
Being very old in a young country: Centenarians and supercentenarians in Australia

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Abstract. This chapter will briefly review the history of identification, recording, and documentation of centenarians and supercentenarians in Australia¹. The paper explains the sources and validation methods used, as well as identifying problems and barriers to validation. The paper then critically comments on the completeness of reported supercentenarian numbers in Australia, using overseas estimates as a benchmark. This will include an evaluation of the accuracy of census and other historical data sources used to validate centenarians and supercentenarians in Australia. The paper concludes with comments on the possible future number of people age 100 years or more, and how Australia might institutionalize their identification and recording.

1 Introduction

While the indigenous population has inhabited Australia for more than 40,000 years, white settlement has existed for only just over two hundred years. Thus, in comparison to say, European states, the Australian settlement could easily be considered relatively “young.” Similarly, Australia just recently celebrated its centenary of Federation, with the identity of the nation as a united socio-political state dating from just 1901. Indeed, Australia’s national anthem, “Advance Australia Fair,” reinforces this perception of “youthfulness” as well. The song begins with the phrase: “Australians all let us rejoice, For we are young and free”. This reference to being young and free reflects our independence as a country, but it is also a nod to our British origins, with England often being referred to colloquially as the “Mother Country,” as

¹ All information and names either publicly available or provided with informed consent.

though Australia were the young child. Even today, our centenarians still receive a congratulatory letter from the Queen. (The number of centenarian congratulatory telegrams from the Queen to Australians increased from 595 in 1997 to 854 in 2002, although it appears that only about one-third of those eligible receive them.) Thus, there are many contextual references still current in Australia that support the notion that we are a “young” country.

This image of a young country is, however, somewhat at odds with our changing demographic profile: the median age of the population has increased from 31.6 years in 1988 to 34.6 in just ten years, and the median age of Australians is projected to reach 46 years by 2051 (ABS 2001). In this context, Australia is much more a “middle-aging” than a “young” country. At the same time, however, it is also an “old-aging” country: the proportion of the population age 85 years or more has increased by almost three-quarters over the last decade, and is projected to quadruple over the next fifty years, which indicates a greater structural and numerical aging of both the total and the aged population. The increase in centenarians from 50 in 1901 to about 2,500 in 2001 (ABS 2001) is another example of growth in the very old population.

Formal recognition of very old aging in Australia is, however, fairly minimal, and this is exemplified by the lack of specific and validated publicly available data on people age 100 years or more. Very old people in Australia tend to be either invisible (statistically and even physically), or identified tokenistically by the media as some quaint relic of a bygone era. It is only in recent times through publicity on people like Jack Lockett—who was fully oriented and articulate until his death in 2002 at age 111 years, and who actually carried the Olympic torch 50 meters for the Sydney Olympics in 2000—that there has been some recognition that not all very old people are frail and decrepit. Within this context of limited information on very old people in Australia, this chapter will broadly investigate validation of centenarians in Australia at both the individual and population levels. First, the paper will look at individual centenarian identification and recording, with an emphasis on the validation of supercentenarians, and then move on to try and reconcile the actual population size of the very old in Australia through a range of alternative data sources.

2 Recording Australian centenarians

It needs to be stated at the outset that there are no exact or validated figures on the number of centenarians in Australia. Nor are there any

figures on the number of people aged exactly 100 years, 101 years, and so on; as the recent Australian censuses (collected and) provided only a single aggregated number for “aged 100 years or more.” Use of the word “centenarians” here thus usually refers to the sum of those aged 100 years or more. The Australian census for 2001 is the most recent count of centenarians, recording a census count of 2,503 centenarians (784 males and 1,719 [68.7%] females). However, from the early 1900s, the Australian census has consistently reported people living to very old ages, and with slightly more detail and comment than is currently available. For example, the census records show that there were 64 living centenarians recorded at the 1911 census, and that 27 centenarians had died in that year. Information on their deaths was provided in the 1911 Commonwealth Year Book. However, the Statistical Registrar-General commented in relation to “abnormally high ages” that “... no absolute reliance can be placed on the accuracy of the ages shewn, owing to the well-known tendency of very old people to overstate their ages”. The registrar was not only making reference to the important issues of age validation and age misreporting, but also to the poor recordkeeping on registration of births in other countries of origin.

For example, only two of the 14 centenarians who died in 1911 were born in Australia. The majority were born in England, and two were born in China. Ten of the 14 were more than 100 years of age, the oldest being 108 years old. Only three received the public old age pension, while the rest were listed as having an occupation. Similarly, of the 13 female centenarians who had died in 1911, seven were aged more than 100 years, with the oldest being 105 years old. The most frequent cause of death was listed as “senility,” although “rodent ulcers,” “gangrene,” “diarrhoea,” “heart disease,” and “influenza” were also cited. Unfortunately, this level of single year age detail and comment disappeared in more recent censuses, in which very old Australians have been grouped either as part of the “aged 85 years or more” group, or as “aged 99 years or more” at the 1996 census, or as “aged 100 years or more” at the 2001 census. This lack of age detail currently reduces our ability to gain a better understanding of changes in life expectancy at very old ages in Australia, although due to lobbying by demographers, the next census (2006) should collect at least the single year of age for all people in the census.

3 Validating individual supercentenarians in Australia

According to the supercentenarian list compiled in 2003 (Epstein 2003), Australia had 11 validated supercentenarian (SC) cases, going back to 1971. Five of these cases were validated over the previous two years by the author, who joined this research program in 2001. Since 2003, four more cases have been identified and validated by the author, resulting in a total of fifteen validated cases in Australia up to 2006 (see Table 1). Six cases had already been validated by a range of other participants in the research program. Guinness World Records was the main source of validation, having validated and listed four people in their published book of records in the 1970s and 1980s: Carol Mockridge, Jane Piercy, Ada Sharp and Ada Cleggett (Epstein also contributed in the last case mentioned here via a family genealogist's records). Two other supercentenarians, Jack Lockett and Jessie Hurley, were identified and validated by the New England Centenarian Study (and this author added Hurley's death certificate). The author has since validated five other cases with the required birth, death, and marriage certificates: Alice Lindsay, Stella Correll, Molly Yeomans, Christina Cock, and Beatrice Mears. In addition, the author has validated the age of one other deceased supercentenarian, Mary Hurley, using the death certificate, death certificates of both parents, plus family tree information; as well as the ages of the two currently living supercentenarians, Myra Nicholson and Emily Riley, using their birth and marriage certificates. Birth certificates of siblings or children which list the centenarian's name and age were also available for some of the people studied. The fifteenth case is a woman born in Italy who had then moved to France and later migrated to Australia, Marie Piacentino. Her validation records, including birth certificate and death notification, were provided by the French embassy in Australia. For the majority of cases, the official certificates supplied were provided by the family or were found in official registers prior to 2005, when searching such registers was free. Researchers are now required to pay a fee before they can begin their search, and they must also pay additional fees for certificates, if located. This makes the validation process more difficult.

The author has also followed up quite a few other cases found in the newspapers, such as the "gent from Molong" (referred to in Guinness) and an indigenous person referred to as "Old Davey," both of whom were said to have reached 109 years of age in the 1960s, but for whom no records other than single newspaper citations could be found. As stated, the primary validation method used by this author was to search electronically the major newspaper cuttings database in

Australia, available from 1956. Using this database, the author was able to identify media references to most supercentenarians on the list, even before they reached the age of 110 years. No other references to any person aged 110 years or more has emerged. However, this does not mean there are or were no other people who have reached age 110 years or more. For example, the supercentenarians Beatrice Mears and the recently found Emily Riley were media-shy; there was no previous publicity on these women, yet both had solid official proof of age.

Thus, ascertainment bias due to the method of finding cases through media presentation is more than likely present. However, despite these problems, the other cases found do show the value of the media in identifying cases. This sort of approach is needed because, unlike in other countries, our primary data source, the quinquennial Australian census, which has been in operation since the early musters in the 1800s, has never kept records, and continues this practice today, so that no data matching is possible. At the last census in 2001, however, all Australian residents were asked if they wanted their census records kept in the national archives and made available in 99 years' time. This will be the first ever census records kept, but it will not be available for a long time yet. Thus, to date, we have the supercentenarian records listed in Table 1.

Table 1. Australian supercentenarians (2006)

Name	Date of Birth	Date of Death	Age	Sex
1. Christina Cock	25 Dec 1887	22 May 2002	114	F
2. Beatrice Mears	4 Mar 1888	3 Dec 2001	113	F
3. Molly Yeomans	1 Jul 1888	30 May 2001	112	F
4. Carol Mockridge	11 Dec 1874	6 Nov 1987	112	F
5. Jessie Hurley	15 Jun 1890	6 Aug 2002	112	F
6. Stella Correll	23 Dec 1888	7 Sep 2000	111	F
7. Jane Piercy	2 Sep 1869	3 May 1981	111	F
8. Jack Lockett	22 Jan 1891	25 May 2002	111	M
9. Alice Lindsay	31 Mar 1893	1 Jul 2004	111	F
10. Ada Cleggett	27 Jan 1885	8 Dec 1995	110	F
11. Mary Hurley	4 May 1880	16 Nov 1990	110	F
12. Ada Sharp	6 Apr 1861	15 May 1971	110	F
13. Marie Piacentino	25 Nov 1888	21 Jun 1999	110	F
14. Myra Nicholson	14 Dec 1894		111	F
15. Emily B Riley	13 Oct 1896		110	F

Generally, the primary approach with individual validation in Australia is similar to that outlined by Jeune & Vaupel (1999), whereby primary "official" certificates, such as birth, death, and marriage certificates for the centenarian are sought and, sometimes, procured; and all corresponding dates, including marriage dates and ages of the centenarian, as well as those of parents and siblings, are checked for correspondence. In a case like that of Christina Cock, born in 1887 in a very old Australian town where recordkeeping was well established, all required primary birth data and certificates were available. The town also had an established newspaper in this period, and corresponding entries were available from that gazette relating to her birth, birthdays, and marriage. In other cases, families may already have elaborately constructed family histories with copies of training or school certificates, and newspaper cuttings of, for example, the presentation of prizes or trips taken. Passports and ship records are often also frequently available, and serve as a reflection of the high migration rates of this country.

Other families however, such as Mary Hurley's, have no official records other than a death certificate, and the process then becomes a genealogical one of working with the many family history groups throughout Australia. Investing the time and money necessary to work with these groups can pay off because their members often have a high level of expertise, particularly in issues pertaining to changed spelling of names and isolated farm areas. Mary's mother, for example, was variously known as Honor, Hanorah, Norah, Nora, and so on; but the expert family history group can reconcile these issues quickly. Mary had died in a nursing home, but no records were available because the compulsory seven-year storage law under the statute of limitations had expired, and all nursing home records had been deleted. A search for her local doctor also did not turn up any information, as he had also died. This sort of detective work can be difficult and frustrating. Eventually, however, solving the puzzle using cross-referenced unique historical data can just as rewarding in terms of validation with documentation. The current development of a National Mortality database by the federal government should be a good future source for tracking centenarians and supercentenarians. The limited data available now indicates that more supercentenarians have died since 1990 than this author can account for through identified cases. Due to privacy legislation, it is not possible to find the names of all those deceased. It appears, however, that there may have been four supercentenarians alive since 1990 in addition to those who are recorded in Table 1. This

reinforces the idea that ascertainment bias is present in the Australian collection to date.

4 How many Australian centenarians?

As stated above, there are no exact or validated figures on the number of centenarians in Australia. Nor are there any figures on the number aged exactly 100 years, as the recent Australian censuses (collected and) provided only a single aggregated number for “aged 100 years or more”. The Australian census for 2001 is the most recent count of centenarians, and the Australian Bureau of Statistics (ABS) used those census figures (drawn from a box that could be ticked to indicate “aged 100 years or more”), along with birth, death, and migration data, to develop the estimated resident population (ERP) of Australia. According to ABS, the census tends to under-enumerate (ABS 2002), although it is not clear how much this impacts on centenarians. However, the 2001 census count of 2,503 centenarians (784 males and 1,719 [68.7%] females) is considerably different from the ABS ERP for centenarians at June 2001, which was 3,978. The 2001 census count gives a centenarian prevalence rate of 133 per million population, compared to a prevalence rate of 205 per million from the 2001 ERP.

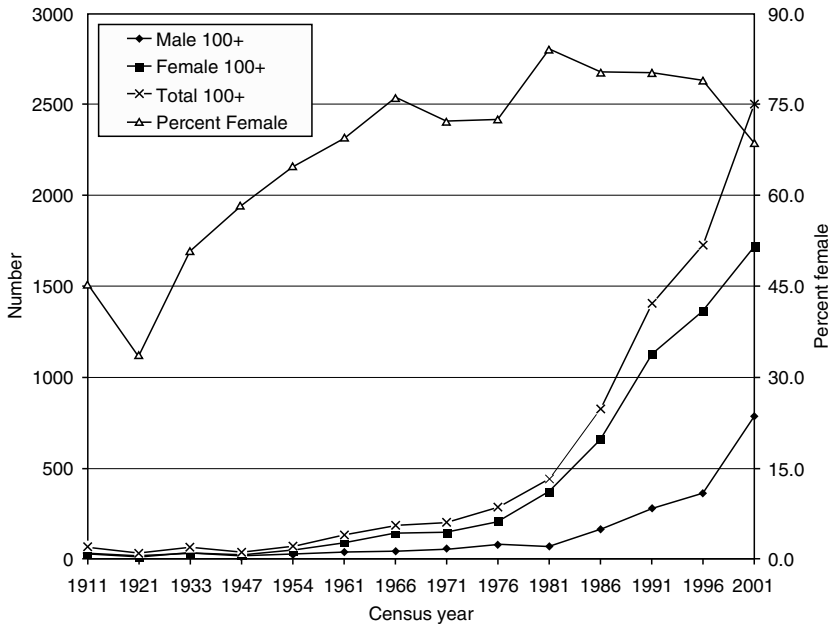
From the author’s (2000) calculations of the 1996 and previous census counts of centenarians (in the 1996 census the box was for people aged 99 years or more), the number of Australian centenarians in 2001, based on 7% per annum growth rate, would be around 2,420, which is closer to the census figure than the 2001 ERP figure. The ABS recently released their 2002 ERP figures, which for centenarians were enumerated down considerably. ABS now estimates 2,297 centenarians (1,682 or 73% female) at census date 2001, which equates to a prevalence rate of 118 per million. This rate and the number of centenarians would, using Ruisdael’s survey data (2003), mean Australia is in the top ten countries for the centenarians per million index figure, and in the top ten developed countries for number of centenarians. Ruisdael’s data show that France, USA, UK, Japan, Italy, Spain, Canada and Sweden would rate above Australia on the index.

In an attempt to cross-validate the Australian centenarian figures, the author, *inter alia*, calculated Whipple’s Index for the oldest-old (Yi and Vaupel, 2003) on the revised 2001 and 1996 ERPs. This resulted in index figures of 102.52 and 102.58 respectively, both of which diverge less than 5% from the recommended standard for identifying age-heaping distortion in the reported ages.

Similarly, the author calculated the Coale & Kisker ratios of very old to old populations, first for those aged 95 years as a proportion of the population aged 70 years and above, then for those aged 100 years or more as a proportion of the population aged 75 years or more in 2001. The proportions of the first group (95:70+) were 1.86 per thousand for males, and 4.51 per thousand for females, both figures being less than the six per thousand noted for countries with “good data” (Yi and Vaupel, 2003). The second ratio (100+:75+) resulted in male proportions of 2.04 per thousand, and for females of 3.07 per thousand, both of which again are under the recommended six per thousand. The male-female ratio found in Australia, especially for the 100+ to 75+ age groups, is considerably higher than that reported by Yi and Vaupel (2003). This seems to be mainly due to the higher male centenarian rate, and may be indicative of some age exaggeration among Australian males.

The author also applied an extinct cohort/survivor approach to the 2001 census figures using death data from the Australian National Mortality Database. Assuming that, of the 2,503 centenarians identified in the census in 2001, about half (see below) would be aged 100 years exactly (1,251), aggregating death data for those aged 90 years in 1991, for those aged 91 in 1992, and so on, up to deaths for 100-year-olds in 2001, resulted in an estimate of 1,304 people still alive at 2001. This corresponds approximately to the author’s estimated census figure for those aged exactly 100 years, and provides extra support for the overall estimated number of centenarians in Australia. More work is being done on this approach over a longer period, and for both males and females, by Dr. Len Smith, who maintains the Demographic Databank at the Australian National University. Thus, assuming the census data provide a reasonable estimate of the number of centenarians, as outlined above, Figure 1 illustrates that data over time.

There were low numbers of centenarians until the 1970s, after which the number of centenarians and their growth rate increased substantially. There was then almost a doubling or greater every ten years for people in this age group during the years 1971 to 2001. The increase in females is greater than the increase for males, with females representing 79% of persons aged 99 years or more at the 1996 census, but this dropped to 69% at the 2001 census. Similarly, the gender ratio for this group at that 1996 census was 27 males per 100 females, but this increased to 45 males per hundred females for 2001. As above, and as can be seen from the chart, the reported increase in male centenarians over the last five-year period may be somewhat exaggerated. Overall



Source: ABS

Note: 1996 for 100+ is author estimate.

Fig. 1. Centenarians in Australia (Persons Aged 100+ by Census: Australia 1911-2001)

however, despite these data difficulties, it is clear that there is a marked increase in numbers of people aged 100 years or more in Australia.

In trying to understand what is behind this apparent increase in Australian centenarians, the author applied Thatcher's (1999) methodology to current and historical ABS data and Life Tables to identify relevant individual factors (Table 2).

Table 2. Decomposing Australian centenarian increase

Cause	Male	Female
Increase in births 1860 to 1899	2.14	2.14
Improved survival from birth to age 80 years	3.96	3.92
Improved survival from age 80 to 100 years	7.14	13.1
Changes above age 100 (Ratio 100+:100, 1985-1995)	0.2	0.1
Reduced probability of death at age 100: 1953 to 1995	1.8	1.6
Product of above factors	21.8	17.6

The product of the factors shown accounts for the approximately forty-fold increase in Australian centenarians, from 64 in 1911 to around 2,500 in 2001. Among the individual factors, improved survival from ages 80 to 100 years accounts for about half of the total increase, and females play a larger role in this. However, in the overall product of factors, males account for a higher proportion of the overall increase than do females. Changes above age 100 years so far account for only a small component of the overall increase in centenarians. However, not a lot is known about these age groups, as detailed below. Before moving on to look at these other groups, some brief comments will be made on other centenarian data.

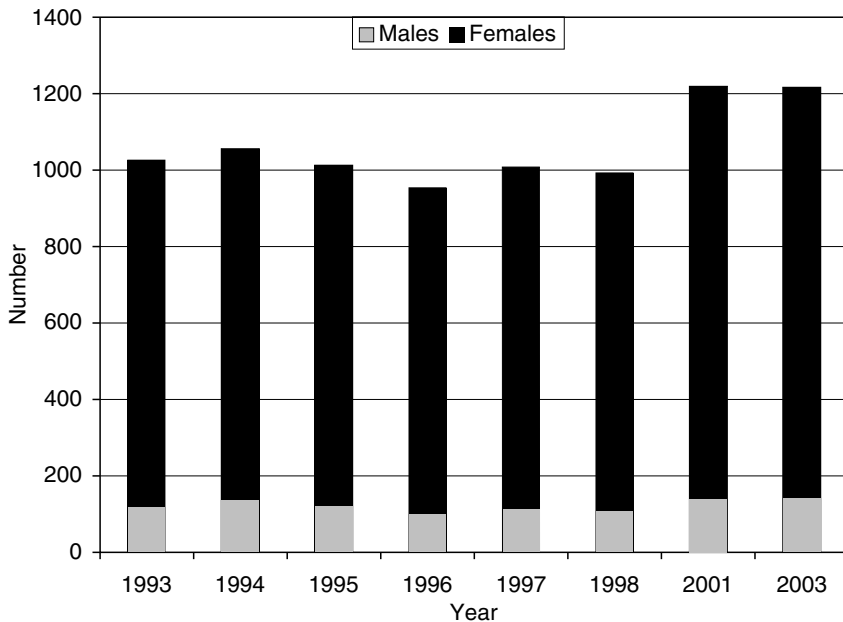
5 Other sources of centenarian data in Australia

Despite the ABS being the official statistical agency for the country, there are many other public and private agencies that identify or hold data on very old people. Canvassing these many other sources is necessary when attempting to consolidate and cross-validate centenarian population figures for Australia. The (print) media is the most frequent place where individual centenarians are publicly identified. Although some people are critical of the media for sensationalizing very old people, by the same token the media can be a useful means of hearing about new centenarians; or, if one has a working relationship with the media, it can be a means of letting the public know to whom they can report new cases.

The author currently maintains an informal list of the oldest people in Australia, and the media find it useful to be able to ring up and ask how some new person they have just heard of compares with others on the list. “Who is the oldest?” is, without a doubt, the most common question. Currently on the list are two 109-year-old women who are ranked as the “oldest,” followed by two 108-year-old women and one 108-year-old male, followed by greater numbers of 107-year-olds, and so on, down to 103-year-olds. There are currently five veterans of World War I on the list who turned 103 in 2003. However, according to unpublished government residential care data (see below), there appear to be three people alive claiming to be 110 years old or more. Due to privacy legislation however, these people cannot be identified. The author is currently attempting to secure exemption from the legislation, but this is unlikely to happen.

In an attempt to reconcile the estimated number of centenarians with those recorded as either in care or in the community, the following

nursing home and hostel data were obtained from the Department of Health and Aged Care on actual persons aged 100 years or more.



Source: Dept of Health and Aged Care: Unpublished

Note: Data refer to combined nursing homes and hostels for Australia, Dept of Health and Aged Care: Unpublished

Fig. 2. Centenarians in residential care: Australia June 1993-2003

This 2003 centenarian residential data count of 1,206 shown here represents only about half of the estimated 2,500 centenarians for 2001. From other census data the author has purchased from ABS, this centenarian residential care rate is less than the 61% of centenarians reported in “non-private dwellings;” however, there are a range of other eldercare facilities, such as retirement villages, which could see this as a definitional difference in numbers. Elsewhere, the author has pursued government-funded pensioner and veteran data, electoral roll numbers, health system counts in hospitals, and so on. There always seem, however, to be some data discrepancies that represent either definitional complexities or some basic questioning of the correct age reporting through the census. It is probably only through repeated data reconciliation attempts that these differences will be explained and overcome.

6 Semi-supercentenarians and supercentenarians in Australia

As stated above, there are major difficulties disaggregating centenarians (Cs, and in this section referring to ages 100-104 years) into single year age. Similarly, for other five-year age groupings such as the semi-supercentenarians (SSCs) aged 105-109 years, or the supercentenarians (SCs) aged 110 years or more, difficulties in determining precise ages persist because the officially collected ABS data does not ask centenarians their actual age at their last birthday (nor does it require a birth date). So again, estimates need to be made and other data are used for this, as shown in Table 3. The Japanese data is from the Ministry of Health (2003), while the European data “Euro 9” is from Ruisdael (2003), and is aggregated data for nine European countries with aggregated $n = 6109$. The “Aus ACAS” data is Australian health data from Aged Care Assessment Services in the state of Victoria for 2002, and the number of centenarians is 218. The “Aus Res Care” data is from the rolls of the Australian government’s Residential Care register of centenarians ($n = 1216$), in what used to be known as nursing homes and lower-level hostels, for the year 2001. None of the people in the Australian data have had their ages validated, as the service they received is based on health need rather than age.

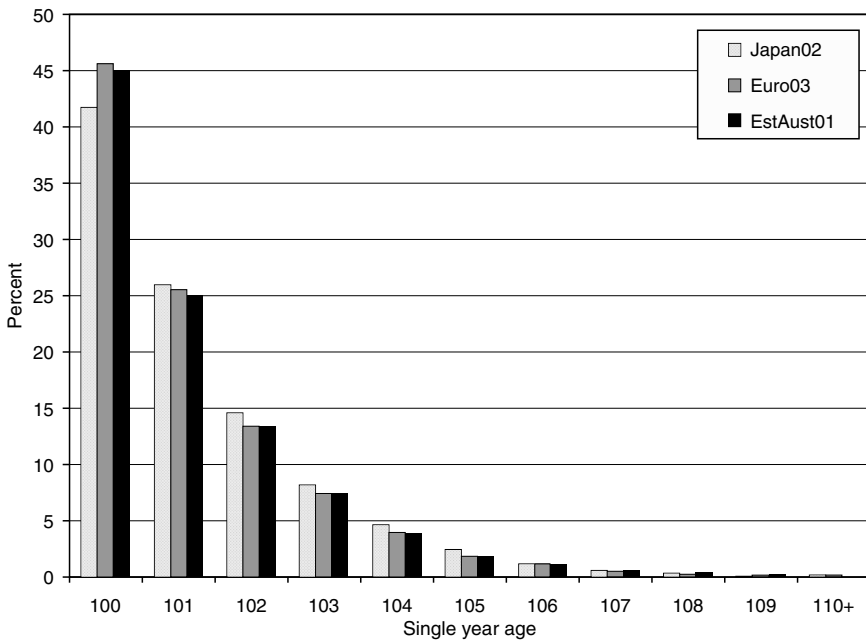
Table 3. Decomposing Australian centenarian increase

Age Group	Japan	Euro9	Aus ACAS	Aus Res Care
100-104	95	95.9	95.9	93
105-109	4.6	3.6	3.6	6.3
110+	0.4	0.5	0.5	0.3

The table shows that the overall the distributions for Cs, SSCs, and SCs are not that different for Australia than they are for other countries. The “Aus Res Care” data is weighted more to the older groups, and this may be because the population here is more unwell or unable to care for themselves, which may be a function of age. Similar health populations for Japan and Europe would be needed to present a better comparison.

This comparison is taken further in Figure 3 at page 113, where the same Japanese and European data is compared to an estimated distribution of the Australian 2001 census figure of 2,503 centenarians distributed across the single year ages, based on an average distribution

derived from data from 13 countries presented in Ruisdael's survey (2003). This latter estimate for Australia should be more comparable to Japan and Europe, as it includes the total centenarian population rather than a specialized health component sample.

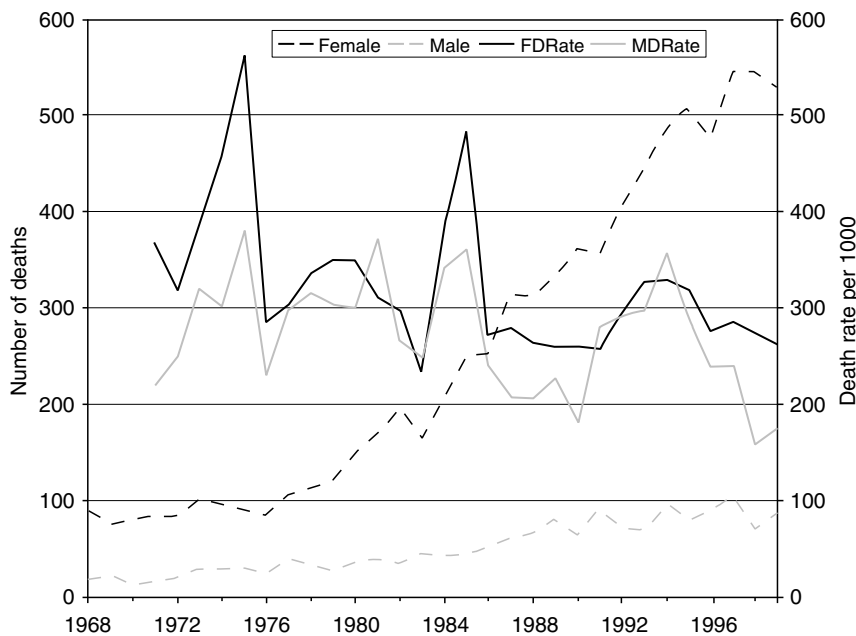


Source: Derived from Ministry of Health Japan 2002; Ruisdael 2003

Fig. 3. Age above 100 years (Age Distributions at 100+ years)

As can be seen from the chart, the general estimate (“EstAus01”) is similar to the European distribution, whereas the Japanese distribution has an older profile with fewer 100-year-olds and more people aged 101 and above. Another feature of this age distribution (not shown here) is the gender difference. Analysis by gender shows that, like Kannisto (1994), female centenarians in Australia include, compared with males, a lower proportion of 100-year-olds (average of 44% females and 47% males), and greater proportions of 102-year-olds or older. While there are more female centenarians living longer, this older age profile of female centenarians may have an impact on the higher female death rates shown below. There is a need for more gender analysis of this older female age profile and its impact on the Australian data. One other source of age-specific death data for Australia is the Australian

National Mortality Database, which was only recently developed, and this does have death information by gender.

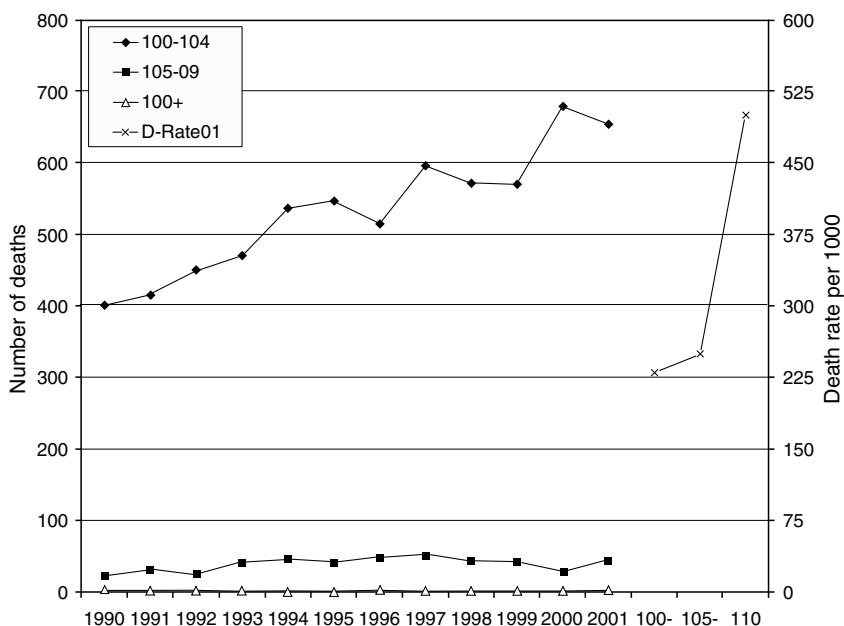


Source: Derived from ABS Cat No 3302.0

Fig. 4. Centenarian death rates (centenarian deaths / death rates by gender, Australia 1968-1999)

Fortunately this data is available with age at death recorded, but age-specific death rates cannot be directly calculated because we do not know the population of each single year age group. However, using the Australian distribution from Figure 2 as the survivors, and adding the deaths to this number, crude centenarian age-specific death rates for the three groups can be estimated. Female deaths show a marked increase since the mid-1970s, while the male centenarian deaths increase has been less marked. This is further illustrated by the greater decline in estimated death rates for male centenarians. As stated above, there is some concern as to whether the increasing proportion of male centenarians is real or a result of misreporting. The apparent greater decline in male centenarian death rates shown here adds further weight to the possibility that, in Australia, male centenarians are slowly narrowing the gender gap in the centenarian population.

Grouping those deaths by the three sub-groups of centenarians reveals the following trends shown in Figure 5.



Source: Derived from ABS Cat No 3302.0

Fig. 5. Centenarian deaths above age 100 years (annual deaths: centenarians, semi-supercentenarians and supercentenarians, & death rate 2001 by age group. Australia 1990-2001)

As can be seen from the figure, the number of deaths for the Cs is increasing considerably over time, while the number of deaths for the SSCs and the SCs is flat. The estimated death rates for the three groups (calculated just for 2001) results in a death rate of approximately 230 per thousand for the age group 100-104 years, 250 per thousand for the age group 105-109 years, and 500 per thousand for the age group 110+ years. These rates may be a little on the low side, especially for the SCs, but this is hard to tell with such limited data. The Cs compared to the SSCs and SCs seem quite different, with substantial change occurring over time. Meanwhile, the SSCs and SCs show little change, and this may be due to the small numbers to date.

7 Conclusion

This brief introduction to very old age in Australia has highlighted the deficiencies in our data validation resources for very old age, but has, at the same time, tried to show that there are in fact many bits and pieces of data which can be put together to build up a reasonable montage of very old age in Australia. In contradiction to our national anthem, Australia is no longer a “young” country, and our published demographic data needs to be more specific in relation to very old age, rather than just lumping all those people above the age of 65 in together and calling this group “the aged”. The initial disaggregation of those over 100 years of age in this paper, despite the small numbers and somewhat imperceptible differences, is an interesting approach to be developed further. Similarly, increased gender analysis might provide a more definitive picture or description of what is happening to the gender longevity gap at very old age. From the above, male centenarians, despite their lower numbers, seem to be making greater longevity improvement.

In conclusion, one might say that, in Australia, we have a preliminary picture of centenarians. The centenarian information presented above provides a preliminary picture of people in this extreme age group in Australia. Better data are needed however, and this would be assisted by the recording of centenarian’s ages in single years, which occurred in former censuses. A register of centenarians—for example, a register maintained by the Centre for Population Research at the Australian National University, and as part of its Demographic Database, in conjunction with the National Mortality Database at the Australian Institute of Health and Welfare—would be valuable aids to centenarian research. A small team to develop “The Australian Centenarian Study” is also needed. This would enable us to investigate the entire population of centenarians and determine with greater clarity how and why they are increasing.

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