

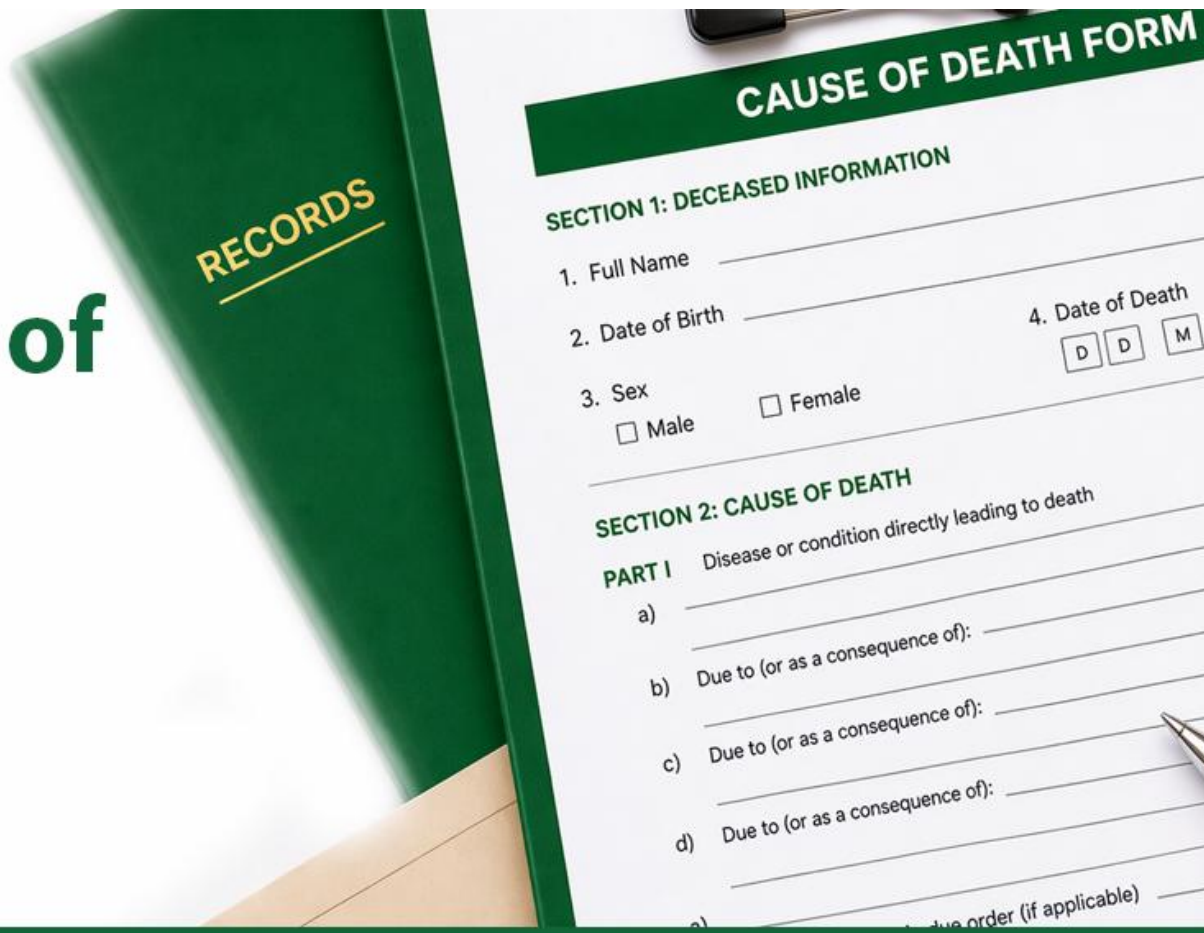
Pam Groenewald

Improving the quality of cause of death statistics

KnowledgeHub webinar 22 April 2026



Improving Cause of Death Reporting



health

Department:
Health
REPUBLIC OF SOUTH AFRICA



Improving Cause of Death Reporting

Home > My courses > Improving Cause of Death Reporting > General > Welcome to the Short Course in Cause of Death Reporting

Welcome to the Short Course in Cause of Death Reporting

We're delighted to have you join us!

Every death certificate you complete is more than a form—it's a critical piece of health intelligence that shapes policy, guides resource allocation, and informs strategies that save lives. Inaccurate reporting can distort mortality statistics and weaken public health responses, but your role as a healthcare professional can change that.

This short, self-paced online course is designed with your busy schedule in mind. Over the next few hours, you'll gain practical skills and insights to:

- Understand why accurate cause of death data matters for South Africa and beyond.
- Master the correct process for completing death certificates.
- Navigate special cases and unique scenarios with confidence.
- Know when to refer cases for forensic investigation.

By the end of this course, you'll not only meet HPCSA requirements and earn 3 Clinical CPD points and 2 Ethics CPD points, but you'll also contribute to improving national health strategies and global disease surveillance.

How the Course Works

Each of the 5 modules includes a video presentation followed by a short self-assessment multiple-choice quiz to reinforce your learning. The final assessment at the end of the course is a multiple-choice quiz covering all modules. You must obtain at least 70% for the final assessment to successfully complete the course. Once you achieve this, you'll be able to download your certificate of completion.

OUTLINE OF COURSE

- MODULE 1: THE IMPORTANCE OF CAUSE OF DEATH DATA
- MODULE 2: CERTIFICATION OF DEATH
- MODULE 3: CERTIFICATION OF DEATH: SPECIAL CASES (PERINATAL, MATERNAL, INJURY)
- MODULE 4: OTHER SPECIFIC SITUATIONS
- MODULE 5: COVID-19 DEATHS

- FINAL ASSESSMENT: CERTIFICATE OF COMPLETION (CPD: 7 CLINICAL 2 ETHICS)
- EVALUATION SURVEY

Learning objectives

- Understand why accurate cause of death data matters for South Africa and beyond.
- Master the correct process for completing death certificates according to WHO ICD guidelines.
- Navigate special cases and unique scenarios with confidence.
- Know when to refer cases for forensic investigation.

Course presentation

Modules

- Video presentation
- Slide set pdf
- Self-assessment MCQ

Final assessment

- MCQ covering all modules
- Minimum mark to successfully complete the course
- Download certificate of completion

Why the course was developed

- To educate certifiers about the **public health importance** of medical cause of death data
 - Medical students trained on death certification during Forensic medicine
 - Focus on legal aspects rather than public health aspect
- **To improve the quality of cause of death**
 - High proportion of ill-defined causes of death (unusable for public health purposes)
 - Inaccurate injury profile (manner of death missing)
 - Gross underreporting of deaths due to HIV (medical certifiers reluctant to report it)

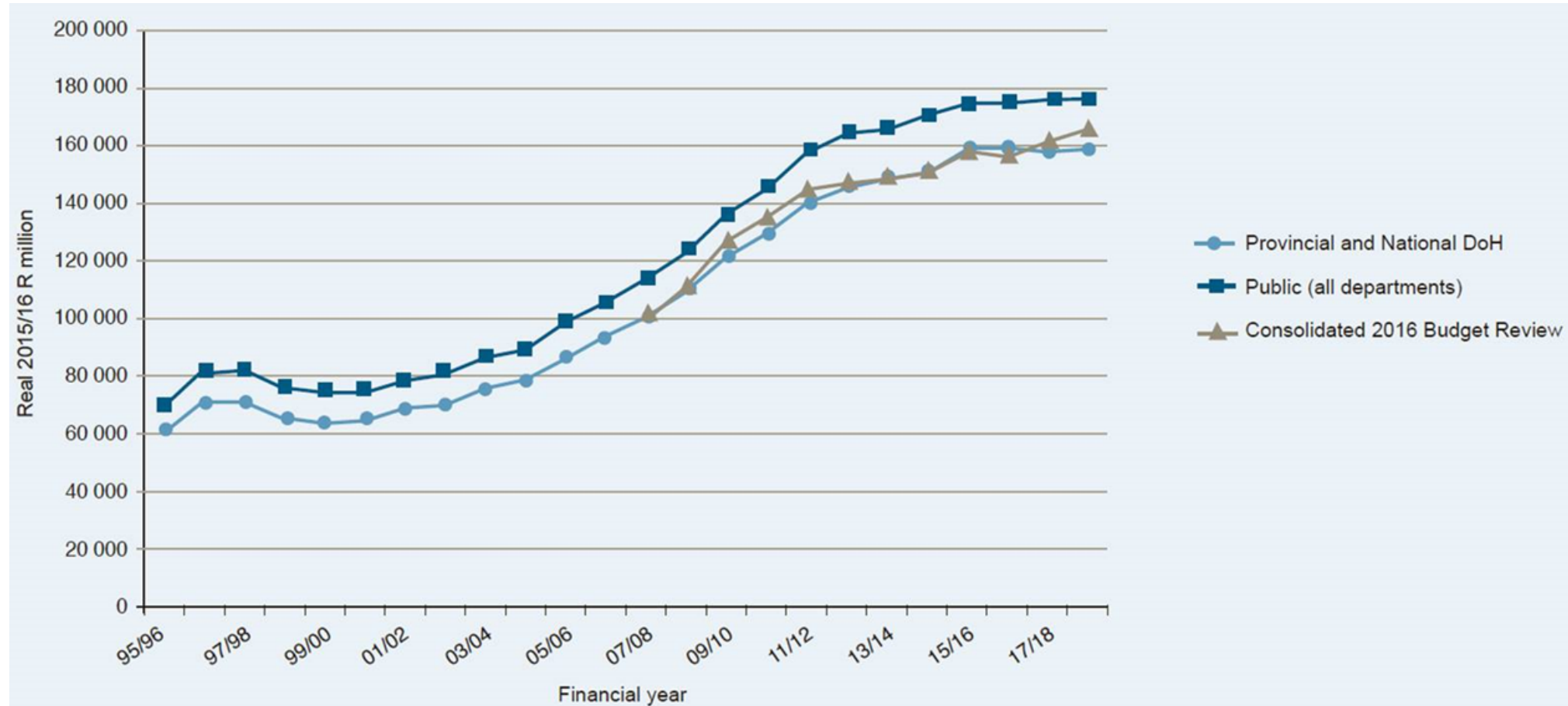


Public health importance

- Identify priority diseases
- Allocate resources
- Monitor disease trends over time
- Evaluate impact of interventions

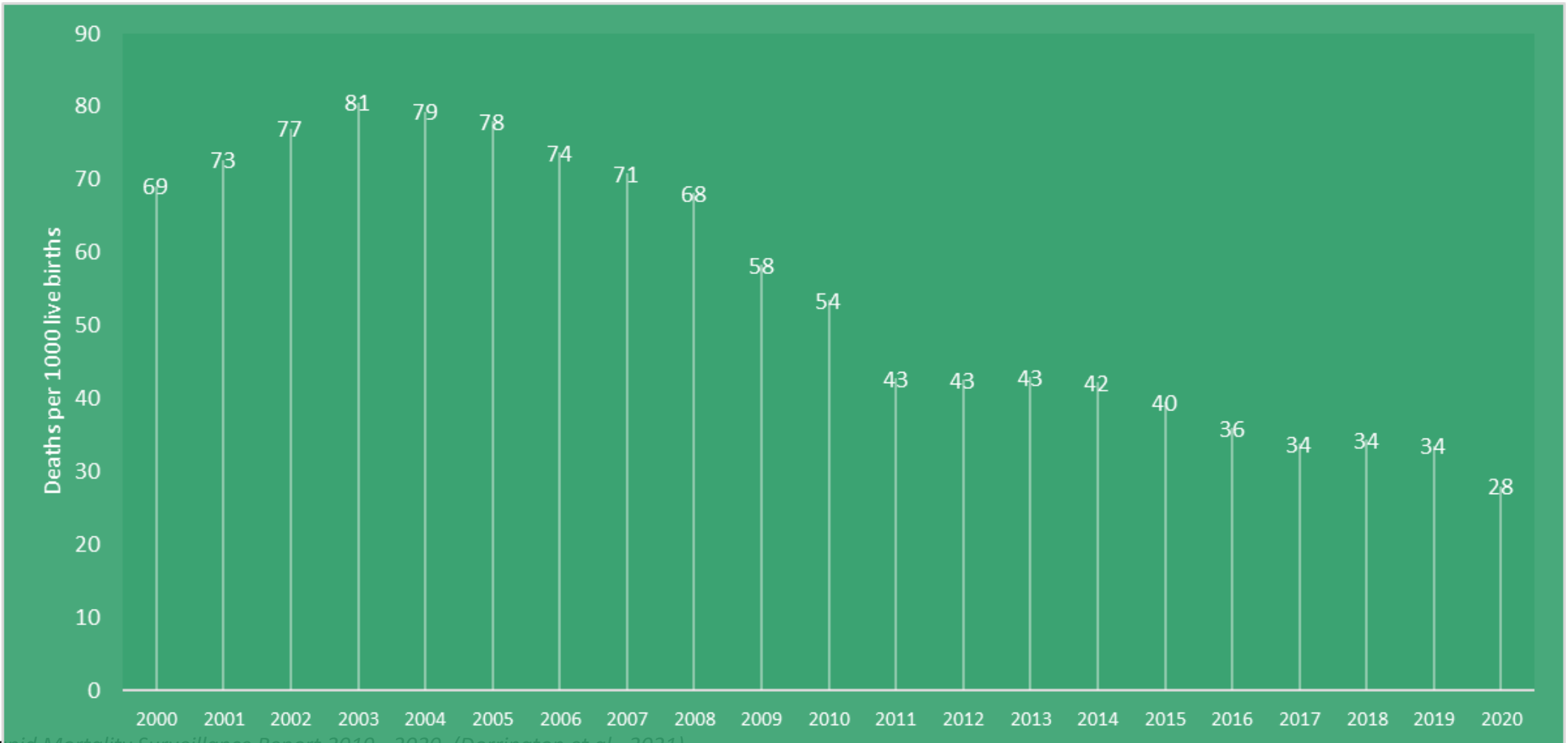
Cause of death: Mortality data uses

Justify health spending



Cause of death: Mortality data uses

Track infant deaths: Under 5 mortality rate

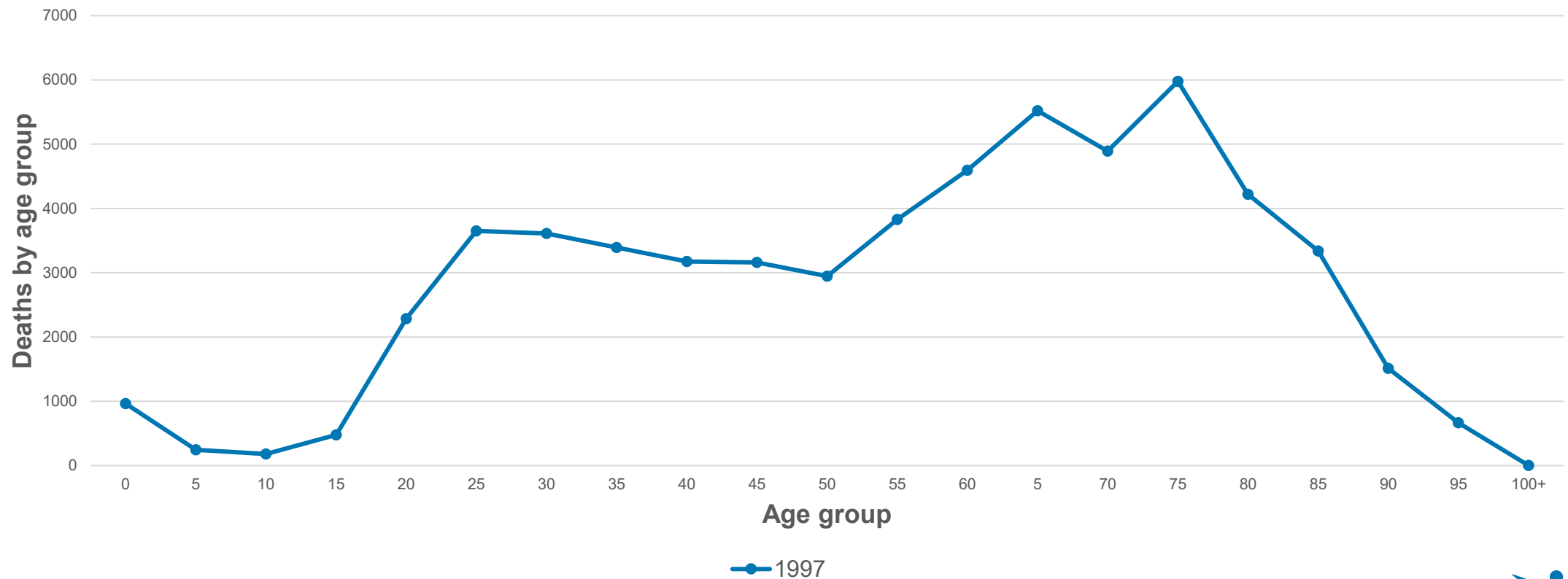


Source: Rapid Mortality Surveillance Report 2019–2020. (Dorrington et al., 2021).

Cause of death: Mortality data uses

Track trends in mortality: Deaths by age in South Africa: 1997 - 2021

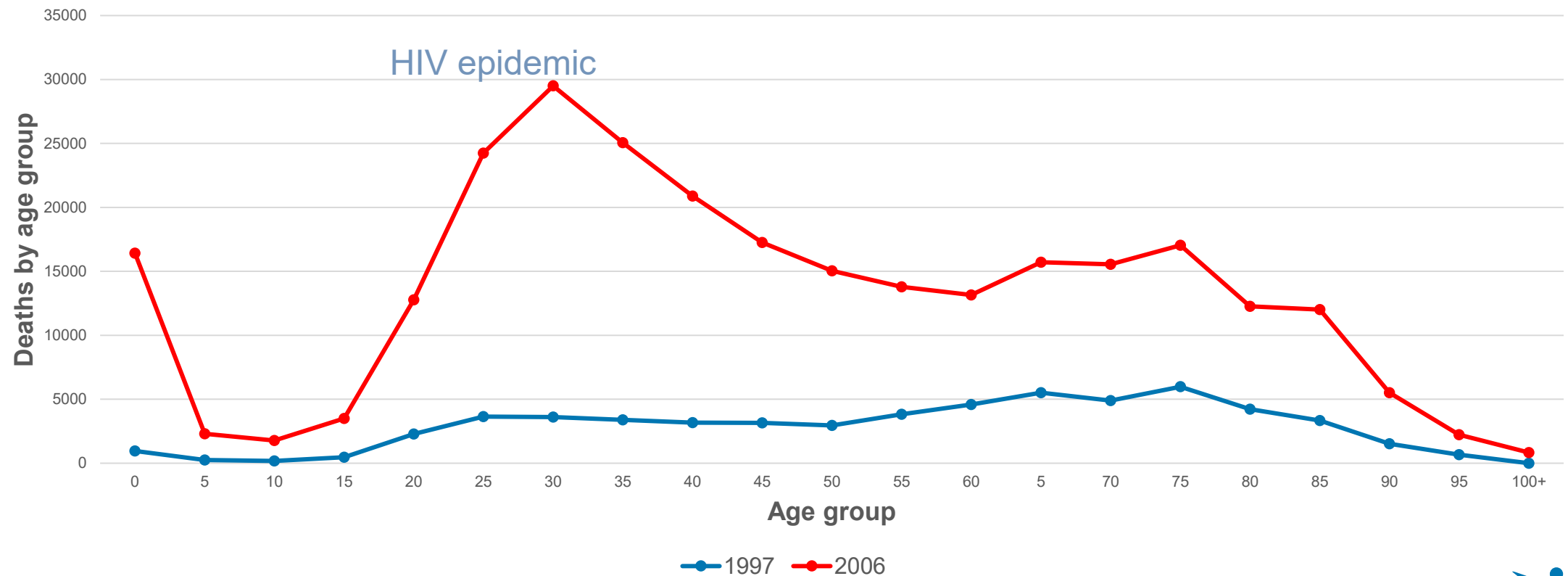
Females



Cause of death: Mortality data uses

Track trends in mortality: Deaths by age in South Africa: 1997 - 2021

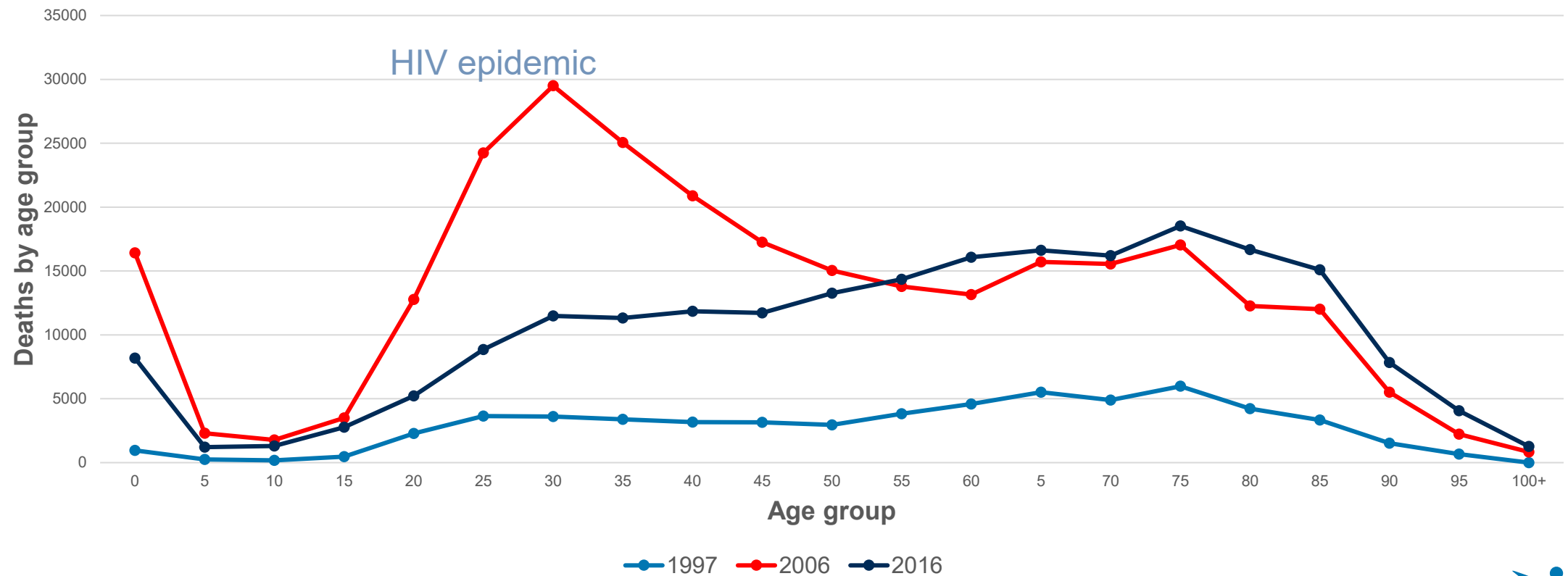
Females



Cause of death: Mortality data uses

Track trends in mortality: Deaths by age in South Africa: 1997 - 2021

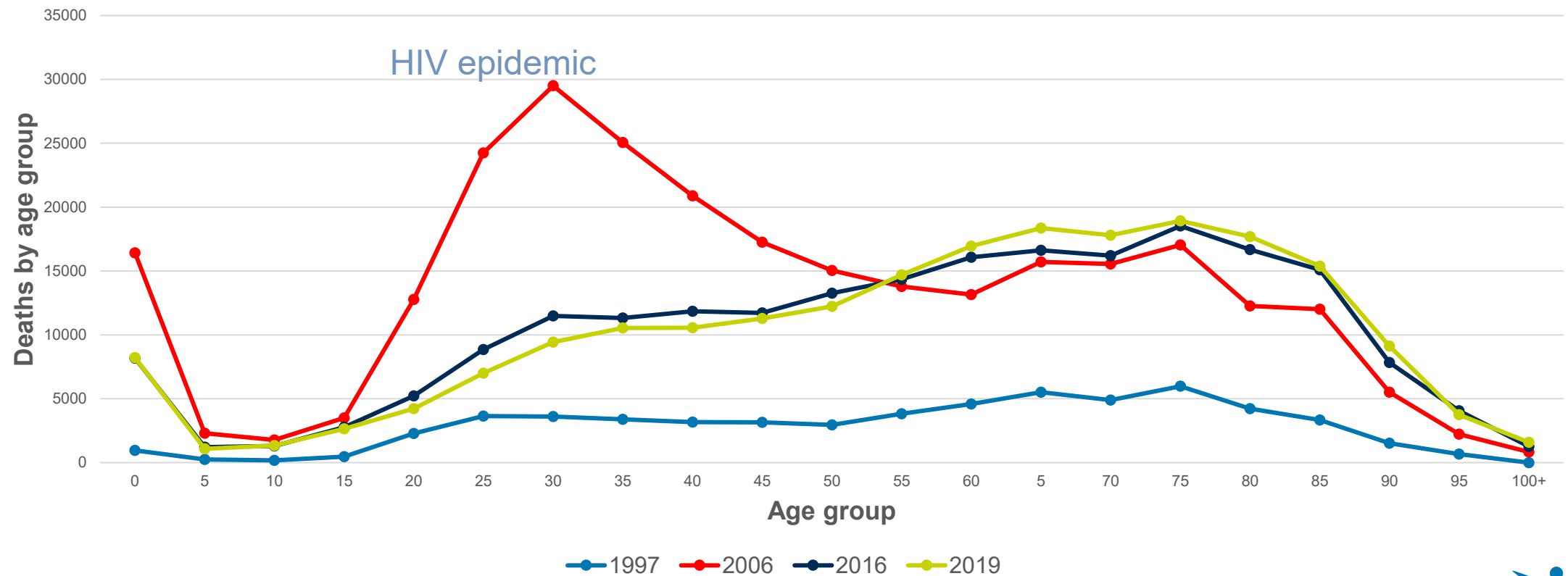
Females



Cause of death: Mortality data uses

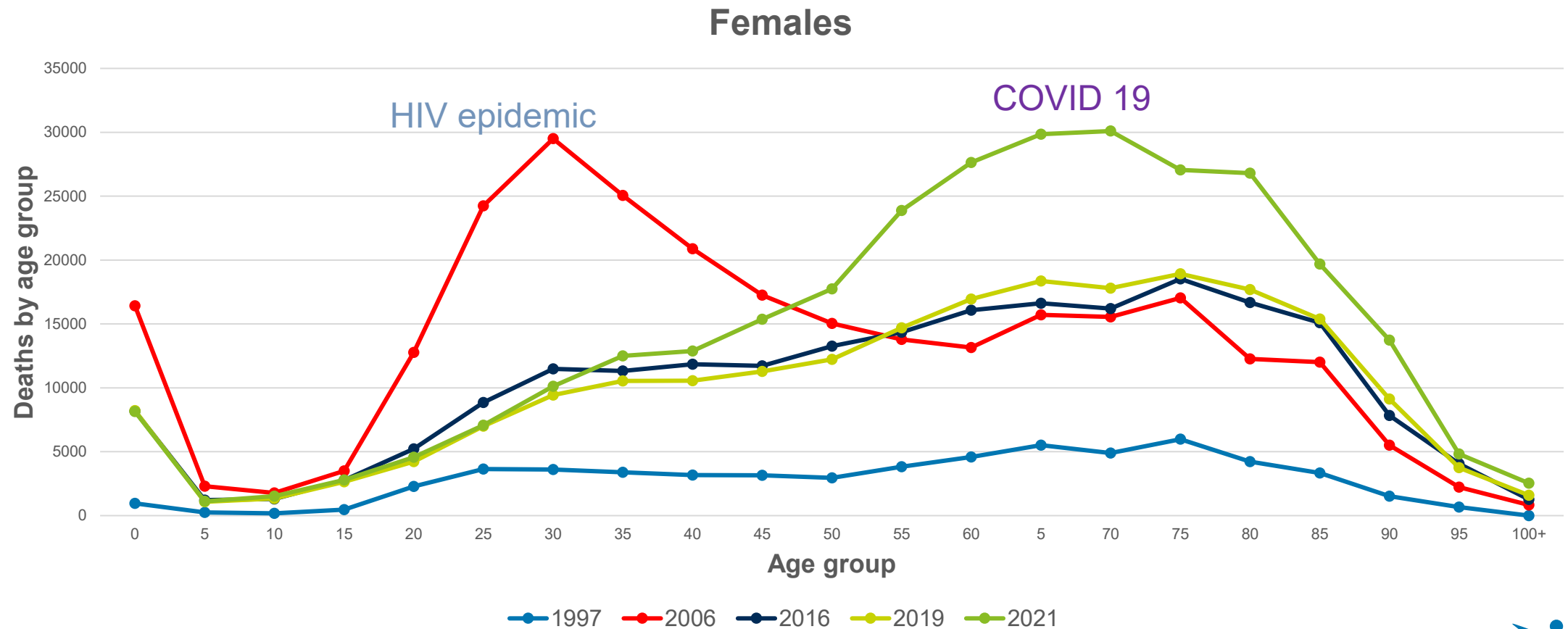
Track trends in mortality: Deaths by age in South Africa: 1997 - 2021

Females



Cause of death: Mortality data uses

Track trends in mortality: Deaths by age in South Africa: 1997 - 2021



Cause of Death: Mortality Data uses

SURVEILLANCE

- HIV / AIDS
- Tuberculosis
- Cancer
- Cardiovascular disease
- Diabetes
- Homicide
- Road traffic injuries
- Influenza & Pneumonia
- Rare disease
- Tobacco use

OUTBREAKS

- COVID-19
- Cholera
- H1N1 virus
- Ebola
- Foodborne illness
- Listeriosis
- Legionnaire's disease

EMERGENCIES

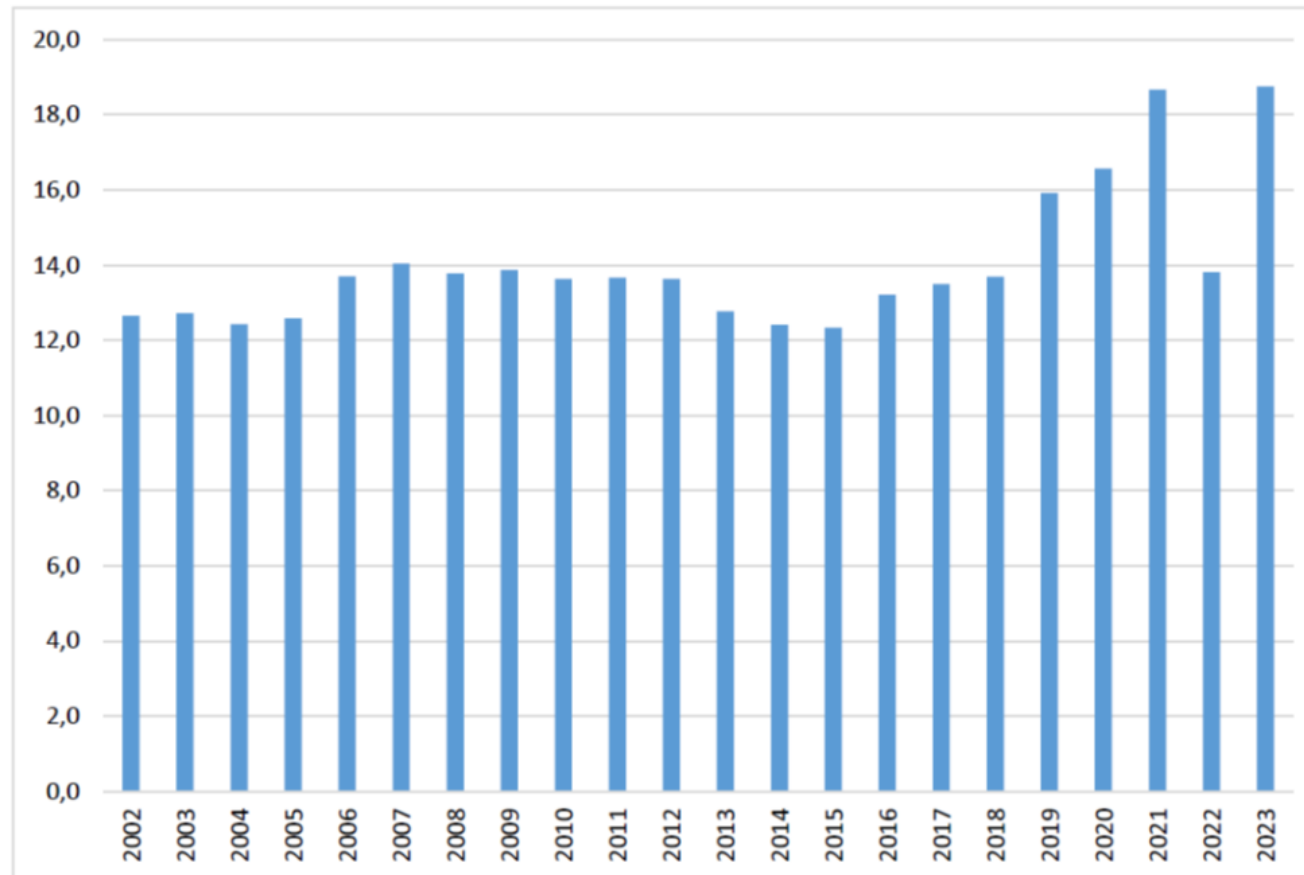
- Surveillance and outbreaks become emergencies when severe and spreading
- Natural disasters
- Mining accidents
- Shack fires
- Pandemic influenza



Quality of cause of death data

High proportion of ill-defined causes of death obscures true cause of death profile

Figure C 2 – Percentage distribution of deaths assigned to symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified and year of death 2002–2023*

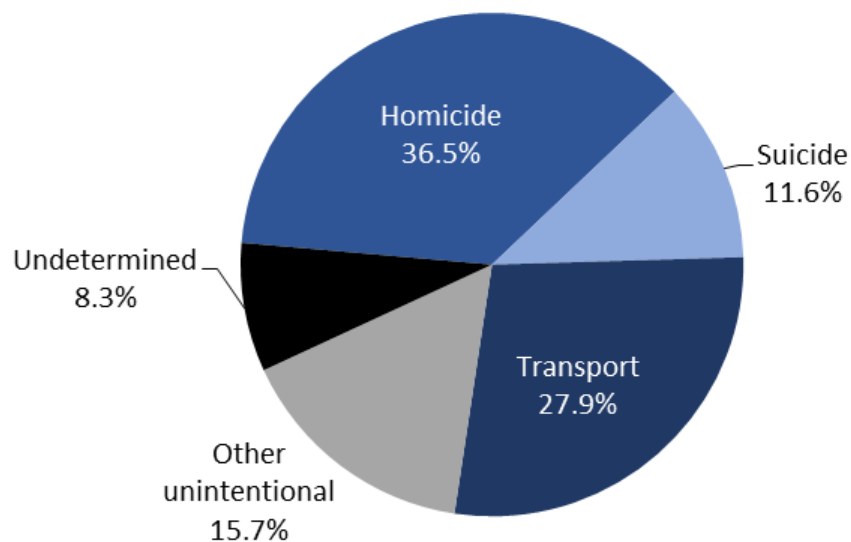


*Data for 2002–2022 have been updated with late registrations/delayed death notification forms processed in 2025/2026.

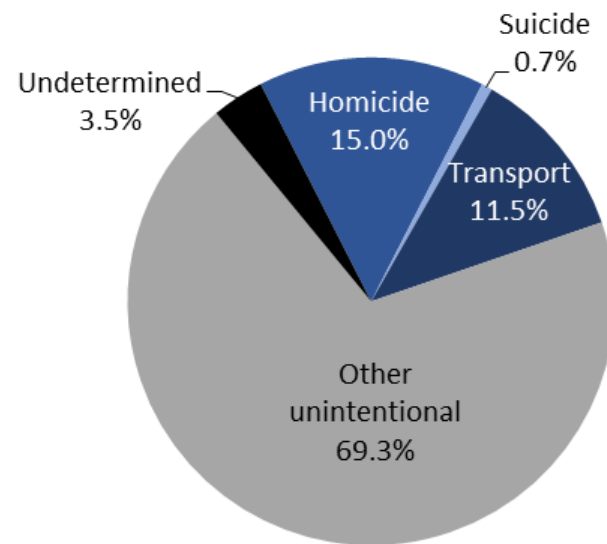
Injury cause of death profile inaccurate

Injury Mortality Survey vs Stats SA 2017

Injury Mortality Survey, 2017
(N= 53 288)



Statistics South Africa (Stats SA), 2017
(N= 51 164)



Source: Prinsloo et al, 2021

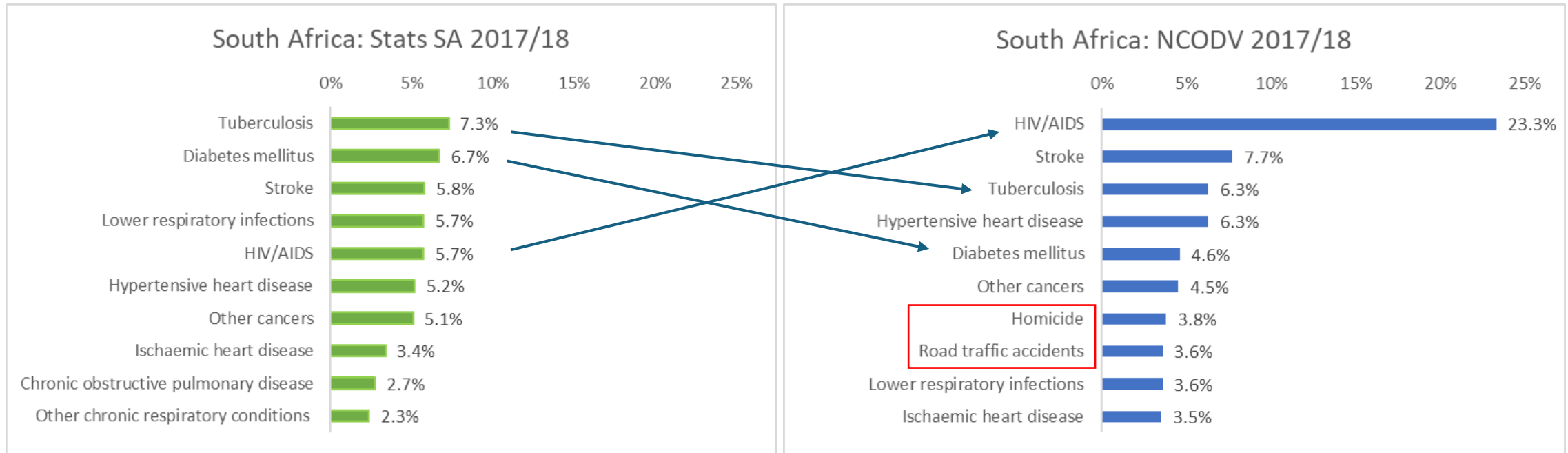
Official injury data cannot be coded accurately because manner of death is missing from death certificate

Under-reporting of HIV related deaths

Leading causes of death Stats SA vs NCODV weighted to Stats SA

Stats SA

NCODV



Only 28% of HIV-related deaths documented in the medical records are reported as HIV/AIDS on death certificate

How do we improve quality of Medical Certificate of Cause of Death (MCCD)



Train medical certifiers about

- The importance of the MCCD for public health
- Rationale behind the WHO MCCD format
- How to certify a cause of death

Amend the DHA-1663 form to include manner of death

Death notification form



STAATSKOERANT, 26 FEBRUARIE 2014

No. 37373 5

GOVERNMENT NOTICE

DEPARTMENT OF HOME AFFAIRS

No. R. 128

26 February 2014

BIRTHS AND DEATHS REGISTRATION ACT, 1992

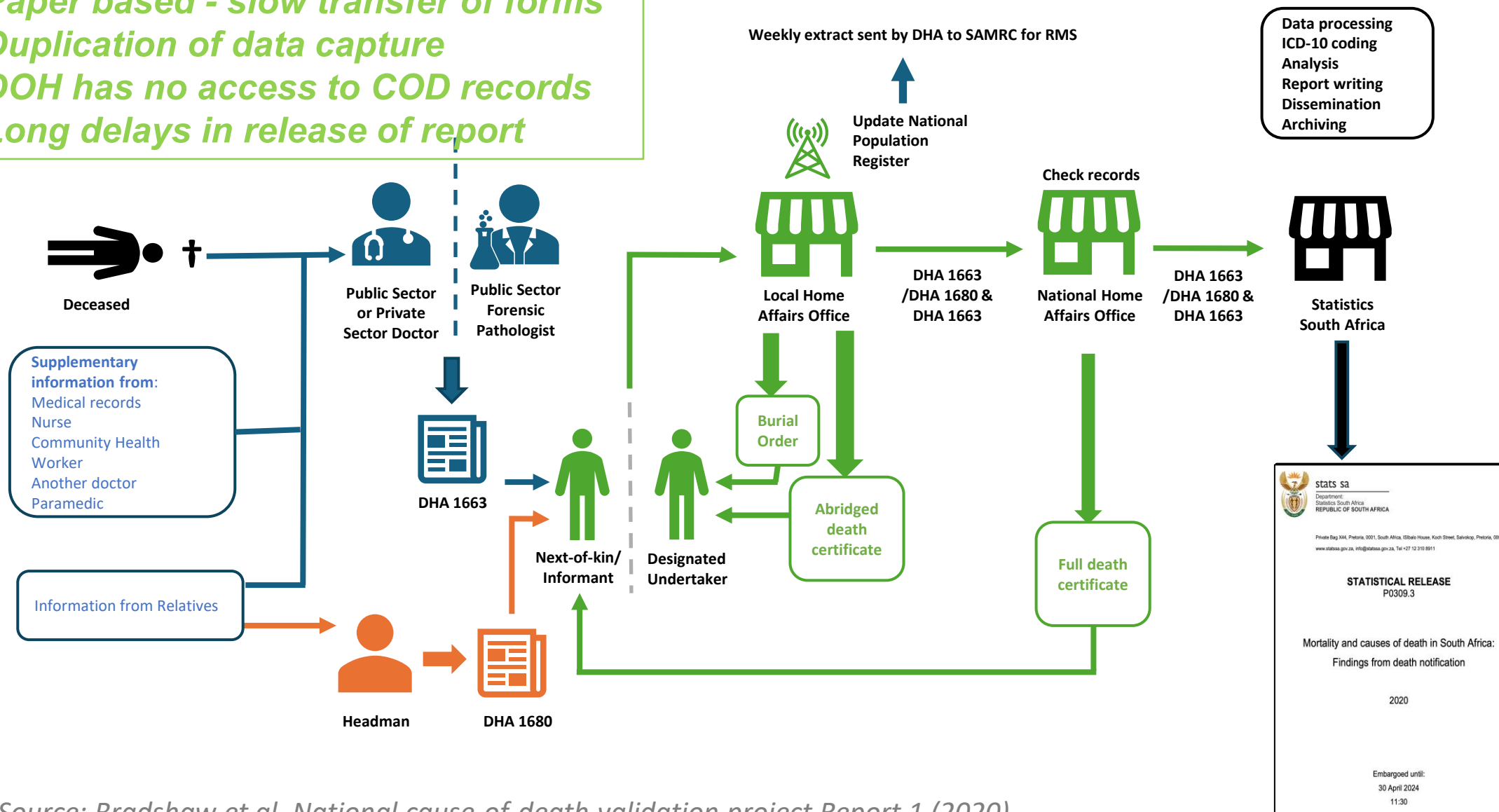
REGULATIONS ON THE REGISTRATION OF BIRTHS AND DEATHS, 2014

The Minister of Home Affairs has, in terms of section 32 of the Births and Deaths Registration Act, 1992 (Act No. 51 of 1992), made the Regulations in the Schedule.



Death registration: Flow of information

Paper based - slow transfer of forms
Duplication of data capture
DOH has no access to COD records
Long delays in release of report



Source: Bradshaw et al. National cause-of-death validation project Report 1 (2020)

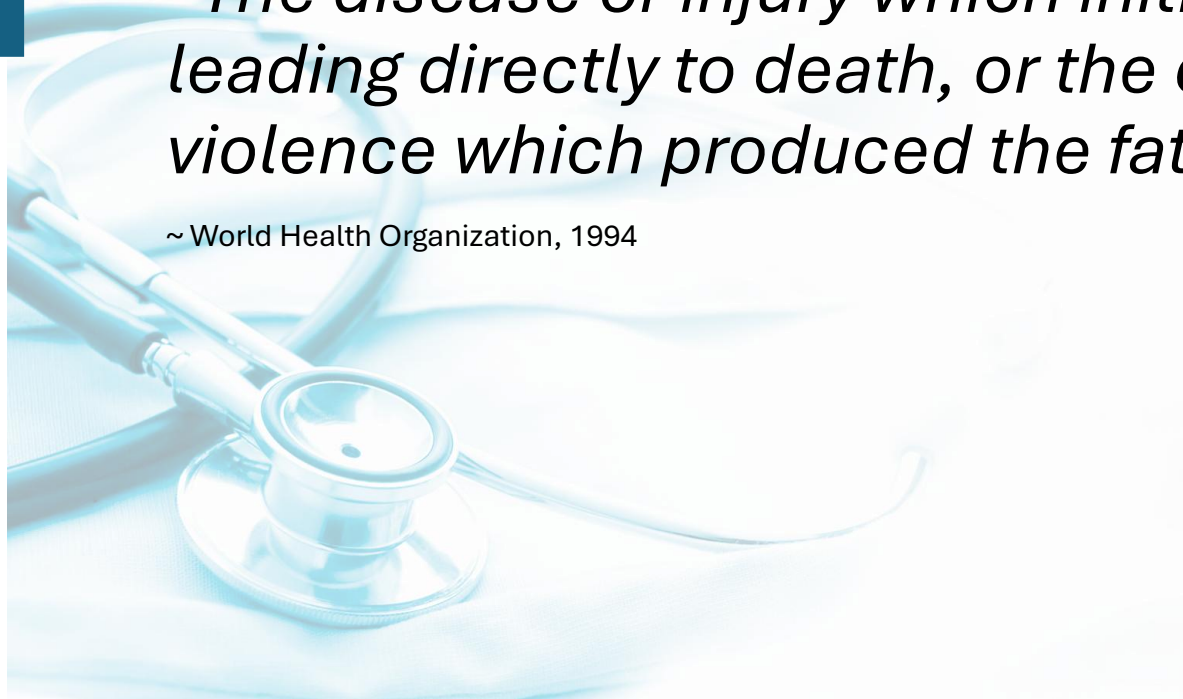
The Public Health aim of medical certification of cause of death is to prevent (premature) deaths

- Need to break the chain of events or causal sequence leading to death
- Most effective way is to prevent the precipitating/underlying cause

Underlying cause of death:

“The disease or injury which initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury.”

~ World Health Organization, 1994



Definitions: Manner of Death

Explains the *circumstances* of the death:

Natural

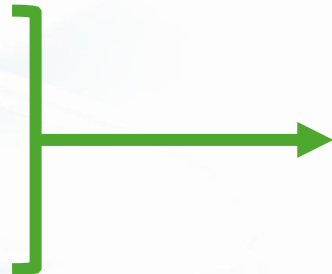


Result of evident disease process

Accident

Suicide

Homicide



Result of external causes



Requires further review by authorities

Undetermined

Cause



Unknown, pending investigation.....

Medical certificate of cause of death - DHA-1663B pg 1/1

NOTICE OF DEATH / STILL BIRTH

Confirmation for Medical and Health use Only
(After completion seal to ensure confidentiality)

DHA-1663 B

Page 1 of 1

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

File no _____ Date _____

G. MEDICAL CERTIFICATE OF CAUSE OF DEATH

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

PARTICULARS OF DECEASED

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

68. Gender 68.1 Male 68.2 Female 68.3 Indeterminable

69. Surname

70. Forenames

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

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

73. Name of Health Facility/Practice

74. Facility Contact Telephone No. incl. Area Code

75. Patient File No.

76. Contact Person at Facility: Surname
Forenames
Role/Rank

G.1 FOR DEATHS OCCURRING AFTER ONE WEEK OF BIRTH

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

77. CAUSES OF DEATH

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

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

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

79.1 Autopsy 79.2 Post mortem examination 79.3 Opinion of attending medical practitioner 79.4 Opinion of attending medical practitioner on duty
 79.5 Opinion of registered professional nurse 79.6 Interview of family member 79.7 Other (specify) _____



WHO Medical certificate of cause of death (DHA-1663)

Facilitates identification of UCOD where multiple conditions present

G.1 FOR DEATHS OCCURRING AFTER ONE WEEK OF BIRTH

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

77. CAUSES OF DEATH

Part 1: Causal sequence

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

IMMEDIATE CAUSE (final disease or condition resulting in death)

a) _____
Due to (or as a consequence of)

Immediate cause

Time interval

Sequentially list conditions, if any, leading to immediate cause.

b) _____
Due to (or as a consequence of)

Intermediate cause

Enter **UNDERLYING CAUSE** last (Disease or injury that initiated events resulting in death)

c) _____
Due to (or as a consequence of)

Intermediate cause

d) _____
Due to (or as a consequence of)

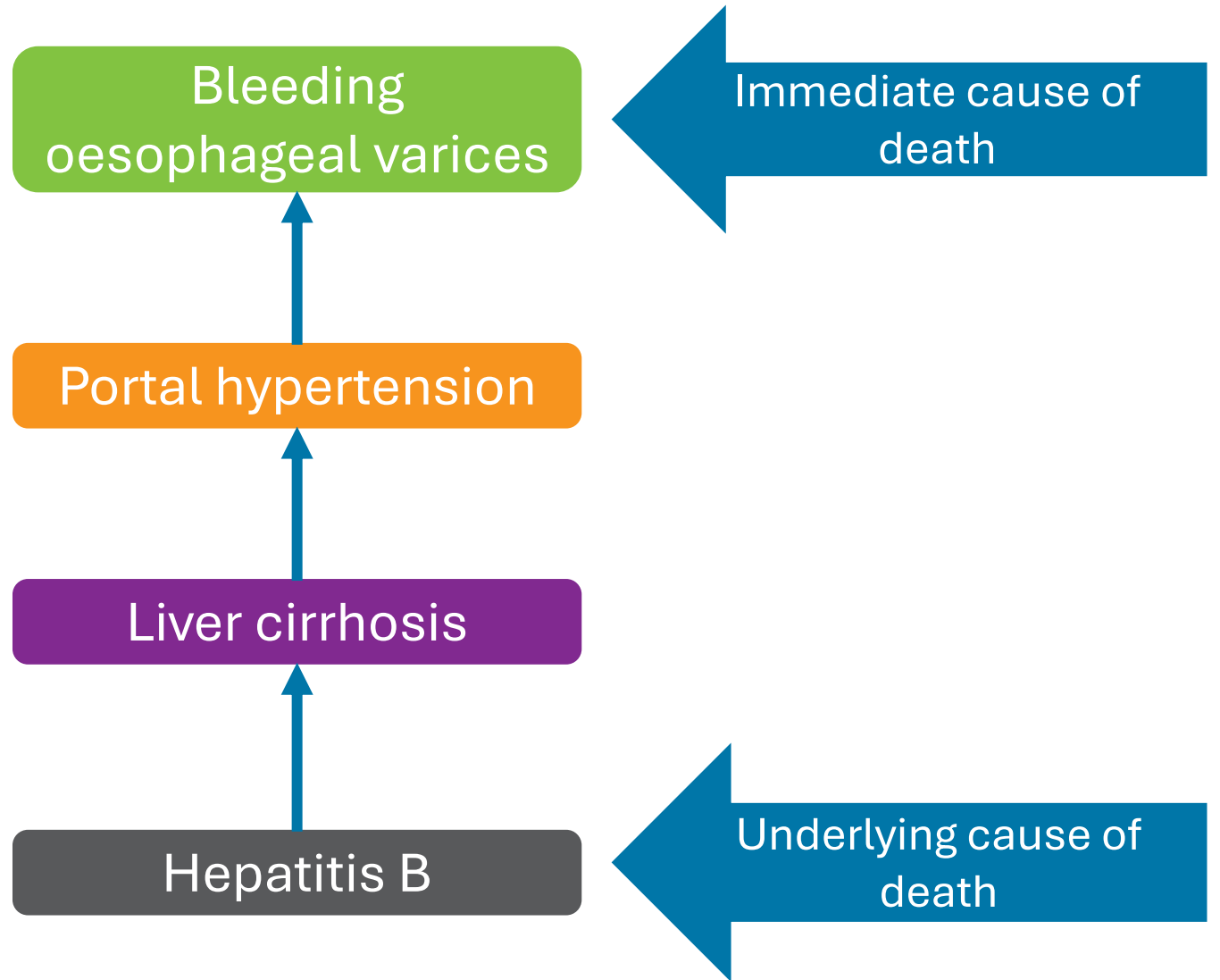
Underlying cause

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

Part 2: Co-existing conditions that contributed to death, but do not fit into causal sequence in Part 1

Sequence of events leading to death (causal sequence)

A 50-year-old woman was admitted to the hospital vomiting blood and was diagnosed as having bleeding oesophageal varices. Investigation revealed portal hypertension. The woman had a history of Hepatitis B infection (15 years ago). Three days later, she died.



WHO Medical certificate of cause of death (DHA-1663)

G.1 FOR DEATHS OCCURRING AFTER ONE WEEK OF BIRTH

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

Part 1: Chain of events or causal sequence leading directly to death

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

IMMEDIATE CAUSE (final disease or condition resulting in death)

a)

Immediate cause *Bleeding oesophageal varices*

Due to (or as a consequence of)

Sequentially list conditions, if any, leading to immediate cause.

b)

Intermediate cause *Portal hypertension*

Due to (or as a consequence of)

Enter **UNDERLYING CAUSE** last (Disease or injury that initiated events resulting in death)

c)

Intermediate cause *Liver cirrhosis*

Due to (or as a consequence of)

d)

Underlying cause of death *Hepatitis B*

Part 2 Other significant conditions contributing to death but not resulting in underlying cause given

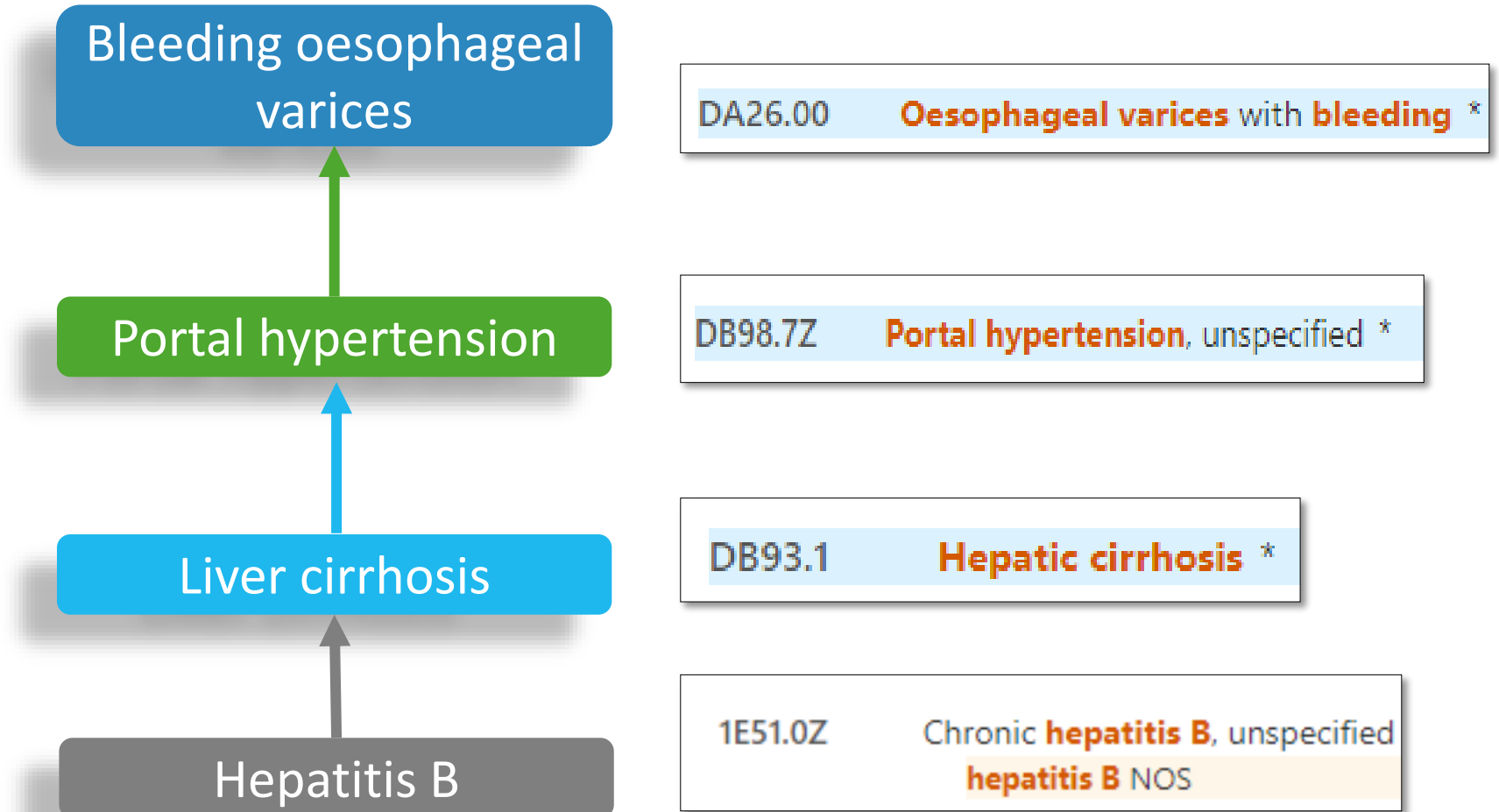
Part 2: Coexisting conditions which contributed to death, but do not fit into the causal sequence in Part 1.



Understanding ICD mortality coding rules

1. Multiple cause coding
2. Selection of underlying cause

1. Multiple cause coding



2. Selection of Underlying cause of death

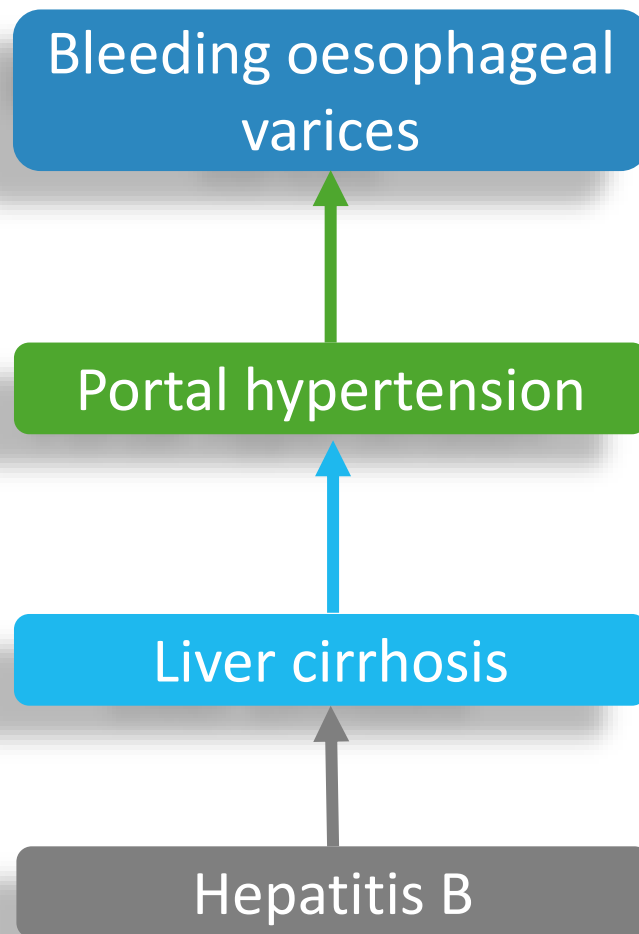
Selection rules

1. Find starting point (Steps SP1-SP8)

SP3: Hepatitis can cause each of the conditions on lines above

2. Check for modifications of SP (Steps M1-M4)

None



DA26.00 Oesophageal varices with bleeding *

DB98.7Z Portal hypertension, unspecified *

DB93.1 Hepatic cirrhosis *

1E51.0Z Chronic hepatitis B, unspecified
hepatitis B NOS

UCOD = Hepatitis B



Ethical and Legal implications of disclosing HIV status of a deceased person

Planning to develop a module for the course

Births and Deaths registration act



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- Imposes a statutory obligation on medical certifiers to provide accurate information on DHA-1663
- Failure to do so or false statements are criminal offences and liable to a fine or imprisonment

HPCSA Guidelines for good practice in the healthcare professions

Confidentiality: Protecting and providing information Booklet 5 (Dec 2021)

9.5 DISCLOSURE OF PERSONAL INFORMATION AFTER A PATIENT'S DEATH

9.5.2 There are several circumstances in which healthcare practitioner may be asked to disclose, or wish to use, information about patients who have died, note this list is not exhaustive:

9.5.2.1 To assist in connection with an inquest. In these circumstances, practitioners are required to provide the relevant information;

9.5.2.2 As part of a clinical audit or for education or research with the approval of a research ethics committee. The publication of properly anonymised case studies would not be improper in these contexts;

9.5.2.3 On death certificates. The law requires healthcare practitioners to complete death certificates honestly and fully;

9.5.2.4 To obtain information relating to public health surveillance that is approved by a research ethics committee. Anonymised information should be used, unless identifiable data is essential to the study

Ethical and legal implications of disclosing HIV status of a deceased person



SAMJ FORUM

MEDICINE AND THE LAW

Disclosing the HIV status of deceased persons – ethical and legal implications

David McQuoid-Mason

The ethical rules of the Health Professions Council of South Africa (HPCSA) provide that confidential information about

practitioner concerned for unethical conduct in terms of Rule 12,¹ but there would be no legal action for damages.

McQuoid-Mason DJ, S Afr. Med J 2007; 97: 920-923.

- Rule 12 HPCSA ethical rules recognizes that a statute may require disclosures about a deceased persons health - not unethical to disclose on a BI 1663 form that a person has died from an AIDS-related illness.
- The law imposes a positive duty on medical practitioners to provide the information required by the BI 1663 form, and those who fail to do so or who make false statements are guilty of a criminal offence and liable on conviction to a fine or imprisonment of 5 years or both.
- Whatever the shortcomings regarding confidentiality caused by the BI 1663 form, medical practitioners are obliged to complete it properly and to indicate the medical cause of death on the second page for statistical purposes.

Training is NB but not enough..... suggestions

- Structured phased training throughout medical career to improve and sustain MCCD practice
 - Foundational concepts – medical students
 - Practical skills – internship (logbook)
 - Refresher – specialists
- Health system need to embed MCCD processes into existing governance structures
 - standardise certification practices (ONHS)
 - Implement routine quality assurance practices
 - Regular audits
 - Feedback to certifiers
- Electronic medical certification of cause of death is an opportunity to reduce errors
 - Real time prompts
 - Validation checks



Thank you