3.2
9 Hypertensive diseases (I10 - I15)	1,612	2.5	578	1.7	848	2.6
10 Certain disorders involving the immune mechanism (D80 - D89)	1,235	1.9	552	1.7	740	2.3
... Other causes	35,233	54.1	18,686	56.5	16,490	51.4
... All causes	65,160	100.0	33,062	100.0	32,098	100.0
<b>Eastern Cape, both sexes, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	701	14.5	355	13.6	346	15.5
2 Digestive system disorders of foetus and newborn (P75 - P78)	465	9.6	236	9.0	229	10.3
3 Other disorders originating in the perinatal period (P90 - P96)	295	6.1	158	6.0	137	6.2
4 Intestinal infectious diseases (A00 - A09)	245	5.1	126	4.8	126	5.7
5 Certain disorders involving the immune mechanism (D80 - D89)	230	4.7	104	4.0	119	5.3
6 Tuberculosis (A15 - A19)	173	3.6	100	3.8	73	3.3
7 Malnutrition (E40 - E46)	140	2.9	79	3.0	69	3.1
8 Infections specific to the perinatal period (P35 - P39)	140	2.9	79	3.0	61	2.7
9 Influenza and pneumonia (J10 - J18)	139	2.9	70	2.7	61	2.7
10 Human immunodeficiency virus [HIV] diseases (B20 - B24)	102	2.1	51	1.9	58	2.3
11 Disorders related to length of gestation and foetal growth (P05 - P08)	81	1.7	47	1.8	31	1.4
... Other causes	2,135	44.1	1,214	46.4	917	41.2
... All causes	4,846	100.0	2,619	100.0	2,227	100.0
<b>Eastern Cape, both sexes, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	5,519	20.7	2,823	20.2	2,696	21.3
2 Influenza and pneumonia (J10 - J18)	1,514	5.7	624	4.5	890	7.0
3 Human immunodeficiency virus [HIV] diseases (B20 - B24)	983	3.7	361	2.6	649	5.1
4 Intestinal infectious diseases (A00 - A09)	936	3.5	337	2.4	599	4.7
5 Certain disorders involving the immune mechanism (D80 - D89)	925	3.5	334	2.4	564	4.4
6 Other forms of heart disease (I30 - I52)	649	2.4	322	2.3	373	2.9
7 Chronic lower respiratory diseases (J40 - J47)	604	2.3	312	2.2	327	2.6
8 Other viral diseases (B25 - B34)	576	2.2	289	1.9	292	2.3
9 Cerebrovascular diseases (I60 - I69)	518	1.9	245	1.7	273	2.2
10 Episodic and paroxysmal disorders (G40 - G47)	431	1.6	203	1.4	182	1.4
... Other causes	14,033	52.6	8,174	58.4	5,839	46.0
... All causes	26,688	100.0	14,004	100.0	12,684	100.0
<b>Eastern Cape, both sexes, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	1,515	12.6	1,060	15.2	455	9.0
2 Chronic lower respiratory diseases (J40 - J47)	841	7.0	546	7.8	432	8.5
3 Cerebrovascular diseases (I60 - I69)	827	6.9	395	5.7	397	7.8
4 Other forms of heart disease (I30 - I52)	716	6.0	373	5.4	343	6.8
5 Diabetes mellitus (E10 - E14)	654	5.4	352	5.1	295	5.8
6 Malignant neoplasms of digestive organs (C15 - C26)	608	5.1	261	3.7	256	5.1
7 Influenza and pneumonia (J10 - J18)	431	3.6	257	3.7	229	4.5
8 Hypertensive diseases (I10 - I15)	413	3.4	244	3.5	170	3.4
9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	306	2.5	184	2.6	166	3.3
10 Ischaemic heart diseases (I20 - I25)	282	2.3	176	2.5	106	2.1
... Other causes	5,433	45.2	3,115	44.7	2,214	43.7
... All causes	12,026	100.0	6,963	100.0	5,063	100.0
<b>Eastern Cape, both sexes, 65 years and over</b>						
1 Cerebrovascular diseases (I60 - I69)	1,984	9.2	1,034	10.9	1,273	10.5
2 Chronic lower respiratory diseases (J40 - J47)	1,909	7.9	771	8.1	1,061	8.8
3 Other forms of heart disease (I30 - I52)	1,658	7.8	711	7.5	874	7.2
4 Tuberculosis (A15 - A19)	1,332	6.2	638	6.7	728	6.0
5 Diabetes mellitus (E10 - E14)	1,126	5.2	480	5.1	667	5.5
6 Hypertensive diseases (I10 - I15)	960	4.4	421	4.4	561	4.6
7 Influenza and pneumonia (J10 - J18)	943	4.4	398	4.2	522	4.3
8 Malignant neoplasms of digestive organs (C15 - C26)	942	4.4	293	3.1	462	3.8
9 Ischaemic heart diseases (I20 - I25)	639	3.0	280	3.0	359	3.0
10 Intestinal infectious diseases (A00 - A09)	360	1.7	216	2.3	219	1.8
... Other causes	9,707	44.9	4,234	44.7	5,398	44.5
... All causes	21,600	100.0	9,476	100.0	12,124	100.0



## APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 2001, Free State

	Free State, both sexes, all ages		Free State, male, all ages		Free State, female, all ages	
	No.	%	No.	%	No.	%
1 Influenza and pneumonia (J10 - J18)	4,638	12.6	2,416	12.8	2,416	12.8
2 Tuberculosis (A15 - A19)	4,185	11.4	2,216	11.7	2,216	11.7
3 Other forms of heart disease (I30 - I52)	2,193	6.0	1,002	5.3	1,002	5.3
4 Certain disorders involving the immune mechanism (D80 - D89)	1,755	4.7	741	3.9	741	3.9
5 Cerebrovascular diseases (I60 - I69)	1,722	4.6	803	4.2	803	4.2
6 Intestinal infectious diseases (A00 - A09)	1,298	3.5	632	3.3	632	3.3
7 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	1,211	3.3	559	3.0	559	3.0
8 Human immunodeficiency virus (HIV) diseases (B20 - B24)	888	2.4	553	2.9	553	2.9
9 Chronic lower respiratory diseases (J40 - J47)	867	2.4	476	2.5	476	2.5
10 Diabetic mellitus (E10 - E14)	849	2.3	404	2.1	404	2.1
... Other causes	17,105	46.5	9,145	48.3	9,145	48.3
... All causes	36,751	100.0	18,947	100.0	18,947	100.0
<b>Free State, both sexes, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	1,211	26.4	632	25.8	632	25.8
2 Digestive system disorders of foetus and newborn (P75 - P78)	602	13.1	330	13.5	330	13.5
3 Other disorders originating in the perinatal period (P90 - P96)	268	5.8	144	5.9	144	5.9
4 Influenza and pneumonia (J10 - J18)	251	5.5	131	5.4	131	5.4
5 Intestinal infectious diseases (A00 - A09)	206	4.5	111	4.5	111	4.5
6 Malnutrition (E40 - E46)	197	4.3	109	4.5	109	4.5
7 Disorders related to length of gestation and foetal growth (P05 - P08)	175	3.8	86	3.5	86	3.5
8 Certain disorders involving the immune mechanism (D80 - D89)	149	3.2	76	3.1	76	3.1
9 Infections specific to the perinatal period (P35 - P39)	113	2.5	61	2.5	61	2.5
10 Tuberculosis (A15 - A19)	90	2.0	46	1.9	46	1.9
... Other causes	1,329	28.9	722	29.5	722	29.5
... All causes	4,591	100.0	2,448	100.0	2,448	100.0
<b>Free State, both sexes, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	3,318	18.4	1,784	19.3	1,784	19.3
2 Influenza and pneumonia (J10 - J18)	3,050	16.9	1,353	14.6	1,353	14.6
3 Certain disorders involving the immune mechanism (D80 - D89)	1,511	8.1	644	7.0	644	7.0
4 Human immunodeficiency virus (HIV) diseases (B20 - B24)	768	4.3	400	4.3	400	4.3
5 Intestinal infectious diseases (A00 - A09)	764	4.2	287	3.1	287	3.1
6 Other forms of heart disease (I30 - I52)	569	3.2	284	3.1	284	3.1
7 Cerebrovascular diseases (I60 - I69)	361	2.0	186	2.0	186	2.0
8 Inflammatory diseases of the central nervous system (G00 - G09)	249	1.4	125	1.4	125	1.4
9 Chronic lower respiratory diseases (J40 - J47)	188	1.0	106	1.1	106	1.1
10 Other viral diseases (B25 - B34)	172	1.0	105	1.1	105	1.1
... Other causes	7,073	38.2	3,983	43.0	3,983	43.0
... All causes	18,023	100.0	9,257	100.0	9,257	100.0
<b>Free State, both sexes, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	603	10.1	483	12.7	483	12.7
2 Influenza and pneumonia (J10 - J18)	594	9.9	382	10.5	382	10.5
3 Other forms of heart disease (I30 - I52)	493	8.2	257	7.0	257	7.0
4 Cerebrovascular diseases (I60 - I69)	465	7.8	235	6.4	235	6.4
5 Diabetic mellitus (E10 - E14)	292	4.7	194	5.3	194	5.3
6 Chronic lower respiratory diseases (J40 - J47)	272	4.5	152	4.2	152	4.2
7 Malignant neoplasms of digestive organs (C15 - C26)	213	3.6	117	3.2	117	3.2
8 Hypertensive diseases (I10 - I15)	198	3.3	116	3.2	116	3.2
9 Ischaemic heart diseases (I20 - I25)	185	3.1	94	2.6	94	2.6
10 Intestinal infectious diseases (A00 - A09)	145	2.4	92	2.5	92	2.5
... Other causes	2,539	42.4	1,548	42.4	1,548	42.4
... All causes	5,988	100.0	3,650	100.0	3,650	100.0
<b>Free State, both sexes, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	1,111	13.6	447	12.4	447	12.4
2 Cerebrovascular diseases (I60 - I69)	890	10.9	350	9.7	350	9.7
3 Influenza and pneumonia (J10 - J18)	743	9.1	319	8.9	319	8.9
4 Hypertensive diseases (I10 - I15)	463	5.7	249	6.9	249	6.9
5 Diabetic mellitus (E10 - E14)	414	5.1	203	5.7	203	5.7
6 Ischaemic heart diseases (I20 - I25)	404	5.0	148	4.1	148	4.1
7 Chronic lower respiratory diseases (J40 - J47)	398	4.9	142	4.0	142	4.0
8 Malignant neoplasms of digestive organs (C15 - C26)	257	3.2	128	3.6	128	3.6
9 Intestinal infectious diseases (A00 - A09)	183	2.2	123	3.4	123	3.4
10 Tuberculosis (A15 - A19)	174	2.1	87	2.4	87	2.4
... Other causes	3,111	38.2	1,396	38.9	1,396	38.9
... All causes	8,148	100.0	3,592	100.0	3,592	100.0
<b>Free State, male, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	602	13.1	330	13.5	330	13.5
2 Digestive system disorders of foetus and newborn (P75 - P78)	268	5.8	144	5.9	144	5.9
3 Other disorders originating in the perinatal period (P90 - P96)	251	5.5	131	5.4	131	5.4
4 Influenza and pneumonia (J10 - J18)	206	4.5	111	4.5	111	4.5
5 Intestinal infectious diseases (A00 - A09)	197	4.3	109	4.5	109	4.5
6 Malnutrition (E40 - E46)	175	3.8	86	3.5	86	3.5
7 Disorders related to length of gestation and foetal growth (P05 - P08)	149	3.2	76	3.1	76	3.1
8 Certain disorders involving the immune mechanism (D80 - D89)	113	2.5	61	2.5	61	2.5
9 Infections specific to the perinatal period (P35 - P39)	90	2.0	46	1.9	46	1.9
10 Tuberculosis (A15 - A19)	89	2.0	46	1.9	46	1.9
... Other causes	1,329	28.9	722	29.5	722	29.5
... All causes	4,591	100.0	2,448	100.0	2,448	100.0
<b>Free State, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	3,318	18.4	1,784	19.3	1,784	19.3
2 Influenza and pneumonia (J10 - J18)	3,050	16.9	1,353	14.6	1,353	14.6
3 Certain disorders involving the immune mechanism (D80 - D89)	1,511	8.1	644	7.0	644	7.0
4 Human immunodeficiency virus (HIV) diseases (B20 - B24)	768	4.3	400	4.3	400	4.3
5 Intestinal infectious diseases (A00 - A09)	764	4.2	287	3.1	287	3.1
6 Other forms of heart disease (I30 - I52)	569	3.2	284	3.1	284	3.1
7 Cerebrovascular diseases (I60 - I69)	361	2.0	186	2.0	186	2.0
8 Inflammatory diseases of the central nervous system (G00 - G09)	249	1.4	125	1.4	125	1.4
9 Chronic lower respiratory diseases (J40 - J47)	188	1.0	106	1.1	106	1.1
10 Other viral diseases (B25 - B34)	172	1.0	105	1.1	105	1.1
... Other causes	7,073	38.2	3,983	43.0	3,983	43.0
... All causes	18,023	100.0	9,257	100.0	9,257	100.0
<b>Free State, male, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	603	10.1	483	12.7	483	12.7
2 Influenza and pneumonia (J10 - J18)	594	9.9	382	10.5	382	10.5
3 Other forms of heart disease (I30 - I52)	493	8.2	257	7.0	257	7.0
4 Cerebrovascular diseases (I60 - I69)	465	7.8	235	6.4	235	6.4
5 Diabetic mellitus (E10 - E14)	292	4.7	194	5.3	194	5.3
6 Chronic lower respiratory diseases (J40 - J47)	272	4.5	152	4.2	152	4.2
7 Malignant neoplasms of digestive organs (C15 - C26)	213	3.6	117	3.2	117	3.2
8 Hypertensive diseases (I10 - I15)	198	3.3	116	3.2	116	3.2
9 Ischaemic heart diseases (I20 - I25)	185	3.1	94	2.6	94	2.6
10 Intestinal infectious diseases (A00 - A09)	145	2.4	92	2.5	92	2.5
... Other causes	2,539	42.4	1,548	42.4	1,548	42.4
... All causes	5,988	100.0	3,650	100.0	3,650	100.0
<b>Free State, male, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	1,111	13.6	447	12.4	447	12.4
2 Cerebrovascular diseases (I60 - I69)	890	10.9	350	9.7	350	9.7
3 Influenza and pneumonia (J10 - J18)	743	9.1	319	8.9	319	8.9
4 Hypertensive diseases (I10 - I15)	463	5.7	249	6.9	249	6.9
5 Diabetic mellitus (E10 - E14)	414	5.1	203	5.7	203	5.7
6 Ischaemic heart diseases (I20 - I25)	404	5.0	148	4.1	148	4.1
7 Chronic lower respiratory diseases (J40 - J47)	398	4.9	142	4.0	142	4.0
8 Malignant neoplasms of digestive organs (C15 - C26)	257	3.2	128	3.6	128	3.6
9 Intestinal infectious diseases (A00 - A09)	183	2.2	123	3.4	123	3.4
10 Tuberculosis (A15 - A19)	174	2.1	87	2.4	87	2.4
... Other causes	3,111	38.2	1,396	38.9	1,396	38.9
... All causes	8,148	100.0	3,592	100.0	3,592	100.0
<b>Free State, female, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	579	27.0	272	12.7	272	12.7
2 Digestive system disorders of foetus and newborn (P75 - P78)	272	12.7	124	5.8	124	5.8
3 Other disorders originating in the perinatal period (P90 - P96)	120	5.6	120	5.6	120	5.6
4 Influenza and pneumonia (J10 - J18)	95	4.4	95	4.4	95	4.4
5 Intestinal infectious diseases (A00 - A09)	89	4.2	89	4.2	89	4.2
6 Malnutrition (E40 - E46)	88	4.1	88	4.1	88	4.1
7 Disorders related to length of gestation and foetal growth (P05 - P08)	73	3.4	73	3.4	73	3.4
8 Certain disorders involving the immune mechanism (D80 - D89)	52	2.4	52	2.4	52	2.4
9 Infections specific to the perinatal period (P35 - P39)	44	2.1	44	2.1	44	2.1
10 Tuberculosis (A15 - A19)	44	2.1	44	2.1	44	2.1
... Other causes	607	28.3	607	28.3	607	28.3
... All causes	2,143	100.0	2,143	100.0	2,143	100.0
<b>Free State, female, 15-49 years</b>						
1 Influenza and pneumonia (J10 - J18)	1,697	19.4	1,697	19.4	1,697	19.4
2 Tuberculosis (A15 - A19)	1,534	17.5	1,534	17.5	1,534	17.5
3 Certain disorders involving the immune mechanism (D80 - D89)	867	9.9	867	9.9	867	9.9
4 Intestinal infectious diseases (A00 - A09)	480	5.5	480	5.5	480	5.5
5 Human immunodeficiency virus (HIV) diseases (B20 - B24)	368	4.2	368	4.2	368	4.2
6 Other forms of heart disease (I30 - I52)	275	3.2	275	3.2	275	3.2
7 Cerebrovascular diseases (I60 - I69)	182	2.0	182	2.0	182	2.0
8 Inflammatory diseases of the central nervous system (G00 - G09)	124	1.4	124	1.4	124	1.4
9 Other viral diseases (B25 - B34)	98	1.1	98	1.1	98	1.1
10 Aplastic and other anaemias (D60 - D64)	91	1.0	91	1.0	91	1.0
... Other causes	3,050	34.8	3,050	34.8	3,050	34.8
... All causes	8,766	100.0	8,766	100.0	8,766	100.0
<b>Free State, female, 50-64 years</b>						
1 Other forms of heart disease (I30 - I52)	236	10.1	236	10.1	236	10.1
2 Cerebrovascular diseases (I60 - I69)	230	9.8	230	9.8	230	9.8
3 Influenza and pneumonia (J10 - J18)	212	9.1	212	9.1	212	9.1
4 Diabetic mellitus (E10 - E14)	166	7.1	166	7.1	166	7.1
5 Tuberculosis (A15 - A19)	140	6.0	140	6.0	140	6.0
6 Hypertensive diseases (I10 - I15)	104	4.4	104	4.4	104	4.4
7 Malignant neoplasms of female genital organs (C51 - C58)	97	4.1	97	4.1	97	4.1
8 Chronic lower respiratory diseases (J40 - J47)	78	3.3	78	3.3	78	3.3
9 Ischaemic heart diseases (I20 - I25)	68	2.9	68	2.9	68	2.9
10 Malignant neoplasms of digestive organs (C15 - C26)	61	2.6	61	2.6	61	2.6
... Other causes	947	40.5	947	40.5	947	40.5
... All causes	2,339	100.0	2,339			

### APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 2001, KwaZulu-Natal

	No.	%	No.	%	No.	%
<b>KwaZulu-Natal, both sexes, all ages</b>						
1 Tuberculosis (A15 - A19)	15,176	14.6	8,511	16.0	6,665	13.1
2 Influenza and pneumonia (J10 - J18)	6,408	6.2	2,929	5.5	3,479	6.8
3 Cerebrovascular diseases (I60 - I69)	5,205	5.0	2,198	4.1	3,009	6.1
4 Ischaemic heart diseases (I20 - I25)	4,821	4.6	2,106	4.0	2,623	5.1
5 Other forms of heart disease (I30 - I52)	4,540	4.4	2,019	3.8	2,521	4.9
6 Diabetes mellitus (E10 - E14)	3,685	3.5	1,582	3.0	2,325	4.6
7 Chronic lower respiratory diseases (J40 - J47)	2,844	2.5	1,429	2.7	1,296	2.5
8 Ischaemic heart diseases (I20 - I25)	2,359	2.3	1,360	2.6	1,241	2.4
9 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	2,201	2.1	1,058	2.0	1,062	2.1
10 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	2,077	2.0	960	1.8	1,019	2.0
... Other causes	55,054	52.9	28,084	54.6	25,604	50.3
... All causes	104,170	100.0	53,236	100.0	50,934	100.0
<b>KwaZulu-Natal, male, all ages</b>						
1 Tuberculosis (A15 - A19)	15,176	14.6	8,511	16.0	6,665	13.1
2 Influenza and pneumonia (J10 - J18)	6,408	6.2	2,929	5.5	3,479	6.8
3 Cerebrovascular diseases (I60 - I69)	5,205	5.0	2,198	4.1	3,009	6.1
4 Ischaemic heart diseases (I20 - I25)	4,821	4.6	2,106	4.0	2,623	5.1
5 Other forms of heart disease (I30 - I52)	4,540	4.4	2,019	3.8	2,521	4.9
6 Diabetes mellitus (E10 - E14)	3,685	3.5	1,582	3.0	2,325	4.6
7 Chronic lower respiratory diseases (J40 - J47)	2,844	2.5	1,429	2.7	1,296	2.5
8 Ischaemic heart diseases (I20 - I25)	2,359	2.3	1,360	2.6	1,241	2.4
9 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	2,201	2.1	1,058	2.0	1,062	2.1
10 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	2,077	2.0	960	1.8	1,019	2.0
... Other causes	55,054	52.9	28,084	54.6	25,604	50.3
... All causes	104,170	100.0	53,236	100.0	50,934	100.0
<b>KwaZulu-Natal, female, all ages</b>						
1 Tuberculosis (A15 - A19)	15,176	14.6	8,511	16.0	6,665	13.1
2 Influenza and pneumonia (J10 - J18)	6,408	6.2	2,929	5.5	3,479	6.8
3 Cerebrovascular diseases (I60 - I69)	5,205	5.0	2,198	4.1	3,009	6.1
4 Ischaemic heart diseases (I20 - I25)	4,821	4.6	2,106	4.0	2,623	5.1
5 Other forms of heart disease (I30 - I52)	4,540	4.4	2,019	3.8	2,521	4.9
6 Diabetes mellitus (E10 - E14)	3,685	3.5	1,582	3.0	2,325	4.6
7 Chronic lower respiratory diseases (J40 - J47)	2,844	2.5	1,429	2.7	1,296	2.5
8 Ischaemic heart diseases (I20 - I25)	2,359	2.3	1,360	2.6	1,241	2.4
9 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	2,201	2.1	1,058	2.0	1,062	2.1
10 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	2,077	2.0	960	1.8	1,019	2.0
... Other causes	55,054	52.9	28,084	54.6	25,604	50.3
... All causes	104,170	100.0	53,236	100.0	50,934	100.0
<b>KwaZulu-Natal, both sexes, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	2,077	17.2	1,058	17.0	1,019	17.6
2 Digestive system disorders of foetus and newborn (P75 - P96)	1,429	11.9	732	11.7	697	12.0
3 Other disorders originating in the perinatal period (P90 - P96)	869	7.2	445	7.1	437	7.5
4 Infectious diseases (A00 - A09)	832	6.9	432	6.9	387	6.7
5 Influenza and pneumonia (J10 - J18)	452	3.8	223	3.6	234	4.0
6 Infections specific to the perinatal period (P35 - P39)	451	3.7	218	3.5	228	3.9
7 Malnutrition (E40 - E46)	421	3.5	210	3.4	211	3.6
8 Disorders related to length of gestation and foetal growth (P05 - P08)	373	3.1	200	3.2	188	3.2
9 Tuberculosis (A15 - A19)	370	3.1	185	3.0	170	2.9
10 Certain disorders involving the immune mechanism (D80 - D89)	352	2.9	183	2.9	169	2.9
... Other causes	4,416	36.7	2,350	37.7	2,066	35.6
... All causes	12,042	100.0	6,236	100.0	5,806	100.0
<b>KwaZulu-Natal, male, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	2,077	17.2	1,058	17.0	1,019	17.6
2 Digestive system disorders of foetus and newborn (P75 - P96)	1,429	11.9	732	11.7	697	12.0
3 Other disorders originating in the perinatal period (P90 - P96)	869	7.2	445	7.1	437	7.5
4 Infectious diseases (A00 - A09)	832	6.9	432	6.9	387	6.7
5 Influenza and pneumonia (J10 - J18)	452	3.8	223	3.6	234	4.0
6 Infections specific to the perinatal period (P35 - P39)	451	3.7	218	3.5	228	3.9
7 Malnutrition (E40 - E46)	421	3.5	210	3.4	211	3.6
8 Disorders related to length of gestation and foetal growth (P05 - P08)	373	3.1	200	3.2	188	3.2
9 Tuberculosis (A15 - A19)	370	3.1	185	3.0	170	2.9
10 Certain disorders involving the immune mechanism (D80 - D89)	352	2.9	183	2.9	169	2.9
... Other causes	4,416	36.7	2,350	37.7	2,066	35.6
... All causes	12,042	100.0	6,236	100.0	5,806	100.0
<b>KwaZulu-Natal, female, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	2,077	17.2	1,058	17.0	1,019	17.6
2 Digestive system disorders of foetus and newborn (P75 - P96)	1,429	11.9	732	11.7	697	12.0
3 Other disorders originating in the perinatal period (P90 - P96)	869	7.2	445	7.1	437	7.5
4 Infectious diseases (A00 - A09)	832	6.9	432	6.9	387	6.7
5 Influenza and pneumonia (J10 - J18)	452	3.8	223	3.6	234	4.0
6 Infections specific to the perinatal period (P35 - P39)	451	3.7	218	3.5	228	3.9
7 Malnutrition (E40 - E46)	421	3.5	210	3.4	211	3.6
8 Disorders related to length of gestation and foetal growth (P05 - P08)	373	3.1	200	3.2	188	3.2
9 Tuberculosis (A15 - A19)	370	3.1	185	3.0	170	2.9
10 Certain disorders involving the immune mechanism (D80 - D89)	352	2.9	183	2.9	169	2.9
... Other causes	4,416	36.7	2,350	37.7	2,066	35.6
... All causes	12,042	100.0	6,236	100.0	5,806	100.0
<b>KwaZulu-Natal, both sexes, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	12,065	23.6	6,434	23.6	5,631	23.6
2 Influenza and pneumonia (J10 - J18)	4,161	8.2	1,841	6.8	2,320	9.7
3 Infectious diseases (A00 - A09)	2,695	5.3	1,189	4.4	1,506	6.3
4 Certain disorders involving the immune mechanism (D80 - D89)	1,695	3.3	701	2.6	1,002	4.2
5 Human immunodeficiency virus [HIV] diseases (B20 - B24)	1,510	3.0	683	2.5	809	3.4
6 Other forms of heart disease (I30 - I52)	1,206	2.4	592	2.2	614	2.6
7 Inflammatory diseases of the central nervous system (G00 - G09)	933	1.8	466	1.7	509	2.1
8 Cerebrovascular diseases (I60 - I69)	908	1.8	448	1.6	485	2.0
9 Other viral diseases (B25 - B34)	882	1.7	423	1.6	442	1.9
10 Chronic lower respiratory diseases (J40 - J47)	747	1.5	373	1.4	400	1.7
... Other causes	24,246	47.5	14,074	51.7	10,096	42.4
... All causes	51,048	100.0	27,234	100.0	23,814	100.0
<b>KwaZulu-Natal, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	12,065	23.6	6,434	23.6	5,631	23.6
2 Influenza and pneumonia (J10 - J18)	4,161	8.2	1,841	6.8	2,320	9.7
3 Infectious diseases (A00 - A09)	2,695	5.3	1,189	4.4	1,506	6.3
4 Certain disorders involving the immune mechanism (D80 - D89)	1,695	3.3	701	2.6	1,002	4.2
5 Human immunodeficiency virus [HIV] diseases (B20 - B24)	1,510	3.0	683	2.5	809	3.4
6 Other forms of heart disease (I30 - I52)	1,206	2.4	592	2.2	614	2.6
7 Inflammatory diseases of the central nervous system (G00 - G09)	933	1.8	466	1.7	509	2.1
8 Cerebrovascular diseases (I60 - I69)	908	1.8	448	1.6	485	2.0
9 Other viral diseases (B25 - B34)	882	1.7	423	1.6	442	1.9
10 Chronic lower respiratory diseases (J40 - J47)	747	1.5	373	1.4	400	1.7
... Other causes	24,246	47.5	14,074	51.7	10,096	42.4
... All causes	51,048	100.0	27,234	100.0	23,814	100.0
<b>KwaZulu-Natal, female, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	12,065	23.6	6,434	23.6	5,631	23.6
2 Influenza and pneumonia (J10 - J18)	4,161	8.2	1,841	6.8	2,320	9.7
3 Infectious diseases (A00 - A09)	2,695	5.3	1,189	4.4	1,506	6.3
4 Certain disorders involving the immune mechanism (D80 - D89)	1,695	3.3	701	2.6	1,002	4.2
5 Human immunodeficiency virus [HIV] diseases (B20 - B24)	1,510	3.0	683	2.5	809	3.4
6 Other forms of heart disease (I30 - I52)	1,206	2.4	592	2.2	614	2.6
7 Inflammatory diseases of the central nervous system (G00 - G09)	933	1.8	466	1.7	509	2.1
8 Cerebrovascular diseases (I60 - I69)	908	1.8	448	1.6	485	2.0
9 Other viral diseases (B25 - B34)	882	1.7	423	1.6	442	1.9
10 Chronic lower respiratory diseases (J40 - J47)	747	1.5	373	1.4	400	1.7
... Other causes	24,246	47.5	14,074	51.7	10,096	42.4
... All causes	51,048	100.0	27,234	100.0	23,814	100.0
<b>KwaZulu-Natal, both sexes, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	1,881	11.2	1,339	13.5	764	11.2
2 Cerebrovascular diseases (I60 - I69)	1,327	8.0	642	6.5	697	10.2
3 Diabetes mellitus (E10 - E14)	1,327	7.9	563	5.7	542	7.9
4 Other forms of heart disease (I30 - I52)	960	5.7	542	5.5	437	6.4
5 Ischaemic heart diseases (I20 - I25)	769	4.6	523	5.3	308	4.5
6 Influenza and pneumonia (J10 - J18)	714	4.3	505	5.1	289	4.2
7 Chronic lower respiratory diseases (J40 - J47)	714	4.3	425	4.3	286	4.2
8 Hypertensive diseases (I10 - I15)	628	3.7	320	3.2	227	3.3
9 Malignant neoplasms of digestive organs (C15 - C26)	528	3.2	315	3.2	212	3.1
10 Diseases of liver (K70 - K77)	489	2.9	242	2.4	209	3.1
... Other causes	328	2.0	14,074	51.7	2,868	41.9
... All causes	16,760	100.0	9,921	100.0	6,839	100.0
<b>KwaZulu-Natal, male, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	1,881	11.2	1,339	13.5	764	11.2
2 Cerebrovascular diseases (I60 - I69)	1,327	8.0	642	6.5	697	10.2
3 Diabetes mellitus (E10 - E14)	1,327	7.9	563	5.7	542	7.9
4 Other forms of heart disease (I30 - I52)	960	5.7	542	5.5	437	6.4
5 Ischaemic heart diseases (I20 - I25)	769	4.6	523	5.3	308	4.5
6 Influenza and pneumonia (J10 - J18)	714	4.3	505	5.1	289	4.2
7 Chronic lower respiratory diseases (J40 - J47)	714	4.3	425	4.3	286	4.2
8 Hypertensive diseases (I10 - I15)	628	3.7	320	3.2	227	3.3
9 Malignant neoplasms of digestive organs (C15 - C26)	528	3.2	315	3.2	212	3.1
10 Diseases of liver (K70 - K77)	489	2.9	242	2.4	209	3.1
... Other causes	328	2.0	14,074	51.7	2,868	41.9
... All causes	16,760	100.0	9,921	100.0	6,839	100.0
<b>KwaZulu-Natal, female, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	1,881	11.2	1,339	13.5	764	11.2
2 Cerebrovascular diseases (I60 - I69)	1,327	8.0	642	6.5	697	10.2
3 Diabetes mellitus (E10 - E14)	1,327	7.9	563	5.7	542	7.9
4 Other forms of heart disease (I30 - I52)	960	5.7	542	5.5	437	6.4
5 Ischaemic heart diseases (I20 - I25)	769	4.6	523	5.3	308	4.5
6 Influenza and pneumonia (J10 - J18)	714	4.3	505	5.1	289	4.2
7 Chronic lower respiratory diseases (J40 - J47)	714	4.3	425	4.3	286	4.2
8 Hypertensive diseases (I10 - I15)	6					

**APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 2001, North West**

	No.	%	No.	%	No.	%
<b>North West, both sexes, all ages</b>						
1 Tuberculosis (A15 - A19)	4,540	11.5	2,536	12.2	2,144	11.4
2 Influenza and pneumonia (J10 - J18)	4,176	10.6	2,032	9.8	2,004	10.7
3 Other forms of heart disease (I30 - I52)	2,698	6.8	1,338	6.5	1,360	7.3
4 Cerebrovascular diseases (I60 - I69)	2,026	5.1	863	4.2	1,026	5.5
5 Intestinal infectious diseases (A00 - A09)	1,854	4.7	828	4.0	1,163	6.2
6 Certain disorders involving the immune mechanism (D80 - D89)	1,623	4.1	771	3.7	883	4.7
7 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	1,257	3.2	740	3.6	750	4.0
8 Hypertensive diseases (I10 - I15)	1,246	3.2	667	3.2	590	3.1
9 Chronic lower respiratory diseases (J40 - J47)	1,224	3.1	505	2.4	534	2.8
10 Diabetic mellitus (E10 - E14)	854	2.2	496	2.4	453	2.4
... Other causes	17,956	45.5	9,935	48.0	7,836	41.8
... All causes	39,454	100.0	20,711	100.0	18,743	100.0
<b>North West, male, all ages</b>						
1 Tuberculosis (A15 - A19)	4,540	11.5	2,536	12.2	2,144	11.4
2 Influenza and pneumonia (J10 - J18)	4,176	10.6	2,032	9.8	2,004	10.7
3 Other forms of heart disease (I30 - I52)	2,698	6.8	1,338	6.5	1,360	7.3
4 Cerebrovascular diseases (I60 - I69)	2,026	5.1	863	4.2	1,026	5.5
5 Intestinal infectious diseases (A00 - A09)	1,854	4.7	828	4.0	1,163	6.2
6 Certain disorders involving the immune mechanism (D80 - D89)	1,623	4.1	771	3.7	883	4.7
7 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	1,257	3.2	740	3.6	750	4.0
8 Hypertensive diseases (I10 - I15)	1,246	3.2	667	3.2	590	3.1
9 Chronic lower respiratory diseases (J40 - J47)	1,224	3.1	505	2.4	534	2.8
10 Diabetic mellitus (E10 - E14)	854	2.2	496	2.4	453	2.4
... Other causes	17,956	45.5	9,935	48.0	7,836	41.8
... All causes	39,454	100.0	20,711	100.0	18,743	100.0
<b>North West, female, all ages</b>						
1 Tuberculosis (A15 - A19)	4,540	11.5	2,536	12.2	2,144	11.4
2 Influenza and pneumonia (J10 - J18)	4,176	10.6	2,032	9.8	2,004	10.7
3 Other forms of heart disease (I30 - I52)	2,698	6.8	1,338	6.5	1,360	7.3
4 Cerebrovascular diseases (I60 - I69)	2,026	5.1	863	4.2	1,026	5.5
5 Intestinal infectious diseases (A00 - A09)	1,854	4.7	828	4.0	1,163	6.2
6 Certain disorders involving the immune mechanism (D80 - D89)	1,623	4.1	771	3.7	883	4.7
7 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	1,257	3.2	740	3.6	750	4.0
8 Hypertensive diseases (I10 - I15)	1,246	3.2	667	3.2	590	3.1
9 Chronic lower respiratory diseases (J40 - J47)	1,224	3.1	505	2.4	534	2.8
10 Diabetic mellitus (E10 - E14)	854	2.2	496	2.4	453	2.4
... Other causes	17,956	45.5	9,935	48.0	7,836	41.8
... All causes	39,454	100.0	20,711	100.0	18,743	100.0
<b>North West, male, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	1,257	24.1	667	23.8	590	24.5
2 Digestive system disorders of foetus and newborn (P75 - P78)	772	14.8	429	15.3	343	14.2
3 Intestinal infectious diseases (A00 - A09)	376	7.2	204	7.3	172	7.1
4 Certain disorders involving the immune mechanism (D80 - D89)	291	5.6	156	5.6	151	6.3
5 Influenza and pneumonia (J10 - J18)	274	5.3	123	4.4	135	5.6
6 Disorders related to length of gestation and foetal growth (P05 - P08)	197	3.8	114	4.1	92	3.8
7 Malnutrition (E40 - E46)	184	3.5	94	3.4	83	3.4
8 Infections specific to the perinatal period (P35 - P39)	168	3.2	92	3.3	72	3.0
9 Other disorders originating in the perinatal period (P90 - P96)	146	2.8	79	2.8	69	2.9
10 Tuberculosis (A15 - A19)	108	2.1	58	2.1	64	2.4
... Other causes	1,437	27.6	784	28.0	585	26.8
... All causes	5,210	100.0	2,800	100.0	2,410	100.0
<b>North West, female, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	1,257	24.1	667	23.8	590	24.5
2 Digestive system disorders of foetus and newborn (P75 - P78)	772	14.8	429	15.3	343	14.2
3 Intestinal infectious diseases (A00 - A09)	376	7.2	204	7.3	172	7.1
4 Certain disorders involving the immune mechanism (D80 - D89)	291	5.6	156	5.6	151	6.3
5 Influenza and pneumonia (J10 - J18)	274	5.3	123	4.4	135	5.6
6 Disorders related to length of gestation and foetal growth (P05 - P08)	197	3.8	114	4.1	92	3.8
7 Malnutrition (E40 - E46)	184	3.5	94	3.4	83	3.4
8 Infections specific to the perinatal period (P35 - P39)	168	3.2	92	3.3	72	3.0
9 Other disorders originating in the perinatal period (P90 - P96)	146	2.8	79	2.8	69	2.9
10 Tuberculosis (A15 - A19)	108	2.1	58	2.1	64	2.4
... Other causes	1,437	27.6	784	28.0	585	26.8
... All causes	5,210	100.0	2,800	100.0	2,410	100.0
<b>North West, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	3,474	19.1	1,787	18.9	1,687	19.2
2 Influenza and pneumonia (J10 - J18)	2,615	14.3	1,185	12.5	1,430	16.3
3 Certain disorders involving the immune mechanism (D80 - D89)	1,240	6.8	529	5.6	711	8.1
4 Intestinal infectious diseases (A00 - A09)	1,039	5.7	440	4.7	616	7.0
5 Other forms of heart disease (I30 - I52)	877	4.8	435	4.6	442	5.0
6 Human immunodeficiency virus [HIV] diseases (B20 - B24)	728	4.0	423	4.5	288	3.3
7 Cerebrovascular diseases (I60 - I69)	350	1.9	153	1.6	200	2.3
8 Chronic lower respiratory diseases (J40 - J47)	300	1.6	150	1.6	147	1.7
9 Inflammatory diseases of the central nervous system (G00 - G09)	289	1.6	143	1.5	146	1.7
10 Other viral diseases (B25 - B34)	212	1.2	112	1.2	120	1.4
... Other causes	7,108	39.0	4,104	43.4	2,984	34.0
... All causes	18,232	100.0	9,461	100.0	8,771	100.0
<b>North West, female, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	3,474	19.1	1,787	18.9	1,687	19.2
2 Influenza and pneumonia (J10 - J18)	2,615	14.3	1,185	12.5	1,430	16.3
3 Certain disorders involving the immune mechanism (D80 - D89)	1,240	6.8	529	5.6	711	8.1
4 Intestinal infectious diseases (A00 - A09)	1,039	5.7	440	4.7	616	7.0
5 Other forms of heart disease (I30 - I52)	877	4.8	435	4.6	442	5.0
6 Human immunodeficiency virus [HIV] diseases (B20 - B24)	728	4.0	423	4.5	288	3.3
7 Cerebrovascular diseases (I60 - I69)	350	1.9	153	1.6	200	2.3
8 Chronic lower respiratory diseases (J40 - J47)	300	1.6	150	1.6	147	1.7
9 Inflammatory diseases of the central nervous system (G00 - G09)	289	1.6	143	1.5	146	1.7
10 Other viral diseases (B25 - B34)	212	1.2	112	1.2	120	1.4
... Other causes	7,108	39.0	4,104	43.4	2,984	34.0
... All causes	18,232	100.0	9,461	100.0	8,771	100.0
<b>North West, male, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	660	10.5	486	12.8	260	10.3
2 Other forms of heart disease (I30 - I52)	553	8.8	323	8.5	245	9.7
3 Cerebrovascular diseases (I60 - I69)	532	8.4	308	8.1	209	8.3
3 Influenza and pneumonia (J10 - J18)	532	8.4	272	7.2	174	6.9
4 Chronic lower respiratory diseases (J40 - J47)	378	6.0	257	6.8	150	6.0
5 Hypertensive diseases (I10 - I15)	286	4.5	163	4.3	139	5.5
6 Diabetes mellitus (E10 - E14)	248	3.9	147	3.9	121	4.8
7 Malignant neoplasms of digestive organs (C15 - C26)	245	3.9	141	3.7	103	4.1
8 Ischaemic heart diseases (I20 - I25)	208	3.3	100	2.6	86	3.4
9 Intestinal infectious diseases (A00 - A09)	177	2.8	98	2.6	82	3.3
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	136	2.2	1497	39.5	952	37.8
... Other causes	2,358	37.4	3,792	100.0	2,521	100.0
... All causes	6,313	100.0				
<b>North West, female, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	660	10.5	486	12.8	260	10.3
2 Other forms of heart disease (I30 - I52)	553	8.8	323	8.5	245	9.7
3 Cerebrovascular diseases (I60 - I69)	532	8.4	308	8.1	209	8.3
3 Influenza and pneumonia (J10 - J18)	532	8.4	272	7.2	174	6.9
4 Chronic lower respiratory diseases (J40 - J47)	378	6.0	257	6.8	150	6.0
5 Hypertensive diseases (I10 - I15)	286	4.5	163	4.3	139	5.5
6 Diabetes mellitus (E10 - E14)	248	3.9	147	3.9	121	4.8
7 Malignant neoplasms of digestive organs (C15 - C26)	245	3.9	141	3.7	103	4.1
8 Ischaemic heart diseases (I20 - I25)	208	3.3	100	2.6	86	3.4
9 Intestinal infectious diseases (A00 - A09)	177	2.8	98	2.6	82	3.3
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	136	2.2	1497	39.5	952	37.8
... Other causes	2,358	37.4	3,792	100.0	2,521	100.0
... All causes	6,313	100.0				
<b>North West, both sexes, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	1,239	12.8	577	12.4	701	13.9
2 Cerebrovascular diseases (I60 - I69)	1,135	11.7	434	9.3	662	13.1
3 Hypertensive diseases (I10 - I15)	792	8.2	401	8.6	518	10.3
4 Influenza and pneumonia (J10 - J18)	755	7.8	348	7.5	354	7.0
5 Chronic lower respiratory diseases (J40 - J47)	529	5.5	274	5.9	299	5.9
6 Diabetes mellitus (E10 - E14)	450	4.6	213	4.6	207	4.1
7 Ischaemic heart diseases (I20 - I25)	418	4.3	211	4.5	181	3.6
8 Tuberculosis (A15 - A19)	298	3.1	179	3.8	152	3.0
9 Malignant neoplasms of digestive organs (C15 - C26)	278	2.9	151	3.2	99	2.0
10 Intestinal infectious diseases (A00 - A09)	262	2.7	117	2.5	85	1.7
... Other causes	3,543	36.5	1,753	37.6	1,783	35.4
... All causes	9,599	100.0	4,658	100.0	5,041	100.0

**APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 2001, Gauteng**

	Gauteng, both sexes, all ages		Gauteng, male, all ages		Gauteng, female, all ages	
	No.	%	No.	%	No.	%
1 Tuberculosis (A15 - A19)	7,299	8.5	4,225	9.1	3,074	7.8
2 Influenza and pneumonia (J10 - J18)	5,971	6.9	2,906	6.3	2,965	7.6
3 Other forms of heart disease (I30 - I52)	4,769	5.6	2,235	4.8	2,534	6.5
4 Cerebrovascular diseases (I60 - I69)	3,699	4.3	1,633	3.5	2,066	5.3
5 Diabetes mellitus (E10 - E14)	2,672	3.1	1,526	3.3	1,517	3.9
6 Ischaemic heart diseases (I20 - I25)	2,582	3.0	1,372	3.0	1,171	3.0
7 Chronic lower respiratory diseases (J40 - J47)	2,333	2.7	1,155	2.5	1,112	2.8
8 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	2,167	2.5	1,140	2.5	1,086	2.8
9 Certain disorders involving the immune mechanism (D80 - D89)	2,079	2.4	1,069	2.3	1,056	2.7
10 Intestinal infectious diseases (A00 - A09)	2,071	2.4	993	2.1	1,027	2.6
... Other causes	50,032	58.5	28,156	60.7	21,556	55.0
... All causes	85,574	100.0	46,410	100.0	39,164	100.0
<b>Gauteng, both sexes, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	2,167	21.1	1,140	21.0	1,027	21.2
2 Other disorders originating in the perinatal period (P90 - P96)	1,191	11.6	640	11.8	551	11.4
3 Digestive system disorders of foetus and newborn (P75 - P78)	956	9.3	518	9.6	438	9.0
4 Infections specific to the perinatal period (P35 - P39)	406	4.0	203	3.7	229	4.7
5 Infectious diseases involving the immune mechanism (D80 - D89)	385	3.7	177	3.3	183	3.8
6 Intestinal infectious diseases (A00 - A09)	342	3.3	164	3.0	182	3.7
7 Influenza and pneumonia (J10 - J18)	323	3.1	159	2.9	159	3.3
8 Other viral diseases (B25 - B34)	266	2.6	134	2.5	132	2.7
9 Protozoal diseases (B50 - B64)	243	2.4	129	2.4	129	2.7
10 Human immunodeficiency virus [HIV] diseases (B20 - B24)	232	2.3	104	1.9	114	2.3
... Other causes	3,759	36.6	2,048	37.8	1,710	35.2
... All causes	10,270	100.0	5,416	100.0	4,854	100.0
<b>Gauteng, both sexes, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	5,790	15.1	3,182	14.3	2,608	16.2
2 Influenza and pneumonia (J10 - J18)	3,574	9.3	1,741	7.8	1,833	11.4
3 Certain disorders involving the immune mechanism (D80 - D89)	1,508	3.9	726	3.1	782	4.9
4 Human immunodeficiency virus [HIV] diseases (B20 - B24)	1,316	3.4	694	3.1	661	4.1
5 Other forms of heart disease (I30 - I52)	1,305	3.4	644	2.9	656	4.1
6 Intestinal infectious diseases (A00 - A09)	1,175	3.1	519	2.3	522	3.9
7 Other viral diseases (B25 - B34)	988	2.6	440	2.0	548	3.4
8 Cerebrovascular diseases (I60 - I69)	777	2.0	413	1.9	364	2.3
9 Inflammatory diseases of the central nervous system (G00 - G09)	633	1.6	347	1.6	286	1.8
10 Renal failure (N17 - N19)	416	1.1	251	1.1	216	1.3
... Other causes	20,912	54.5	13,363	59.9	7,498	46.6
... All causes	38,394	100.0	22,320	100.0	16,074	100.0
<b>Gauteng, both sexes, 50-64 years</b>						
1 Other forms of heart disease (I30 - I52)	1,080	7.4	719	8.1	462	7.9
2 Tuberculosis (A15 - A19)	1,019	6.9	618	7.0	446	7.7
3 Cerebrovascular diseases (I60 - I69)	937	6.4	515	5.8	425	7.3
4 Diabetes mellitus (E10 - E14)	837	5.7	491	5.5	300	5.2
5 Influenza and pneumonia (J10 - J18)	793	5.4	491	5.5	278	4.8
6 Chronic lower respiratory diseases (J40 - J47)	701	4.8	431	4.9	273	4.7
7 Ischaemic heart diseases (I20 - I25)	662	4.5	428	4.8	282	4.5
8 Malignant neoplasms of digestive organs (C15 - C26)	635	4.3	412	4.6	219	3.8
9 Hypertensive diseases (I10 - I15)	467	3.2	292	3.3	204	3.5
10 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	387	2.6	205	2.3	189	3.2
... Other causes	7,164	48.8	4,081	46.0	2,761	47.4
... All causes	14,682	100.0	8,863	100.0	5,819	100.0
<b>Gauteng, both sexes, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	2,307	10.4	934	9.5	1,373	11.1
2 Cerebrovascular diseases (I60 - I69)	1,968	8.9	797	8.1	1,244	10.0
3 Ischaemic heart diseases (I20 - I25)	1,589	7.1	730	7.4	884	7.1
4 Diabetes mellitus (E10 - E14)	1,423	6.4	724	7.4	792	6.4
5 Chronic lower respiratory diseases (J40 - J47)	1,249	5.6	539	5.5	757	6.1
6 Influenza and pneumonia (J10 - J18)	1,181	5.3	486	5.0	695	5.6
7 Hypertensive diseases (I10 - I15)	1,141	5.1	451	4.6	519	4.2
8 Malignant neoplasms of digestive organs (C15 - C26)	886	4.0	394	3.9	435	3.5
9 Malignant neoplasms of respiratory and intrathoracic organs (C30 - C39)	495	2.2	331	3.4	234	1.9
10 Renal failure (N17 - N19)	458	2.1	315	3.2	221	1.8
... Other causes	9,531	42.9	4,120	42.0	5,263	42.4
... All causes	22,228	100.0	9,811	100.0	12,417	100.0

### APPENDIX G: Deaths due to the ten leading underlying causes by province, sex and age: 2001, Mpumalanga

	No.	%	No.	%	No.	%
<b>Mpumalanga, both sexes, all ages</b>						
1 Tuberculosis (A15 - A19)	3,500	11.2	2,048	12.5	1,452	9.7
2 Influenza and pneumonia (J10 - J18)	2,500	8.0	1,195	7.3	1,305	8.8
3 Infectious diseases (A00 - A09)	1,472	4.7	675	4.1	821	5.5
4 Cerebrovascular diseases (I60 - I69)	1,442	4.6	675	4.1	797	5.3
5 Other forms of heart disease (I30 - I52)	1,417	4.5	621	3.8	742	5.0
6 Certain disorders involving the immune mechanism (D80 - D89)	1,178	3.8	540	3.3	638	4.3
7 Human immunodeficiency virus (HIV) diseases (B20 - B24)	968	3.0	538	3.3	533	3.6
8 Chronic lower respiratory diseases (J40 - J47)	935	3.0	457	2.8	511	3.4
9 Diabetes mellitus (E10 - E14)	881	2.7	349	2.1	509	3.4
10 Hypertensive diseases (I10 - I15)	851	2.8	348	2.1	397	2.7
... Other causes	16,149	51.6	342	2.1	7,208	48.3
... All causes	31,293	100.0	8,592	52.5	14,913	100.0
<b>Mpumalanga, male, all ages</b>						
1 Tuberculosis (A15 - A19)	699	18.9	341	18	358	20.1
2 Digestive system disorders of foetus and newborn (P75 - P78)	465	12.6	235	12	230	12.9
3 Infectious diseases (A00 - A09)	299	8.1	151	8	148	8.3
4 Other disorders originating in the perinatal period (P90 - P96)	176	4.8	90	5	94	5.3
5 Influenza and pneumonia (J10 - J18)	170	4.6	82	4	86	4.8
6 Certain disorders involving the immune mechanism (D80 - D89)	150	4.1	78	4	80	4.5
7 Malnutrition (E40 - E46)	145	3.9	63	3	72	4.0
8 Disorders related to length of gestation and foetal growth (P05 - P08)	112	3.0	59	3	49	2.8
9 Infections specific to the perinatal period (P35 - P39)	101	2.7	56	3	45	2.5
10 Tuberculosis (A15 - A19)	84	2.3	41	2	43	2.4
... Other causes	1,295	35.0	722	38	573	32.2
... All causes	3,696	100.0	1,918	100	1,778	100.0
<b>Mpumalanga, both sexes, 0-14 years</b>						
1 Respiratory and cardiovascular disorders specific to the perinatal period (P20 - P29)	699	18.9	341	18	358	20.1
2 Digestive system disorders of foetus and newborn (P75 - P78)	465	12.6	235	12	230	12.9
3 Infectious diseases (A00 - A09)	299	8.1	151	8	148	8.3
4 Other disorders originating in the perinatal period (P90 - P96)	176	4.8	90	5	94	5.3
5 Influenza and pneumonia (J10 - J18)	170	4.6	82	4	86	4.8
6 Certain disorders involving the immune mechanism (D80 - D89)	150	4.1	78	4	80	4.5
7 Malnutrition (E40 - E46)	145	3.9	63	3	72	4.0
8 Disorders related to length of gestation and foetal growth (P05 - P08)	112	3.0	59	3	49	2.8
9 Infections specific to the perinatal period (P35 - P39)	101	2.7	56	3	45	2.5
10 Tuberculosis (A15 - A19)	84	2.3	41	2	43	2.4
... Other causes	1,295	35.0	722	38	573	32.2
... All causes	3,696	100.0	1,918	100	1,778	100.0
<b>Mpumalanga, male, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	2,677	18.0	1,485	19	1,192	17.1
2 Influenza and pneumonia (J10 - J18)	1,518	10.2	682	9	836	12.0
3 Certain disorders involving the immune mechanism (D80 - D89)	936	6.3	411	5	525	7.5
4 Human immunodeficiency virus (HIV) diseases (B20 - B24)	816	5.5	364	5	452	6.5
5 Infectious diseases (A00 - A09)	732	4.9	338	4	394	5.6
6 Other forms of heart disease (I30 - I52)	305	2.1	233	3	195	2.8
7 Other viral diseases (B25 - B34)	293	2.0	148	2	157	2.2
8 Cerebrovascular diseases (I60 - I69)	281	1.9	131	2	150	2.1
9 Chronic lower respiratory diseases (J40 - J47)	238	1.6	113	1	132	1.9
10 Noninfective enteritis and colitis (K50 - K52)	215	1.4	106	1	113	1.6
... Other causes	6,835	46.0	3,845	49	2,844	40.7
... All causes	14,846	100.0	7,856	100	6,990	100.0
<b>Mpumalanga, female, 15-49 years</b>						
1 Tuberculosis (A15 - A19)	1,485	19	1,485	19	1,192	17.1
2 Influenza and pneumonia (J10 - J18)	682	9	682	9	836	12.0
3 Certain disorders involving the immune mechanism (D80 - D89)	411	5	411	5	525	7.5
4 Human immunodeficiency virus (HIV) diseases (B20 - B24)	364	5	364	5	452	6.5
5 Infectious diseases (A00 - A09)	338	4	338	4	394	5.6
6 Other forms of heart disease (I30 - I52)	233	3	233	3	195	2.8
7 Other viral diseases (B25 - B34)	148	2	148	2	157	2.2
8 Cerebrovascular diseases (I60 - I69)	131	2	131	2	150	2.1
9 Chronic lower respiratory diseases (J40 - J47)	113	1	113	1	132	1.9
10 Noninfective enteritis and colitis (K50 - K52)	106	1	106	1	113	1.6
... Other causes	3,845	49	3,845	49	2,844	40.7
... All causes	7,856	100	7,856	100	6,990	100.0
<b>Mpumalanga, female, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	368	12	368	12	178	8.5
2 Cerebrovascular diseases (I60 - I69)	206	7	193	6	175	8.3
3 Influenza and pneumonia (J10 - J18)	193	6	174	6	143	6.8
4 Diabetes mellitus (E10 - E14)	174	6	162	5	133	6.3
5 Other forms of heart disease (I30 - I52)	162	5	126	4	123	5.9
6 Hypertensive diseases (I10 - I15)	126	4	121	4	116	5.5
7 Diabetes mellitus (E10 - E14)	121	4	121	4	95	4.7
8 Ischaemic heart diseases (I20 - I25)	118	4	118	4	98	4.5
9 Malignant neoplasms of digestive organs (C15 - C26)	96	3	96	3	82	3.9
10 Intrahepatic cholangiocarcinoma (C22)	91	3	91	3	68	3.2
... Other causes	1,301	42	3,077	100	890	42.4
... All causes	5,178	100.0	5,178	100	2,101	100.0
<b>Mpumalanga, male, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	511	9.9	368	12	178	8.5
2 Cerebrovascular diseases (I60 - I69)	384	7.4	206	7	175	8.3
3 Influenza and pneumonia (J10 - J18)	316	6.1	193	6	143	6.8
4 Diabetes mellitus (E10 - E14)	296	5.7	174	6	133	6.3
5 Other forms of heart disease (I30 - I52)	290	5.6	162	5	123	5.9
6 Hypertensive diseases (I10 - I15)	259	5.0	126	4	116	5.5
7 Chronic lower respiratory diseases (J40 - J47)	244	4.7	121	4	95	4.7
8 Ischaemic heart diseases (I20 - I25)	189	3.7	121	4	98	4.5
9 Malignant neoplasms of digestive organs (C15 - C26)	166	3.2	118	4	82	3.9
10 Malignant neoplasms of digestive organs (C15 - C26)	163	3.1	96	3	68	3.2
... Other causes	2,340	45.2	3,077	100	890	42.4
... All causes	5,178	100.0	5,178	100	2,101	100.0
<b>Mpumalanga, female, 50-64 years</b>						
1 Tuberculosis (A15 - A19)	511	9.9	368	12	178	8.5
2 Cerebrovascular diseases (I60 - I69)	384	7.4	206	7	175	8.3
3 Influenza and pneumonia (J10 - J18)	316	6.1	193	6	143	6.8
4 Diabetes mellitus (E10 - E14)	296	5.7	174	6	133	6.3
5 Other forms of heart disease (I30 - I52)	290	5.6	162	5	123	5.9
6 Hypertensive diseases (I10 - I15)	259	5.0	126	4	116	5.5
7 Chronic lower respiratory diseases (J40 - J47)	244	4.7	121	4	95	4.7
8 Ischaemic heart diseases (I20 - I25)	189	3.7	121	4	98	4.5
9 Malignant neoplasms of digestive organs (C15 - C26)	166	3.2	118	4	82	3.9
10 Malignant neoplasms of digestive organs (C15 - C26)	163	3.1	96	3	68	3.2
... Other causes	2,340	45.2	3,077	100	890	42.4
... All causes	5,178	100.0	5,178	100	2,101	100.0
<b>Mpumalanga, male, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	811	10.7	345	9.8	492	12.2
2 Cerebrovascular diseases (I60 - I69)	776	10.2	284	8.0	466	11.5
3 Influenza and pneumonia (J10 - J18)	476	6.5	262	7.4	306	7.6
4 Hypertensive diseases (I10 - I15)	474	6.3	230	6.5	266	6.6
5 Chronic lower respiratory diseases (J40 - J47)	438	5.8	168	4.8	260	6.4
6 Diabetes mellitus (E10 - E14)	405	5.3	154	4.4	176	4.4
7 Ischaemic heart diseases (I20 - I25)	293	3.9	153	4.3	160	4.0
8 Diabetes mellitus (E10 - E14)	255	3.4	145	4.1	140	3.5
9 Tuberculosis (A15 - A19)	228	3.0	123	3.5	101	2.5
10 Malignant neoplasms of digestive organs (C15 - C26)	224	3.0	122	3.5	77	1.9
... Other causes	3,173	41.9	1,543	43.7	1,600	39.6
... All causes	7,573	100.0	3,529	100.0	4,044	100.0
<b>Mpumalanga, female, 65 years and above</b>						
1 Other forms of heart disease (I30 - I52)	492	12.2	345	9.8	492	12.2
2 Cerebrovascular diseases (I60 - I69)	466	11.5	284	8.0	466	11.5
3 Influenza and pneumonia (J10 - J18)	306	7.6	262	7.4	306	7.6
4 Hypertensive diseases (I10 - I15)	266	6.6	230	6.5	266	6.6
5 Chronic lower respiratory diseases (J40 - J47)	260	6.4	168	4.8	260	6.4
6 Diabetes mellitus (E10 - E14)	176	4.4	154	4.4	176	4.4
7 Ischaemic heart diseases (I20 - I25)	160	4.0	153	4.3	160	4.0
8 Diabetes mellitus (E10 - E14)	140	3.5	145	4.1	140	3.5
9 Tuberculosis (A15 - A19)	101	2.5	123	3.5	101	2.5
10 Malignant neoplasms of digestive organs (C15 - C26)	77	1.9	122	3.5	77	1.9
... Other causes	1,600	39.6	1,543	43.7	1,600	39.6
... All causes	4,044	100.0	3,529	100.0	4,044	100.0



## Appendix H

### Population group differences

Readers are reminded that the population group breakdowns may not be very reliable, as large proportions of death notification forms did not specify population group (see Table 3.1). For this reason the underlying causes of death presented in this Appendix focus on data pertaining to 1999 and 2001. The data for 1997 have been excluded due to the fact that about 83% of the forms for that year had no information on population group. However, the underlying causes for cases where population group was not specified have also been ranked for the two years given.

Table H1 gives a list of the ten leading natural underlying causes of death for the various population groups in 1999 and 2001. The following profiles emerge:

*Influenza and pneumonia, cerebrovascular diseases, diabetes, other forms of heart disease, chronic lower respiratory diseases and hypertensive diseases* were amongst the ten leading causes of death for all population groups. *Tuberculosis* was the leading cause of death as far as Africans, coloureds and Indians were concerned. *Ischaemic heart diseases, malignant neoplasms of respiratory and intrathoracic organs and malignant neoplasms of digestive organs* were leading causes for coloureds, whites and Indians. The ranking of the above diseases within each population group remained almost the same for the two years.

*Intestinal infectious diseases and human immunodeficiency virus (HIV) diseases* as leading causes were exclusive to the African population group. *Renal failure* emerged as a leading cause of death for whites and Indians in 2001.

**Appendix H: Table H1: Ten leading natural causes of death within population group: 1999 and 2001**

Broad group of causes of death	African			Coloured			Indian			White			Unspecified		
	Rank	No.	%	Rank	No.	%	Rank	No.	%	Rank	No.	%	Rank	No.	%
<b>1999</b>															
All causes		215,699	100.0		22,987	100.0		4,773	100.0		32,823	100.0		105,620	100.0
Tuberculosis (A15 - A19)	1	22,780	10.6	1	1,717	7.5	8	95	2.0				1	9,401	8.9
Influenza and pneumonia (J10 - J18)	2	12,562	5.8	10	532	2.3	9	93	1.9				4	4,783	4.5
Cerebrovascular diseases (I60 - I69)	3	10,960	5.1	2	1,565	6.8	4	263	5.5				3	5,034	4.8
Other forms of heart disease (I30 - I52)	4	10,886	5.0	6	1,094	4.8	3	266	5.6				2	5,743	5.4
Intestinal infectious diseases (A00 - A09)	5	7,517	3.5										6	3,202	3.0
HIV diseases (B20 - B24)	6	7,033	3.3												
Chronic lower respiratory diseases (J40 - J47)	7	6,246	2.9	5	1,108	4.8	5	191	4.0				7	3,196	3.0
Certain disorders of immune mechanism (D80 - D89)	8	6,206	2.9												
Hypertensive diseases (I10 - I15)	9	5,827	2.7	9	541	2.4	6	140	2.9						
Diabetes mellitus (E10 - E14)	10	5,754	2.7	3	1,233	5.4	1	757	15.9				5	3,411	3.2
Malignant neoplasms of digestive organs (C15 - C26)				8	813	5.1	7	131	2.7				9	2,467	2.3
Ischaemic heart diseases (I20 - I25)				4	1,176	5.1	2	578	12.1				1	4,471	13.6
Malign. neoplasms of resp. & intrathor. organs (C30 - C39)				7	871	3.9	9	93	1.9				8	2,556	2.4
Renal failure (N17 - N19)															
Malign. neoplasms of ill-defined, sec. & unspecified site (C76 - C80)															
Resp. & cardiovascular disorders - perinatal (P20 - P29)															
Other causes		119,928	55.6		12,337	53.7		2,075	43.5		15,676	47.8		63,490	24.0
<b>2001</b>															
All causes		278,178	100.0		24,125	100.0		6,831	100.0		35,343	100.0		107,459	100.0
Tuberculosis (A15 - A19)	1	37,282	13.4	1	1,990	8.2	9	137	2.0				1	11,219	10.4
Influenza and pneumonia (J10 - J18)	2	22,884	8.2	9	611	2.5	10	123	1.8				2	6,555	6.1
Other forms of heart disease (I30 - I52)	3	13,377	4.8	6	1,162	4.8	3	481	7.0				3	5,154	4.8
Cerebrovascular diseases (I60 - I69)	4	13,111	4.7	2	1,652	6.8	4	433	6.3				4	5,030	4.7
Intestinal infectious diseases (A00 - A09)	5	12,125	4.4										5	3,420	3.2
Certain disorders of immune mechanism (D80 - D89)	6	8,601	3.1										8	2,761	2.6
Chronic lower respiratory diseases (J40 - J47)	7	7,877	2.8	5	1,295	5.4	5	278	4.1				6	3,198	3.0
Diabetes mellitus (E10 - E14)	8	7,505	2.7	4	1,323	5.5	1	1,125	16.5				7	3,059	2.8
Hypertensive diseases (I10 - I15)	9	7,139	2.6	10	584	2.4	6	212	3.1						
Resp. & cardiovascular disorders - perinatal (P20 - P29)	10	6,873	2.5										9	2,192	2.0
Malignant neoplasms of digestive organs (C15 - C26)				7	858	3.6	7	210	3.1				10	2,121	2.0
Ischaemic heart diseases (I20 - I25)				3	1,346	5.6	2	1,008	14.8						
Malign. neoplasms of resp. & intrathor. organs (C30 - C39)				8	818	3.4							8	1,207	3.4
Renal failure (N17 - N19)													10	692	2.0
Other causes		141,404	50.8		12,486	51.8		2,685	39.3		16,628	47.0		62,750	58.4

... Category not in top ten

Excluding 105 620 cases in 1999, and 107 459 cases in 2001