# Median age at death by Indigenous status, Australia, 2013 to 2017

## **Findings**

### Background

The median age at death is an indicator of premature mortality. It is the age at which exactly half the deaths registered in a given time period were deaths of people above that age and half were deaths below that age.

### Overall, by Indigenous status

In Australia, over the five years 2013 to 2017, the median age at death:

- of the Indigenous population was 58 years, whereas for the non-Indigenous population it was 81 years, a gap of 23 years;
- for males, the gap by Indigenous status is 22 years, from 56 years (Indigenous males) to 78 years (non-Indigenous males); and for females it is 24 years, from 61 years to 85 years.

### Geographical variation, by Indigenous status

The median age at death at the state and territory level varies from:

- a gap of 26 years (lower age for the Indigenous popuation) in South Australia and Western Australia;
- to 15 years in the Northern Territory (which suggests the mis-identification of some Aboriginal and Torres Strait Islander people as non-Indigenous).

The variations in the median age at death between the capital cities and the areas outsde of the capital cities reveal:

- only small gaps overall, with the largest variation in Western Australia, a three-year gap between the Indigenous population in Perth (a median age at death of 53 years) and the Rest of Western Australia (56 years), due to a 5-year gap for males; and
- a lower median age at death for Indigenous males in Perth, Adelaide and Brisbane than in the Rest of states/ NT areas this is not what we usually see in data under this geographical comparison, and is indicative of relatively poorer outcomes for females in the capital cities.

At the Indigenous Area (IARE) level, the overall gap for Indigenous people is 50 years, from a median age at death of 33 years in Banana IARE in Queensland, to 83 years in Baulkham Hills IARE in Sydney: the gap for males is 38 years (from 36 years in Rockingham in Perth, to 74 years in Holroyd, in Sydney); for females, the gap is 53.5 years (from 33.5 years in Karratha, in Western Australia, to 87 years in Liverpool Plains, in Sydney).

For the non-Indigenous population, the gap is 30 years, from a low of 56 years in Karratha to 86 years in each of Hornsby – Ku-ring-gai and Hunters Hill in Sydney and Unley - Burnside - Mitcham in Adelaide: the gap for males is 28 years (from 56 years in Karratha, in Western Australia, to 84 years in Hornsby - Ku-ring-gai, in Sydney and Unley - Burnside – Mitcham, in Adelaide); for females, the gap is 51 years (from 37 years in Kalalagal Western Islands, in Queensland, to 88 years in Hornsby - Ku-ring-gai and Sydney - Lower North, in Sydney and Unley - Burnside – Mitcham, in Adelaide).





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# Median age at death by Indigenous status, Australia, 2013 to 2017

## Background

The median age at death is an indicator of premature mortality. It is the age at which exactly half the deaths registered in a given time period were deaths of people above that age and half were deaths below that age.

The data presented are restricted to New South Wales, Queensland, South Australia, Western Australia and the Northern Territory, as death registration data for Aboriginal and Torres Strait Islander people (hereafter referred to as Indigenous) are not available for the other justidictions<sup>1</sup>: these are referred to collectively as combined states and territory. See the Box, *Caveats re median age at death by small geographic area*, overleaf, for other important notes on this measure when used for small geographical areas and for a comment on the use of data by Indigenus status.

#### Overview for Australia

In the combined states and territory, the median age at death of the Indigenous population over the five years 2013 to 2017 was 58 years, whereas for the non-Indigenous population it was 81 years; this is a gap of 23 years. For males, the gap is 22 years, from 56 to 78 years; and for females it is 24 years, from 61 years to 85 years.

At the state and territory level, the gap varies from 26 years (lower age for the Indigenous population) in South Australia and Western Australia) to 15 years in the Northern Territory (which suggests the mis-identification of some Aboriginal and Torres Strait Islander people as non-Indigenous).

Comparing the median age in the capital cities and the areas outsde of the capital cities (referred to as Rest of states/ NT), the largest variation is in Western Australia, a three-year gap between the Indigenous population in Perth (a median age at death of 53 years) and the Rest of Western Australia (56 years) (Table 1).

Table 1: Median age at death, by sex, Indigenous status and Section of state/ territory, 2013 to 2017

Section of state	Males		Females		Persons	
	Indigenous	Non-	Indigenous	Non-	Indigenous	Non-
		Indigenous		Indigenous		Indigenous
NSW, Qld, SA, WA &NT	56.0	78.0	61.0	85.0	58.0	81.0
Greater Capital Cities	54.0	79.0	62.0	85.0	58.0	82.0
Rest of states/ NT	56.0	78.0	61.0	84.0	59.0	81.0
New South Wales	58.0	79.0	65.0	85.0	61.0	82.0
Greater Sydney	58.0	79.0	65.0	85.0	61.0	82.0
Rest of New South Wales	58.0	79.0	65.0	84.5	61.0	82.0
Queensland	57.0	77.0	63.0	84.0	60.0	80.0
Greater Brisbane	55.0	77.0	65.0	84.0	60.0	81.0
Rest of Queensland	57.0	77.0	63.0	84.0	60.0	80.0
South Australia	54.0	80.0	60.0	85.0	56.0	83.0
Greater Adelaide	51.0	80.0	60.0	86.0	55.0	83.0
Rest of South Australia	55.0	78.0	60.0	85.0	57.0	81.0
Western Australia	52.0	78.0	58.0	84.0	55.0	81.0
Greater Perth	49.0	78.0	58.0	84.0	53.0	81.0
Rest of Western Australia	54.0	76.0	58.5	83.0	56.0	79.0
Northern Territory	53.0	68.0	58.0	72.0	55.0	70.0
Greater Darwin	55.0	70.0	60.0	72.5	57.0	70.0
Rest of Northern Territory	53.0	67.0	58.0	72.0	55.0	68.0

<sup>&</sup>lt;sup>1</sup> See Explanatory Notes 61 to 73 (regarding under-reporting of Indigenous deaths) at https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/3303.0Explanatory%20Notes12017?OpenDocument

There is, however, more variation in the median age at death by sex. The variation for males is five years, from 49 years in Perth to 54 years in the Rest of Western Australia; this is the largest gap, with the next largest for South Australian males, of four years. The lower median age at death for Indigenous males in Perth, Adelaide and Brisbane than in the Rest of states/ NT areas is not what we usually see in data under this geographical comparison, and is indicative of relatively poorer outcomes for females in these capital cities.

### Caveats re median age at death by small geographic area

People move address over time; for example, they move within a city, between cities, or from rural areas to regional and coastal towns. Aboriginal and Torres Strait Islander people also move in these ways, as well as in many instances moving from a remote community to live near larger centres providing health services that they need. As a result, calculating the median age at death for those who died in an area does not necessarily reflect the true circumstances had people born in an area stayed there over their whole life. For example, the location in an area of above-average concentrations of residential aged care places can impact on the comparisons. Similarly, mining towns with predominantly young populations will have relatively few deaths, but those that occur will be at a lower median age than in the population at large. The population pyramid generator allows you to view the age pofiles of different geographical areas; an example for a mining town, Mount Newman, compared with regional Western Australia as a whole, can be seen here.

In addition, under-identification of Aboriginal and Torres Strait Islander people, who are then noted in the statistics as non-Indigenous, is lkley to lower the median age at death calculated for the non-Indigenous population.

Further information as to the calculation of median age can be found here.

The following maps (also available separately for males and females <u>here</u>) illustrate differences in the median age at death by Indigenous Area (IARE<sup>2</sup>). The maps show the broad view across Australia. The same maps can be viewed for other areas (e.g., for each capital city, regional area and state and territory) at the link above.

The ranges to which median ages are mapped in the atlas are set within the software, with the IAERs allocated to one of five equal groups, based on the median age in the IAER. The groups are compiled separately for the Indigenous and non-Indigenous populations, highlighting the large differences in this measure for each group.

Areas for which data cannot be provided due to the quality of Indigenous identification are mapped in dark grey. In areas where there were fewer than five deaths the median age is not shown and the areas have light grey shading.

### **Overview for Australia**

The geographic distribution of the Indigenous population by their median age at death at the IARE level reveals major varitions across Australia, with people in the capital cities, other major urban centres and in regional areas in New South Wales and Queensland (and to a lesser extent in South Australia) generally living the longest (having the oldest median age at death: Map 1, orange highlights). The highest median ages at death for the non-Indigenous population are markedly higher than for the Indigenous population and the Indigenous Areas with these high median ages (of 82 to 86 years) are largely located in or near the coast (Map 2, orange highlights).

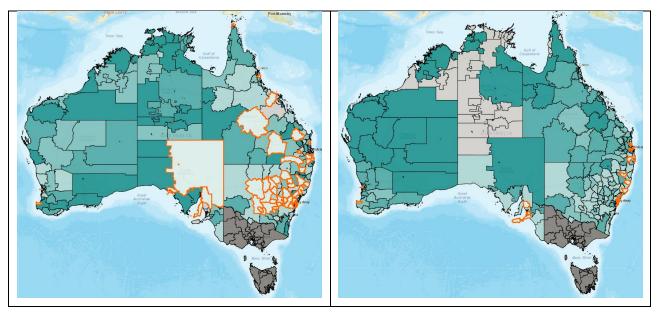
Map 3, depicting the lowest median ages at death for the Indigenous population by IAER, shows a rather different distributuion to that in Map 1. The differences between Map 4 and Map 2, showing, respectively, the highest and lowest median ages at death for the non-Indigenous population, are even more striking. The similarity in the maps by Indigenous status (Map 3 and Map 4), supports the

<sup>&</sup>lt;sup>2</sup> Indigenous Area (IARE), based on the ABS 2016 ASGS Indigenous Structure, are medium-sized geographical units designed to facilitate the release and analysis of more detailed statistics for Aboriginal and Torres Strait Islander people and are the smallest area for which this comparison can be made with the data available. There are 430 IAREs.

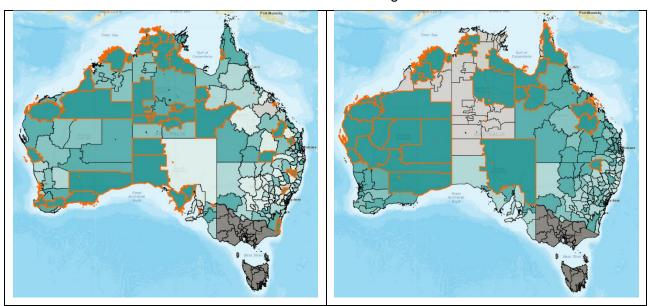
comment as to the likely the mis-identification of some Aboriginal and Torres Strait Islander people as non-Indigenous

Map 1: Indigenous: 64.1 to 83 years of age at death

Map 2: Non-Indigenous: 82.1 to 86 years of age at death



Map 3: Indigenous: 33 to 53 years of age a death Map 4: Non-Indigenous: 56.0 to 73.6 years of age at death



The overall gap for Indigenous people is 50 years, from a median age at death of 33 years in Banana IARE in Queensland, to 83 years in Baulkham Hills IARE in Sydney: the gap for males is 38 years (from 36 years in Rockingham in Perth, to 74 years in Holroyd, in Sydney); for females, the gap is 53.5 years (from 33.5 years in Karratha, in Western Australia, to 87 years in Liverpool Plains, in Sydney).

For the non-Indigenous population, the gap is 30 years, from a low of 56 years in Karratha to 86 years in each of Hornsby – Ku-ring-gai and Hunters Hill in Sydney and Unley - Burnside - Mitcham in Adelaide: the gap for males is 28 years (from 56 years in Karratha, in Western Australia, to 84 years in Hornsby - Ku-ring-gai, in Sydney and Unley - Burnside – Mitcham, in Adelaide); for females, the gap is 51 years (from 37 years in Kalalagal Western Islands, in Queensland, to 88 years in Hornsby - Ku-ring-gai and Sydney - Lower North, in Sydney and Unley - Burnside – Mitcham, in Adelaide).

## Progression in median age at death

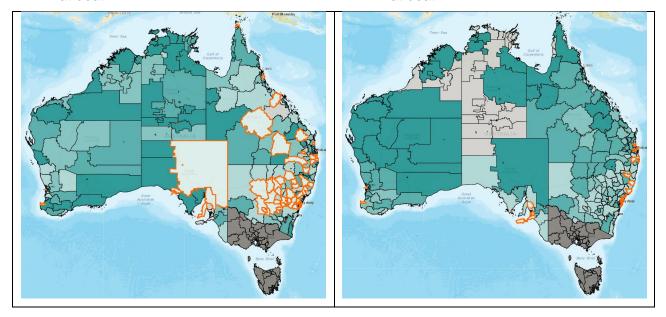
As noted above, the median age at death of Australians is strongly related to where people live. The following maps start with the areas with the oldest median ages (repeating Maps 1 and 2) and progressively add younger ages at death. The data mapped are available here for IAREs.

Although not visible at this scale, a majority of the IAREs in Sydney are mapped in the highest ranges for both Indigenous and non-Indigenous Australians (available by choosing the two indicators for median age at death and filtering to Sydney in the Double Map <a href="here">here</a>). Of the other capital cities, only Perth (with Melville) and Darwin (with Anula - Wulagi) have an IARE with a median age for the Indigenous population in the highest range, although in both cases it is at the lower end of the range.

For the non-Indigenous population, several IAREs in Perth and Adeaide are also mapped in the highest range: although these capital cities cannot be seen at the scale in these maps, they can be seen by choosing the median age at death topic and filtering to the relevant capital city in the Single Maphere.

Map 5: Indigenous: 64.1 to 83 years of age at death

Map 6: Non-Indigenous: 82.1 to 86 years of age at death

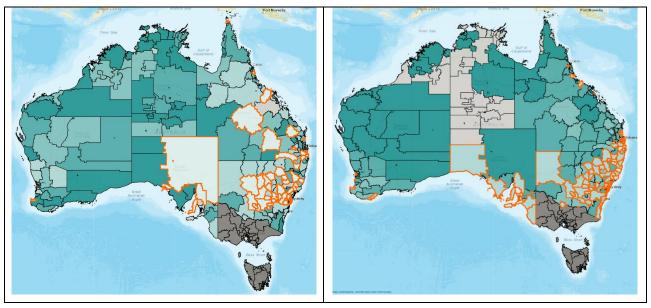


For the Indigenous population, including deaths at ages 60.1 to 64 years adds IAREs across much of New South Wales; in Queensland, several inland IAREs and islands in the Torres Strait; some IAREs to the north, south and inland from Perth, as well as in the capital city itself; some IAREs in Adelaide; and a small number of other IAREs across Australia (Map 7).

Including deaths at ages 80.6 to 82 years for the non-Indigenous population also adds IAREs across much of New South Wales, although with exceptions along the Queensland and Victorian borders; the other notable additions are IAREs in regional South Australia and in the capital city, Adelaide (Map 8).

Map 7: Indigenous: added deaths from 60.1 to 64 years of age

Map 8: Non-Indigenous: added deaths from 80.6 to 82 years of age

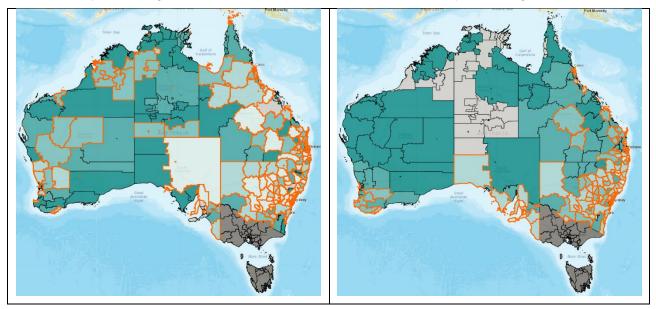


For the Indigenous population, including deaths at ages 56.6 to 60 years adds notably more IAREs across Queensland, Western Australia and the Northern Territory, as well as in each of the capital cities for which data were mapped (Map 9).

For the non-Indigenous population, including the next range, of deaths at ages 79.1 to 85 years adds many more IAREs in New South Wales, Queensland and in the south-west of Western Australia, with few added in the capital cities for which data were mapped (Map 10). There are fewer IAREs in regional and remote areas in Queensland and Western Australia

Map 9: Indigenous: added deaths from 56.6 to 60 years of age

Map 10: Non-Indigenous: added deaths from 79.1 to 85 years of age

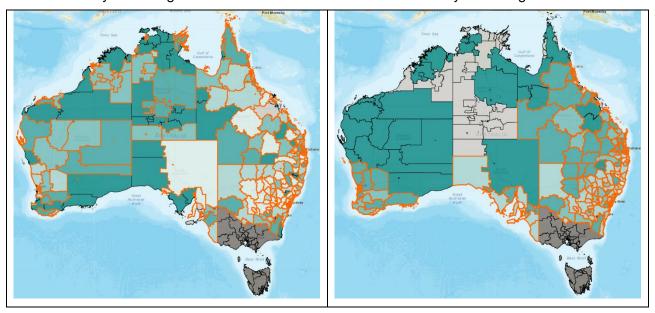


Adding IAREs with deaths at ages 53.1 to 56.5 years also adds further to the coverage of IAREs in particular in Queensland, Western Australia and the Northern Territory; there is also further coverage in each of the capital cities for which data were mapped (Map 11).

Adding areas with a median age at death for non-Indigenous people in the range from 73.7 to 79 years increases coverage in a number of coastal IAERs and, notably, more regional areas (Map 12). Several areas in Sydney, Brisbane and Perth are in this range, as is one in Adelaide.

Map 11: Indigenous: added deaths from 53.1 to 56.5 years of age

Map 12: Non-Indigenous: added deaths from 73.7 to 79 years of age



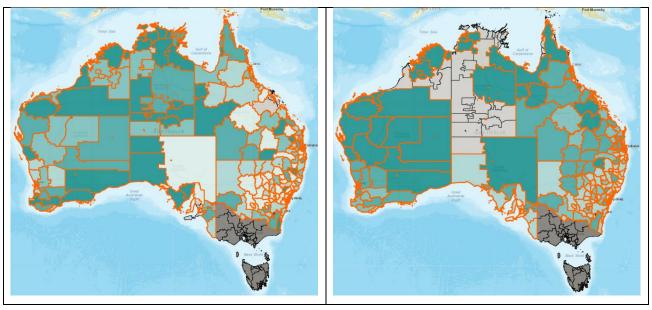
Adding the next group, with deaths of the Indigenous population at ages 33 to 53 years completes the coverage, with the largest numbers of IAERs in this range in the Northern Territory, Western Australia, Queensland and South Australia (Map 13). No IAERs in Sydney or Brisbane had a median age in this range, although there were three in Adelade (Gawler, Port Adelaide - Enfield and Marion).

Most notably, almost half of Perth's IAREs had a median age at death in this lowest range, some 10 of a total 23 IAREs. The distribution in Peeth and Adelaide can be viewed by choosing the two indicators and filtering to the capital city in the Double Map <a href="here">here</a>).

The majority of areas in the lowest range for the non-Indigenous population are in Western Australia, the Northern Territory and Queensland (Map 14). No IAREs in the capital cities were mapped in this range, other than in Darwin, where most of the cities IAREs have these low median ages at death.

Map 13: Indigenous: added deaths from 33 to 53 years of age

Map 14: Non-Indigenous: added deaths from 56 to 73.6 years of age



Maps 15 and 16 show just the IAERs with the lowest median ages at death, to highlight the extent of the differences in their distribution by Indgenous status.

Map 15: Indigenous: deaths from 33 to 53 years Map 16: Non-Indigenous: deaths from 56 to of age 73.6 years of age

