## Median age at death, Western Australia and the Northern Territory, 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

Over the five years 2013 to 2017, the median age at death in Australia was 78 years for males and 84 years for females. There is little variation between the capital cities and the areas outsde of the capital cities, other than in the Northern Territory, with a ten-year gap between Darwin (a median age at death of 69 years) and the Rest of NT (59 years).

In both Darwin and the Rest of NT, the gap between the male and female median ages at death (of just two years lower for males) was relatively small, being around one third of that in the states, indicating the relatively poorer outcomes for females in the Northern Territory.

#### Geographical variations in median age at death

WA: The range in ages at the small area level is from 50 years in Newman to 85 years in Albany (Table 2). Of note, however, are the lower median ages at death for females, in particular in Newman (7.5 years lower than for males) and Leinster - Leonora (6 years). Yet the ages for both Perth and the Rest of WA show higher median ages for females, at 6 years and 7 years, respectively. These are very poor and concerning outcomes for women and stand in stark contrast to the usual pattern of longer life experienced by women in comparison to men.

NT: The range in ages at the small area level is from 53.5 years in Alice Springs - Remote and 54.0 years in Anindilyakwa/ East Arnhem/ Nhulunbuy, to 66.0 years in both Alice Springs - Town and Katherine. The much higher median age at death seen in some areas for Western Australia is not repeated (at this geographical level) in the Rest of NT. Only in Darwin do some areas have lower median ages for females than for males.





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## Suggested citation

Public Health Information Development Unit (PHIDU). Median age at death, Western Australia and the Northern Territory, 2013 to 2017. Adelaide: PHIDU, Torrens University Australia, June 2020

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#### 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.

What this measure does show is that there is a strikingly clear gradient in age at death from urban to regional and remote areas, a gradient also evident in deaths before 75 years of age (premature mortality).

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

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## 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. See Box, Caveats re median age at death by small geographic area, overleaf, for important notes on this measure when used for small geographical areas.

#### Overview for Australia

In Australia, over the five years 2013 to 2017, the median age at death was 78 years for males and 84 years for females. There is little variation between the capital cities and the areas outsde of the capital cities (referred to as Rest of States/NT), other than in the Northern Territory, with a ten-year gap between Darwin (a median age at death of 69 years) and the Rest of NT (59 years) (Table 1). Among the states, only Western Australia, with a gap of four years, and South Australia, with a gap of two years, has a gap of more than a single year.

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

Section of state	M	ales	Fen	nales	Per	Persons		
	Number	Median age	Number of	Median age	Number of	Median age		
	of deaths	(years)	deaths	(years)	deaths	(years)		
Australia	400,178	78.0	379,545	84.0	779,723	81.0		
Greater Capital Cities	232,142	79.0	229,500	85.0	461,642	82.0		
Rest of States/ NT	166,250	78.0	149,117	84.0	315,367	81.0		
New South Wales	134,197	79.0	128,591	85.0	262,788	82.0		
Greater Sydney	70,946	79.0	70,259	85.0	141,205	82.0		
Rest of New South Wales	62,780	78.0	58,087	84.0	120,867	81.0		
Victoria	96,940	79.0	96,163	85.0	193,103	82.0		
Greater Melbourne	64,532	80.0	65,225	85.0	129,757	82.0		
Rest of Victoria	32,113	79.0	30,800	85.0	62,913	82.0		
Queensland	77,902	77.0	69,730	83.0	147,632	80.0		
Greater Brisbane	32,908	77.0	31,910	84.0	64,818	81.0		
Rest of Queensland	44,580	77.0	37,587	83.0	82,167	80.0		
South Australia	33,690	79.0	33,412	85.0	67,102	82.0		
Greater Adelaide	24,361	80.0	25,299	85.0	49,660	83.0		
Rest of South Australia	9,250	78.0	8,069	84.0	17,319	81.0		
Western Australia	37,659	77.0	33,323	84.0	70,982	80.0		
Greater Perth	28,316	78.0	26,293	84.0	54,609	81.0		
Rest of Western Australia	9,048	74.0	6,904	81.0	15,952	77.0		
Tasmania	11,647	77.0	11,281	83.0	22,928	80.0		
Greater Hobart	4,596	78.0	4,794	84.0	9,390	81.0		
Rest of Tasmania	7,017	77.0	6,458	83.0	13,475	80.0		
Northern Territory	3,267	63.0	2,319	65.0	5,586	63.5		
Greater Darwin	1,666	68.0	1,029	70.0	2,695	69.0		
Rest of Northern Territory	1,462	58.0	1,212	60.0	2,674	59.0		
ACT/ Greater Canberra	4,817	77.0	4,691	84.0	9,508	81.0		

There is, however, considerable variation in the median age at death for males and females, with the ages for males between five and seven years below those for females in all but the Northern Territory. In both Darwin and the Rest of NT, the gap between the male and female median ages at death (of just two years lower for males) was relatively small, being around one third of that in the states, indicating the relatively poorer outcomes for females in the Northern Territory.

The following maps (also available for males and females and for a range of geographical areas <a href="here">here</a>) illustrate differences in the median age at death by Population Health Area (PHA¹). The maps show the broad view in Western Australia, outside of Perth (refrred to as 'Rest of Western Australia') and the Northern Territory, outside of Darwin (referred to as 'Rest of NT') as examples of variations found regional areas; separate reports provide the same information for Australia and another covers Sydney and Adelaide. The maps can be viewed for other areas (e.g., for each capital city, regional area and state and territory) at the link above.

It is important t be aware of the caveats related to the PHA data for median age at deat: these are noted in the box **Caveats re median age at death by small geographic area**, above.

An additional report provides a sumary of the findings from the analysis by Indigenous status: the Indigenous status atlases can be viewed <a href="here">here</a>, the data <a href="here">here</a> and the summary report <a href="here">here</a>.

#### Overview for the Rest of Western Australia

The maps for Western Australia outside of Perth show the stark contrast in the geographical location of areas with high (Map 1) and those with low (Map 2) median ages at death over the period 2013–17. People living the longest live in the south and south-east of the State and those with the shortest lives are in PHAs covering central and northern Western Australia.

Map 1: 79.1 to 85 years of age at death

Map 2: 50 to 62 years of age at death

The range in ages is from 50 years in Newman to 85 years in Albany (Table 2). Of note, however, are the lower median ages at death for females, in particular in Newman (7.5 years lower than for males) and Leinster - Leonora (6 years). These are very poor and concerning outcomes for women and stand in stark contrast to the usual pattern of longer life experienced by women in comparison to men.

<sup>&</sup>lt;sup>1</sup> PHAs are based on the 2016 Australian Statistical Geography Standard (ASGS) produced by the Australian Bureau of Statistics. Further details as to PHAs are available here.

Table 2: PHAs with the highest and lowest median age at death, by sex, Rest of Western Australia, 2013–17

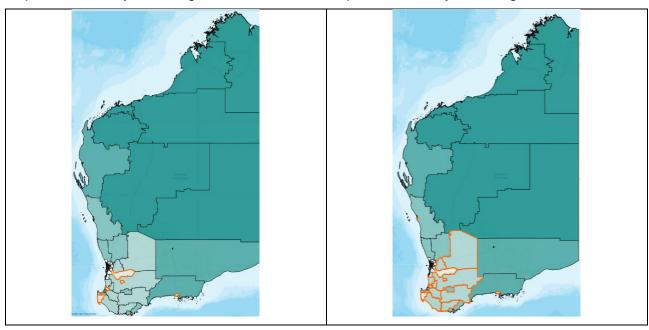
PHA	Males		Females		Persons	
	Number	Median age	Number	Median age	Number	Median age
Newman	18	52.5	14	43.0	32	50.0
East Pilbara	29	52.0	23	51.0	52	51.0
Karratha	100	54.0	30	50.0	130	52.5
Ashburton	39	51.0	17	60.0	56	55.5
Leinster - Leonora	69	60.0	47	54.0	116	58.5
Derby - West Kimberley/ Roebuck	183	62.0	140	59.0	323	60.0
Halls Creek/ Kununurra	240	59.0	126	61.0	366	60.0
Roebourne	51	60.0	38	59.0	89	60.0
Esperance	260	76.0	187	84.0	447	80.0
Brookton	113	77.0	86	84.5	199	80.0
Augusta/ Margaret River	187	76.0	172	85.0	359	81.0
Bunbury/ Koombana	482	79.0	485	84.0	967	82.0
College Grove - Carey Park/ Davenport	169	76.0	146	85.5	315	82.0
Dardanup/ Eaton - Pelican Point	281	80.0	256	84.0	537	82.0
Narrogin	118	80.0	126	83.5	244	82.0
Busselton	546	81.5	619	85.0	1,165	84.0
Albany	490	83.0	573	86.0	1,063	85.0

## Progression in median age at death

Map 3 shows the median age of death for those aged over 79 years, with those in the next group, aged over 76 and up to 79 years added in Map 4. Again, these latter areas are located in the south-east of the State.

Map 3: 79.1 to 85 years of age at death

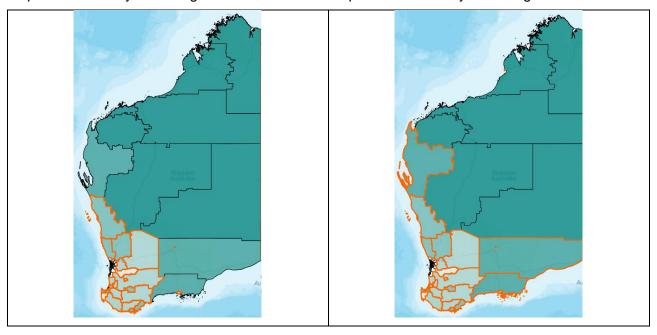
Map 4: 76.1 to 79 years of age at death added



Map 5 adds the median age of death for those aged from 70.6 to 76 years, completing coverage in the south-east and including a number of areas to the north of Perth. Median ages at death from 62.1 to 70.5 years are found in Exmouth and over a wide area from Esperance through to Kalgoorlie (Map 6).

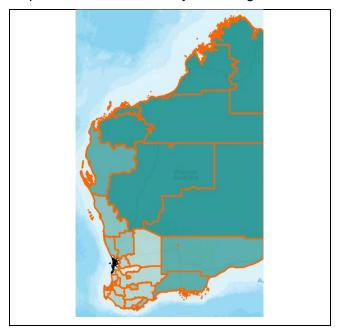
Map 5: 70.6 to 76 years of age at death

Map 6: 62.1 to 70.5 years of age at death added



Map 7 completes the picture with the addition of a large area, covering central and northern Western Australia, and the population with the shortest lives.

Map 7: Deaths at 50 to 60 years of age added



#### **Overview for the Rest of Northern Territory**

The range in median age at death at the PHA level in the Northern Territory outside of Darwin is from 66 years in Alice Springs - Town (which includes the Community Living Areas, also known as Town Camps) and Katherine, to 53.5 years in Alice Springs - Remote, a very large area surrounding the town (Table 3).

Unliike in Western Australia, none of the median ages at death for females are below those for males, with the largest gap, of 7 years, in Barkly/ Tennant Creek.

Table 3: PHAs with the highest and lowest median age at death, by sex, Rest of Northern Territory, 2013–17

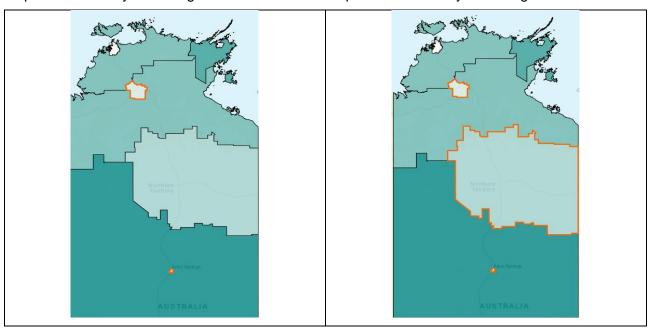
PHA	Males		Females		Persons	
	Number	Median age	Number	Median age	Number	Median age
Elsey/ Gulf/ Victoria River	176	54.0	119	55.0	295	55.0
Alice Springs - Remote	165	53.0	161	54.0	326	53.5
Anindilyakwa/ East Arnhem/ Nhulunbuy	183	53.0	193	57.0	386	54.0
Barkly/ Tennant Creek	114	56.0	93	63.0	207	59.0
Daly - Tiwi - West Arnhem	281	56.0	233	57.0	514	56.0
Alice Springs - Town	371	64.0	293	69.0	664	66.0
Katherine	172	66.0	120	68.5	282	66.0

### Progression in median age at death

Map 8 shows the median age at death in the PHAs with those living the longest; Map 9 adds the next age range, which includes only Barkly/ Tennant Creek, with a median age at death of 59 years, well below the oldest ages in Alice Springs - Town and Katherine, of 66 years.

Map 8: 63.3 to 66 years of age at death

Map 9: 56.7 to 63.2 years of age at death added



Daly - Tiwi - West Arnhem (56 years) and Elsey/ Gulf/ Victoria River (55 years) are added in Map 10, as is Anindilyakwa/ East Arnhem/ Nhulunbuy (54 years), in Map 11.

Map 10: 54.9 to 56.6 years of age at death

Map 11: 53.8 to 54.8 years of age at death added



Alice Springs - Remote has the lowest median age at death (53.5 years) in the Northern Territory, and the fifth lowest in Australia (Map 12).

Map 12: Deaths at 53.5 to 53.7 years of age added

