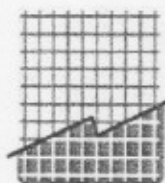


Submission B to JMC IQLS on Women 24 March 2006



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**Unnatural deaths among South
African Women:
Results and Thoughts for Data Improvement
from Statistics South Africa**

**A Presentation to the
Joint Monitoring Committee on the Improvement of
Quality of Life and Status of Women**

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Executive Summary

Observations

- Since 1997, data from Death Notification have included at least 83% of the deaths to women age 15-64. From these data, adjusted for completeness of registration, death rates from natural causes and from unnatural causes by age can be calculated.
- Unnatural cause death rates for South African women increase with age. Since 1997, unnatural cause death rates have declined for women over age 35.
- Overall death rates for women in South Africa are high and have been increasing since 1997 at every age.
- Due to the rapid rise in natural cause death rates, the percentage of all deaths that are due to unnatural causes has declined over time for women at all ages.
- In 1997 and 1998 all that is known about the nature of unnatural deaths from Death Notification is that the death had an unnatural cause.
- Somewhat more information on the circumstances of the unnatural death is available since 1999, although it is not clear how usable those data are.
- The "Wet op Geregte Doodsondersoek" (Judicial Death Enquiries Act #58 of 1959) states that determination of intent (homicide, suicide, accident) is the responsibility of the court. Thus, Death Notification rarely includes information on intent.
- Often the manner of death (firearms, sharps, transport, etc.) also is not recorded on Death Notification, although the Judicial Death Enquiries Act does not prohibit recording this information.
- Other official sources of data on types of unnatural deaths are the South African Police Service (SAPS) on homicides by age and sex and the Department of Transport on transport deaths by age and sex and on characteristics of the transport death, such as whether the person was a pedestrian.
- In 1999, the National Injury Mortuary Surveillance System (NIMSS) was established, which collects information from voluntarily participating mortuaries on the characteristics of unnatural deaths. A detailed form about the circumstances and apparent manner of each unnatural death is filled out. This form has no legal standing and thus does not violate the Judicial Death Enquiries Act.
- NIMSS in 2004 included mortuaries from 6 provinces, covering 35-40% of all unnatural deaths. The participating mortuaries are overwhelmingly urban.
- Researchers interested in the nature of unnatural death in South Africa usually use the NIMSS data, even though it is unrepresentative. It is not clear how seriously this urban bias distorts the picture obtained from NIMSS data.

Recommendations

- Increased cooperation between Statistics South Africa, SAPS, the Department of Transport, and NIMSS could improve knowledge about unnatural deaths and unnatural death rates. Statistics South Africa, SAPS, and the Department of Transport have begun to cooperate.
- If SAPS could fill in the circumstances of death (firearm, transport, burn, etc.) in a larger proportion of cases, it would help in analysis of unnatural death rates.
- If a "best opinion about apparent manner of death" item could be placed on the Death Notification Form without legal weight (as on the NIMSS form), it would allow calculation of unnatural death rates by intent from death registration data.
- The Judicial Enquiries Act was passed in 1959. Perhaps it would be timely for the provisions of the act to be reconsidered.
- These improvements would help understanding of patterns of violent death to women as well as many other important topics.

Introduction

The Committee has invited Statistics South Africa and other interested parties to participate in a mini-hearing for the purpose of enhancing communication strategies and to provide input into improving integrated data systems and the consolidation of statistics. The hearing is held because the Committee identified to need for:

- Integration of data and research across disciplines
- Identifying abuse-related injuries and their costs
- Consolidating official statistics on violence to determine costs, treatment, and strategies for and prevention methodologies
- Communicate with the rural population to educate them about policies and rights.

Stats SA was asked to share our experiences and information on methodologies and propose how to achieve better communication strategies and integrated data systems and statistics.

This paper consists of three main parts. Part 1 describes the official sources of data on unnatural deaths. Part 2 focuses on some observations about unnatural deaths among women between 1997 and 2002. Part 3 provides some recommendations for improved and more integrated data for South Africa.

Sources of Official Data on Unnatural Deaths

The data from death notifications forms collected by the Department of Home Affairs and processed by Stats SA is an important source of official data. Data are available for individual years by age, sex and cause of death. Currently data are available for analysis through 2002. In April, Stats SA plans to release data on causes of death based on death notifications for 2003 and 2004.

The South African Police Service (SAPS) has data on homicides, and examination of their data on the number of homicides by year, age, and sex could be examined to see homicide rates by age and sex over time. SAPS and Statistics South Africa have begun discussing possibilities for cooperation.

The Department of Transport has data on transport deaths by age, sex and year (and on type of death, such as whether the person was a pedestrian), which could be examined to see transport death rates by age and sex over time. The

Department of Transport and Statistics South Africa have begun to cooperate in this area.

Observations

Almost Complete Death Registration Since 1997 for Women Age 15-64

Since 1997, the Death Notification forms South Africa have registered more than 83% of deaths to women age 15-64. The percentage of deaths registered to children is considerably less (estimated to be between 56 and 62 percent for 1997-2002), and there are problems with accuracy of age for elderly persons. Since 1997, division of deaths into having a natural cause or an unnatural cause has also been quite complete. Unnatural deaths include those from assault by another (homicide) intentional self-injury (suicide) and accidents.

Unnatural Cause Death Rates and the Role of Unnatural Deaths in Overall Female Adult Mortality

Figure 1 shows the death rate per 100,000 population from unnatural causes for women in South Africa by age 1997-2002. Death rates for women tend to increase with age. In the period 1997-2002, unnatural death rates below age 34 were fairly constant over time, while above age 35, they declined over time.

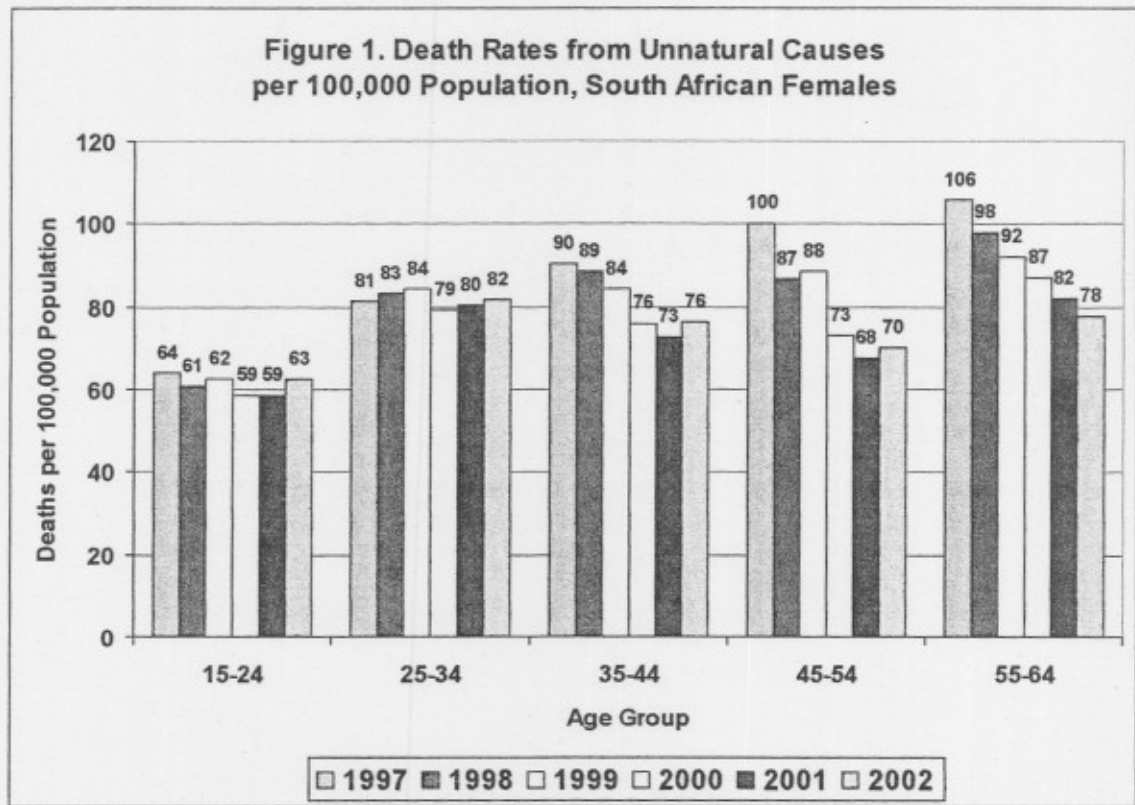


Table 1 shows the proportion of natural and unnatural deaths for females by year for 1997 to 2002. The Figure shows that the proportion of unnatural deaths is less than 10% over this period. The proportion of unnatural deaths declined over time from about 9 percent in 1997 to 5 percent in 2002.

Table 1.: Percentage natural and unnatural deaths, 1997-2002

Year	Percentage natural deaths	Percentage unnatural deaths	Total
1997	90,6	9,4	100
1998	92,3	7,7	100
1999	91,9	8,1	100
2000	93,8	6,2	100
2001	94,4	5,6	100
2002	94,9	5,1	100
Overall	93,6	6,4	100

Figure 2 shows death rates from all causes by age for women in South Africa have risen rapidly since 1997 for every age group, partly due to increases in mortality from HIV/AIDS.

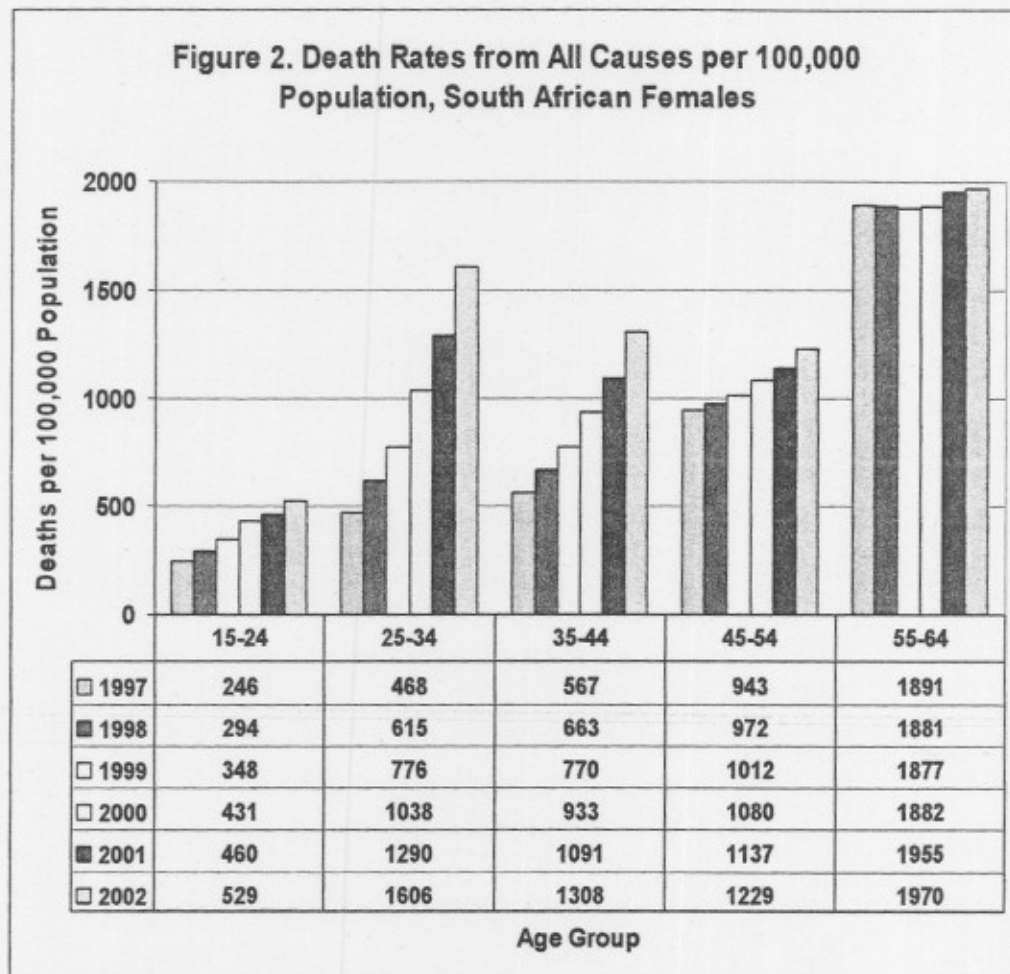
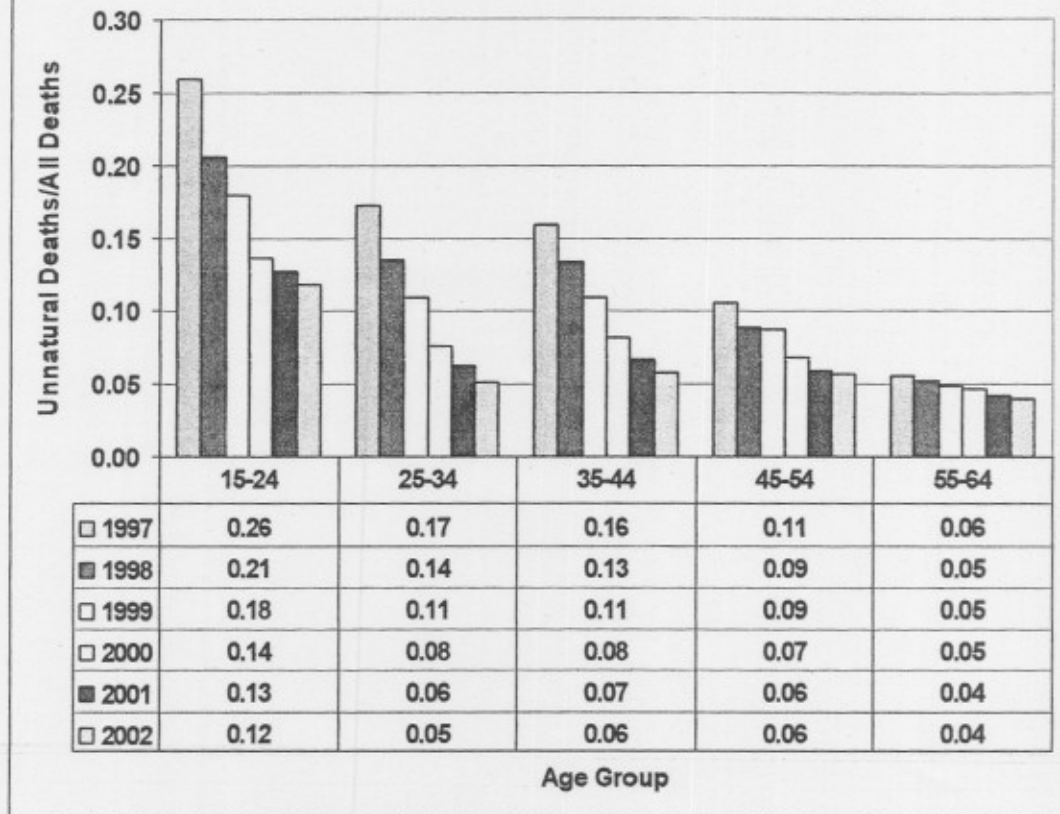


Figure 3 shows the proportion of all female deaths in South Africa by age that were due to unnatural causes 1997-2002. This proportion from unnatural causes has declined over time for every age group, not mainly because of the decline in unnatural mortality, but rather due to the rapid rise in natural cause mortality for these age groups.

Figure 3. Unnatural Deaths as a Proportion of All Deaths by Age, South African Females



Limitations of Death Registration Data about Unnatural Deaths

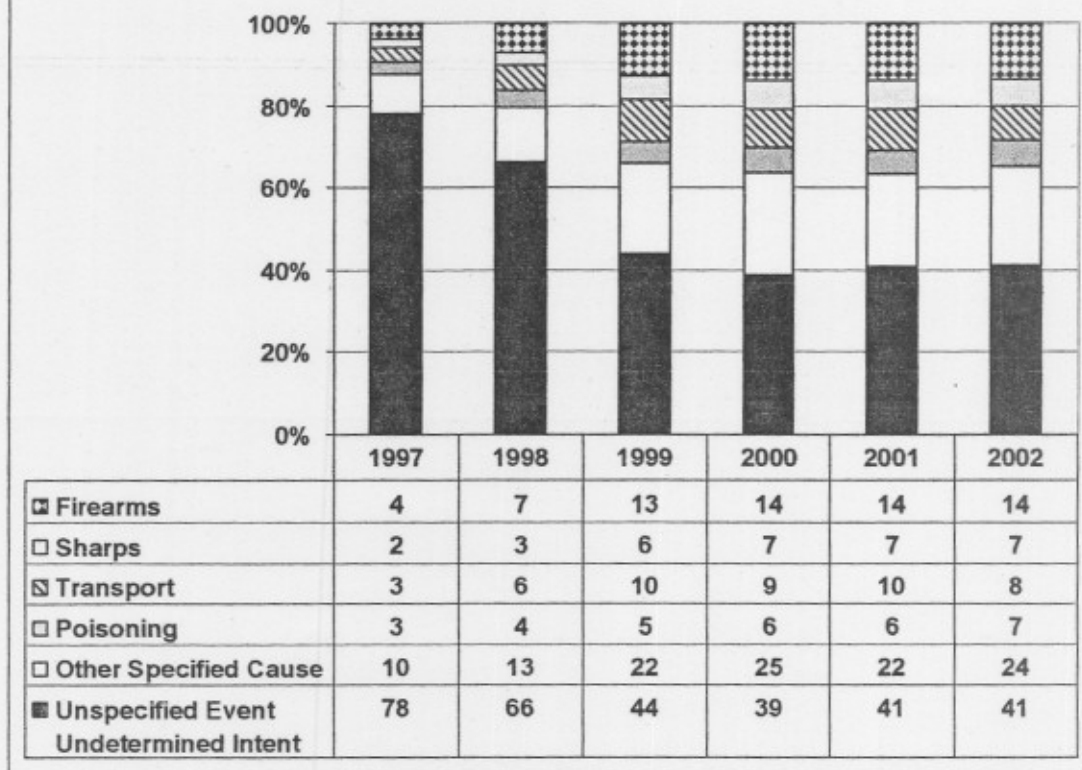
It is useful to understand the level of death rates from unnatural causes to women by age and how these rates have changed over time. But much more detail would be very helpful, especially if we want to understand patterns of violent death to women and whether these patterns have changed over time. It would be good to know specifically about homicide rates by age, as well as to know patterns of use of firearms and sharps resulting in women's deaths. However, detail about the nature of external deaths is almost completely lacking in 1997 and 1998, and is quite incomplete in 1999 and later years.

Figure 4 shows the distribution of stated causes of unnatural deaths for females age 15-64 for every year 1997 through 2002. The "unspecified event unknown intent" category means that it was an unnatural death, but nothing else is known about the death. In 1997 and 1998, this undetermined category constituted

more than 2/3 of all unnatural deaths. This undetermined category was about 40% of all unnatural deaths in 1999-2002.

One reason for this large percentage undetermined is the "Wet op Geregte Doodsondersoek" (Judicial Death Enquiries Act #58 of 1959). This law states that determination of intent (assault by others, intentional self-harm, or accident) is the prerogative of the court. Court proceedings can take a long time, and the Death Notification form is usually filled out long before any court proceedings have been completed. Thus, intent is rarely recorded on the Death Notification form. This means that a classification of unnatural deaths into the traditional categories of homicide, suicide, and accident is not possible from the Death Notification data. Very often the manner of death (transport, firearm, knife, etc.) also is not recorded, although the Judicial Death Enquiries Act does not prohibit the recording of that kind of information.

Figure 4. Distribution of Stated Causes of Unnatural Deaths for Females Age 15-64, 1997-2002



The National Injury Mortuary Surveillance System

In 1999, the National Injury Mortuary Surveillance System (NIMSS) was established in order to improve knowledge about unnatural deaths. This is not an official data source for unnatural mortality. Mortuaries voluntarily participate in this system. In 2004, participating mortuaries were in 6 different provinces and included 35%-40% of all unnatural deaths. The participating mortuaries are almost all located in urban places.

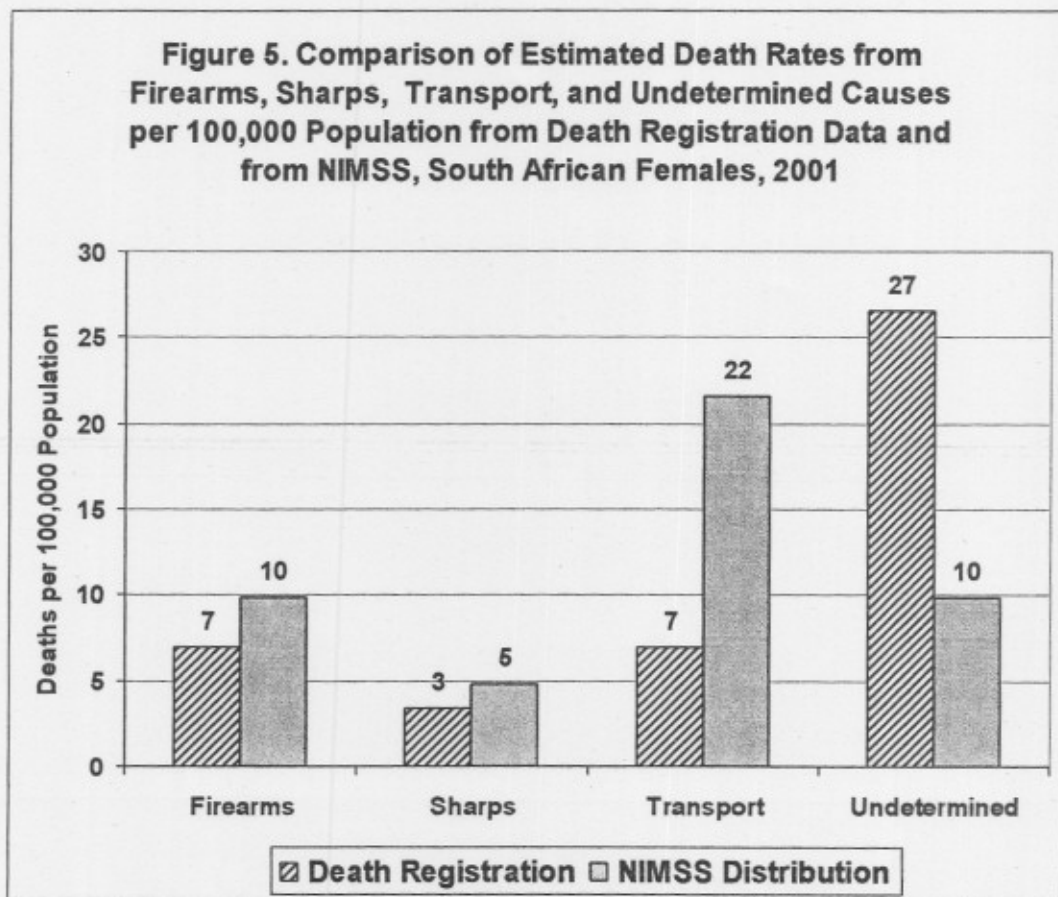
Participating mortuaries fill out a special form for each unnatural death, which includes information about the circumstances of the death (firearm, sharp, burn, etc.) and the apparent manner (intent) of death (homicide, suicide, accident, natural, undetermined). The NIMSS form is not a legal document, so filling out the apparent manner of death does not violate the Judicial Death Enquiries Act. Thus, the NIMSS data can show the distribution of unnatural deaths among homicide, suicide, and accidents, with only a small percentage of unnatural deaths left with undetermined intent. They also can give information on the proportion of unnatural deaths due to causes such as firearms, sharps, drowning, and burns, for the unnatural deaths recorded in the NIMSS data.

Comparison of Some Death Rates from Unnatural Causes Between Death Registration Data and NIMSS

Most people interested in the different kinds of unnatural deaths in South Africa have used the NIMSS data, despite the fact that NIMSS data include a minority of unnatural deaths lack of complete coverage and the urban bias of the NIMSS data. The NIMSS data cannot be used directly to obtain death rates, but the distribution of unnatural deaths by cause can be used to allocate the external deaths from the Death Notification data.

Figure 5 shows estimated death rates for all South African women in 2001 from firearms, sharps (knives), transport, and from undetermined unnatural causes. The denominators for both sets of rates are from the Statistics South Africa Mid-Year Population Estimates for 2001. The numerators from Death Registration are from the reported causes of death in death registration (adjusted for completeness of registration). For the NIMSS results, the proportion of all female unnatural deaths in the NIMSS data for 2001 that were due to a particular cause (such as firearms) was applied to the total number of female unnatural deaths from the Death Registration data (adjusted for completeness of death registration).

We see that the female death rates from firearms and from sharps are only somewhat higher based on the NIMSS data than from the Death Registration data. The NIMSS-based transport death rates are much higher than those based on the Death Registration data. This raises the question of whether NIMSS data are extremely strongly biased due to the predominantly urban location of the participating mortuaries. The death rate from undetermined unnatural causes is much higher from the Death Registration data than from the NIMSS-based data.



Recommendations

Increased cooperation between Statistics South Africa, SAPS, the Department of Transport, and NIMSS could substantially improve knowledge about unnatural deaths and death rates from unnatural causes. Statistics South Africa, SAPS, and the Department of Transport have begun to cooperate.

The Judicial Death Enquiries Act has been interpreted as barring those that fill out the Death Notification forms from indicating the manner of death (intent). However, the law does not bar recording the circumstances of the injury (firearm, sharp, burn, etc.). It would be useful if the SAPS personnel who fill out the Death Notification form indicated the circumstances of the death (firearm, transport, burn, etc.) on a larger proportion of cases.

If a "best opinion about apparent manner of death" item were placed on the Death Notification form, without legal weight (as on the NIMSS form), it would allow calculation of unnatural death rates by intent (homicide, suicide, accidents) from death registration data.

The Judicial Death Enquiries Act was passed in 1959. Perhaps it would be timely for the provisions of the act to be reconsidered.

These improvements would help understanding of patterns of violent deaths to women, as well as other important topics, including transport deaths, pedestrian deaths, and the changing role of firearms. Statistics South Africa, SAPS and the Department of Transport have started discussions about cooperation.