

Northern Territory Child Deaths Review and Prevention Committee

Annual Report 2023-2024

Northern Territory Child Deaths Review and Prevention Committee

The NT Child Deaths Review and Prevention Committee respects the beliefs of Aboriginal and Torres Strait Islander people and advises there is information in this report regarding deceased Aboriginal and Torres Strait Islander children.

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NORTHERN TERRITORY OF AUSTRALIA

Child Deaths Review and Prevention Committee

The Honourable Marie-Clare Boothby MLA
Attorney-General Department
Parliament House
Mitchell Street
DARWIN NT 0800

Dear Minister

I am pleased to provide you with the Annual Report of the Northern Territory Child Deaths Review and Prevention Committee for 2023-2024, in accordance with section 213 of the *Care and Protection of Children Act 2007*.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'JK' followed by a long horizontal stroke.

Ms Jeanette Kerr
Convenor
NT Child Deaths Review and Prevention Committee
3 October 2024

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Glossary of terms

ABS	Australian Bureau of Statistics
AGD	Department of Attorney –General, NT
AIHW	Australian Institute of Health and Welfare
AIFS	Australian Institute of Family Studies
ANZCDR&PG	Australia and New Zealand Child Death Review and Prevention Group
ASGC	ABS Australian Standard Geographical Classification
BDM	Northern Territory Office of the Registrar of Births, Deaths and Marriages
CDR	Child Death Register
CDRPC	Child Deaths Review and Prevention Committee
COD	Cause of Death
Committee	Child Deaths Review and Prevention Committee
Coroner	NT Office of the Coroner
DoH	Department of Health, NT
ICD-10 AM	International Statistical Classification of Diseases and Related Health Problems, Tenth Revision – Australian Modified
LCMS	Local Case Management System
LGA	Northern Territory Local Government Areas
Menzies	Menzies School of Health Research
NCIS	National Coronial Information System
NSW	New South Wales
NT	Northern Territory
Qld	Queensland
QUT	Queensland University of Technology
Register	Child Deaths Register
SUDI	Sudden Unexpected Death in Infancy
SIDS	Sudden Infant Death Syndrome
TF	Territory Families
the Act	<i>Care and Protection of Children Act 2007</i>
UCOD	Underlying Cause of Death
WHO	World Health Organisation

Definitions

Aboriginal

The following definition is provided for the term Aboriginal in section 13 of the *Care and Protection of Children Act 2007* ("the Act"):

Aboriginal means: (a) a descendant of the Aboriginal peoples of Australia; or (b) a descendant of the Indigenous inhabitants of the Torres Strait Islands.

Throughout this report the term Aboriginal will be used for people of either Aboriginal or Torres Strait Islander descent except where specific reference is being made to publications that use other terminology, for example, the ABS which often uses the term Indigenous.

Cause of death (COD)

All those diseases, morbid conditions, or injuries which either resulted in or contributed to death and the circumstances of the accident or violence which produced such injuries.¹

Child

Section 13 of the Act defines child as (a) a person aged seventeen years and under; or (b) a person apparently less than 18 years of age if age cannot be proved.

Child death

Section 208 of the Act defines child death as (a) the death of a child who usually resided in the Territory (whether the death occurred in the Territory or not); or (b) a stillbirth as defined in the *Births, Deaths and Marriages Registration Act 1996* that occurred in the Territory.

Congenital malformations

Congenital malformations, including deformities and chromosomal abnormalities, are physical and mental conditions present at birth that are either hereditary or caused by environmental factors.

Greater Darwin

Greater Darwin incorporates the City of Darwin, the City of Palmerston and the Litchfield Shire.

Infancy

The infancy period extends from birth to 12 months of age. An infant death is the death of a live born child under 1 year of age.²

Live Births data

The data used as a denominator for the "under 1 year" mortality rate, is the number of live births registered in each jurisdiction in that calendar year. Using live births as the denominator for infant mortality is the internationally accepted standard.

Neonatal

The neonatal period extends from birth to 28 days of age. A neonatal death is the death of a live born baby within 28 days of birth.³

1 World Health Organisation (2017), *ICD-10 International Statistical Classification of Diseases and Related Health Problems, 10th Revision, (5th edition)*. Geneva: World Health Organisation.
2 Abeywardana, S. & Sullivan, E.A. (2008) *Congenital anomalies in Australia 2002-2003. Birth anomalies series no. 3. Cat. No. PER 41*. Sydney: Australian Institute
3 Laws, P.J. & Hilder, L. (2008). *Australia's mothers and babies 2006. Perinatal statistics series no. 22. Cat. No PER 46*. Sydney: Australian Institute of Health and Welfare National Perinatal Statistics Unit.

Perinatal

In Australia, the perinatal period commences at the 20th completed week of gestation and ends 28 completed days after birth. A perinatal death is a stillbirth death (of at least 20 weeks gestation or at least 400 grams birthweight⁴) or a neonatal death (of a live baby within 28 days from birth). Perinatal deaths are a combination of stillbirths and neonatal deaths.

Post-neonatal

The post-neonatal period is the period from 28 days to 1 year of age.

Rest of the NT

Rest of the NT incorporate those areas outside the City of Darwin, the City of Palmerston and the Litchfield Shire.

Stillbirth (foetal death)

In accordance with section 4 of the *Births Deaths and Marriages Registration Act 1996*, a stillbirth means the birth of a still-born child, which is defined as a child of at least 20 weeks gestation or with a body mass of at least 400 grams at birth that exhibits no sign of respiration or heartbeat, or other sign of life, after birth.⁵

Sudden infant death syndrome (SIDS)

SIDS (Sudden infant death syndrome), is a subset of SUDI, and defined as the sudden and unexpected death of an infant < 1 year of age, with the onset of the fatal episode apparently occurring during sleep, that remains unexplained after a thorough investigation, including performance of a complete autopsy and review of the circumstances of death and the clinical history. (San Diego, 2004 definition).

Sudden unexpected death in infancy (SUDI)

SUDI is a broad term used to describe the sudden and unexpected death of a baby for which the cause is not immediately obvious. The only means to find out the reason why a baby has died suddenly and unexpectedly is to perform an autopsy, review the clinical history and to investigate the circumstances of death, including the death scene, thoroughly. Following this thorough investigation, some deaths are explained, such as accidental deaths, asphyxiation by bedclothes, pillows and overlaying whilst co sleeping, infection, metabolic disorders, genetic disorders or non-accidental injury such as homicide, while others are unexplained.⁶

Underlying cause of death (UCOD)

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 (WHO).⁷

4 Ibid

5 Ibid

6 Red Nose - What Does Sudden Unexpected Death in Infancy (SUDI) Mean? | Red Nose Australia

7 op cit.

Foreword

This is the sixteenth Annual Report of the Northern Territory Child Deaths Review and Prevention Committee (the Committee). The report is based on information provided to the Committee on the **36 deaths** of children whose usual place of residence is the NT and of **35 stillbirths** that occurred during the calendar year 2023. The report also provides summary information on **207 child and infant deaths** that occurred in the five-year period 2019-2023.

This report is the sixth to be produced by the Northern Territory Office of the Coroner who has responsibility for the Secretariat of the Committee.

The death of any child is a tragedy and the members of the Committee extend their sincere condolences to the family, friends and communities of the children and young people cited in this report. In highlighting the circumstances relating to these deaths and by conducting research based on identified patterns and trends, the Committee's objective is to effect change that will prevent and reduce child deaths, accidents and diseases in the Northern Territory.

The Committee are actively working towards establishing a definition and process to report on disability and Sudden Death in Infancy (SUDI) cases. Disability brings additional vulnerability and there is likely to be an overrepresentation of children with a disability in the data. The inconsistent use of definition(s) and data collection for the number of SUDI cases ascribed to probable unintentional asphyxia (fatal sleeping accidents) is also inconsistent across jurisdictions. All states and territories have agreed in principal to build an Australian national dataset of child deaths with the support from the Australian Institute of Health and Welfare.

This year the Committee focused on the following issues, which are elaborated on further in Chapter 2 of the Report –

- National Representation on the Australian and New Zealand Child Death Review and Prevention Group and agreement of all states and territories to build an Australian national dataset of child deaths.
- Monitoring implementation of the Committee's Recommendations – National Obesity Strategy. Addressing youth-onset obesity and type 2 diabetes in the NT. In the NT for Type 2 diabetes aged <25 years of age, in Central Australia prevalence in 2017 was 14.4/1000 population and in the Top End was 5.7/1000 – these are higher rates than reported anywhere else in the World within the last 30 years.
- Significant work of the Committee in reviewing child deaths and identifying practical ways to immediately make a difference with the results from the review process. There were three significant cases identified and reported on.
- Monitoring Coronial Inquest recommendation/s and responses from Government Agencies and the implementation of coronial recommendation relating to child deaths.
- Research Trial – Bubba Basket Safer Sleeping Project – progress report. The Research Trial was auspiced and funded by the Child and Family Centre Program designed to reduce the rate of sudden unexpected death in infancy and encompass components of health education, community and consumer awareness and the provision of a safe sleeping basket (Pepi Pod) for newborn babies in the Tennant Creek community.
- Commencement of Child and Youth Suicide Research – Child and Youth Suicides 2000-2023. The study of child and youth suicide will identify any emerging trends and characteristics that may assist with identifying appropriate targets for prevention.
- Safer Sleeping Practices in the NT. The Committee has concerns that good safe sleeping practice is not being consistently followed in all NT hospitals. Whilst the Committee respects co-sleeping may be a cultural practice across many cultures and be supported by health workers in order to keep mothers engaged and in hospital at the same time it does not put the safety concerns of the child as the priority.

In addition to providing an analysis of the child and infant deaths that occurred during 2023 and the preceding four years, this report provides information on sudden and unexpected (natural and unnatural) child deaths released by the Committee and tabled in Parliament.

This year saw the resignation of Ms Cecelia Gore (Executive Director, Mental Health, Alcohol and Other Drugs) and Ms Pricilla Aitkins (CEO - NAAJA). I would like to thank them for their years of very valuable contributions to the Committee.

We also welcomed the appointments of Dr Luke Butcher (Acting Regional Executive Director) Yolonda Adams (Deputy Commissioner of Correctional Services) and Shahleena Musk (Children's Commissioner) as members.



Jeanette Kerr
Convenor

NT Child Deaths Review and Prevention Committee
3 October 2024

Executive summary

Background and overview of the Committee activities

The Committee is established pursuant to Part 3.3 of the *Care and Protection of Children Act 2007* (the “Act”). The purpose of the child deaths review process undertaken by the Committee is to assist in the prevention and reduction of child deaths in the Northern Territory. It achieves this through:

- a) Maintaining a database on child deaths;
- b) Conducting research about child deaths, diseases and accidents involving children and
- c) Contributing to the development of appropriate policy to deal with such deaths, diseases and accidents. The Committee’s specific functions are set out in the Act.
- d) Action on issues arising from the on-going quality assurance of the Child Deaths Register (the Register);

Issues relating to child deaths data in the NT

Chapter 2 reports the activities of the Committee, National representation and engagement by the Committee, the actions of the Committee in reviewing child deaths and making recommendations.

Chapter 3 examines contextual factors and sources of data for the work of the Committee. This includes data obtained from national bodies such as the Australian Bureau of Statistics (ABS), the National Coroners Information System (NCIS) and the Queensland University of Technology (QUT) which provide data on child deaths, demographics and ICD-10 coding.

The primary source of data on child deaths is obtained from the Office of the Registrar of Births, Deaths and Marriages (BDM) which also provides data on stillbirths in the NT. Other sources such as medical records from the Department of Health (DoH) and documents held by the Office of the NT Coroner provide additional detail relating to individual deaths.

Other issues include the following:

- Although this is the Committee’s 2023-2024 Annual Report, the focus is on child deaths for the calendar year 2023 with a further overview of calendar years 2019-2023.
- Presentation of data is based on the actual year of death rather than the year of registration of the death which is used by other agencies (e.g. ABS);
- Delay in the registration of the death to BDM delays the data being presented in the actual year of death;
- ICD-10-AM codes are used for classifying the cause of death in line with the practice of most other similar committees within Australia;
- For all child deaths that involved a report to the NT Coroner, the delivery of coronial findings follows a thorough coronial investigation to determine a cause of death before it is reported to BDM. This may take months, possibly years to complete these investigations, hence the delay in reporting these deaths;
- The need to obtain additional data beyond that supplied by BDM;
- The need to canvas other jurisdictions including BDM registries in other states and territories, for information on the deaths of NT children that occurred interstate.

207 child deaths between 2019-2023

Child deaths in the NT, 2019-2023

Chapters 4 and 5 provide data on the deaths of children whose usual place of residence is the NT. The data for 2023 is current but it is important to view data aggregated over five years (2019 – 2023) when determining trends or interpreting changes.

2023 snapshot

36 deaths of children whose usual place of residence is in the NT.

- 17 (47.2%) were male; 19 (52.8%) were female
- 25 (69.4%) were Aboriginal; 11 (30.6%) were non-Aboriginal
- 27 (75%) were from outside the Greater Darwin area.

20 (55.6%) of the 36 were infant deaths; 7 (19.4%) were 1 to 4 years old, 4 (11.1%) was 5 to 9 year olds, 0 (0%) 10-14 years old and 5 (13.9%) were 15-17 years old.

Of the 20 infant deaths, 12 (60%) were female and 8 (40%) were male; 15 (75%) were Aboriginal and 5 (25%) were non-Aboriginal.

Of the 20 infant deaths, 14 (70%) were neonatal (under 1 month old) deaths, of which 10 (71.4%) were Aboriginal and 4 (28.6%) were non-Aboriginal.

In addition, **35 stillbirths** were registered as having occurred in the NT. 16 (45.7%) were female, 17 (48.6%) were male and 2 (5.7%) were unknown; 22 (62.9%) were Aboriginal and 13 (37.1%) were non-Aboriginal.

There were 49 perinatal (35 stillbirths + 14 neonatal) deaths registered in the NT: 32 (65.3%) were Aboriginal and 17 (34.7%) were non-Aboriginal

36 deaths
in 2023

35 stillbirths
in 2023

2019-2023 aggregated snapshot

207 deaths of children who were usually resident in the NT:

- 77 (37.2%) were female, 126 (60.9%) were male and 4 (1.9%) was unknown;
- 134 (64.7%) were Aboriginal and 73 (35.3%) were non-Aboriginal
- 127 (61.4%) were from outside the urban Greater Darwin area.

126 (60.9%) were infants, 18 (8.7%) were 1 to 4 years old, 23 (11.1%) were 5 to 9 years old, 9 (4.3%) were 10 to 14 years old and 31 (15%) were 15 to 17 years old.

Of the 126 infant deaths, 47 (37.3%) were females, 75 (59.5%) were males and 4 (3.2%) were unknown; 78 (61.9%) were Aboriginal and 48 (38.%) non-Aboriginal.

Of the 126 infant deaths, 94 (74.6%) were neonates (up to, but not including 28 days of age), of which 55 (58.5%) were Aboriginal and 39 (41.5%) were non-Aboriginal.

In addition, 209 stillbirths were registered in the NT: 111 (53.1%) were male, 85 (40.7%) were female and 13 (6.2%) were unknown; 78 (37.3%) were non-Aboriginal and 131 (62.7%) were Aboriginal.

There were 302 perinatal (209 stillbirths + 93 neonatal) deaths registered in the NT, 185 (61.3%) were Aboriginal and 117 (38.7%) were non-Aboriginal.

Infant SUDI / SIDS deaths by year, gender, Aboriginal status, usual residence and co-sleeping status, NT, 2019-2023

SUDI (Sudden Unexpected Death in Infancy) is a term that describes the sudden and unexpected death of an infant under the age of 12 months, and may be due to natural or unnatural causes, or remain unexplained.

SIDS (Sudden infant death syndrome), is a subset of SUDI, and defined as the sudden and unexpected death of an infant <1 year of age, with the onset of the fatal episode apparently occurring during sleep, that remains unexplained after a thorough investigation, with no known trauma or illness, including performance of a complete autopsy and review of the circumstances of death and the clinical history (San Diego, 2004 definition).

Between 1 January 2019 and 31 December 2023, a total of 207 deaths of children normally resident in the NT, were registered in the NT.

In the years 2019 – 2023, in the specific infant age group (under 1 year) there were (n=126, 60.9%) deaths. Of the 126 infant deaths, (n=29, 23%) were reportable deaths to the Coroner (Section 12(1) *Coroners Act 1993*). Of the 29 reportable deaths, the number of Aboriginal infant deaths (n=22, 75.9%) was substantially greater than the proportion of non-Aboriginal children (n=7, 24.1%) in the total NT population. The number of co-sleeping events (n=13, 44.8%) compared to the non-co-sleeping events (n=16, 55.2%) with a similar amount occurring outside the greater Darwin area (n=14, 48.3%) and greater Darwin area (n=15, 51.7%).

Table 1: Infant SUDI / SIDS deaths by year, gender, Aboriginal status, usual residence and co-sleeping status NT, 2019-2023

SUDI deaths	Gender		Aboriginal status		Region		Co-sleeping	
	Male	Female	Aboriginal	Non-Aboriginal	Greater Darwin	Rest of NT	Yes	No
2019 = 2	1	1	2	0	2	0	1	1
2020 = 5	3	2	3	2	2	3	3	2
2021 = 7	2	5	6	1	4	3	3	4
2022 = 10	5	5	7	3	3	7	4	6
2023 = 5	3	2	4	1	3	2	2	3
TOTALS	14	15	22	7	14	15	13	16
	29		29		29		29	

Source: NT Child Deaths Register, National Coronial Information System (NCIS), Local Case Management System (LCMS) & NT Office of the Coroner

Chapter 1

Introduction

Introduction

This is the Child Deaths Review and Prevention Committee's (CDRPC or Committee) sixteenth annual report. It provides information related to the deaths of 36 children under the age of 18 years whose usual place of residence is in the Northern Territory (NT) and 35 stillbirths registered in 2023. The report also includes information on child deaths and stillbirths from 2019 to 2023 for comparative and historical purposes.

Functions of the Committee

The Committee's functions are:

- to establish and maintain the Child Deaths Register.
- to conduct or sponsor research into child deaths, diseases and accidents involving children and other related matters (such as childhood morbidity and mortality), whether alone or with others;
- to make recommendations on the research into child deaths, diseases and accidents;
- to monitor the implementation of the recommendations;
- to raise public awareness in relation to:
 - i. the death rates of children;
 - ii. the causes and nature of child deaths and diseases and accidents involving children;
 - iii. the prevention or reduction of child deaths, diseases and accidents;
- to contribute to any national database on child deaths in Australia;
- to enter into an arrangement for sharing of information with anyone in Australia who has functions similar to those of this Committee;

At the end of each financial year the Committee is required to prepare a report about the operation of the Committee during that financial year. Should the Committee conduct or sponsor research about issues identified as being relevant to child deaths in the NT, the resulting report must also be presented to the Minister. The Minister is required to table the Committee's Annual Report and research report/s in the Legislative Assembly.

The Child Deaths Register

Under the *Care and Protection of Children Act 2007*, there is a statutory obligation for the CDRPC to establish and maintain a Child Deaths Register (the Register). The Register contains information relating to the deaths of children and young people under the age of 18 years whose usual place of residence is the NT. Section 208 of the Act defines a child death as:

- a) the death of a child who usually resided in the Territory (whether the death occurred in the Territory or not); or
- b) a stillbirth as defined in the *Births, Deaths and Marriages Registration Act 1996* that occurred in the Territory.

The Register contains information related to date of birth, date of death, date of registration, age, gender, Aboriginal and Torres Strait Islander status, place of birth, place of death, usual place of residence and family details. Information is also gathered in relation to the underlying causes of deaths and external factors which may have contributed to the

death – ICD-10 coding provided by the Queensland University of Technology. Information in the Register is predominantly sourced from data held by a number of NT government agencies, including the Department of the Attorney-General and Justice, Department of Health (DoH), Police, Department of Education (DoE) and Territory Families (TF). Information is also provided by government funded health clinics and private medical centres.

In 2023, the Committee decided to capture and report on children whose death occurred interstate, but who's usual place of residence (as recorded by BDM and/or from other child death registers of other jurisdictions or the respective state or territory BDM's) is in the Northern Territory. Other jurisdictions were contacted and provided the following information, in relation to the deaths of 16 children, for the period of 2019–2023. There were no deaths of NT children recorded in New South Wales, Tasmania, Queensland or ACT.

Table 2: Northern Territory child deaths in other Australian jurisdictions, NT, 2019-2023

Age group	Sex	Indigenous status	DOD year	Post code	UCOD	ICD-10 Code
Victoria						
<1 year	Female	Non aboriginal	2021	0832	extreme prematurity (not resuscitated)	P07.21
<1 year	Female	Non aboriginal	2023	0810	Spinal muscular atrophy	G12.0
<1 year	Male	Non aboriginal	2023	0810	Enterovirus myocarditis	I41.0
Western Australia						
<1 year	Female	Aboriginal	2021		Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	R95.0
<1 year	Male	Non aboriginal	2022		Certain conditions originating in the perinatal period	P07.31
1 to 4 years	Male	Aboriginal	2022		Diseases of respiratory system	J22
South Australia						
<1 year	Female	Aboriginal	2019	0870	Microcephaly	Q02
<1 year	Male	Aboriginal	2019	0872	Fetus and newborn affected by premature rupture of membranes	P01.1
1 to 4 years	Female	Non aboriginal	2019	0870	Pedestrian injured in collision with car, pick-up truck or van: Non traffic accident	V03.0
<1 year	Male	Aboriginal	2021	0875	Other reduction deformities of brain	Q04.3
<1 year	Female	Aboriginal	2021	0872	Fetus and newborn affected by chorioamnionitis	P02.7
10–14 years	Male	Aboriginal	2021	0822	Intracranial haemorrhage (non-traumatic), unspecified	I62.9
<1 year	Male	Aboriginal	2021	0872	Other transient neonatal disorders of coagulation	P61.6
<1 year	Female	Aboriginal	2023	0870	Primary atelectasis of newborn	P28.0
1 to 4 years	Male	Aboriginal	2023	0872	Hypoxic-ischaemic encephalopathy due to out of hospital cardiac arrest following immersion.	
1 to 4 years	Female	Non aboriginal	2023	0870	Pending	

Source: All Australian Child Deaths registers

Chapter 2

Activities of the Committee

Activities of the Committee

National representation and engagement

The CDRPC has representation on the Australian and New Zealand Child Death Review and Prevention Group (ANZCDR&PG), which comprises representatives from all the Australian jurisdictions and New Zealand.

The aim of the ANZCDR&PG is to identify, address and potential decrease the number of infant and children deaths by sharing of information across jurisdictions and working collaboratively to improve national and international reporting.

The Queensland Family and Child Commission (QFCC) hosted the ANZCDR&PG Annual Conference (Webinar) on 14 May 2024 in Brisbane. The conference offered a professional development opportunity for professionals working in child death prevention, registration, review and research. Leaders in their fields facilitated discussion about suicide risk factors and prevention, paediatric infection/clinical, vicarious trauma in the workplace and a New Zealand perspective on child deaths.

The ANZCDR&PG Annual meeting was held in Brisbane on 21 May 2024. This was an opportunity for each jurisdiction to provide contributions on their jurisdictions achievements, lessons learned and advice, specific issues of concern and issues arising, a project update on the national child death data collection and trends and the ANZCDR&PG's role and priorities for the next 12 months.

On behalf of the ANZCDR&PG, the QFCC has produced an annual report collating national child death statistics from all states and territories for each year since 2012. To complete this, the QFCC collects high level aggregate data from each jurisdiction on a set of data items and collates this to create a national estimate.

To assist with comparative research, the ANZCDR&PG has agreed to report under a set of research categories based on the circumstances of death. Deaths are categorised by each agency as per their individual classification rules. These categories are:

- Diseases and morbid conditions
- Transport
- Drowning
- Suicide
- Other non-intentional injuries (accidental and fire-related deaths)
- Fatal assault and neglect
- SIDS (sudden infant death syndrome) and undetermined causes

These reports are a valuable contribution to child death prevention in Australia but are limited by a number of factors:

- differences in data standards across jurisdictions which impacts comparability
- reliance on aggregate instead of unit record data which limits flexibility in analysis, potential disaggregation and validation
- the workload involved in requesting and analysing the data each year
- providing reports to an international audience.

Australian Child Death Statistics 2021 (May 2024)

In the 2021 Australian and New Zealand child death statistics – <https://www.qfcc.qld.gov.au/sector/child-death/child-death-statistics-anz>. Child death rates and infant death rates are standard units of measurement. Rates for infants (under 1 year) are calculated per 1,000 births and use as a denominator live births. Rates for all other age groups and the total are calculated per 100,000 children using the Estimated Resident Population (ERP) as of 30 June 2021.

The Northern Territory presents significantly higher in all categories. An overview of the key points for the Northern Territory 2021 rates are:

- All child deaths = (45 child deaths) 72.5
- Indigenous Status = (29 indigenous child deaths) 113.6 / (16 non indigenous child deaths) 43.7
- Age = (26 infant deaths) 7.0 (per 1,000 live births) / (19 1-17 years child deaths) 32.5
- Sex = (30 male child deaths) 93.5 / (14 female child deaths) 46.7
- Diseases and morbid conditions = (37 child deaths) 59.6
- External-cause deaths = (6 child deaths) 9.7
- SIDS and undetermined causes = rate 0 (per 1,000 live births)

2021 National Rate Averages:

- All child deaths = (1670 deaths) 29.6
- Indigenous Status (231 indigenous child deaths) 68.3 / (1384 non-indigenous child deaths) 26.1
- Age = (990 infant deaths) 3.2 / (680 1-17 years child deaths) 12.7
- Sex = (940 male child deaths) 32.3 / (727 female child deaths) 26.5
- Diseases and morbid conditions = (1192 child deaths) 21.1
- External-cause death = (336 child deaths) 6.0
- SIDS and undetermined causes = (89 infant deaths) 0.3 (as per 1,000 live births)

The Committee provided the 2021 Australian Child Death Statistics report to the Northern Territory Attorney-General in June 2024.

National Child Deaths Data Collection

Background

At the ANZCDR&PG meeting in May 2022, all states and territories agreed in principle to build an Australian national dataset of child deaths, and to approach the Australian Institute of Health and Welfare (AIHW) to develop and manage the child death data collection.

AIHW agreed to support the development of a national data collection by undertaking an environmental scan and feasibility assessment for 18 months from mid-2022 to the end of 2023. This support has been extended to the end of 2024. A project lead for the ANZCDR&PG, Rosemary Byron-Scott was identified in mid-2022.

A data advisory committee with members from all states and territories, drawn from members of the ANZCDR&PG, has also been established, with the first meeting held in November 2023.

For the multi-lateral consultations, AIHW consulted with representative members of the child death review teams from each state and territory, to assess their data holdings and processes.

This information on data collections had not previously been comprehensively shared between states and territories. Information from these meetings is a potential resource that could be used by the states and territories for training purposes or in ongoing development of their data collections. Key points from these discussions are described throughout this report.

Each jurisdiction was also asked to provide a sample data dictionary, detailing the data items collected in their holdings, and the associated metadata. Domains, or data element clusters, were identified in each register and similar themes drawn together.

In addition to these multi-lateral discussions, the AIHW engaged with the ANZCDR&PG, which represents the national advisory body for child death review. At a presentation to the ANZCDR&PG annual meeting in May 2023 the AIHW provided members with an introduction to the AIHW's involvement in the project, the rationale behind national data collections and how this is administered by the AIHW.

Introduction

All Australian states and territories have an active child death register (CDR), and a process for the review and investigation of child deaths. However, each jurisdiction CDR operates under individual legislative bases and governance environments and has unique reporting requirements.

Child death registry and review (CDR) involves capturing and collating information about individual child deaths to help communities understand how and why children die; improve child health and safety and; to effectively prevent future child deaths and injuries. CDR informs strategies and activities to reduce child deaths from causes including transport incidents, drowning, accidents, non-accidental actions, sudden unexpected deaths in infancy (SUDI), suicide, and deaths due to deaths due to medical conditions.

CDR processes draw together information from a variety of sources including but not limited to coronial, child protection, education, police, community and health services. In all jurisdictions, CDR processes are mandated by legislation, with data collected for research and/or reporting purposes.

All Australian states and territories maintain a register of child deaths. As there is currently no national standard for data collection the scope and depth of information recorded and reported from CDR processes varies between jurisdictions. In addition, deaths of children are relatively uncommon and when considered at the jurisdiction level, the monitoring of trends and emerging patterns around causes of death or vulnerable cohorts can be limited. A national data collection would improve the availability and consistency of data for research and reporting.

Purpose

There is a long-recognised need for comparable and consistent national information on the causes and circumstances of child deaths and risk factors implicated in these deaths, as well as providing a national picture of the extent and nature of child deaths, a well- developed and maintained NCDDC will promote greater national and international collaboration and have the potential to contribute to:

1. Examination of national trends over time and identification of emerging patterns that may not be visible at the jurisdictional level
2. Research to enhance understanding of protective and risk factors, and inform prevention and intervention strategies on a national and international level
3. Monitoring and evaluation of child death prevention policies and programs
4. Identification of possible 'best practices'. For example, in types of prevention and intervention programs, such as medical and mental health and child welfare
5. An evidence base for relevant legislative changes
6. Informing the community about the level and extent of child deaths and raising awareness of key protective and risk factors to prevent child deaths
7. Exploration of possible linkages with other related health, welfare, housing, and education data to obtain a more holistic view of children pathways.

Scope of Work

To support the development of a National Child Death data collection, the proposed phased approach to scoping and developing a national data collection. Each stage focuses on a specific phase of development required for national standardisation and agreement.

- Stage 1 - Environmental scan/feasibility of a national data collection
- Stage 2 - Establish administrative, governance and consultation arrangements required for national data collection
- Stage 3 - Submission and approval of ethics committee proposal and scope funding proposal for Stages 4 & 5
- Stage 4 - Development of an ongoing data national Data Collection/governance
- Stage 5 - Ongoing national reporting/Data standardisation

NT CDRPC Reporting on Disability

The CDRPC is committed to reporting on disability and are actively working towards establishing a standard definition and process to report, as disability can add additional vulnerability to the circumstances of a child's death, and raise the question of whether the disability played a role in the death. Children with a disability experience ill health and death at rates beyond those without disability. As such there is likely to be an over representation of children with a disability in the data.

NT CDRPC Reporting on SUDI – Fatal sleeping accidents/unintentional asphyxia deaths

The CDRPC is concerned about the inconsistent use of definition(s) and data collection for the number of Sudden and Unexpected Death in Infancy (SUDI) cases ascribed to probable unintentional asphyxia (fatal sleeping accidents). The committee is committed to reporting and actively working towards a standard definition and process to report. A National and New Zealand approach is required to assist with quantifying the issue; allow for accurate identification and review of cases; which can then be used to develop clear public health and education strategies on safe sleep practices for babies.

The Committee's Recommendations

One of the functions of the CDRPC, as outlined in Section 210(d) of the *Care and Protection of Children Act 2007*, is to make recommendation about child deaths, diseases and accidents involving children whether alone or with others and other related matters (such as childhood morbidity and mortality).

The Act also requires that our annual report include any recommendations made by the Committee during that year and the implementation during that year of any recommendations made by the Committee.

In monitoring recommendations, the Committee recognises that agencies may take time to fully implement those that are accepted, and may make changes incrementally. In that context, the Committee decides each year whether to:

- Continue monitoring the recommendation; or
- Close a recommendation on the basis that the Committee is satisfied the recommendation has been met.

At present there is one previous open recommendation relating to obesity and Type 2 diabetes. This recommendation is detailed below, along with a summary of agency responses and the Committee's comments on progress. Original correspondence from the agency also follows below.

Progress of previous Recommendation/s

Recommendation - Obesity and Type 2 Diabetes – 2018-2022 CDRPC Annual Report -

Recommend that the Northern Territory Government consider a Territory wide plan to prevent and reduce obesity and type 2 diabetes.

Background to the recommendation

In 2022, the Northern Territory Minister for Health advised the National Obesity Strategy is now progressing under the Australian Health Ministers Advisory Committee and Health Council and is expected to be finalised by the end of 2022.

It was said:

Department of Health will work with government, non-government and community controlled organisations to consider implementation of the

National Obesity Strategy specific to the needs of Territorians. This provides a valuable opportunity to include a Northern Territory-wide plan to prevent and reduce obesity and type 2 diabetes, alongside an updated nutrition and physical activity strategy, the next chronic condition management and prevention strategy, and the recently developed Healthy Lifestyle Grants for local councils, as part of the Northern Territory implementation of the National Obesity Strategy.

The Northern Territory Diabetes Network (the Network) is focused on reducing type 2 diabetes in Aboriginal youth. The Network has progressed a range of initiatives including:

- *Delivering ongoing professional development through a number of presentations by leading clinicians at local seminars and conferences;*
- *Developed new screening and referral pathways for youth who are at risk of developing type 2 diabetes and who are living with type 2 diabetes;*
- *Developed new electronic care plan for the management of youth who are at risk of developing type 2 diabetes and who are living with type 2 diabetes;*
- *Developed communication resources for clinicians to engage with youth and their families; and*
- *Developed information about youth type 2 diabetes in easy to understand language for youth and their families.*

Progress in 2020-2021

In September 2021, the Northern Territory Minister for Health provided a progress update on actions and steps taken:

“A draft version of the Strategy was presented to Health Ministers for approval in March 2022, however the draft Strategy was not able to gain national approval and further work on the Strategy was required in order for this important work to proceed. The final draft Strategy is anticipated to be considered by Health Ministers in 2022. Following finalisation of the Strategy, NT Health will develop a jurisdictional implementation/action plan in consultation with key stakeholders.

While work is progressing to finalise the Strategy, NT Health has progressed a number of overweight and obesity prevention initiatives that are in line with the draft Strategy”.

Progress in 2021-2022

In September 2022, the Department of Health Chief Executive Officer provided a response regarding the development of a jurisdictional plan to implement the National Obesity Strategy in the Northern Territory:

“As noted in your letter, the National Obesity Strategy was released in March 2022; in addition the National Preventive Health Strategy 2022-2030 was released in December 2022, which includes a number of policy achievements to reduce obesity rates.

These strategies will guide development of the NT implementation plan utilising the draft actions from both. Consultation with key stakeholders is scheduled in the second half of 2022.

In addition to progressing work on a NT implementation plan, NT Health is continuing to work with other jurisdictions to identify initiatives that can be actioned at a cross jurisdictional or national level.”

Progress in 2022-2023

In October 2023, the Department of Health Chief Executive Officer provided a further response regarding the development of a jurisdictional plan to implement the National Obesity Strategy (NOS) in the Northern Territory:

“Consultation for the NOS implementation occurred with key stakeholders in the second half of 2022. The consultation established a number of key priorities for this work and highlighted the need for cross sector ownership of the resulting action plan. To this end, a decision was made to incorporate the actions from the NOS implementation into the development of the Chronic Conditions Framework (the Framework). Development of the Framework is being co-led by the Aboriginal Medical Service Alliance of the NT and NT Health. The Framework will be strongly focused on prevention, aligns well with the NOS and National Preventive Health Strategy, and will drive action on obesity in the NT.

In addition, initiatives based on recommended actions from NOS are already underway, including:

- NT Government’s development of the NT Food Security Program to replace the previous Commonwealth Stores Licensing scheme, aimed to ensure remote communities have consistent and reliable access to food, drink and other grocery items that is reasonably priced, safe and of sufficient quantity and quality to meet nutritional and household needs
- NT Health healthy lifestyles grants to fund community initiatives that support healthy eating and physical activity
- NT Health developed evidence-based policy statements focusing on supportive environments; health education and community action to reduce sugar sweetened, beverages; reducing advertising of unhealthy food and beverages on government assets; and increasing physical activity.”

Progress in 2023-2024

In August 2024, Ms Christine Conners, NT Chief Health Officer and Dr Angela Titmuss, Paediatric Endocrinologist, both from the Department of Health, were invited to present to the Committee on the Preventative Health Strategy Updates for 2023 – 2024.

The Committee were advised that type 2 diabetes prevalence rates for young people in the Northern Territory aged under 25 years of age, in Central Australia in 2017 was **14.4/1000 population and in the Top End was 5.7/1000**. These are higher rates than reported anywhere else in the World within the last 30 years. Until there is progress in this area, the Committee will continue to monitor the progress of the implementation of strategies to reduce Type 2 diabetes in young people in the Northern Territory.

The Health presenters provided the following report on addressing youth-onset obesity and type 2 diabetes in the NT.

NT Diabetes Summit Roadmap

- In response to the alarming rates of diabetes across the NT, the first NT Diabetes Summit (the Summit) was held in Alice Springs in November 2022.
- Approximately 350 people attended the two-day event, which prioritised NT Aboriginal health, sharing powerful messages on the challenges and trauma of living with diabetes from individual, family and community perspectives.
- The successful event was the result of partnership between NT Health, Menzies School of Health Research, NTPHN, AMSANT, and the Commonwealth Department of Health and Aged Care.
- The NT Diabetes Summit Roadmap is a key deliverable from this event. It provides strategic direction to address the inequities and outcomes related to diabetes in the NT and calls for greater recognition of the impact of socioeconomic disadvantage and coordinated action.

National Inquiry into Diabetes

- In May 2023, the House of Representatives Standing Committee on Health, Aged Care and Sport commenced a National Inquiry into diabetes in Australia.
- NT Health Preventive Health Strategy Unit, as well as Royal Darwin Hospital and Alice Springs Hospital endocrinology departments, provided written submissions into the inquiry and contributed to the public hearings in March 2024.
- The rates of youth type 2 diabetes in the NT were raised across all NT Health submissions.

Healthy, Well and Thriving 2024-2030

- NT Health has developed a new chronic conditions prevention and early intervention framework, *Healthy, Well and Thriving: The Northern Territory's chronic condition prevention and early intervention framework 2024-2030*.
- The framework was developed in partnership between NT Health, NTPHN and AMSANT.
- The framework aims to guide our health system from a focus on disease to a focus on health, with the goal of keeping Territorians healthier for longer.
- The framework prioritises the key risk factors that are driving our burden of disease: unhealthy food and drink, tobacco, sedentary lifestyles, harmful alcohol use and social and emotional wellbeing.
- It also aims to strengthen our health system to provide a more coordinated, effective response to chronic preventable conditions.
- The framework was formally launched in July 2024, and includes Territory-wide and regional implementation.

NT Diabetes Clinical Network

- The NT Diabetes Network provides clinical leadership and strategic guidance to ensure quality, evidence-based, culturally safe and accessible diabetes services and programs across the NT.
- Membership includes representatives from NT Health, NT Primary Health Network (NTPHN), Aboriginal Medical Services Alliance of the NT (AMSANT), Central Australian Aboriginal Congress, Danila Dilba Health Service, Miwatj Health, Katherine West Health Board, Healthy Living NT, and Menzies School of Health Research.
- The Network recently developed a new work plan for the period 2024-2026. The work plan includes youth and prevention priority areas, to 'Strengthen awareness, early detection and management of youth type 2 diabetes' and 'Support type 2 diabetes prevention initiatives with a focus on obesity prevention'.
- Actions within the work plan relevant to these priority areas are:
 - » Support implementation of the Merne Mwerre Artweye Areye-ka (MMAA) diabetes prevention program, and explore opportunities for scaling up and implementing NT wide.
 - » Inform the development of shared medical appointments models of care for diabetes prevention and management, including among youth and diabetes in pregnancy.
 - » Expand targeted risk assessment and screening opportunities for youth type 2 diabetes in a range of settings (with primary care oversight, e.g., other pharmacies, general practice, community care and hospital settings, admissions, schools).
 - » Embed and promote the use of youth diabetes screening and management pathways in Acacia/PCIS and Communicare.
- » Pilot universal versus risk factor based screening for type 2 diabetes in youth.
- » Review the Type 2 Diabetes in Young Aboriginal People NT Health Clinical Policy.
- » Inform and advance the implementation of multidisciplinary teams for diabetes management, including among youth.
- » Explore opportunities for/support the development of a Central Australian multidisciplinary youth diabetes service.
- » Promote the videos developed by the Menzies youth type 2 diabetes models of care study.
- » Improve capacity of health professionals to support mental health of youth with type 2 diabetes.
- » Pilot and evaluate enhanced clinical support & glycaemic monitoring in newly diagnosed youth.
- » Provide support for the roll-out of the Diabetes Yarning/Magnet Man resource and program.

Recommended Strategies

1. Department of Education oversight of implementation and adherence to school nutrition and canteen policies, ensuring reduction in access to sugar-sweetened beverages and encouragement of healthier options at school canteens. Policy should also encourage movement away from use of food as 'rewards' in schools. Also need consistency of policies between schools, OOSHC providers and external facilitators e.g. Clontarf and Stars
2. Food security legislation to include takeaway shops and incentivising of supermarket changes that reduce 'sugar-load'
3. Policy regarding food/drink availability at sporting club kiosks and events, including agreement to this policy as a requirement of grants
4. Community awareness program regarding diabetes and obesity, including the intergenerational story
5. Access to point of care machines for glycated haemoglobin at all NT Health primary health care services and making this part of orientation training for new staff
6. Education regarding youth-onset type 2 diabetes for all new NT health clinical staff, including regarding emerging phenotypes
7. Consideration of strategies to increase screening for youth-onset type 2 diabetes, including intersectoral collaboration (e.g. schools, sporting clubs, youth centres)
8. Consideration of shared appointments for youth with T2D at all NT Health sites to increase peer-support and learning
9. Increase in value of sports vouchers for children to reflect cost of living pressures

The Committee welcomes the work and integrated approach of the Department of Health and their health service partners. The range of recommended strategies are impressive and the Committee looks forward to future progress updates.

Key Stakeholder Committee Members overview (Sub-Committee meetings) – In-Depth Case Reviews and Root Cause Analysis requests.

Sub-Committee meetings are scheduled to conduct reviews of recent child deaths. The Committee Secretariat writes to key stakeholder committee members requesting they provide information, overviews, briefings, reviews and any other information for recent child deaths if it is determined that the child was known to that stakeholder agency and information is needed to assist with the overview.

Key Stakeholder agencies include:

- Territory Families (responsible for Child Protection, Family Support and Youth Justice);
- NT Police;
- Department of Health; and
- Department of Education.

Key stakeholder committee members are not expected to provide comprehensive reviews of the child's death at this stage. The requirement is to provide any information that their agency holds in order to identify issues or information that the relevant agencies providing services to the child may have.

The Key Stakeholder Committee members assess the information for each child death according to the cause of death, circumstances surrounding the death and information from the stakeholder agencies. This information identifies and assists in determining the level of further in-depth reviews that may be required by agencies and other service providers.

If it is determined that an in-depth review / root cause analysis is required, the Convenor will provide written notification to relevant agencies and service providers of the requirement to undertake an internal review and provide this to the Committee.

Overview process

The Sub-Committee then considers

- Whether scope of the review (depth and breadth of the review) is sufficient;
- The time period of the review, that is how far back the agency and service providers have gone to review its involvement with the child and their family where relevant. This may provide information on whether there were opportunities for the agency and service providers to intervene or improve practices and services delivered to the child and their family that may have prevented the child's death;
- whether the agency's and service providers involvement with the child and their family complied with legislative requirements and agency policies and procedures (what should/could have been done based on context, legislation, policy and procedure);
- adequacy of the agencies and service providers communication and collaboration with the family, other agencies and service providers in the provision of services to the child and their family;
- whether practice or system issues may have contributed to the child's death or may expose other children to risks in the future: e.g. equipment not maintained, faulty equipment has not been attended to, opportunities for system intervention or agency and service

providers coordination were deficient, serious oversights or issues in relation to other entities;

- adequacy of agency and service providers responses to risks, vulnerabilities and cumulative needs evident in the lives of children and their families;
- Whether there are recognisable characteristics or commonalities between the child who died and deaths of other children and young people, for example:
 - » were the children/young people receiving health, mental health services or alcohol and other drug services;
 - » were they victims of sexual abuse;
 - » were they subjected to family violence;
 - » the children's age group;
 - » were the children involved with child protection services or the youth justice system;
 - » did the parents have mental health, alcohol and other drug or other serious issues, impacting the wellbeing and safety of the child;
 - » health history, high sugar/salt content in the children and their families' diet;
 - » gender of the child;
 - » First Nation status or otherwise;
 - » whether suffered from a disability.
- Is there a picture of events/incidents in the community or environment that may have contributed to the child's death, for example:
 - » Drug and alcohol problems in the community or school environment;

- » young parenthood;
- » high unemployment and poverty in the community;
- » overcrowding in homes;
- » prevalence of family violence;
- » isolation due to any reason;
- » unsafe sleeping arrangements;
- » restrictions due to infectious disease or medical;
- » other deaths at or around the same time; from the same region/community?

Requested In-Depth Case Reviews and Root Cause Analysis from Relevant Agencies and Service Providers

At the time of publication, in 2023, the Committee conducted reviews of 17 child deaths. Of those 17 deaths the Committee requested 4 in-depth case reviews / Root Cause Analysis be conducted by Territory Families, Department of Health, an education service provider and NT Police.

Significant work of the Committee - Practical ways to immediately make a difference - results from the overview process.

Case 1

Sudden unexpected death of a two-year-old toddler with a cause of death of drowning in a private backyard swimming pool. The pool barrier was inadequate because the gate was propped open; the barrier did not comply with the relevant Act and supervision was inadequate. The Inquest highlighted the *Swimming Pool Safety Act 2004* does not reflect current best practice, and is minimally enforced which meant there were missed opportunities for the Swimming Pool Authority to learn from non-fatal drownings and strengthen current laws by removing exemptions and applying Australian Standards. The Chief Executive of the Department of Infrastructure, Planning and Logistics (DIPL) was requested to undertake targeted communication with registered pool property owners, reminding them of their obligations to maintain safe and proper fence barriers in compliance with the Act as well as to respond to a range of other issues raised by the Committee.

In response, the Committee was advised of the significant work of DIPL, including a swimming pool safety campaign successfully carried out, assessment of Pool Fencing unit resources undertaken, staff upskilling, appointing an additional Pool Safety Adviser and review of policies and operating procedures concerning enforcement.

The issue of child drowning related deaths continues to be a focus of concern for the Committee.

Case 2

Sudden unexpected death of an eleven-year-old child with the cause of death being blunt impact trauma of the head and torso arising from a reported motor vehicle collision where he was a pedestrian. The offender tested negative to alcohol, however admitted to being a regular user of cannabis. He was arrested for the purpose of a blood sample and released from custody pending further investigation. The initial Police investigation resulted in an infringement notice issued to the offender. The Committee requested that NT Police reconsider the action taken regarding adequate and appropriate charges. Upon review, the offender charged with a number of offences including Drive Motor Vehicle Cause Harm or Death. He was sentenced to 3 years imprisonment, released after serving 3 months to be on Home Detention for 9 months and his license cancelled for 4 years. DPP lodged an appeal as the sentence was considered manifestly inadequate.

Case 3

Sudden unexpected death of 16 year old youth with a cause of death being acute exacerbation of bronchial Asthma (status Asthmatic). Investigation of the death highlighted the importance of asthma management in remote communities. With many families that move household to household (mobility) ensuring that the medication travels with them and that asthma awareness information is more widely raised among families. Current policy doesn't acknowledge the reality of the mobility of families and individuals between families sufficient to deal with asthma safety effectively.

Coronial Inquest recommendation/s responses from Government Agencies

In 2022, the Department of the Attorney-General and Justice approached the Committee to canvas the possibility of reporting on NT Government Agency tracking of implementation of coronial recommendations relating to child deaths. The Committee endorsed the proposal and agreed to reporting in the Annual Report.

CDRPC Annual Report 2023-2024 – Coronial Inquest recommendations from government agencies

As reported in the Child Deaths Review and Prevention Committee's 2023 Annual Report, in 2020, two coronial inquests were held, each of which examined the deaths of three children in related circumstances; *Fionica Yarranganlagi, Keturah Cheralyn and Layla Leering* [2020] NTLC 022 and *Master W, Miss B and Master JK* [2020] NTLC 020. The Territory Coroner raised particular concerns about the Government's ongoing monitoring and implementation of past coronial recommendations.

Subsequently, under the auspices of the Children and Families Standing Committee, the Children and Family Safety Oversight Group (the Oversight Group) began a pilot project to track the implementation of coronial recommendations relating to child deaths by NT Government Agencies. The Oversight Group substantively began this pilot project in October 2022.

To provide public transparency and oversight, part of the process is to publish the implementation status of the Coroner's recommendations in the annual report of the Child Deaths Review and Prevention Committee.

In 2024 the Children and Families Safety Oversight Group advised, the program presented as a pilot to gauge the effectiveness that ongoing monitoring would have on the implementation of coronial recommendations and agency responsiveness to coronial recommendations, with a view to safeguarding and improving safety outcomes for Territorians – particularly children.

Consequently, after 18 months it was determined that:

1. *the program was beneficial in improving government responses to coronial recommendations; and*
2. *that the program should be continued under the auspices of the Committee.*

As such, this is the second year in which a yearly report has been published. The Child Death Review and Prevention Committee will continue to report on the implementation status of coronial recommendations relating to child deaths in their annual report.

The Child Death Review and Prevention Committee has been provided a comprehensive report from the Oversight Group.

Between 1 July 2023 and 30 June 2024, there have been two child-related coronial inquiries with findings and recommendations handed down.

1. *Baby Croker* [2023] NTLC 17 was a two-year-old girl who died due to accidental drowning at a private residence. The coronial findings made four recommendations in respect to Department of Infrastructure, Planning and Logistics, Department of Health and Department of Territory Families, Housing and Communities.

Recommendations

- The Northern Territory Government ensure that the *Swimming Pool Safety Act 2004* incorporates best practice to appropriately

mitigate risks arising from private pools, and should consider: the adequacy of current penalties, the adequacy of the current pool fencing standards, the removal of exemptions, and the implementation of a scheme for regular pool fence inspections.

- The Swimming Pool Safety Authority appropriately mitigate risks arising from private pools by establishing policies and guidelines concerning enforcement, and enforce the provisions of the Act when appropriate.
- The Department of Health assist the Swimming Pool Safety Authority to appropriately mitigate risks arising from private pools by taking all reasonable steps to ensure the Authority receives and has data on all non-fatal swimming pool drowning presentations by children at public hospitals in the NT to facilitate the Authority's investigation, compliance and enforcement of the provisions of the Act.
- The Northern Territory Government ensure the Northern Territory Water Safety Strategy is updated and includes strategies for best practice risk mitigation in respect of private pools.

The agency responses to these recommendations are in progress.

2. *Grace* [2024] NTLC 7 was a 13 year-old girl who died by suicide, by a self-inflicted single contact gunshot to the chest at a private residence. The coronial findings made six recommendations in respect to the Department of Education and NT Police.

Recommendations

- The Department of Education ensure that there is appropriate policy, guidelines and training in all schools incorporating best practice following any disclosure of suicidality or suicidal thoughts by a student, including but not limited to, risk assessment, safety planning, follow up or referrals and communication to appropriate persons. Consideration should

be given as to whether a policy similar to the *NSW Management of Suicidality in Students* policy should be adopted.

- NT Police embed in appropriate general orders, and any other applicable policy and training, clear directions as to the circumstances in which it is mandatory to immediately notify the forensic pathologist of a death and provide an opportunity for their attendance at a scene, in person or via videolink.
- NT Police amend the appropriate general orders, and any other applicable policy and training, to identify deaths in which it is mandatory for Police to attend autopsies and, guidance as to any discretion (if any).
- NT Police amend the appropriate general orders, and any other applicable policy and training, to address fingerprinting of deceased persons for forensic purposes including for comparative purposes.
- NT Police establish and maintain internal expertise in firearm crime scene reconstruction and ballistics, or have and maintain sufficient availability of appropriate external expertise.
- NT Police review and update appropriate general orders, and any other applicable policy and training, to reflect the *Internal Broadcast Prosecution Opinion files – Coronial Investigations involving unsecured firearms* dated 1 December 2022.

The NT Police responses to these recommendations are in progress.

Research trial – Bubba Basket Safer Sleeping project

Implementation progress report

In November 2020, the Northern Territory Government Department of Territory Families and the Northern Territory Department of Health met with a range of stakeholders to develop a strategy which sought to address a concerning number of infant deaths in the Northern Territory which had occurred while babies were sleeping.

As a result, the Bubba Basket Safer Sleeping Project was developed as an implementation trial, including a research component for evaluation of the effectiveness of the trial. The Bubba Basket Safer Sleeping Project has been designed to reduce the rate of sudden unexpected death in infancy and encompasses components of health education, community and consumer awareness and the provision of a safe sleeping basket (Pepi Pod) for new born babies in the Tennant Creek community.

Julalikari Council Aboriginal Corporation (JCAC) was awarded funding to deliver the project over a 2 year period. JCAC is one of the largest Aboriginal and Torres Strait Islander corporations in Australia, with a history stretching back more than 30 years and delivers a variety of Aboriginal-led community service programs including the Aged and Disability Service.

All pregnant women living in Tennant Creek are eligible to participate in the trial, excepting those whose circumstances prohibit in-home visits by health care staff. Social factors that contribute to the risk of infant death include:

All pregnant women living in Tennant Creek are eligible to participate in the trial, excepting those whose circumstances prohibit in-home visits by health care staff. Social factors that contribute to the risk of infant death include:

- Smoking while pregnant
- Poor antenatal care
- Smoking in the house with an infant

- Overheating infant
- Poor infant hygiene
- Infant tummy sleeping
- Infant rolling onto face

The service model implemented in Tennant Creek has 4 key areas understood as the Bubba Basket Bundle:

- Healthcare and service provider staff information, education and training;
- Engaging with Parents (Pregnant and Postnatal woman and their support persons) to provide information related to reducing the risk of sudden unexplained death in infancy: access to antenatal support, education around SIDS and how to prevent SIDS, support one or both parents into programs that further support their situation. Prior to birth, the mother receives a Pepi Pod (baby bed) ready for the arrival of baby, mother and family are trained on the purpose and use of the Pepi Pod and how it reduces the risk of SIDS;
- Community awareness around reducing the risk of SIDS and the importance of safer sleeping practices for infants;
- The provision of a safe sleeping device, the Pepi Pod, to new parents and ongoing support and education around its use.

Progress in 2022-2024

Bubba Basket Safer Sleeping Project 2023 evaluation

The program was funded since July 2022, however, was slowly established in the first months of 2023. This slow start is reflective of program implementation in remote Aboriginal communities needing recruitment and retention of trusted, qualified and culturally responsive staff and establishing trust and confidence from community in new programs. Given the challenges and the ongoing impact of the COVID pandemic on service delivery there has been good progress to establish the Bubba Basket Safer Sleeping Project as a valued program supporting parents, families and infants in Tennant Creek:

- Two training sessions open to Bubba Basket staff and key partners have been provided. This is allowing staff and partners to promote the program with confidence and engage in Bubba Basket education and training with parents and cares enrolling into the program;
- Strong partnerships have been established with APHU and the Tennant Creek Midwifery Group Practice. These Services have been identified as key contributors to the ongoing success of the program. They each have trusted relationships across the community and have contact with pregnant women and families;
- To date there have been 16 parents referred to and enrolled in the program.

Bubba Basket Program has progressed at a steady rate over the past 6 months. Throughout this period, a coordinator has enrolled 15 mums who are engaged in the program and receiving intensive support and education, in addition to other mums previously enrolled. (16) Due to a steady flow, the remaining Pepi Pods have been distributed and 100 more ordered.

Progress Update – Activity 1 – Partnership approaches to support and strengthen delivery of the Bubba Basket project in Tennant Creek

- Progress made with developing relationships with key service providers. These relationships have ensured that families were being referred to the program, but also that mums in the program have clear pathways into services for additional support.
- With strong relationships with key services, mothers with infants have access to services, and have access to education and health related supports. The current referral pathways available are ensuring Bubba Basket staff are currently receiving regular referrals and are also able to refer clients to services as needed.
- Continue to improve referral forms, program brochures and merchandise for mums and bubs.
- A major challenge faced over the past 6 months was recruitment of a Wellbeing Officer.
- A setback the program faced was the death of an 8 week old baby.
- This death was thoroughly reviewed by the agencies involved and the Committee. Unfortunately, this passing was caused by unsafe sleeping of an intoxicated adult who was enrolled in the program.
- Program implementation continues.

Progress Update – Activity 2 – Increasing community awareness of Safe Sleeping and Safe Breathing practices in reducing the risk of SIDS

- Sessions around safe sleeping and breathing were delivered to mothers on arrival of baby and then continuously throughout each visit. Unfortunately, not many surveys were completed for many reasons, so limited data collected to establish if the education delivered was meaningful.
- The Bubba Basket team built a strong relationship with the hospital child health team who come once a week to do child health checks within the centre.
- The biggest achievement for the progress period was the increase of families enrolled into the Bubba Basket program.
- Major challenges were having families attend group sessions. This is a common challenge many programs experience in remote communities.
- The Children and Family Centre (“CFC”) staff improvise to create a safe fun space for mums and little ones in the program.
- Certificate 3 in Early Childhood Care and Practise training has been commenced for some CFC staff. This has increased staff ability to confidently provide quality engagement and education.
- CFC are seeking more funds to continue this initiative as this funding runs out at the end of the year.

Progress Update – Activity 3 – Delivery of the Bubba Basket program supports parents and families to establish and maintain safe sleeping and safer breathing practices in their homes and community, with their infants.

- The delivery of the Bubba Basket happened through:
 - » Midwifery Group
 - » Outreach Remote Alcohol and Other Drugs Workforce Program
 - » One on one outreach
 - » Surveys
 - » Follow ups
 - » Group gatherings
- Over the period, the program had a total of 15 families enrolled. Scheduled peer group gatherings were locked in, however, these happened in a more informal way, such as family groups coming in for education, early years events.

Bubba Basket Project Good News Story - Bubba Basket Coordinator R.Walker

Sometimes, building relationships that have been damaged by other services is hard. However, after working 6 months with intensively and consistently with T.H, she has come out of her shell. T.H has 2 children in foster care in Darwin. After Easter break when her children left (after visitation access), she reached out to Bubba basket staff about how she needed to take her baby to the hospital for all these check-ups, which led to her asking to join a playgroup. This mum has come a long way without family or service support, so to see her take initiative to reach out and say what she like for her baby, was a big win for our program and the work we have done.

Case Studies – Child and Youth Suicides 2000 - 2023

Implementation progress report

A study of child and youth suicide in the NT will be commenced in 2024/2025. It will update previous reporting and analysis of child and youth suicide commissioned by NT CDRPC in 2012.

The previous study identified distinct psycho-social and individual antecedents that require approaches to prevention that are tailored to the NT context. This study of child and youth suicide will identify any emerging trends and characteristics that may assist with identifying appropriate targets for prevention.

The study will have two parts. The first will produce a comprehensive social profile of child and youth suicide, with special attention to the differences between Aboriginal and non-Aboriginal children and young people, between males and females by age, location and community and according to records of school participation, contact with child protection, police, justice and mental health care, disability. The study will link records in the NCIS with NT records of involvement across education, health, child protection, and justice systems for children and youth to age 18 years.

The second part will be a detailed audit of coronial records for selected cases of child suicide death to identify psychosocial, familial and community influences in the background of each death. It will identify specific experiences for the young people and how these experiences contributed to the outcome. It will seek to identify potential opportunities for prevention based on the most prominent identifiable risks. Cases will be selected based on preliminary analysis of trends and patterns that point to emergent risks: for example, a possible rise in suicides among young females.

Reports will be published for each study as and when completed.

Safer Sleeping Practices in the Northern Territory

Following the death of an infant who was reportedly co-sleeping with her mother in a hospital bed at Alice Springs Hospital the Committee had concerns that good safe sleeping practice was not being consistently followed in all NT hospitals. Whilst the Committee respects co-sleeping may be a cultural practice across any cultures and be supported in order to keep mothers engaged and in hospital at the same time it ignores the safety concerns of the child.

The Committee wrote to the NT Health Chief Executive Officer and Health Minister highlighting the concerns as to how NT Health mitigates, monitors and manages the risk of this Territory wide safety and quality issue. The following response was received:

“NT Health does not support bed sharing in the hospital setting due to the increased risks of Sudden Unexpected Death in Infancy (SUDI) The NT Health Bed-Sharing for Parent/Carer and baby Guideline (dated 18.6.24) outlines the requirements for maintaining a safe sleeping environment for babies in NT Health facilities. The guideline aims to mitigate the risks associated with bed-sharing through clear guidelines and educational resources.

NT Health acknowledges that some parents/carers may choose to bed share due to personal, socio-economic or cultural reasons. As part of a risk minimisation approach, NT Health supports Health Professionals in educating parents/carers about the dangers of bed sharing, and strategies to reduce SUDI risks in shared sleep environments. Additionally, SIDS education is provided to all postnatal women during their inpatient stay as per the post birth pathway.”

Many infants are co-sleeping with the mother/family members in community where other risk factors are identified (Infant premature, young or small; multiple persons (adults or children) sharing the sleep surface, soft surface, heavy covers, sofa/single bed, parents often sedated, intoxicated, tired, obese, and maternal smoking). Child deaths occur in this context each year in the NT.

Sudden unexpected death in infancy (SUDI) is a term that describes the sudden and unexpected death of an infant (under the age of 12 months) and may be due to

natural or unnatural causes, or remain unexplained. When these deaths are investigated, they're often found to be related to one of the following:

- *Medical conditions: underlying health conditions that parents or health professionals weren't aware of, such as congenital abnormalities or infections;*
- *Fatal sleep accidents: when babies suffocate, get trapped or strangled by things in their sleep environments; and*
- *Sudden infant death syndrome or SIDS: when investigations can't find a cause of death and none of the above are identified. Cause of death is “Undetermined”.*
- *and none of the above are identified. Cause of death is “Undetermined”.*

The Committee holds concerns that parents and staff are not fully aware of the real level of risk in co-sleeping. The Committee have suggested that a cross agency working group including Aboriginal Medical Services Alliance of the Northern Territory (AMSANT) be established to explore the possibility of education tools and resources regarding safe sleep practices which are culturally appropriate being developed for use in the hospital environment and the broader community.

The current “Back to Sleep” campaign (all healthy infants younger than 1 year old be placed on their backs to sleep) is insufficient and there is a need to broaden education to include safer co-sleeping environments with a focus on the risk factors, emphasizing that co-sleeping is “not safe”. There is a need for thorough consultation with First Nations people to allow development of an appropriate education/public health campaign for this cohort, that remains significantly over-represented in NT child death statistics.

Chapter 3

Sources of data – child deaths in the Northern Territory

Sources of data – child deaths in the Northern Territory

Sources of data on child deaths

Australian Bureau of Statistics (ABS)

The Australian Bureau of Statistics (ABS) publishes a series of reports and tables on deaths that occur in all Australian jurisdictions.

There are a number of limitations with the ABS data, which include: the time lag between the recorded date of death with the NT BDM Registry and the publication of the ABS reports, only the medical causes of death are recorded and not the related risks such as the social factors that may have contributed to the deaths. The ABS 2023 child death tables do not provide data for unknown gender population.

Registry of Births, Deaths and Marriages

The Department of the Attorney-General and Justice's (AGD) Registry of Births, Deaths and Marriages provides details of all child deaths occurring in the NT such as name, residence, date of birth, age, gender, Aboriginal or Torres Strait Islander status, date and place of death and where available the cause of death once the child has been buried/cremated.

The Registry of Births, Deaths and Marriages also provides information relating to stillbirths in the NT including date and place of birth, gestation age and gestation weight.

The National Coroner's Information System

The Committee obtains and compares information such as Coronial Findings, Autopsy Reports, Toxicology Reports and Police Reports related to reportable deaths in the NT from the National Coroner's Information System (NCIS).

NT Office of the Coroner

The NT Office of the Coroner provides information to NCIS related to deaths of children deemed to be reportable under provisions contained in the *Coroners Act 1993*.

A reportable death is defined as a death that:

- appears to have been unexpected, unnatural or violent;
- appears to have resulted, directly or indirectly from an accident or injury;
- occurred during an anaesthetic or as a result of an anaesthetic and is not due to natural causes;
- occurred when a person was held in, or immediately before death, was held in care or custody;
- was caused or contributed to by injuries sustained while the person was held in custody;
- is of a person whose identity is unknown;
- and in certain other circumstances.

The death of a child that is considered to have occurred whilst being in care or custody includes those circumstances:

- where the child or young person is deemed to be 'in care' in accordance with provisions contained in the *Care and Protection of Children Act 2007*; or
- where the child or young person is an involuntary patient under the *Mental Health and Related Services Act 1998*, whether in hospital or temporarily removed from hospital; or
- if the young person's death occurs in a detention centre approved under the *Youth Justice Act 2005*.

Other sources of data

Doctor issued Medical Certificate Causes of Death and other relevant information are provided by the Births, Deaths and Marriages, Department of Health (DoH), other health service providers and all Australian Child Death Registers.

Engage the services of the National Centre for health Information Research and Training (NCHIRT) at Queensland University of Technology (QUT), to conduct coding and assign ICD-10-AM Multiple Cause of Death codes to all Causes of Death of the Child Death Register's mortality data.

Confidentiality of information

The *Care and Protection of Children Act 2007* contains provisions that help ensure the confidentiality of information obtained by the Committee in the exercising of its statutory responsibilities. It is an offence under the Act for a person to disclose, or use information obtained as part of the performance of their functions.

The Act allows for the disclosure of information for the purposes of research; as part of an inquiry or investigation conducted by Police or a Coroner; to a court or tribunal, or where otherwise required or authorised by law and to enter into an arrangement for the sharing of information with anyone in Australia that has functions similar to those of the Committee.

Coding cause of death

The Committee uses the International Statistical Classification of Diseases and Related Health Problems, (ICD-10 which was developed by the World Health Organisation, WHO) to code the underlying and multiple causes of death. The ICD-10 is designed to promote international compatibility in the collection, processing, classification and presentation of morbidity and mortality statistics. ICD-10-AM (Australian Modified) 11th Edition has been modified to ensure that the classification is current and appropriate for Australian clinical practice whilst ensuring that international compatibility is maintained.

Calendar year reporting

The Committee has elected to report on child deaths based on the calendar year as opposed to the financial year. The majority of other Australian jurisdictions use the same reporting period.

Child deaths rates

A child death rate is a measure that adjusts the number of deaths for difference in the population size and an estimate of the frequency of occurrence of deaths in an average population. Child death rates are reported as the number of deaths per 100,000 population of children. Both child death rates and infant death rates are standard units of measurement. Rates within age groups are reported, as age-group specific rates (number of deaths per 100,000 populations).

Calculating death rates

The death rate formula used for the calculations as per the available statistics is, the number of deaths occurred in a given time period divided by the size of the population among which death occurred, multiplied by 100,000 to determine the death rate in terms of deaths per 100,000 people.

Chapter 4 – Child deaths in the Northern Territory

Child deaths in the Northern Territory

This chapter provides statistical data related to child deaths in the calendar year 2023 and for the period 2019-2023. The data includes demographic details relating to age, gender, Aboriginal status and underlying causes of death and whether the child and/or a sibling is known to the child protection system. Updated data is used in the present report so there may be some variations in the data reported for previous years.

Child deaths in 2023

Child deaths by age group, NT, 2023

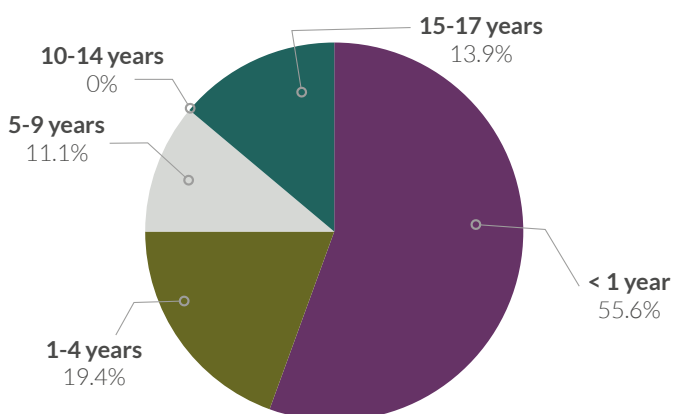
The following Table shows there were 36 child deaths registered in 2023. The highest number of deaths (n=20, 55.6%) occurred during infancy, with (n=7, 19.4%) deaths in the 1 to 4 year age group, (n=4, 11.1%) in the 5 to 9 years age group, (n=0, 0%) 10 to 14 years and (n=5, 13.9%) in the 15 to 17 years age group.

Table 3: Child deaths by age group, NT, 2023

Age Group	No
< 1 year	20
1 - 4 years	7
5 - 9 years	4
10 - 14 years	0
15 - 17 years	5
Total	36

Source: NT Child Deaths Register

Figure 1: Child deaths by age group, NT, 2023



Source: NT Child Deaths Register

Child deaths by age group, gender, NT, 2022

Table 4: Child deaths by age group and gender and Aboriginal status, NT, 2023

Age Group	Female	Male	Unknown	Total
< 1 year	12	8	0	20
1 - 4 years	3	4	0	7
5 - 9 years	3	1	0	4
10 - 14 years	0	0	0	0
15 - 17 years	1	4	0	5
Total	19	17	0	36
Aboriginal Status				Total
Aboriginal				25
Non-Aboriginal				11
Grand Total				36

Source: NT Child Deaths Register

Child deaths, 2019-2023

Between 1 January 2019 and 31 December 2023, a total of 207 deaths of children normally resident in the NT were registered in the NT.

Child deaths by year, age group and gender, NT, 2019-2023

The majority of child deaths over the five year period occurred during infancy (n=126, 60.9%). The age group with the second largest number of deaths was the 15-17 years age group (n=31, 15%), while the 10-14 years age group had the fewest number of deaths (n=9, 4.3%). There was a total of (n=126, 60.9%) males, which is significantly greater than (n=77, 37.2%) females and (n=4, 1.9%) unknown.

Table 5: Child deaths by year, gender and age group, NT, 2019-2023

Year and Aboriginal Status		< 1 year	1-4 years	5-9 years	10-14 years	15-17 years	Total
2019	Female	4	0	0	0	2	6
	Male	16	1	5	2	2	26
	Unknown	2	0	0	0	0	2
	Subtotal	22	1	5	2	4	34
2020	Female	11	1	3	3	3	20
	Male	20	3	1	1	3	29
	Unknown	1	0	0	0	0	1
	Subtotal	32	4	4	4	6	50
2021	Female	7	2	0	0	5	14
	Male	18	1	5	1	5	30
	Unknown	1	0	0	0	0	1
	Subtotal	26	3	5	1	10	45
2022	Female	13	1	0	2	2	18
	Male	13	2	5	0	4	24
	Unknown	0	0	0	0	0	0
	Subtotal	26	3	5	2	6	42
2023	Female	12	3	3	0	1	19
	Male	8	4	1	0	4	17
	Unknown	0	0	0	0	0	0
	Subtotal	20	7	4	0	5	36
Total	Female	47	7	6	4	13	77
	Male	75	11	17	5	18	126
	Unknown	4	0	0	0	0	4
	Total	126	18	23	9	31	207

Source: NT Child Deaths Register and ABS 3101.0, June 2023

Total may differ from last year's report due to late registrations and interstate deaths

Child deaths by year, Aboriginal status and age group, NT, 2019-2023

In the years 2019-2023, the number of Aboriginal child deaths was greater than the number of non-Aboriginal children. There was a total of (n=134, 64.7%) deaths of Aboriginal children, which is significantly greater than the proportion of non-Aboriginal children (n= 73, 35.3%) in the total NT population for these age groups.

Table 6: Child deaths by year, Aboriginal status and age group, NT, 2019-2023

Year and Aboriginal Status		< 1 year	1-4 years	5-9 years	10-14 years	15-17 years	Total
2019	Aboriginal	17	0	2	1	4	24
	Non-Aboriginal	5	1	3	1	0	10
	Subtotal	22	1	5	2	4	34
2020	Aboriginal	14	2	2	3	5	26
	Non-Aboriginal	18	2	2	1	1	24
	Subtotal	32	4	4	4	6	50
2021	Aboriginal	17	0	2	1	9	29
	Non-Aboriginal	9	3	3	0	1	16
	Subtotal	26	3	5	1	10	45
2022	Aboriginal	15	3	5	1	6	30
	Non-Aboriginal	11	0	0	1	0	12
	Subtotal	26	3	5	2	6	42
2023	Aboriginal	15	4	4	0	2	25
	Non-Aboriginal	5	3	0	0	3	11
	Subtotal	20	7	4	0	5	36
Total	Aboriginal	78	9	15	6	26	134
	Non-Aboriginal	48	9	8	3	5	73
	Total	126	18	23	9	31	207

Source: NT Child Deaths Register

Total may differ from last year's report due to late registrations

Child deaths by usual residence, age group and Aboriginal status, NT, 2019-2023

Usual residence refers to the child's usual place of residence as recorded in the BDM register and reported by the parents or next of kin. For the purpose of this report, usual residence has been classified as either Greater Darwin or the Rest of the NT.

In the five year period from 2019 to 2023, the majority of child deaths (n=127, 61.3%) occurred among children living outside Greater Darwin region. This difference was driven by the larger number of deaths of Aboriginal children most of whom are living outside the Greater Darwin area (n=104, 81.9%).

Table 7: Child deaths by usual residence, age group and Aboriginal status, NT, 2019-2023

Age Group	Greater Darwin	No. (%)	Rest of NT	No. (%)
< 1 year	53	65%	73	57.5%
1 - 4 years	6	7.5%	12	9.4%
5 - 9 years	9	11.2%	14	11%
10 - 14 years	2	2.5%	7	5.6%
15 - 17 years	10	13.8%	21	16.5%
Total	80	100%	127	100%
Aboriginal Status				
Aboriginal	30	37.5%	104	81.9%
Non-Aboriginal	50	62.5%	23	18.1%
Total	80	100%	127	100%

Source: NT Child Deaths Register

Total may differ from last year's report due to late registration

Infant Deaths, 2019-2023

Infant deaths by gender and Aboriginal status, NT, 2019-2023

There were 126 infant deaths between 2019-2023 in the NT. A majority of those were male (n=75, 60%) and a high majority of those were Aboriginal children (n=78, 62%).

Perinatal deaths by type, Aboriginal status and year, NT, 2019-2023

Given that there is a substantially greater risk of death in the perinatal period, the Committee has always monitored this period. Perinatal deaths are the combination of neonatal deaths and stillbirths. The following Table shows there are a total of (n=209, 69.2%) stillbirths and (n=93, 30.8%) neonatal deaths and the percentage of Aboriginal (n=131, 62.7%) and non-Aboriginal (n=78, 37.3%) stillbirths. The majority of neonatal deaths (n=54, 58.1%) were Aboriginal children.

Post neonatal infancy (between 28 days – 1 year of age) by Aboriginal status and year, NT, 2019-2023

The following Table shows post-neonatal infant deaths over the recent five year period by Aboriginal status. Of the total number of deaths in this age group, there is a majority that were Aboriginal children (n=23, 71.9%).

Table 8: Infant deaths by gender and Aboriginal status, NT, 2019-2023

Aboriginal Status	Female	Male	Unknown	Total
Aboriginal	29	47	2	78
Non-Aboriginal	18	28	2	48
Total	47	75	4	126
Percentage	37%	60%	3%	100%

Source: NT Child Deaths Register

Table 9: Perinatal deaths by type, Aboriginal status and year, NT, 2019-2023

	2019	2020	2021	2022	2023	Total
Aboriginal						
Neonatal	14	11	9	10	10	54
Stillbirth	24	16	35	34	22	131
Subtotal	38	27	44	44	32	185
Non-Aboriginal						
Neonatal	4	16	8	7	4	39
Stillbirth	15	16	23	11	13	78
Subtotal	19	32	31	18	17	117
Total	57	59	75	62	49	302

Source: NT Child Deaths Register

Individual totals may differ from last year's report due to late registration

Table 10: Post neonatal infancy by Aboriginal status and year, NT, 2019-2023

Post Neonatal	2019	2020	2021	2022	2023	Total
Aboriginal	3	3	8	4	5	23
Non-Aboriginal	1	2	1	4	1	9
Total	4	5	9	8	6	32

Source: NT Child Deaths Register

Individual totals may differ from last year's report due to late registration

Deaths of children with a family involvement in child protection service (Territory Families) 2019-2023

Children involved with the child protection system are considered to be a particularly vulnerable subgroup of the population. Given that the risk is often associated with families, it is prudent that child death committees consider the 'child protection' history of children who have died as well as that of their siblings, as an indicator of vulnerability.

A child is considered to be 'known' to the child protection system if an 'action' has been taken under Chapter 2 of the *Care and Protection of Children Act 2007* to safeguard the wellbeing of the child. This 'action' by Territory Families can involve; receiving a child abuse notification, the assessing of child abuse notifications, child protection investigations, the undertaking of protective assessments, the provision of family support services, the taking out of statutory child protection orders, or the placement of a child into care.

The death of a child who is in the care of the Chief Executive Officer of Territory Families is required by law to be referred to the Office of the NT Coroner for him/her to make a finding on the child's death (Death in Care). In the present reporting period 2019-2023 there have been 5 deaths of children who were "In Care" to Territory Families and referred to the Office of the NT Coroner.

Characteristics of child death known to Territory Families status, NT, 2019-2023

Children known to child protection services may originate from families characterised by dysfunction, including domestic and family violence, alcohol, drug and volatile substance abuse, mental illness, and involvement with the criminal justice system.

Of the total 207 recorded child deaths in the NT in the reporting period 2019-2023, (n=111, 53.6%) were 'known' to Territory Families and (n=96, 46.4%) were 'not known' to Territory Families within the 3 years prior to their death. Of the deaths of children known to Territory Families the highest number of involvement was in the <1 year range (n=52, 46.8%) and the lowest number of involvement was in the 10-14 years range (n=7, 6.3%).

Of the 111 deaths of children involved in the child protection system, (n=92, 82.9%) were Aboriginal and (n=19, 17.1%) were non-Aboriginal.

Table 11: Characteristics of child death by known to Territory Families status, NT, 2019-2023

Child Characteristics	Known to TF		Not known to TF	
	No.	%	No.	%
Gender				
Female	42	37.8%	35	36.5%
Male	67	60.4%	59	61.4%
Unknown	2	1.8%	2	2.1%
Total	111	100%	96	100%
Aboriginal Status				
Aboriginal	92	82.9%	42	43.7%
Non-Aboriginal	19	17.1%	54	56.3%
Total	111	100%	96	100%
Location				
Greater Darwin	31	27.9%	49	51.0%
Rest of NT	80	72.1%	47	49.0%
Total	111	100%	96	100%
Age Group				
< 1 year	52	46.8%	74	77.1%
1 - 4 years	10	9.1%	8	8.3%
5 - 9 years	15	13.5%	8	8.3%
10 - 14 years	7	6.3%	2	2.1%
15 - 17 years	27	24.3%	4	4.2%
Total	111	100%	96	100%

Source: NT Child Deaths Register

Some totals may vary from last year's report due to late registration and interstate deaths

Child death rates by year, NT, 2019-2023

In this report, population numbers for the denominator are based on ABS Estimated Resident Population data for single years – for children aged 0-17 years in the NT (ABS Cat. 3101.0, 2023). Given the relatively small number of deaths each year in the NT, aggregating data across five years provides a more reliable indicator of the underlying rates.

Males made up 51.6% of all children in the NT population (ABS 2023). ABS do not currently record unknown gender. The 4 children (all <1 year) with unknown gender are not represented in the following tables.

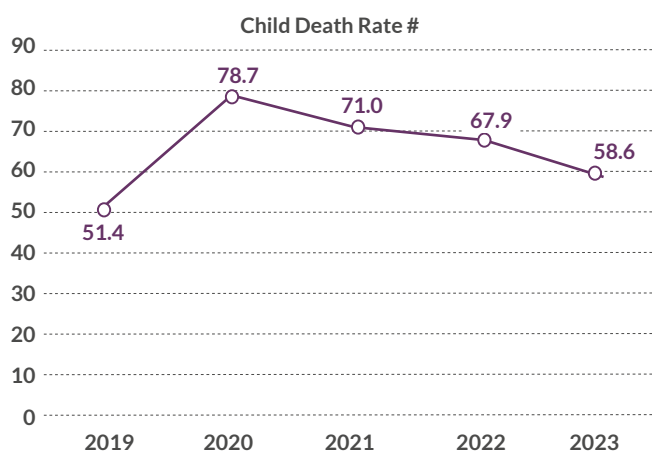
The annual rates are presented in the following Table and Figure. It needs to be remembered that there may be additional deaths in recent years that have not yet been reported.

Table 12: Child deaths by year, NT, 2019-2023

Year	Number of Deaths	Rate#
2019	32	51.4
2020	49	78.7
2021	44	71.0
2022	42	67.9
2023	36	58.6
Total	203	65.5

Source: NT Child Deaths Register and ABS 3101.0, June 2023. ABS Cat 3101.0 does not record unknown gender population. # per 100,000 children
Total may differ from last year's report due to late registration

Figure 2: Child death rates by year, NT, 2019-2023



Source: NT Child Deaths Register and ABS 3101.0, June 2023. ABS Cat 3101.0 does not record unknown gender population. # per 100,000 children

Child death rates by age group, NT, 2019-2023

Annualised age group specific death rates for the five year period are shown in the following Table. The infant death rate of 690.5 deaths per 100,000 children reflects the large number of deaths that occur in this age group and were the majority of all NT child deaths. The 15-17 years age group are the second highest death rate at 66.5 deaths per 100,000 children and the lowest death rates was in the 10 to 14 years age group at 10.5 deaths per 100,000 children.

Child death rates by age group and gender, NT, 2019-2023

For the five year period from 2019-2023 the respective rates were 51.3 for females and 78.9 for males with an overall rate of 65.5 per 100,000 children. Across the 5 year period, the annualised infant death rate was 543.5 per 100,000 infants for females and 831.3 for males.

Table 13: Child death rates by age group, NT, 2019-2023

Age Group	Number of Deaths	Rate #
< 1 year	122	690.5
1 - 4 years	18	25.6
5 - 9 years	23	25.6
10 - 14 years	9	10.5
15 - 17 years	31	66.5
Grand Total	203	65.5

Source: NT Child Deaths Register and ABS Cat 3101.0, June 2023
per 100,000 children
Some totals may vary from last year's report due to late registration

Table 14: Child death rates by age group and gender, NT, 2019-2023

Age Group	Female		Male	
	Number of Deaths	Rate #	Number of Deaths	Rate #
< 1 year	47	543.5	75	831.3
1 - 4 years	7	20.7	11	30.1
5 - 9 years	6	13.7	17	36.9
10 - 14 years	4	9.7	5	11.3
15 - 17 years	13	57.6	18	74.9
Grand Total	77	51.3	126	78.9

Source: NT Child Deaths Register and ABS Cat 3101.0, June 2023. ABS Cat 3101.0 does not record unknown gender population. # per 100,000 children
Some totals may vary from last year's report due to late registration

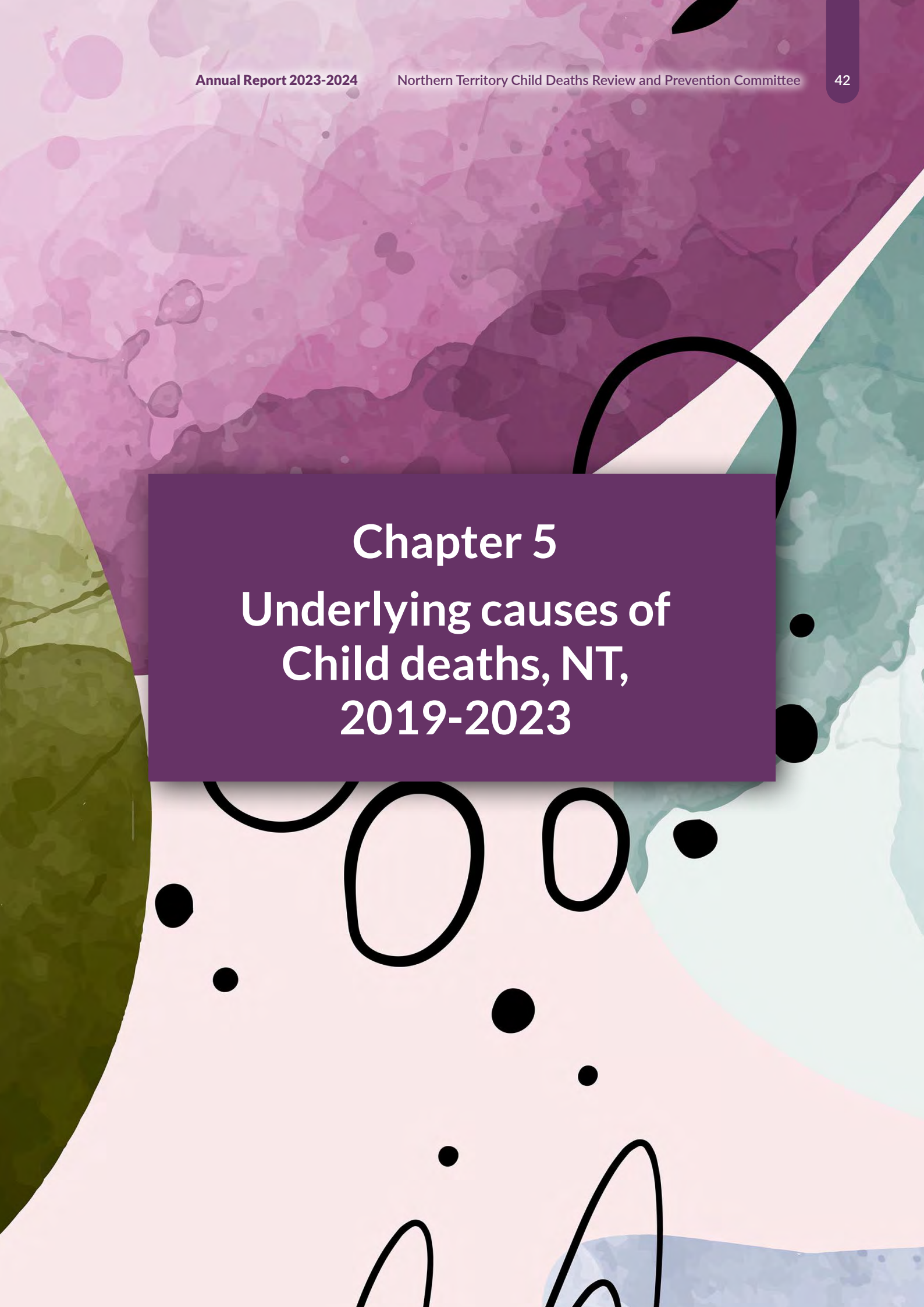
Child death rates by whether known to TF status, NT, 2019-2023

The respective rates were 35.5 for known to Territory Families and 30.0 for not known to Territory Families.

Table 15: Child death rates by whether known to TF status, NT, 2019-2023

Year	Known to TF	Rate #	Not known to TF	Rate #
2019	18	28.9	14	22.5
2020	23	37.0	26	41.8
2021	23	37.1	21	33.9
2022	23	37.2	19	30.7
2023	23	37.4	13	21.2
Total	110	35.5	93	30.0

Source: NT Child Deaths Register and ABS Cat 3101.0, June 2023. ABS Cat 3101.0 does not record unknown gender population.
per 100,000 children



Chapter 5

Underlying causes of Child deaths, NT, 2019-2023

Underlying causes of Child deaths, NT, 2019-2023

This section provides information about the Underlying Cause of Death (UCOD) for 189 of the 207 child deaths in this five year reporting period. At the time of this report, there were 18 deaths awaiting the outcome of coronial investigations. One of these deaths are from 2020, one from 2021 and five from 2022 and eleven from 2023.

Underlying cause of death by ICD-10 chapter and year, NT, 2019-2023

The following Tables provide a comparative breakdown of the UCOD by reporting years, gender and Aboriginal status, usual residence and age groups.

The following Table details the underlying cause of death for children, which has been classified using the standard international coding system at broad chapter level. Certain conditions originating in the perinatal period (n=79, 38.2%) and external causes of morbidity and mortality (n=41, 19.8%) made up the greatest number of deaths.

Table 16: Underlying cause of death by ICD-10 chapter and year, NT, 2019-2023

ICD-10-AM Chapter No.	Code prefix	ICD-10-AM Chapter Descriptions	2019	2020	2021	2022	2023	Grand Total
1	A and B	Certain infectious and parasitic diseases	1	1	1	0	1	4
2	C and D	Neoplasms	1	0	2	2	1	6
4	E	Endocrine, nutritional and metabolic diseases	0	0	2	3	0	5
6	G	Diseases of the nervous system	1	2	1	1	0	5
9	I	Diseases of the circulatory system	0	1	2	1	1	5
10	J	Diseases of the respiratory system	1	2	2	4	1	10
11	K	Diseases of the digestive system	0	0	1	1	0	2
16	P	Certain conditions originating in the perinatal period	18	21	15	13	12	79
17	Q	Congenital malformations, deformations and chromosomal abnormalities	3	7	7	3	4	24
18	R	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	1	1	4	0	0	6
20	U	Codes for special purposes	0	0	0	2	0	2
21	V-Y	External causes of morbidity and mortality	8	14	7	7	5	41
	Not yet coded	Awaiting coronial findings and/or cause of death*	0	1	1	5	11	18
Total			34	50	45	42	36	207

Source: NT Child Deaths Register

Proportions may differ from last year's report due to updated numbers, late registration etc

*includes 18 deaths which are still open coronial cases

Underlying cause of death by ICD-10 chapter, gender and Aboriginal status, NT, 2019-2023

The following Table shows for all sub-groups the leading coded causes of death were “certain conditions originating in the perinatal period and external causes of morbidity and mortality”. There was a significant difference between the numbers of male (n=126, 60.9%) and female (n=77, 37.2%) deaths over this period and significantly more Aboriginal (n=134, 64.7%) than non-Aboriginal (n=73, 35.3%).

Table 17: Underlying cause of death by ICD-10 chapter, gender and Aboriginal status, NT, 2019-2023

Code prefix	ICD-10-AM Chapter Descriptions	Gender			Aboriginal Status	
		Female	Male	Unknown	Aboriginal	Non-Aboriginal
A & B	Certain infectious and parasitic diseases	1	3	0	4	0
C & D	Neoplasms	1	5	0	5	1
E	Endocrine, nutritional and metabolic diseases	2	3	0	5	0
G	Diseases of the nervous system	2	3	0	2	3
I	Diseases of the circulatory system	2	3	0	4	1
J	Diseases of the respiratory system	3	7	0	5	5
K	Diseases of the digestive system	0	2	0	2	0
P	Certain conditions originating in the perinatal period	27	48	4	47	32
Q	Congenital malformations, deformations and chromosomal abnormalities	10	14	0	15	9
R	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	4	2	0	2	4
U	External causes of morbidity and mortality	0	2	0	2	0
V-Y	Awaiting coronial findings and/or cause of death*	20	21	0	29	12
Not coded	Awaiting coronial findings and/or cause of death*	5	13	0	12	6
	Total	77	126	4	134	73

Source: NT Child Deaths Register, National Coronial Information System (NCIS), Local Case Management System (LCMS) & NT Office of the Coroner.

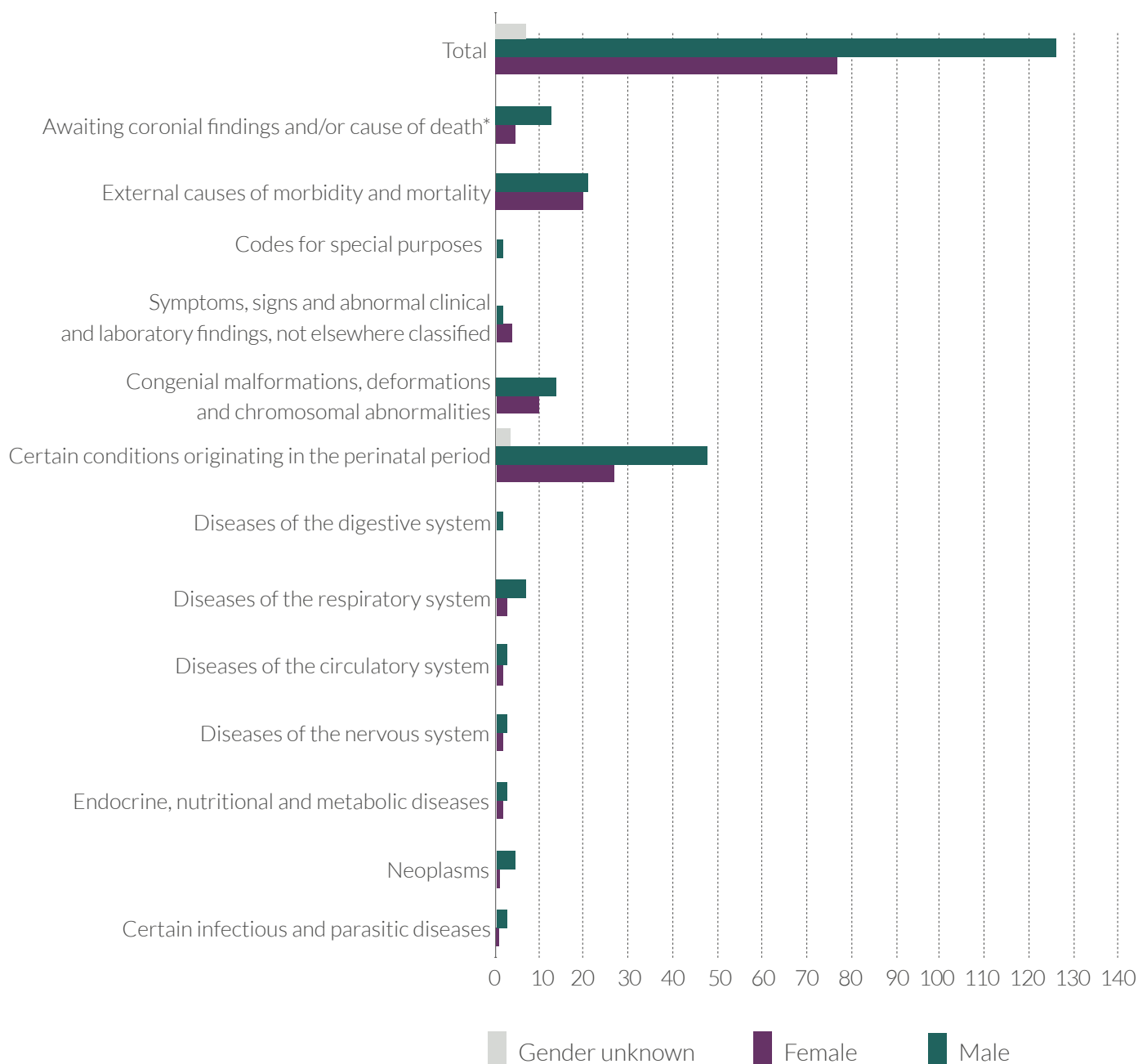
*includes 12 deaths which are still open coronial cases

Forty one deaths were due to ‘external causes of morbidity and mortality’ of which (n=29, 70.7%) deaths were of Aboriginal children and (n=12, 29.3%) were non-Aboriginal children.

Underlying cause of death by ICD-10 chapter and gender, and chapter and Aboriginal status, NT, 2019-2023

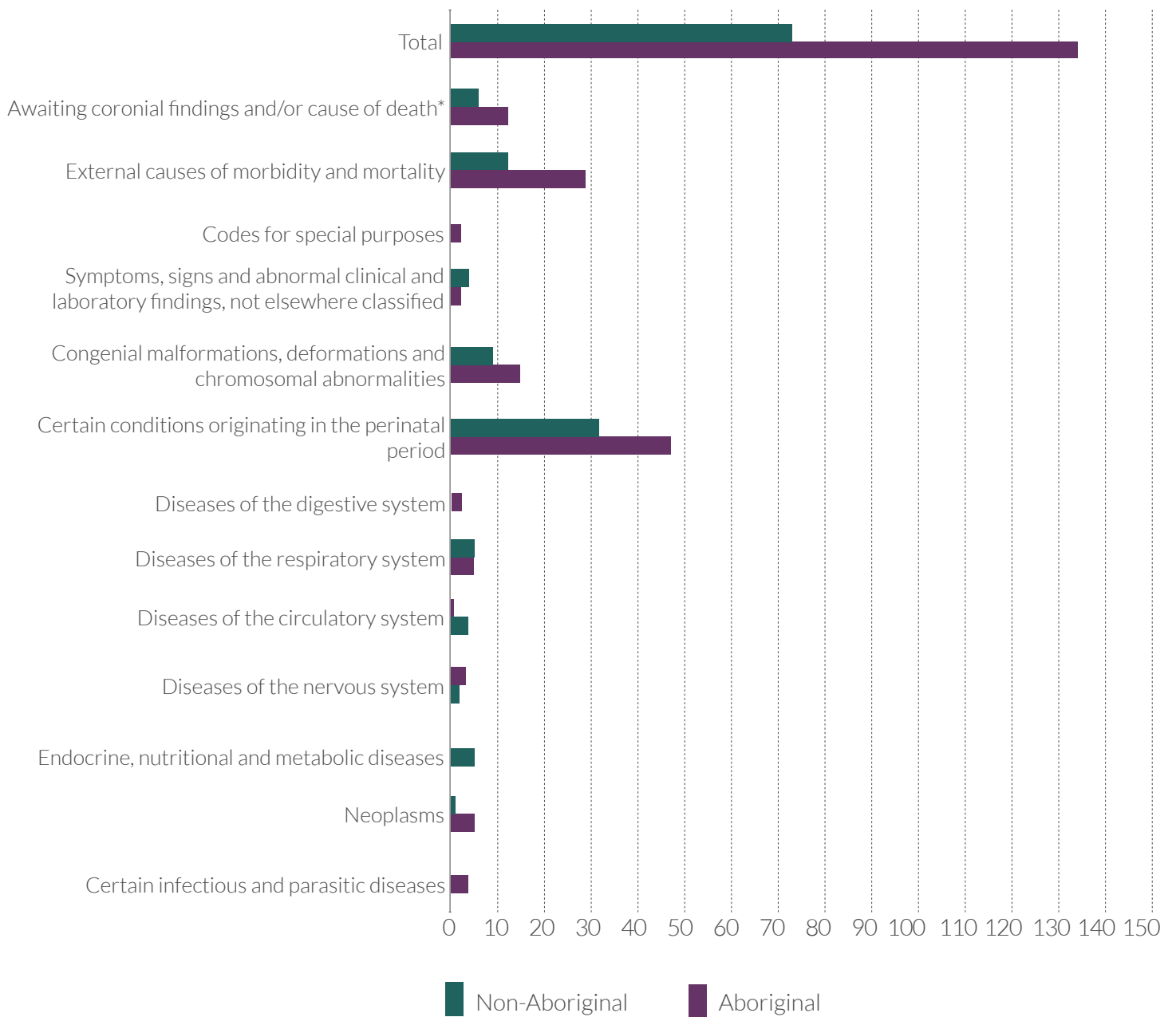
Figures 3 and 4 provide a comparison by gender and Aboriginal status for each of the ICD-10-AM chapters

Figure 3: Underlying cause of death by ICD-10 chapter and gender, NT, 2019-2023



Source: NT Child Deaths Register, National Coronial Information System (NCIS), Local Case Management System (LCMS) & NT Office of the Coroner.
 *includes 18 deaths which are still open coronial cases

Figure 4: Underlying cause of death by ICD-10 chapter and Aboriginal status, NT, 2019-2023



Source: NT Child Deaths Register, National Coronial Information System (NCIS), Local Case Management System (LCMS) & NT Office of the Coroner.
 *Includes 18 deaths which are still open coronial cases

Underlying cause of death by ICD-10 chapter and usual residence, NT, 2019-2023

The following Table shows of the 207 child deaths recorded, (n=127, 61.4%) were from the Rest of the NT. The leading cause of death in Greater Darwin was 'certain conditions originating in the perinatal period' (n=32, 40%) as was the Rest of NT (n=47, 37%).

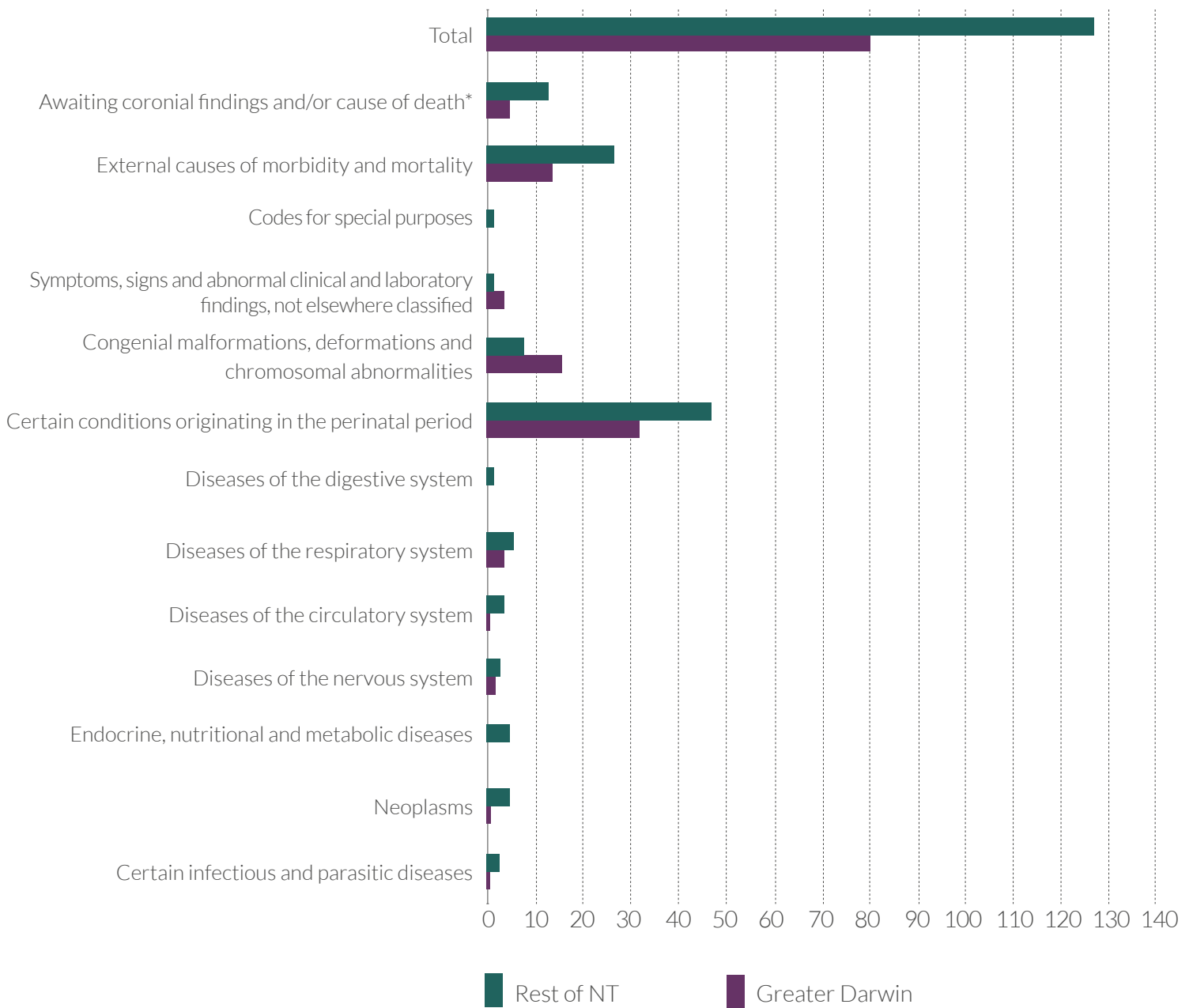
Table 18: Underlying cause of death by ICD-10 chapter and usual residence, NT, 2019-2023

	ICD-10-AM Chapter Descriptions	Greater Darwin	Rest of NT
A & B	Certain infectious and parasitic diseases	1	3
C & D	Neoplasms	1	5
E	Endocrine, nutritional and metabolic diseases	0	5
G	Diseases of the nervous system	2	3
I	Diseases of the circulatory system	1	4
J	Diseases of the respiratory system	4	6
K	Disease of the digestive system	0	2
P	Certain conditions originating in the perinatal period	32	47
Q	Congenital malformations, deformations and chromosomal abnormalities	16	8
R	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	4	2
U	Codes for special purposes	0	2
V-Y	External causes of morbidity and mortality	14	27
Not coded	Awaiting coronial findings and/or cause of death*	5	13
	Total	80	127

Source: NT Child Deaths Register

*includes 18 deaths which are still open coronial cases

Figure 5: Underlying cause of death by ICD-10 chapter and usual residence, NT, 2019-2023



Source: NNT Child Deaths Register

*includes 18 deaths which are still open coronial cases

Underlying cause of death by ICD-10 chapter and age group, NT, 2019-2023

The following Table shows the largest number of deaths in children aged less than 1 year was from 'certain conditions originating in the perinatal period' (n=79, 62.7%) followed by 'congenital malformations, deformations and chromosomal abnormalities' (n=17, 13.5%). For all other age groups, the leading cause of death was 'external causes'. As previously stated 'external causes' includes motor vehicle accidents, drownings, intentional self-harm and electrocutions which are potentially preventable causes of death.

Table 19: Underlying cause of death by ICD-10 chapter and age group, NT, 2019-2023

	ICD-10-AM Chapter Descriptions	< 1 year	1 - 4 years	5 - 9 years	10 - 14 years	15 - 17 years
A & B	Certain infectious and parasitic diseases	3	0	0	0	1
C & D	Neoplasms	1	0	4	0	1
E	Endocrine, nutritional and metabolic diseases	1	0	2	1	1
G	Diseases of the nervous system	1	1	2	0	1
I	Diseases of the circulatory system	0	0	2	0	3
J	Diseases of the respiratory system	7	1	1	0	1
K	Diseases of the digestive system	0	0	1	0	1
P	Certain conditions originating in the perinatal period	79	0	0	0	0
Q	Congenital malformations, deformations and chromosomal abnormalities	17	2	2	0	3
R	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	5	1	0	0	0
U	Codes for special purposes	1	1	0	0	0
V-Y	External causes of morbidity and mortality	5	7	9	8	12
Not coded	Awaiting coronial findings and/or cause of death*	6	5	0	0	7
	Total	126	18	23	9	31

Source: NT Child Deaths Register

Proportions may differ from last year's report due to updated numbers, late registration etc.

*includes 18 deaths which are still open coronial cases

Appendices & References

Appendices

Appendix 1: Table of underlying cause of child deaths by ICD-10 chapters, NT, 2019-2023

ICD-10 Chapter 1: Certain infectious and parasitic diseases (A00-B99)	
Number of Deaths	Causes
1	Australian encephalitis
1	Meningococcal meningitis
1	Sepsis due to streptococcus, group B
1	Sequelae of other specified infectious and parasitic disease
4	Total

ICD-10 Chapter 2: Neoplasms (C00-D48)	
Number of Deaths	Causes
1	Acute myeloblastic leukaemia [AML], without mention of remission
1	Malignant neoplasm of adrenal gland, unspecified
1	Malignant neoplasm of brain stem
1	Malignant neoplasm of brain, unspecified
1	Malignant neoplasm of cerebellum
1	Neoplasm of uncertain or unknown behaviour of brain, unspecified
6	Total

ICD-10 Chapter 4: Endocrine, nutritional and metabolic diseases (E00-E99)	
Number of Deaths	Causes
1	Disorders of urea cycle metabolism
1	Disorders of fatty-acid metabolism
2	Neuronal ceroid lipofuscinosis
1	Type 2 diabetes mellitus with features of insulin resistance
5	Total

ICD-10 Chapter 6: Diseases of the nervous system (G00-G99)	
Number of Deaths	Causes
1	Cerebral palsy, unspecified
1	Muscular dystrophy
1	Other specified degenerative diseases of nervous system
1	Status epilepticus, unspecified
1	Vascular myelopathies
5	Total

ICD-10 Chapter 9: Diseases of the circulatory system (I00-I99)

Number of Deaths	Causes
1	Aneurysm and dissection of other precerebral arteries
1	Infective Myocarditis
1	Intracerebral haemorrhage, unspecified
1	Other specified rheumatic heart diseases
1	Pre-excitation syndrome
5	Total

ICD-10 Chapter 10: Diseases of the respiratory system (J00-J99)

Number of Deaths	Causes
1	Acute upper respiratory infection, unspecified
1	Influenza due to certain identified influenza virus
1	Interstitial pulmonary disease, unspecified
1	Laryngeal spasm
1	Pneumonia due to Haemophilus influenzae
1	Pneumonia due to Klebsiella pneumoniae
1	Pneumonia due to staphylococcus
2	Respiratory syncytial virus pneumonia
1	Status asthmaticus
10	Total

ICD-10 Chapter 11: Disease of the digestive system (K00-K99)

Number of Deaths	Causes
1	Gallstone ileus
1	Megacolon, not elsewhere classified
2	Total

ICD-10 Chapter 16: Certain conditions originating in the perinatal period (P00-P96)	
Number of Deaths	Causes
1	Bacterial sepsis of newborn, unspecified
1	Birth trauma to spine and spinal cord
2	Disseminated intravascular coagulation of fetus and newborn
1	Extreme immaturity of newborn
1	extreme immaturity of newborn, gestational age 23 completed weeks
2	Extreme immaturity, 24 or more completed weeks but less than 28 completed weeks
4	Extreme immaturity, less than 24 completed weeks
2	Extreme immaturity of newborn, gestational age less than 23 completed weeks
1	Extreme prematurity, gestational age less than 22 completed weeks
1	Extreme prematurity, gestational age 22 completed weeks
4	Extremely low birth weight 499g or less
2	Extremely low birth weight 500 - 749g
1	Fetal blood loss from ruptured cord
1	Fetus and newborn affected by breech delivery and extraction
11	Fetus and newborn affected by chorioamnionitis
5	Fetus and newborn affected by incompetent cervix
3	Fetus and newborn affected by maternal infectious and parasitic diseases
1	Fetus and newborn affected by maternal renal and urinary tract diseases
4	Fetus and newborn affected by multiple pregnancy
2	Fetus and newborn affected by oligohydramnios
4	Fetus and newborn affected by other forms of placental separation and haemorrhage
1	Fetus and newborn affected by other maternal complications of pregnancy
1	Fetus and newborn affected by other maternal conditions
4	Fetus and newborn affected by other specified complications of labour and delivery
1	Fetus and newborn affected by placental transfusion syndromes
4	Fetus and newborn affected by premature rupture of membranes
1	Fetus and newborn affected by prolapsed cord
1	Haemorrhage into maternal circulation
1	Necrotising enterocolitis of fetus and newborn
1	Neonatal aspiration of meconium
1	Neonatal hypotension
1	Other specified intestinal obstruction of newborn
1	Perinatal intestinal perforation
1	Pneumothorax originating in the perinatal period
1	Respiratory failure of newborn
1	Severe birth asphyxia
1	Syndrome of infant of mother with gestational diabetes
2	Termination of pregnancy, affecting fetus and newborn
1	Unspecified pulmonary haemorrhage originating in the perinatal period
79	Total

ICD-10 Chapter 17: Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)

Number of Deaths	Causes
1	Anencephaly, unspecified
1	Atresia of pulmonary artery
1	Congenital cerebral cysts, unspecified
1	Congenital malformation of musculoskeletal system, unspecified
1	Congenital malformation, unspecified
1	Congenital malformations of corpus callosum, unspecified
1	Diastematomyelia
1	Double outlet right ventricle
4	Edwards' syndrome, unspecified
1	Malformation of coronary vessels
1	Marfan's syndrome
1	Microgyria and pachygyria
1	Multiple congenital malformations, not elsewhere classified
2	Other specified chromosome abnormalities
1	Other specified congenital malformations of brain
2	Patent ductus arteriosus
1	Renal agenesis, bilateral
1	Renal dysplasia, unspecified
1	Velocardiofacial syndrome [VCFS]
24	Total

ICD-10 Chapter 18: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)

Number of Deaths	Causes
6	Other ill-defined and unspecified causes of mortality
6	Total

ICD-10 Chapter 20: Codes for special purposes (U00-U49)

Number of Deaths	Causes
1	COVID-19 NOS
1	COVID-19, virus not identified
2	Total

ICD-10 Chapter 21: External causes of morbidity and mortality (V00-Y99)	
Number of Deaths	Causes
2	Accidental suffocation and strangulation in bed
1	Assault by knife, spouse or domestic partner
1	Assault by small calibre rifle discharge, parent
1	Bitten by dog
1	Car occupant injured in collision with car, pick-up truck or van, passenger, traffic accident, all-terrain four-wheel drive
1	Car occupant injured in collision with fixed or stationary object, driver, traffic accident, sedan
1	Car occupant injured in collision with fixed or stationary object, passenger, traffic accident, all-terrain four-wheel drive
5	Car occupant injured in collision with heavy transport vehicle or bus, passenger, traffic accident, sedan
1	Car occupant injured in noncollision transport accident, passenger, nontraffic accident, all-terrain four-wheel drive
1	Car occupant injured in noncollision transport accident, passenger, traffic accident, all-terrain four-wheel drive
1	Car occupant injured in noncollision transport accident, passenger, traffic accident, unspecified car [automobile]
1	Driver of all-terrain or other off-road motor vehicle injured in nontraffic accident, four-wheeled special all-terrain or other off-road motor vehicle
2	Drowning and submersion following fall into swimming-pool
1	Drowning and submersion while in natural water
1	Drowning and submersion while in swimming-pool
1	Exposure to electric transmission lines
1	Exposure to other specified electric current
1	Fall involving other specified chair
1	Hanging, strangulation and suffocation, undetermined intent
8	Intentional self-harm by hanging
1	Intentional self-harm by large calibre rifle discharge
1	Intentional self-harm by shotgun discharge
1	Intentional self-poisoning by and exposure to other specified gas or vapours
1	Occupant [any] of pick-up truck or van injured in other specified transport accidents
1	Occupant of pick-up truck or van injured in other specified transport accidents
1	Other accidental hanging and strangulation
1	Pedestrian injured in collision with car, pick-up truck or van, traffic accident
1	Victim of cataclysmic storm
41	Total

Not yet coded	
Number of Deaths	Causes
18	Awaiting coronial findings
18	Total

207 deaths over 2019-2023 period

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