

## Trends in Indigenous Death Rates in the Northern Territory

The popular perception is that there have been no improvements in Indigenous health. However, a recent series of research projects show that Northern Territory (NT) Indigenous death rates have been slowly falling for most conditions, except for some chronic diseases, and that even this chronic disease mortality has been increasing more slowly since 1990. This optimistic message needs to be tempered by the fact that there have been much greater improvements in non-Indigenous death rates over a corresponding period. Nevertheless, policy-makers and service providers should not give up, nor should they change all their strategies, because of the false story that 'nothing has worked'.

### Are NT Indigenous death rates increasing or decreasing?

**DECREASING:** From 1967 to 2001, the total NT Indigenous death rate fell slowly for those aged 5+, but more dramatically (by 85%) in those under 5 (see Table). The decline in under-5 mortality was much greater before 1981 than later. Life expectancy at birth increased by 1.5 years from 1981–85 to 1996–2000.

Deaths fell in the broad disease categories of communicable diseases (by 62%) and injury (33%) in those aged 5+, from 1977 to 2001. However, there was no statistically significant change in non-communicable disease deaths, which have resisted general downward mortality trends.

From 1977 to 2001, death rates from ischemic heart disease nearly doubled and from diabetes more than quadrupled. Nevertheless, the annual increase in these death rates was slower after 1990. Death rates from chronic obstructive pulmonary disease fell by a quarter, rising before 1990 and then falling thereafter. Death rates from lung cancer nearly doubled (1977–2000). Death rates for two less common smoking-related cancers (of the oropharynx and pancreas) were also increasing. There were no significant trends in stroke and rheumatic heart disease deaths, and trends in renal failure deaths could not be adequately assessed.

### Estimated annual change in NT Indigenous mortality rates

	% annual change
Total all causes – under 5 years <sup>a</sup>	-5.6
Total all causes – females 5+ years <sup>a</sup>	-1.1
Total all causes – males 5+ years <sup>a</sup>	-0.6
Communicable diseases – 5+ years <sup>b</sup>	-4.1
Injury – 5+ years <sup>b</sup>	-1.7
Non-communicable diseases – 5+ years <sup>b</sup>	NS
Ischaemic heart disease <sup>c</sup>	+2.5
Chronic obstructive pulmonary disease <sup>c</sup>	-1.2
Stroke <sup>c</sup>	NS
Diabetes <sup>c</sup>	+6.4
Lung cancer <sup>b</sup>	+3.0
Rheumatic heart disease <sup>c</sup>	NS

NS – no statistically significant annual change ( $p \geq 0.05$ )  
<sup>a</sup> 1967–2000, <sup>b</sup> 1977–2000, <sup>c</sup> 1977–2001

### What caused these NT trends?

Indigenous access to primary and hospital care in the Northern Territory has increased dramatically since the late 1960s. This is a reasonable explanation of the improvements in mortality, especially in under-fives, and even the pattern of chronic disease mortality changes. We cannot yet quantify this association as there is insufficient NT-wide data describing the trends in this and other possible causes of the mortality changes.

There is often a long time-lag between changes in some of these possible determinants and changes in death rates, especially for chronic diseases. For example, lung cancer mortality began to fall in Australia 10–20 years after smoking rates fell. Policy-makers should be wary of attributing the cause of mortality improvements to very recent policy changes.



### Are there similar Indigenous mortality trends in other jurisdictions?

YES: Long-term Indigenous mortality trends are best examined in the NT, as we have done here, because Indigenous people have been identified more accurately for longer in routine datasets in the NT than in other jurisdictions. However, data is also of sufficient quality to test trends in Western Australia (WA) and South Australia (SA), but only from 1991–2002. These analyses are based on a smaller number of deaths over a shorter period and so have insufficient statistical power to identify all of the statistically significant but slow trends, or the disease-specific trends, in the NT analyses above.

Nevertheless, the identified mortality trends in WA and SA are similar to those in the NT. In both WA and SA, infant mortality rates fell. Total death rates from all causes fell in WA. The slow fall in SA death rates (like in the NT) was not statistically significant in this shorter time period. Death rates from non-communicable diseases (and circulatory diseases in particular) fell in WA. Falling communicable disease death rates could only be detected in males in both WA and SA. In the NT, the comparable analyses of this short period demonstrated falling communicable disease death rates, increasing non-communicable disease death rates only in males, and no trends were detected in injury death rates.

### Are NT Indigenous death rates keeping up with improvements in the total Australian death rates?

NO: The improvements in NT Indigenous all-cause death rates have not kept up with those in total Australian rates. The ratio of the NT Indigenous death rates to the total Australian death rates increased for all age groups except those aged under 5 years old. This relative gap also increased for the individual chronic diseases. The absolute gap in life expectancy widened from 14.4 to 17.9 years in males from 1981–85 to 1996–2000, and from 16.2 to 18.5 years in females.

### Contact

For more detailed references for this paper contact [cipher@menzies.edu.au](mailto:cipher@menzies.edu.au)

### Links

[The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples 2005.](#)

[Demographic Characteristics and Trends of the Northern Territory Indigenous Population, 1966 to 2001.](#)

[Long-term Trends in Cancer Mortality for Indigenous Australians in the Northern Territory.](#)

[Mortality in the Northern Territory 1981–2000, Part 1: Key Indicators and Overview.](#)

[Long-term Trends in Indigenous Deaths from Chronic Diseases in the Northern Territory: A foot on the brakes, a foot on the accelerator.](#)