

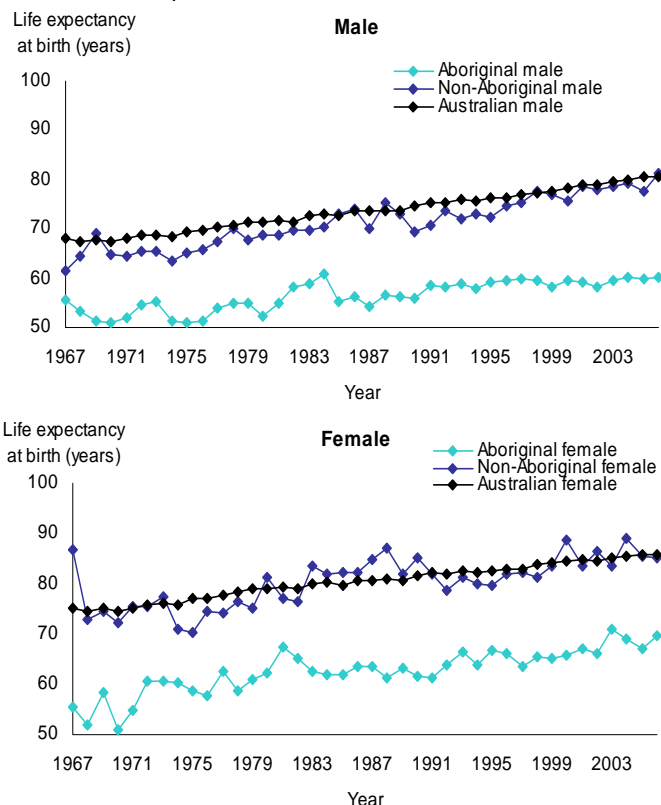


Mortality in the Northern Territory 1967-2006

Introduction

Mortality reporting is an important measure of the health of populations. This Information Sheet provides an update on key indicators of mortality for the Northern Territory, as well as adding important historical data for the period from 1967 to 1980.^{1,2,3} The mortality dataset for this Information Sheet is Australian Bureau of Statistics (ABS) death datasets, and includes deaths of all NT residents within Australia by year of death. Population estimates are based on ABS census data.

Figure 1 Life expectancy at birth, NT and Australia, 1967-2006



Life expectancy improvements for Territorians since 1967

Indigenous identification within key NT population datasets has been of high quality over a long period, and life expectancy by Indigenous status can be estimated from as early as 1967. Small numbers in the NT are associated with year to year fluctuation so the aggregated data is a more reliable estimate of life expectancy (Table 1). The 2006 estimate is included in the table as a single year and caution needs to be taken when reporting this single figure.

- Life expectancy for all populations has improved significantly over the past forty years.
- The improvement of life expectancy in NT Aboriginal people is more pronounced

Table 1 Life expectancy at birth, 1967-2006, by 5-year periods

	NT	NT non-	
Years	Aboriginal	Aboriginal	Australia
	Male		
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	60.2	81.2	80.7
	Female		
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	83.4	83.6
2001-2005	67.9	85.3	85.2
2006	69.8	85.0	85.7

among females with an improvement of 16 years compared to an 8 year increase for Aboriginal males. The life expectancy of NT non-Aboriginal males and females has increased by 16.5 years and 12.4 years respectively.

- The gap between NT Aboriginal females and NT non-Aboriginal females has narrowed due to a rapid improvement in the life expectancy in NT Aboriginal females. In contrast, the gap between NT Aboriginal males and NT non-Aboriginal males has widened due to the slow improvement in life expectancy in NT Aboriginal males.

Have mortality rates declined between 1985 and 2006?

Australian data are available from 1985, allowing direct comparison between NT and Australian rates. Death rates have generally declined in all population groups, with the exception of NT non-Aboriginal females who have had a more stable rate apart from the increase in 1991-1995.

Table 2 Age-adjusted death rate per 100,000, Northern Territory and Australia 1985-2006, 5-year periods

Years	Northern Territory		Australia
	Aboriginal	Non-Aboriginal	
Male			
1985-1990	2591.7	1137.1	1066.3
1991-1995	2274.5	1180.8	956.7
1996-2000	2244.2	916.4	861.2
2001-2005	2085.6	805.9	753.4
2006	1967.8	723.1	706.2
Female			
1985-1990	1931.7	584.0	736.0
1991-1995	1721.2	707.1	662.9
1996-2000	1655.5	587.2	606.8
2001-2005	1382.5	537.3	551.5
2006	1276.8	548.9	532.1

Reductions in age-specific death rates are most evident in those aged 45-49 years and over in the NT Aboriginal population and in the groups from 50-54 to 70-74 years in the NT non-Aboriginal population (Figure 2). There was little change in the mortality rate among younger age groups. The relative difference in age-specific death rates between two populations can be presented as death rate ratios. Figure 3 demonstrates the differences between the NT and the Australian rates. The ratios of NT Aboriginal and Australian age-specific death rates are high across all age groups, and most

marked among those in the age groups from 30 to 54 years. These differences generally increased between 1985-1990 and 2001-2005 (Figure 3).

Figure 2 Age-specific death rates, NT Aboriginal population 1985-1990 and 2001-2005

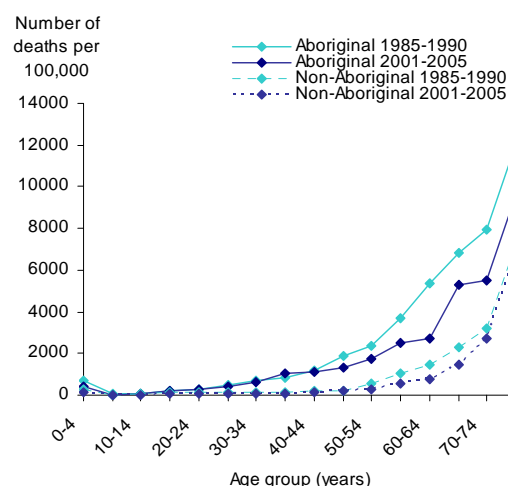
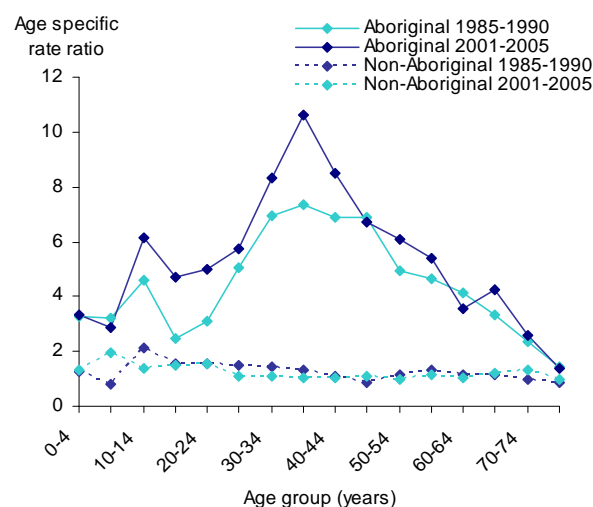


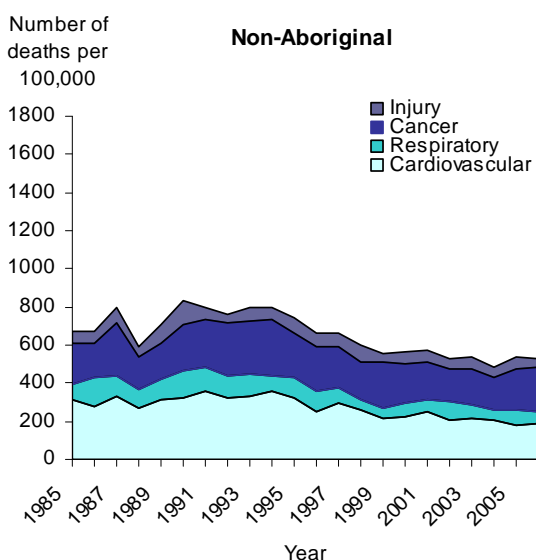
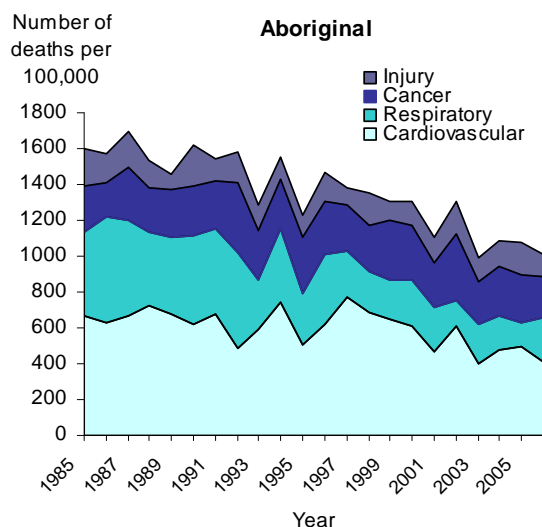
Figure 3 Age-specific death rate ratio, NT to Australia, 1985-1990 and 2001-2005



What are the leading causes of death?

During the period 1985 to 2006 cardiovascular disease remained the leading cause of death for NT Aboriginal Territorians, while cancer replaced respiratory disease as the second leading cause of death. Among non-Aboriginal Territorians through the same period, cancer replaced cardiovascular disease as the leading cause of death in 2000 (Figure 4).

Figure 4: Leading causes of death, Aboriginal and non-Aboriginal populations, NT 1985-2006



What are the contributions of chronic diseases to total mortality?

Aboriginal people have been previously reported as having much greater chronic disease mortality than the general Australian population.⁴ The death rate ratios for five common chronic diseases are presented in Table 4. The differential is most pronounced for COPD, diabetes and renal failure.

The differences in disease specific death rates are less pronounced between NT non-Aboriginal and the total Australian population, although COPD is notably higher, which is consistent with the high prevalence of smoking in the NT.⁵

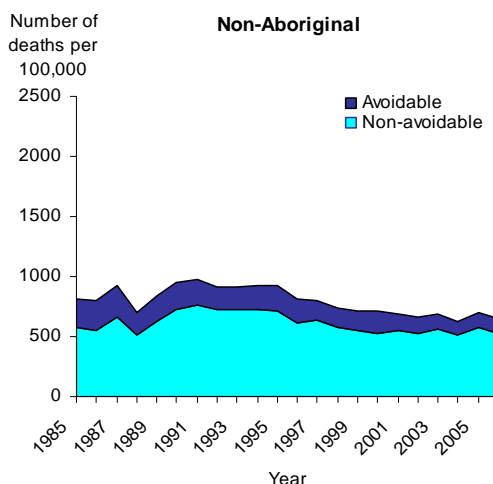
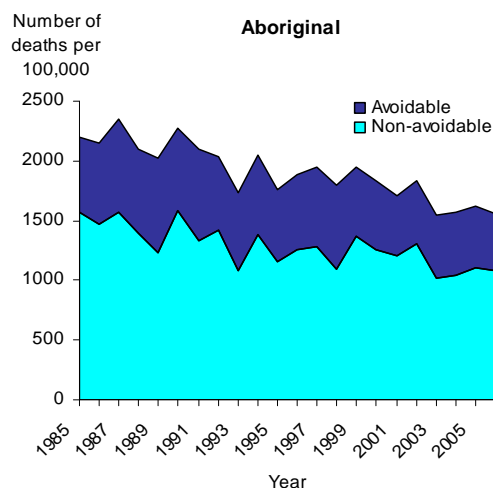
Table 4: Age-adjusted death rate ratio, five major chronic diseases, Northern Territory to Australia, 1985-2006

	NT Aboriginal to Australia	NT Non- Aboriginal to Australia
IHD	1.5	0.8
COPD	5.4	1.6
Stroke	1.7	0.6
Diabetes	7.6	1.2
Renal failure	7.4	1.0

Notes: IHD-ischaemic heart disease; COPD-chronic obstructive pulmonary disease

Are preventable deaths being prevented?

Figure 5: Age-adjusted preventable mortality rate, Northern Territory, 1985-2006



Deaths can be classified as either non-preventable or as potentially preventable deaths, including ischaemic heart disease, injuries and selected cancers. Through the period 1985 to

2006 the preventable death rate declined in both NT Aboriginal and non-Aboriginal populations however the rate has remained nearly four times higher in the NT Aboriginal population (Figure 5).

How has infant mortality changed?

NT infant mortality has improved significantly for both Aboriginal and non-Aboriginal populations over the 40 year period from 1967 to 2006 (Table 5, Figure 6). Most prominent is the 81% fall in NT Aboriginal infant mortality rate from 83.6 deaths per 1000 live births in the period 1967-1970 to 15.7 in 2006 (Table 5). The fall in the Aboriginal infant mortality rate has not been consistent through this period, with the rapid decline up until the mid 1980's followed by a much slower improvement in the past 20 years.

Table 5: Neonatal, post-neonatal and infant mortality, 1967-2006

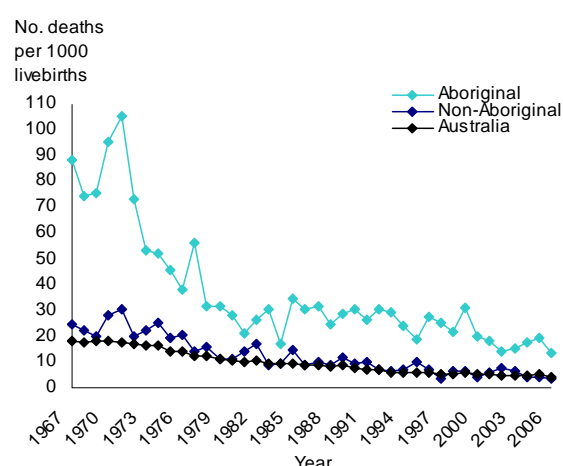
	NT Aboriginal	NT non- Aboriginal	Australia
Infant mortality rate			
1967-1970	83.6	23.9	18.0
1971-1975	66.8	23.6	16.2
1976-1980	37.3	14.5	12.1
1981-1985	25.9	12.6	9.8
1986-1990	29.2	9.6	8.4
1991-1995	25.8	8.2	6.2
1996-2000	25.0	5.5	5.4
2001-2005	16.9	5.5	4.9
2006	15.7	3.6	4.8
Neonatal death rate			
1967-1970	32.9	15.3	~
1971-1975	28.7	17.6	~
1976-1980	18.6	11.0	~
1981-1985	11.9	8.5	~
1986-1990	16.0	6.5	5.1
1991-1995	14.5	6.2	4.0
1996-2000	15.1	4.1	3.6
2001-2005	10.0	3.6	3.4
2006	10.3	1.3	3.3
Post-neonatal death rate			
1967-1970	50.7	8.6	~
1971-1975	38.1	6.0	~
1976-1980	18.6	3.5	~
1981-1985	14.0	4.1	~
1986-1990	13.2	3.1	3.4
1991-1995	11.3	2.0	2.2
1996-2000	9.9	1.4	1.8
2001-2005	6.9	2.0	1.5
2006	5.5	2.2	1.5

Note: ~ national data were not available; death rates are expressed as number of deaths per 1000 live births.

The early differences in infant mortality rate between the NT non-Aboriginal and the Australian populations disappeared after the mid-90s.

The neonatal death rate (up to age 28 days) is generally regarded as an indicator of the quality of pregnancy related services, while the post-neonatal death rate (from 28 days to one year) is commonly related to living conditions. The results in Table 5 demonstrate substantial improvement in both neonatal and post-neonatal death rates among the NT Aboriginal population.

Figure 6: Infant mortality, Northern Territory and Australia, 1967-2007



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5. Health Gains Planning Fact Sheet (2006): Smoking in the Northern Territory. Department of Health and Community Services, Darwin.

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