

8. Health

The centrepiece of COAG's Closing the Gap agenda is the elimination of the life expectancy gap between Indigenous and non-Indigenous Australians. At the time the commitment was made, the available estimates posited a roughly 17-year gap between how long an Indigenous child born today would expect to live compared to the life expectancy of its non-Indigenous counterpart. Revised methodology from the ABS now estimates the life expectancy gap (as of the 2005–07 period) to be 11.5 years for males and 9.7 years for females (ABS 2008b).¹ Although it is not always thought of as such, life expectancy is a key measure that summarises differences in the lifecourse experience. Estimates of life expectancy are generally constructed as the number of years that a child born today would expect to live based on the current age distribution of deaths. In other words, the length of their lifecourse. Whatever the true estimate, it is clear that an Indigenous child born today is expected to have a shorter life, on average, than a non-Indigenous child.

Perhaps as important as the length of the lifecourse is how healthy a person is at different stages throughout their life. According to the World Health Organization (WHO 1948) 'health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity'. Unfortunately, data on health and wellbeing from the census is limited at best. The census is a poor instrument for looking at health issues. However, many of the other outcomes examined in this monograph such as employment, education, housing tenure and migration are all fundamentally linked to health and wellbeing. The association between an individual's social and economic status and their health has long been established (Wilkinson and Marmot 2003), with other measures of disadvantage generally associated with worse health and higher mortality rates (Matthews, Jagger and Hancock 2006).

A new variable available on the 2006 Census that at least touches on physical wellbeing is whether or not a person reports a need for assistance in undertaking a 'core activity'. According to the ABS data dictionary (ABS 2009c: 19) 'this population is defined as people who need assistance in their day to day lives with any or all of the following core activities – self-care, body movements or communication – because of a disability, long-term health condition, or old age'.

¹ These revisions in no way reflect an improvement in Indigenous life expectancy, but rather a complete change in methodology. Even now, the methodology used and the data underlying it is treated as experimental by the ABS and the subject of ongoing debate by experts in the field.

The first set of results presented in this section considers variation across the lifecourse in reporting a 'core activity' need for assistance, as well as the factors associated with it for the 45 years and over age group.

The final set of results in this chapter returns to life expectancy estimates and considers the percentage of a hypothetical population who are still alive after a given age. More so than the other chapters in this monograph, a consideration of health outcomes across the lifecourse using census data is severely restricted by the extensiveness of the data available. The census was not designed to capture health or wellbeing and is a very blunt instrument for this purpose. So, while the results in this section do give some new insights into the differences between Indigenous and non-Indigenous Australians in terms of their health outcomes across the lifecourse, in the final section of this chapter we discuss alternative datasets that give a more complete picture.

'Core activity' need for assistance

The probability of reporting a restriction in a 'core activity' for Indigenous and non-Indigenous males and females is graphed in Fig. 8.1. Results presented here clearly show that, at least up until the 35–39 year age group, reporting a 'core activity' need for assistance is a relatively rare event. Although the probabilities are generally higher for Indigenous compared to non-Indigenous Australians, the probability for the under 40 years age group stays under 5 per cent. To the extent that there is a difference, males tend to have a higher probability of reporting a need for assistance than females.

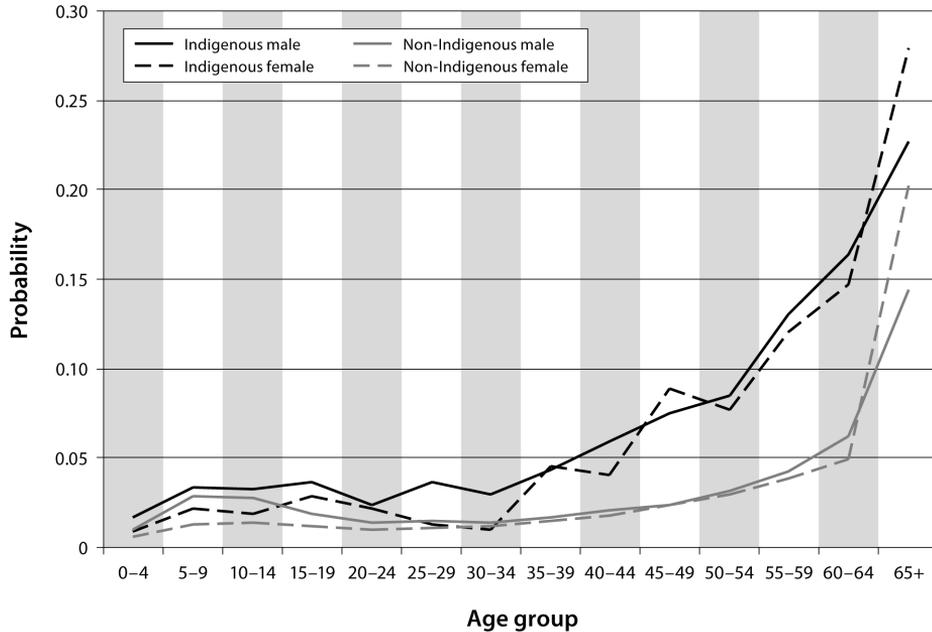
From the age of 40 onwards, the probability of reporting a 'core activity' need for assistance increases substantially, as does the predicted difference between Indigenous and non-Indigenous Australians. By the 60–64 year age group, 16.4 per cent of Indigenous males and 14.7 per cent of Indigenous females report a need for assistance. This is compared to 6.3 and 5.0 per cent respectively for non-Indigenous males and females. To put this disparity another way, a non-Indigenous Australian aged in their early to mid-sixties has roughly the same probability of reporting a 'core activity' need for assistance as an Indigenous Australian in their mid-forties.

Modelling 'core activity' need for assistance across the lifecourse

The dependent variable in the following analysis is the probability of an individual reporting a 'core activity' need for assistance. Given the age distribution summarised in Fig. 8.1 and the clear finding that this measure of

poor health is skewed towards the end of the age distribution, the analysis is restricted to the population aged 45 years and over. The base case is the 45–49 years age group.

Fig. 8.1 Probability of reporting a ‘core activity’ need for assistance, 2006



Source: Customised calculations using the 2006 5% CSE, ABS Census of Population and Housing

There is a strong potential for endogeneity and reverse causality between having a ‘core activity’ need for assistance and a number of the independent variables used in previous models. This is a phenomenon that is more likely to occur for this variable compared to any other dependent variable analysed in this monograph. For example, individuals who are employed or have a relatively high income are likely to be better able to afford the treatments that allow them to overcome any restrictions on their mobility or communication. On the other hand, a ‘core activity’ need for assistance is likely to place severe limitations on obtaining and maintaining stable, well-paid employment (indeed we used it as an explanatory variable in a number of previous estimations). Although we did not attempt to measure causality in any of the previous models, we felt it particularly important to restrict the explanatory variables in the analysis summarised in Table 8.1 to demography, geography and education.

Table 8.1 Factors associated with reporting a 'core activity' need for assistance, population 45 years and over

Explanatory variables ^a	Total population		Indigenous population	
	Model 1	Model 2	Model 3	Model 4
Indigenous	0.041	0.007		
Female	n.s.	0.002	0.023*	0.027
Aged 50–54	0.008	0.003	n.s.	n.s.
Aged 55–59	0.019	0.007	0.020	0.023
Aged 60–64	0.039	0.014	0.036	0.033
Aged 65 +	0.117	0.038	0.056	0.045
Aged 50–54, female	n.s.	n.s.	n.s.	n.s.
Aged 55–59, female	n.s.	-0.001	-0.011*	-0.012
Aged 60–64, female	-0.006	-0.003	-0.013*	-0.012
Aged 65 +, female	0.016	0.002	n.s.	n.s.
Victoria		-0.001	n.s.	n.s.
Queensland		n.s.	n.s.	n.s.
South Australia		0.000	n.s.	n.s.
Western Australia		-0.001	n.s.	n.s.
Tasmania		0.001	n.s.	n.s.
Northern Territory		-0.003	-0.009*	n.s.
Australian Capital Territory		n.s.	n.s.	n.s.
Major city		0.000	-0.006	-0.006
Completed Year 9 or less		0.012	0.023	0.023
Completed Year 10 or 11		0.001	n.s.	n.s.
Does not have any qualifications		0.007	0.029	0.022*
Has a Diploma or Certificate only		0.004	n.s.	n.s.
Speaks another language and English well		0.002	0.012	n.s.
Speaks another language and English not well or not at all		0.015	0.038	n.s.
Never married		0.012	0.008*	n.s.
Divorced, separated or widowed		0.010	0.011	0.011
Has had at least one child (for females)		-0.002	n.s.	n.s.
Lives in a mixed Indigenous and non-Indigenous household				n.s.
Probability of the base case ^b	0.023	0.006	0.019	0.017
Pseudo R-Squared	0.1002	0.1497	0.0859	0.0735
Number of observations	352 738	311 613	2 914	2 782

^a n.s. = Those variables that were not significant at the 10% level of significance.

* = Those variables that were significant at the 10% level of significance but not the 5% level

^b The base case for the total population is non-Indigenous. For all estimates, the base case is aged 45–49 years and in addition, for Models 2–4 (for the total population and for the Indigenous estimates), the base

case lives in New South Wales, outside of a major city, has completed Year 12, has a university degree, speaks English only and is married. For Model 4, an additional characteristic of the base case is that they are living in an Indigenous-only household.

Source: Customised calculations using the 2006 5% CSE, ABS Census of Population and Housing

The results presented in Model 1 confirm that not only does having a ‘core activity’ need for assistance increase with age (especially into the 65-plus age group), but also that Indigenous Australians have a higher likelihood after controlling for age and sex. The difference associated with being Indigenous reduces substantially once other socioeconomic characteristics are controlled for both in absolute terms and relative to the base case.

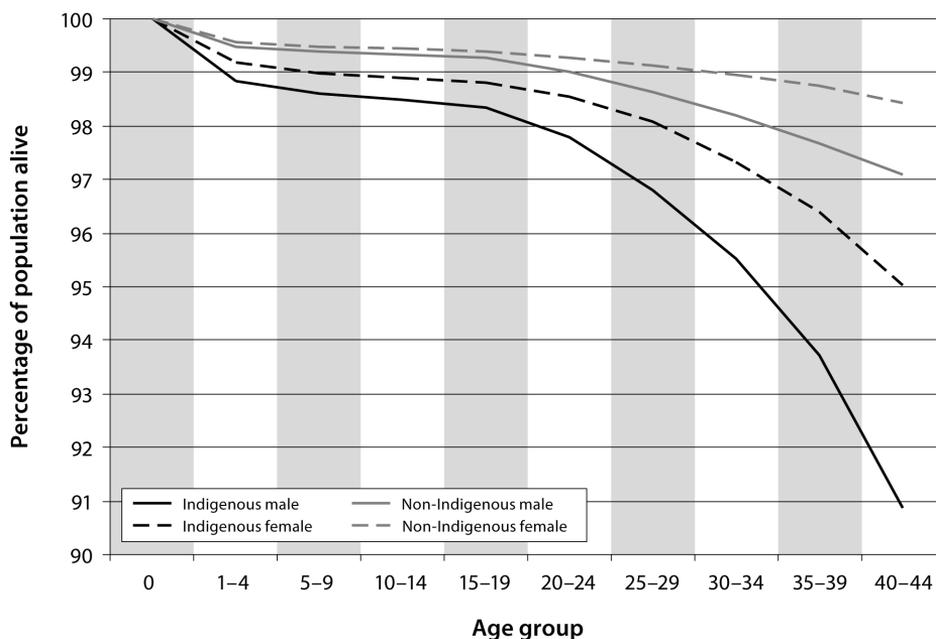
Whilst lower levels of education and being single are associated with a higher probability of reporting a need for assistance (confirming the association between socioeconomic status and health), age remains the predominant predictor of disability. For the Indigenous population, living in a major city is related to having a lower probability of a ‘core activity’ need for assistance. This could be attributed to better access to services, in particular health services.

Survival rates

As mentioned at the start of this chapter, the census is limited in its ability to capture variation in health across the lifecycle. While providing some information, the ‘core activity’ need for assistance variable can only really be considered a partial measure of poor health. Before discussing alternative data sources that are more suitable for capturing physical, mental and social wellbeing in the concluding chapter, we first return to a more detailed discussion of variation in mortality rates by gender and Indigenous status.

Figures 8.2 and 8.3 provide an indication of mortality across the lifecycle by illustrating the proportion of the population still alive at the beginning of successive age cohorts. Data for these figures come from the respective life tables in ABS (2008b). The first (Fig. 8.2) graphs the percentage of population still alive for the cohorts aged 1–4 years through to 40–44 years. Given the high rate of survival over this age group, the vertical axis is restricted to 90–100 per cent of the population in order to better show the difference between the four population groups. The second (Fig. 8.3) concentrates on the cohorts aged 40–44 years through to 85 years and over.

Fig. 8.2 Hypothetical percentage of population aged 0–44 years still alive at start of five-year age cohort, 2006

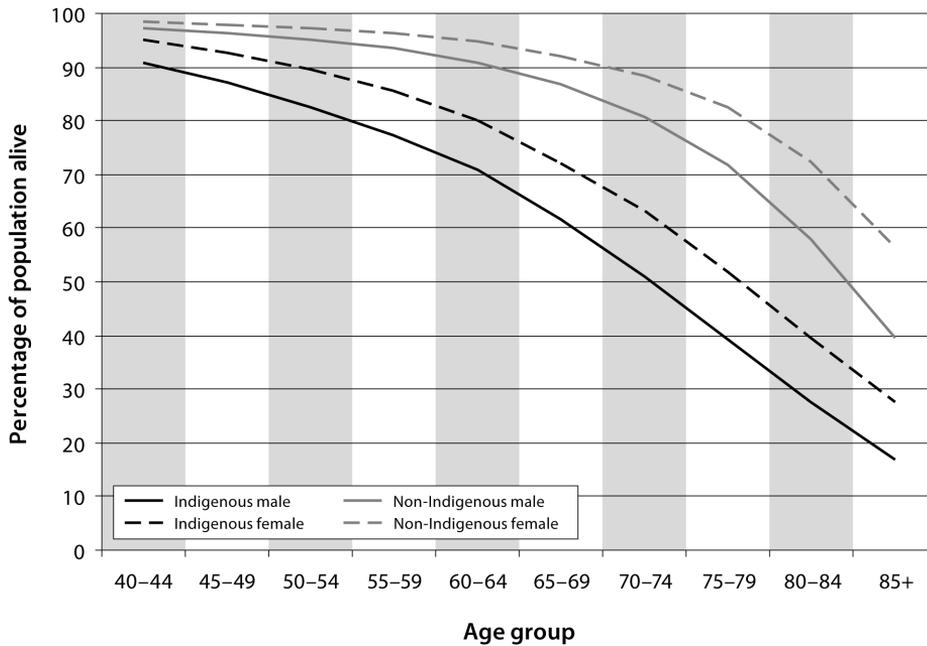


Source: ABS (2008b)

The higher likelihood of death for Indigenous males shows clearly in Fig. 8.2. While the gap starts off reasonably small in absolute terms, it widens considerable from the age of 20 onwards. Turning the analysis around somewhat and focusing on mortality as opposed to survival, Indigenous boys are 1.4 times as likely to die in the first five years of their life compared to Indigenous girls, and nearly 2.3 times as likely to die as non-Indigenous boys. While the ratio for the two groups of males stays reasonably constant, across the cohorts considered in Fig. 8.2 the gender disparity does not. Indigenous males are 1.7 times as likely to die before the age of 25 compared to Indigenous females.

The shorter life expectancy of Indigenous males is in many ways even more pronounced in Fig. 8.3. Once again, across all age cohorts, Indigenous males have the lowest proportion of the population still alive. It is over the age groups presented in Fig. 8.3 where the disparity between Indigenous and non-Indigenous females becomes apparent. An Indigenous female is 2.0 times as likely to die before reaching the age of 20 than a non-Indigenous female. By the age of 50, this ratio was predicted to have increased to 3.8 – even higher than the difference between Indigenous and non-Indigenous males (3.6 times).

Fig. 8.3 Hypothetical percentage of population aged 40–85 years still alive at start of five-year age cohort



Source: ABS (2008b)

Health across the Indigenous lifecourse

While a healthy life is, and should be, one of the key focuses of government policy related to the Indigenous population, it is clear that information from the census around this issue is limited at best. The results presented show that although Indigenous Australians aged 45 years and over are significantly more likely to report a ‘core activity’ need for assistance, much of this difference is driven by other observed characteristics. By linking census data with deaths data, the ABS is also able to come up with an estimate of age-specific survival rates and life expectancy. An analysis of the resulting life tables shows significant differences both by Indigenous status and sex.