

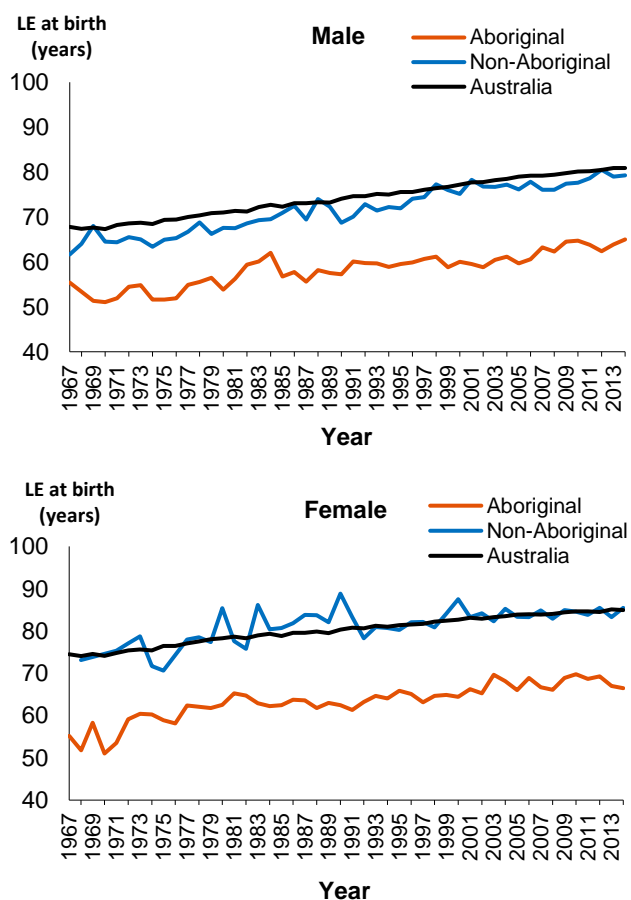
# Fact Sheet

## Mortality in the Northern Territory 1967-2014

### Introduction

Mortality is an important measure of the health of populations. This fact sheet provides an update of long-term trends and key indicators of mortality in the Northern Territory (NT) between 1967 and 2014, with a focus on the most recent years between 2006 and 2014<sup>1</sup>. The information has been collated from multiple sources including population estimates produced by the Australian Bureau of Statistics (ABS) and death data collated by ABS, and more recently, by the Australian Coordinating Registry (ACR)<sup>2</sup>. NT information also includes information for the years 1967-1988 sourced from historical research projects.

**Figure 1. Life expectancy at birth, NT and Australia, 1967-2014**



### Life expectancy at birth

Life expectancy (LE) at birth is a summary measure of mortality in a population at a particular time. It is calculated by combining the mortality rate for each age group in the population. There has been long term improvement in LE, from 1967 to 2014, for all populations (Figure 1, Table 1). Some notable changes between 1967 and 2014 are:

- Life expectancy improved by 11.6 years for NT Aboriginal males (from 52.5 to 64.1 years), and by 14.5 years for NT non-Aboriginal males (from 64.7 to 79.2 years).
- For the same period, the life expectancy improved by 13.7 years for NT Aboriginal females (from 53.9 to 67.6 years), and by 11.8 years for NT non-Aboriginal females (from 72.6 to 84.4 years).
- The life expectancy gap between the NT Aboriginal and Australian population persisted over the last 10 to 15 years, despite the long term improvement in NT Aboriginal life expectancy.

**Table 1. Life expectancy at birth, NT and Australia, 1967-2014, five-year periods**

Years	Northern Territory		Australia
	Aboriginal	Non-Aboriginal	
<b>Male</b>			
1967-1970	52.5	64.7	67.6
1971-1975	52.6	64.7	68.7
1976-1980	53.3	67.9	70.6
1981-1985	57.4	70.4	72.3
1986-1990	55.6	71.9	73.8
1991-1995	58.5	72.3	75.6
1996-2000	59.3	75.9	77.3
2001-2005	59.3	78.5	79.6
2006-2010	63.0	76.9	79.5
2011-2014	64.1	79.2	80.6
<b>Female</b>			
1967-1970	53.9	72.6	74.7
1971-1975	58.5	73.3	76.0
1976-1980	60.2	76.2	78.2
1981-1985	63.2	79.9	79.7
1986-1990	62.6	84.1	80.9
1991-1995	64.2	80.2	82.3
1996-2000	65.2	83.5	83.6
2001-2005	67.9	85.3	85.2
2006-2010	68.0	84.0	84.2
2011-2014	67.6	84.4	84.8

## Age-adjusted death rate

Age-adjusted death rate declined in all population groups between 1967 and 2014, although the reductions in death rate were not evenly distributed between population groups (Table 2).

**Table 2. Age-adjusted death rate\* per 100,000 population, NT and Australia, 1967-2014, five-year periods**

Years	Northern Territory		Australia
	Aboriginal	Non-Aboriginal	
<b>Male</b>			
1967-1970	2538.4	1805.7	1607.8
1971-1975	2662.6	2084.3	1502.5
1976-1980	2736.9	1490.0	1331.2
1981-1985	2227.3	1320.7	1200.1
1986-1990	2468.6	1179.7	1088.9
1991-1995	2134.1	1221.5	980.4
1996-2000	2078.3	942.5	875.3
2001-2005	2049.3	808.7	761.2
2006-2010	1690.5	903.5	722.6
2011-2014	1651.0	755.8	661.9
<b>Female</b>			
1967-1970	2409.2	1152.3	1017.5
1971-1975	1919.0	1200.8	944.6
1976-1980	2081.6	920.5	825.3
1981-1985	1700.6	732.8	755.8
1986-1990	1839.1	598.1	703.4
1991-1995	1635.1	739.2	647.6
1996-2000	1571.0	610.6	598.1
2001-2005	1366.4	539.9	546.7
2006-2010	1411.9	507.4	491.9
2011-2014	1390.3	477.8	462.7

\*Direct age-standardised rates using the 2001 Australian standard population, by 0, 1-4 and 5-year age groups up to 85+.

## Age-specific death rate and ratio

Age-specific death rates among the NT Aboriginal population were higher across all age groups except 85 years and over, compared with their Australian counterparts (Figure 2).

**Figure 2. Age-specific death rate per 100,000 population, NT and Australia, 2011-2014**

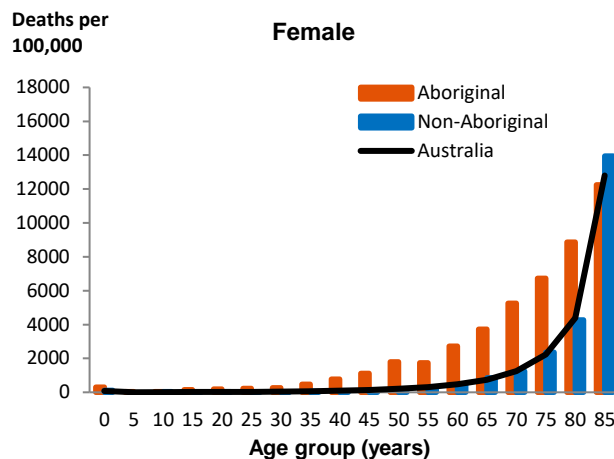
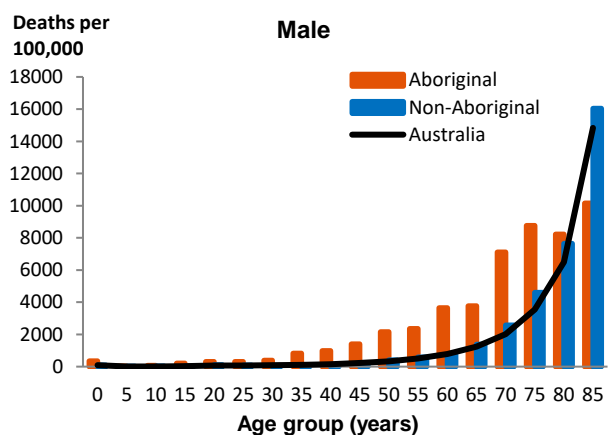
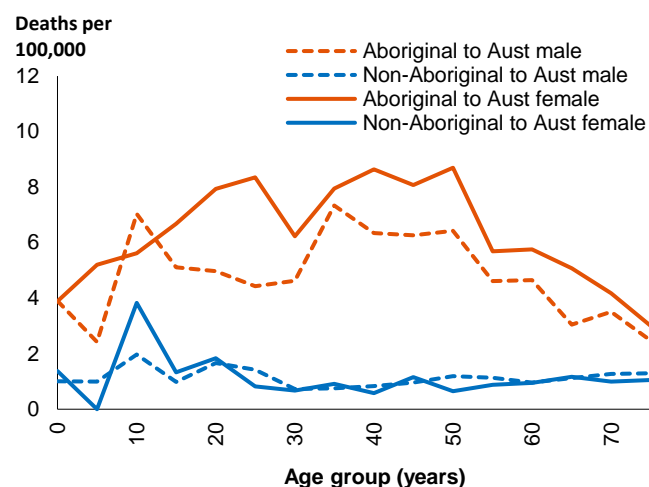


Figure 3 represents an NT population age-specific death rate ratio relative to the Australian population. The age-specific death rate ratios (Northern Territory versus Australia) were more pronounced between the age range of 10 years and 50 years for both Aboriginal males and females.

Age-specific death rates are similar to Australia in all age groups except at age 10 years for non-Aboriginal females (Figure 3).

**Figure 3. Age-specific death rate ratio, by NT to Australia, 2011-2014**



## Common causes of death

During 2006-2014, the most common causes of death (per 100,000 population) among NT Aboriginal people were circulatory disorders (413.5 in males and 308.3 in females), cancer (342.5 in males and 275.8 in females) and endocrine (200.7 in males and 217.4 in females) (Table 3, Table 4).

This is compared with cancer (261.3 in males and 141.8 in females), circulatory disorders (206.3 in males and 123.1 in females), injury (males 85.9), and respiratory (females 44.5) for NT non-Aboriginal people (Table 3, Table 4).

**Table 3. Common causes of death by major disease categories, age-adjusted rate, males, by Aboriginal status, NT and Australia, 2006-2014**

Cause of death*	Northern Territory		Australia
	Aboriginal	Non-Aboriginal	
Cancer	342.5	261.3	208.3
Circulatory	413.5	206.3	219.6
Respiratory	180.4	84.8	60.9
Injury	170.6	85.9	54.4
Nervous	39.4	28.4	28.0
Endocrine	200.7	38.4	27.2
Mental	68.0	36.4	25.4
Digestive	75.4	33.7	23.8
Genitourinary	84.1	15.4	15.1
Infectious	36.9	12.6	10.8
Ill defined	22.1	6.2	4.9
Musculoskeletal	7.3	5.6	3.5
Perinatal	11.4	2.5	3.0
Congenital	3.0	2.6	2.8
All others	2.3	2.1	2.3
Blood	4.1	2.5	2.1
Skin	2.0	3.8	1.6

\*Note: ICD-10 was used to classify the disease category.<sup>3</sup>

Note: Rate was expressed by number of deaths per 100,000 population using the 2001 Australian standard population, by direct age-standardisation.

**Table 4. Common causes of death by major disease categories, age-adjusted rate, females, by Aboriginal status, NT and Australia, 2006-2014**

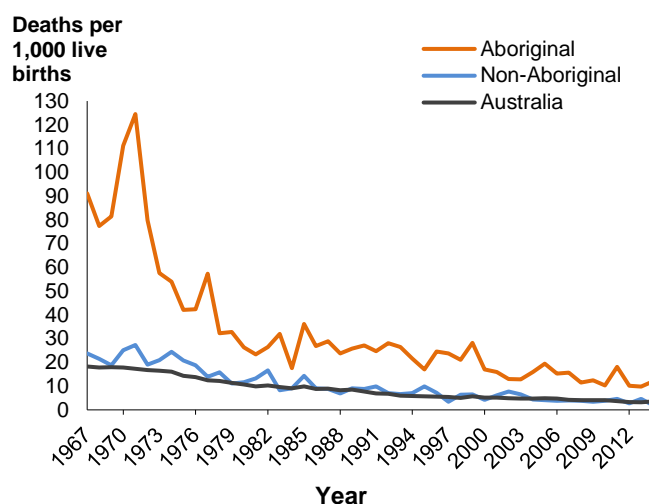
Cause of death*	Northern Territory		Australia
	Aboriginal	Non-Aboriginal	
Circulatory	308.3	123.1	151.3
Cancer	275.8	141.8	137.8
Respiratory	148.5	44.5	38.9
Injury	85.4	31.8	24.0
Nervous	21.1	25.3	23.6
Endocrine	217.4	26.7	20.0
Mental	76.0	42.3	27.2
Digestive	85.8	16.1	17.2
Genitourinary	83.1	10.0	11.7
Infectious	35.6	9.0	7.4
Ill defined	11.7	4.1	3.8
Musculoskeletal	15.8	8.0	5.2
Perinatal	7.0	2.8	2.5
Congenital	4.2	2.1	2.5
All others	7.2	1.4	1.9
Blood	8.5	0.5	1.8
Skin	6.2	1.8	1.5
Pregnancy	1.1	0.3	0.1

\*Note: ICD-10 was used to classify the disease category.<sup>3</sup>

Note: Rate was expressed by number of deaths per 100,000 population using the 2001 Australian standard population, by direct age-standardisation.

## Infant mortality

Infant mortality has improved substantially for both Aboriginal and non-Aboriginal Territorians since 1967 (Figure 4, Table 5). The infant mortality rate among NT Aboriginal people dropped by 86.1% from 90.4 deaths per 1,000 live births in 1967-1970 to 12.6 per 1,000 live births in 2011-2014. There was a similar proportional improvement of 84.8% (from 22.4 to 3.4) for non-Aboriginal people in the same period. The rate of improvement in infant mortality has slowed since the mid-1980s.

**Figure 4. Infant mortality by Aboriginal status, NT and Australia, 1967-2014**

The neonatal death rate (deaths of infants aged less than 28 days per 1,000 live births) and post neonatal death rate (for infants aged 28 days to one year) declined significantly for both the NT Aboriginal and non-Aboriginal population (Table 5).

The neonatal death rate is generally regarded as an indicator of quality of pregnancy-related service, while the post-neonatal death rate is commonly related to living conditions<sup>4</sup>. The higher rate ratio of post-neonatal to neonatal deaths in NT Aboriginal people in the early years of study is reported elsewhere and indicative of infectious and nutritional disease in this population related to environmental causes<sup>5</sup>. NT non-Aboriginal rates closely follow the pattern of improvement in total Australian rates over time.

**Table 5. Neonatal, post-neonatal and infant mortality\* (deaths per 1,000 live births) by Aboriginal status, Northern Territory and Australia, 1967-2014**

Years	Northern Territory		Australia
	Aboriginal	Non-Aboriginal	
<b>Infant mortality rate</b>			
1967-1970	90.4	22.4	18.0
1971-1975	71.1	22.7	16.2
1976-1980	38.1	14.2	12.1
1981-1985	27.2	12.2	9.8
1986-1990	26.6	8.5	8.4
1991-1995	23.6	8.1	6.2
1996-2000	22.8	5.5	5.4
2001-2005	15.4	5.8	4.9
2006-2010	13.1	3.8	4.2
2011-2014	12.6	3.4	3.4
<b>Neonatal mortality rate</b>			
1967-1970	35.6	14.4	~
1971-1975	30.5	17.0	~
1976-1980	19.0	10.8	~
1981-1985	12.5	8.2	~
1986-1990	14.6	5.8	5.1
1991-1995	13.2	6.2	4.0
1996-2000	13.8	4.1	3.6
2001-2005	9.2	3.7	3.4
2006-2010	7.8	2.2	3.0
2011-2014	7.6	2.2	2.4
<b>Post-neonatal mortality rate</b>			
1967-1970	54.8	8.1	~
1971-1975	40.5	5.7	~
1976-1980	19.0	3.4	~
1981-1985	14.7	4.0	~
1986-1990	12.0	2.7	3.4
1991-1995	10.4	2.0	2.2
1996-2000	9.1	1.4	1.8
2001-2005	6.2	2.1	1.5
2006-2010	5.3	1.6	1.3
2011-2014	4.9	1.2	1.0

\*Note: ABS published number of live births was used as the denominator to calculate infant mortality, neonatal mortality and post-neonatal mortality.<sup>5</sup>

~ Australian neonatal and post-neonatal deaths could not be calculated prior to 1986 due to lack of line-listed data by days of age for newborns.

## References

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2. Australian Coordinating Registry (ACR). Australian Bureau of Statistics (ABS). Cause of death unit record file data. [Prior to 2005 data was supplied by the ABS and from 2006 to 2014 by the ACR].
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