

Who uses residential aged care now, how has it changed and what does it mean for the future?

Diane Gibson

Australian Health Review, 2020, doi:10.1071/AH20040

The publisher advises that Table 2's heading is incorrect. It should read: 'People living in residential aged care, percentage of permanent residents by age and sex, as of 30 June, from 2009 to 2019, Australia'.

Who uses residential aged care now, how has it changed and what does it mean for the future?

Diane Gibson  BA(Hons), PhD, DBA(HEM), FASSA, Distinguished Professor
 (Health and Ageing)

Health Research Institute, Faculty of Health, University of Canberra, Bruce, Canberra, ACT 2617, Australia.
 Email: diane.gibson@canberra.edu.au

Abstract.

Objective. This paper presents past trends in resident characteristics and usage patterns in residential aged care and explores implications for the future.

Methods. Time series analyses were undertaken of national aged care administrative datasets and the Australian Bureau of Statistics Surveys of Disability, Ageing and Carers.

Results. Although the number of people in residential care has continued to increase, resident profiles have changed as a result of higher growth rates in the number of men and of people aged 65–74 years and 90 years and over, and a decline in the number of women aged 75–89 years. Relative to population size, usage rates are declining across all age groups, the average length of stay is shortening, and dependency levels appear to be rising.

Conclusion. Changing trends in residential aged care use, when combined with key trends in the broader population of older Australians, offer useful insights in planning for the future.

What is known about the topic? Trends in the changing characteristics of permanent aged care residents and patterns of use of Australian residential aged care have received sparse attention in scholarly journals. Government reports and databases contain useful statistics, but they do not provide a coherent analysis and interpretation of the implications of these trends or situate them in broader population patterns.

What does this paper add? The analyses in this paper demonstrate patterns of change and continuity in the use of residential care over the past decade, and locate those changes in the context of broader trends in the ageing population. Together, this provides useful insights into current and likely future trends, as well as a basis for imagining an improved residential aged care system in the future.

What are the implications for practitioners? These analyses illustrate how data on aged care services, demographic trends and disease patterns can be used to consider the challenges that have affected our residential aged care system in the past and how that may be addressed in the future.

Received 2 March 2020, accepted 17 April 2020, published online 21 August 2020

Introduction

For almost four decades, aged care policy strategy in Australia has been focused on expanding the supply of community-based care and constraining growth in residential care.^{1,2} This strategy aligns with the preferences of older people, with optimising quality of life and with Commonwealth budgetary concerns vis-a-vis the escalating costs of residential aged care.

Most older people do not live in residential aged care. Certainly, the 182 704 permanent residents as of 30 June 2019 almost pales into numerical insignificance compared with the 840 984 people who used the Commonwealth Home Support Program in 2018–19,³ and aged care residents comprise only 4.4% of older people.⁴ Nonetheless, residential aged care is important for both financial and moral reasons. Financially, government expenditure on residential care totalled A\$13.8 billion in 2018–19, comprising 69% of total aged care

expenditure.³ Morally, older people living in residential aged care are among our most frail and vulnerable citizens.

In an era when aged care is a hot policy topic, it is important to understand the characteristics of residential aged care and the people who use it. Yet, with some notable exceptions,^{5,6} there has been surprisingly little scholarly analysis of this topic. Rhetoric and newspaper headlines can be influential tools for policy change, but it is important to keep the facts firmly in view when planning for the future.

The facts are essential, but they can be slippery. For example, when we address ageist assumptions by emphasising that only 4.4% of older people are in residential aged care we run the risk of implying that it is not important for most older people. Yet, if we emphasise that approximately 40% of older people will use residential aged care before they die,⁷ we run the reverse risk of an implicit message that most older people are in residential aged

care. We need to take the time to get the balance right, and to examine past trends with an eye to getting residential aged care policy right for the future. This paper aims to paint that picture.

Methods

Time series analyses were undertaken using national aged care administrative datasets and official statistics. Four data sources were used: the Australian Bureau of Statistics (ABS) Estimated Resident Population (ERP) counts (2009–19),⁸ the ABS Surveys of Disability, Ageing and Carers 2003–18,⁹ the Australian Institute of Health and Welfare GEN aged care data (<https://www.gen-agedcaredata.gov.au/>) and the Productivity Commission Reports on Government services (2010¹⁰ and 2020³).

Three types of data are presented: (1) resident profile data (age, sex, English-speaking background and care needs) are measured at a point in time and show the characteristics of service users; (2) age- and sex-specific usage rates demonstrate trends while controlling for changes in the size and structure of the aged population; and (3) admissions, exits and length of stay data show the flow of residents through the system over time.

Box 1. People <65 years of age living in residential aged care

Although people aged <65 years constitute a minority (3%) of aged care residents, this is nonetheless an important topic in the policy community. In 2019, that 3% represented 5606 people, of whom 442 were <50 years of age, 630 were 50–54 years of age, 1491 were 55–59 years of age and 3043 were 60–64 years of age. Just over half (54%) were men and just under half (46%) were women. Over the period 2009–19, the number of residents aged <65 years fell by 15%, with a particularly pronounced percentage decrease in the younger age groups (–48% for those aged <50 years and –30% for those aged 50–54 years; see [Table A1.](#))

The data presented focus on permanent aged care residents. Respite care is a specialised type of service provision and is not included in these analyses.

Results

People

A common image of nursing home residents is that they are mainly women and mainly over 85 years of age. Indeed, two-thirds of the 180 923 residents in Australian residential aged care as of 30 June 2019 were women and over half (59%) were aged ≥85 years. However, a substantial minority were younger, with 11% of residents aged 65–74 years and a further 28% aged 75–84 years. These residents were born over the 45 years between 1909 and 1954 and include members of the Greatest Generation (born before 1928), the Silent Generation (born between 1928 and 1945) and the Baby Boomers (born from 1946 to 1964). A small proportion of residents (3%) were aged under 65 years (see [Box 1](#)).

The demographic characteristics of residents are changing ([Figure 1](#)). Between 2009 and 2019, the number of residents increased by 15%, but this overall number conceals the much larger growth rate among men (31%) compared with women (9%). Percentage increases were higher at the younger and older ends of the age range (people aged 65–69, 70–74, 90–94 and ≥95 years). The number of women aged in the ‘middle years’, aged from 75 to 89, actually decreased by 7% (almost 4400 women) during this period ([Tables 1, 2](#)).

Over the decade (2009–19), cultural and linguistic diversity increased. The percentage of residents from non-English-speaking countries increased, from 16.7% in high care and 12.6% in low care to 19.8%.^{3,10}

Age- and sex-specific usage rates provide useful corroborating data on changing trends. Our older population is not just growing, it is also changing. The usage data reveal reductions in usage across all age and sex groups. The largest reduction in usage rates is among women aged ≥90 years (50 fewer residents per 1000 aged ≥90 years), but is also strong among women aged 85–89 years and men aged ≥90 years ([Table 3](#)).

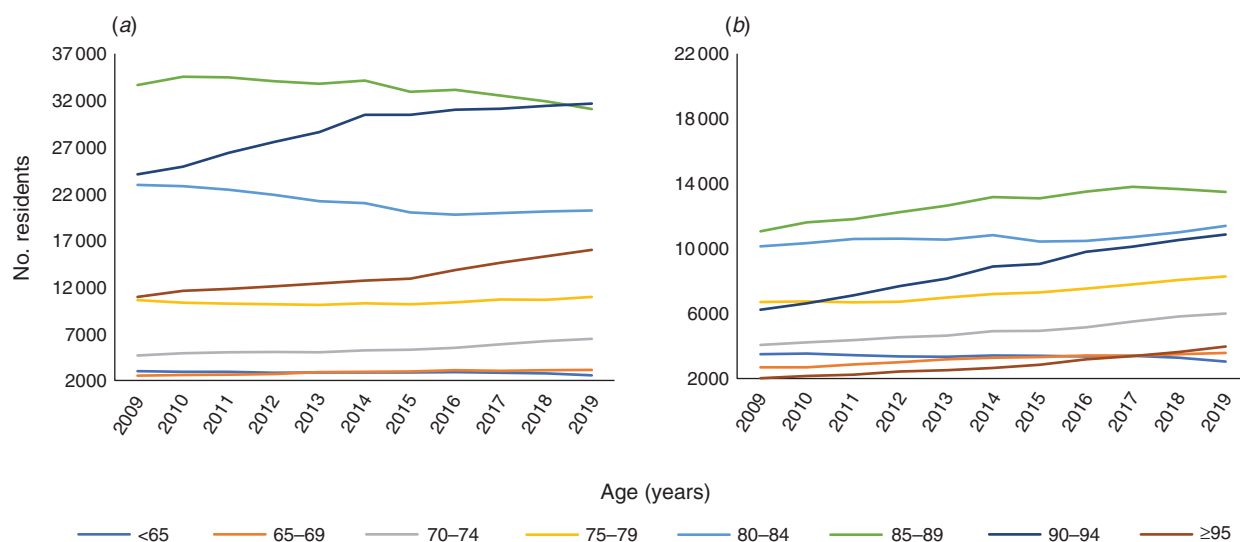


Fig. 1. (a) Women and (b) men living in residential aged care in Australia: permanent residents by sex as of 30 June, 2009–19.

Table 1. Number of people living in residential aged care, permanent residents by age and sex, as of 30 June, from 2009 to 2019, AustraliaData sourced from the Australian Institute of Health and Welfare⁴

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	% Change
Women												
Age (years)												
<65	3013	2939	2940	2834	2864	2864	2852	2887	2846	2775	2565	-15
65-69	2515	2577	2612	2702	2894	2946	2955	3111	3045	3099	3144	25
70-74	4692	4906	5009	5050	5026	5238	5311	5491	5879	6224	6449	37
75-79	10 596	10 349	10 218	10 181	10 100	10 253	10 179	10 353	10 672	10 633	10 957	3
80-84	22 954	22 801	22 451	21 891	21 205	20 980	20 007	19 776	19 932	20 092	20 210	-12
85-89	33 628	34 523	34 459	34 066	33 794	34 108	32 930	33 113	32 508	31 892	31 089	-8
90-94	24 096	24 909	26 375	27 535	28 618	30 443	30 453	31 007	31 112	31 417	31 665	31
≥95	10 958	11 601	11 808	12 075	12 399	12 699	12 902	13 830	14 615	15 306	15 995	46
Total	112 452	114 605	115 872	116 334	116 900	119 531	117 589	119 568	120 609	121 438	122 074	9
Men												
Age (years)												
<65	3489	3541	3435	3351	3341	3414	3390	3362	3397	3273	3041	-13
65-69	2684	2696	2874	3005	3191	3288	3329	3411	3394	3493	3585	34
70-74	4065	4229	4359	4550	4638	4913	4934	5147	5505	5822	6006	48
75-79	6700	6748	6697	6738	6983	7203	7293	7539	7793	8067	8278	24
80-84	10 146	10 343	10 600	10 613	10 547	10 830	10 435	10 476	10 709	11 000	11 398	12
85-89	11 057	11 619	11 819	12 245	12 646	13 177	13 102	13 503	13 812	13 664	13 483	22
90-94	6231	6637	7131	7690	8143	8896	9059	9801	10 111	10 539	10 860	74
≥95	2024	2151	2238	2424	2514	2648	2837	3172	3383	3627	3979	97
Total	46 396	47 964	49 153	50 616	52 003	54 369	54 379	56 411	58 104	59 485	60 630	31
Persons												
Age (years)												
<65	6502	6480	6375	6185	6205	6278	6242	6249	6243	6048	5606	-14
65-69	5199	5273	5486	5707	6085	6234	6284	6522	6439	6592	6729	29
70-74	8757	9135	9368	9600	9664	10 151	10 245	10 638	11 384	12 046	12 455	42
75-79	17 296	17 097	16 915	16 919	17 083	17 456	17 472	17 892	18 465	18 700	19 235	11
80-84	33 100	33 144	33 051	32 504	31 752	31 810	30 442	30 252	30 641	31 092	31 608	-5
85-89	44 685	46 142	46 278	46 311	46 440	47 285	46 032	46 616	46 320	45 556	44 572	0
90-94	30 327	31 546	33 506	35 225	36 761	39 339	39 512	40 808	41 223	41 956	42 525	40
≥95	12 982	13 752	14 046	14 499	14 913	15 347	15 739	17 002	17 998	18 933	19 974	54
Total	158 848	162 569	165 025	166 950	168 903	173 900	171 968	175 979	178 713	180 923	182 704	15

It is of note, although not demonstrably causal, that the increases in usage rates of home care packages are highest among similar age and sex groupings, namely men and women aged ≥85 years. Despite the ameliorating effect of declining residential care usage rates in these older age groups, demographic trends have nonetheless driven higher rates of growth among residents aged ≥90 years. The combination of trends has led to a reduction in the number of older women aged in their 'middle' years, a kind of 'hollowing out of the middle' in the resident population.

Admissions, exits and length of stay

Resident profiles and usage rates give a picture of the 'stock' of residents at a point in time, whereas data on admissions, exits and length of stay help describe the flow of residents, or how the system is being used.

Admissions

In 2017-18, 71 928 people entered permanent residential care, 62 167 of them for the first time.¹¹ The age and sex profiles of admissions are similar to but somewhat younger than those of current residents, and there is a larger proportion of male admissions (41% of admissions vs 33% of residents).¹¹ Of

first-time admissions, 41% were from hospital, suggesting that for many a significant health event may have been a contributing or precipitating factor. A further 24% of admissions were from residential respite care, 3% were from transition care and 31% were from the community.¹² First admissions are a growing proportion of admissions to permanent care, and admissions due to transfer from other facilities are a declining proportion.

Exits

The most common reason for leaving permanent residential aged care is death. This percentage increased from 72% in 2008-09 to 83% in 2017-18. The proportion of exits to other residential care facilities has fallen (from 18.7% to 9.8%), as has the proportion of exits to hospital (from 3% to 1.6%).¹³ These data indicate the importance of palliative care services within residential aged care. The decline in transfers between institutions (now <10%) suggests that consumer choice, as indicated by exercising the option to leave, is either not a reality for most residents or else they are very satisfied with their care.

Length of stay

The mean length of stay for permanent residents was 30 months in 2016-17 and 2017-18, down from around 34-35

Table 2. Age- and sex-specific usage rates per 1000 people for residential aged care and home care packages, as of 30 June, from 2009 to 2019Data are sourced from the Australian Institute of Health and Welfare⁴

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Women											
Age (years)											
<65	2	2	2	2	2	2	2	2	2	2	1
65–69	2	2	2	2	2	2	2	2	2	2	2
70–74	3	3	3	3	3	3	3	3	3	3	4
75–79	7	6	6	6	6	6	6	6	6	6	6
80–84	14	14	14	13	13	12	12	11	11	11	11
85–89	21	21	21	20	20	20	19	19	18	18	17
90–94	15	15	16	16	17	18	18	18	17	17	17
≥95	7	7	7	7	7	7	8	8	8	8	9
Total	71	70	70	70	69	69	68	68	67	67	67
Men											
Age (years)											
<65	2	2	2	2	2	2	2	2	2	2	2
65–69	2	2	2	2	2	2	2	2	2	2	2
70–74	3	3	3	3	3	3	3	3	3	3	3
75–79	4	4	4	4	4	4	4	4	4	4	5
80–84	6	6	6	6	6	6	6	6	6	6	6
85–89	7	7	7	7	7	8	8	8	8	8	7
90–94	4	4	4	5	5	5	5	6	6	6	6
≥95	1	1	1	1	1	2	2	2	2	2	2
Total	29	30	30	30	31	31	32	32	33	33	33
Persons											
Age (years)											
<65	4	4	4	4	4	4	4	4	3	3	3
65–69	3	3	3	3	4	4	4	4	4	4	4
70–74	6	6	6	6	6	6	6	6	6	7	7
75–79	11	11	10	10	10	10	10	10	10	10	11
80–84	21	20	20	19	19	18	18	17	17	17	17
85–89	28	28	28	28	27	27	27	26	26	25	24
90–94	19	19	20	21	22	23	23	23	23	23	23
≥95	8	8	9	9	9	9	9	10	10	10	11
Total	100	100	100	100	100	100	100	100	100	100	100

months in the preceding years,^{13–18} suggesting the recent decline will either continue or stabilise in coming years, but is unlikely to reverse. As length of stay declines, more individuals make use of the available bed supply in a given time period, enhancing the effect of declining usage rates on required supply. However, although mean length of stay is a valuable metric, and the most commonly reported, more sophisticated analyses paint a picture of substantial diversity. One-quarter of residents stay for <6 months, and two in five of those stay for ≤6 weeks. At the other end of the continuum, one-quarter stay for more than 3.6 years, and two in five of those stay for ≥5.9 years.¹⁹

Care needs

The care needs data collected through the Aged Care Funding Instrument show a substantial increase in the proportion of residents classified as having high care needs in each of the three care domains.²⁰ By 2019, one in three residents was classified as ‘high care’ on all three domains. The greatest increase in high care needs related to complex health care (from 13% to 52%; Table 4).

The proportion of residents with high care needs on all three domains was generally higher among women, and among people who were born in non-English-speaking countries. The

proportion of residents with high care needs for activities of daily living and complex health care increased at older ages, but the proportion of residents with high care needs in cognition and behaviour decreased at older ages. Just over half the people in residential aged care have a diagnosis of dementia (52%), and 49% have a diagnosis of depression.²⁰

Corroborating data indicating high levels of resident dependency are available from the 2018 ABS Survey of Disability, Ageing and Carers (Table 5).²¹ A large proportion of residents is characterised by multiple impairments and comorbidities, across more than one disability grouping, and require aids or equipment for activities of daily living. Approximately three-quarters of residents had five or more reported health conditions and five or more impairments.

Discussion

The data presented here demonstrate both continuities and changes in the characteristics of people living in residential aged care over the past decade. There are now more men, more people aged >90 years and fewer women aged between 75 and 90 years than was previously the case. There are also more residents from a non-English-speaking background. Dependency levels and complex

Table 3. Age- and sex-specific usage rates per 1000 people for residential aged care and home care packages, as of 30 June, from 2009 to 2019, AustraliaData are sourced from the Australian Institute of Health and Welfare⁴ and Australian Bureau of Statistics⁸

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Change 2009–19
Residential care												
Women												
Age (years)												
65–69	5.8	5.6	5.4	5.3	5.3	5.2	5.1	5.2	5.0	5.0	5.0	–0.8
70–74	13.4	13.6	13.5	13.1	12.6	12.6	12.2	12.1	12.1	12.0	12.0	–1.4
75–79	35.9	35.0	34.1	33.4	32.4	31.8	30.6	30.2	30.0	29.0	28.6	–7.3
80–84	92.7	91.0	88.6	86.7	84.4	83.7	79.9	78.3	76.9	75.1	72.9	–19.8
85–89	209.2	206.8	201.1	195.2	190.3	189.7	181.4	181.0	177.7	174.0	169.1	–40.1
≥90	419.8	414.6	409.7	400.0	392.1	390.4	375.3	372.2	366.1	361.9	356.4	–63.4
Total	69.6	68.9	67.7	65.6	63.8	63.4	60.5	59.6	58.4	57.0	55.7	–13.9
Men												
Age (years)												
65–69	6.2	6.0	6.1	5.9	5.9	5.9	5.8	5.8	5.8	5.9	6.0	–0.2
70–74	12.3	12.3	12.2	12.3	12.2	12.3	11.9	11.8	11.7	11.7	11.6	–0.8
75–79	26.5	26.6	25.9	25.3	25.3	25.1	24.5	24.5	24.2	24.2	23.6	–3.0
80–84	56.1	55.5	55.6	55.1	54.3	55.2	52.8	51.7	51.0	50.4	49.9	–6.1
85–89	120.9	120.8	117.1	116.2	114.4	114.6	109.8	110.3	110.7	108.1	104.4	–16.5
≥90	253.8	248.3	245.7	242.8	236.7	236.2	226.3	228.4	223.9	220.7	215.1	–38.7
Total	32.6	32.5	32.2	31.8	31.5	31.8	30.8	30.9	30.8	30.7	30.4	–2.1
Care packages												
Women												
Age (years)												
65–69	3.4	3.5	3.5	3.5	3.4	3.5	3.6	4.1	4.4	5.3	5.7	2.3
70–74	7.5	8.1	8.4	8.4	8.5	8.8	8.5	9.0	9.9	12.5	14.2	6.7
75–79	15.8	16.5	17.0	17.8	18.1	18.6	18.2	19.6	21.0	26.3	29.7	13.9
80–84	30.7	32.4	33.1	35.0	36.5	37.6	36.0	37.6	41.1	50.9	58.2	27.5
85–89	49.6	50.6	53.1	54.5	55.2	57.2	56.7	58.3	62.9	78.9	89.8	40.3
≥90	63.3	65.6	67.3	69.3	71.2	70.5	67.3	68.5	72.0	87.9	99.7	36.4
Total	18.8	19.6	20.2	20.6	20.9	21.2	20.5	21.3	22.9	28.3	32.0	13.1
Men												
Age (years)												
65–69	2.3	2.4	2.4	2.4	2.5	2.5	2.5	2.7	3.0	3.5	3.9	1.6
70–74	4.4	4.6	5.2	5.4	5.5	5.6	5.4	5.7	6.2	7.7	8.7	4.3
75–79	8.5	9.3	9.8	10.0	10.1	10.5	10.1	10.9	12.0	15.7	17.5	9.0
80–84	17.6	19.5	20.2	21.2	21.0	21.8	20.4	21.3	24.1	31.2	35.3	17.8
85–89	30.6	32.2	34.1	37.1	38.3	40.4	39.4	40.8	44.8	57.4	64.3	33.7
≥90	55.0	58.3	59.3	59.3	59.5	58.5	54.9	55.9	60.8	78.4	89.6	34.7
Total	9.4	10.1	10.6	11.0	11.1	11.5	11.0	11.6	12.9	16.5	18.8	9.4

Table 4. Percentage of people living in residential aged care with high care needs in the Aged Care Funding Instrument (ACFI) care domains, from 2009 to 2018, Australia

Note, the Classification Amendment (Complex Health Care Domain Scores) Principles 2016²⁰ reduced some scores for components of complex care, contributing to the observed reduction in the percentage of residents with high care scores for complex health care between 2016 and 2017. ADL, activities of daily living; Data are sourced from the Australian Institute of Health and Welfare²⁰

% High care for:	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
ADL	33	37	41	44	45	47	51	56	56	59	60
Cognition and behaviour	37	43	48	53	54	55	59	63	63	64	64
Complex health care	13	17	23	30	36	42	52	61	55	53	52
All three ACFI domains	4	6	10	15	18	21	27	33	31	31	31

care needs are increasing. Age-specific usage rates at the oldest ages (women aged 80 years and over and men aged 85 years and over) have declined. At the same time there are continuities. Residents continue to be drawn from across a 40-year age range (from 65 to ≥105 years). Usage rates at the younger ages (65–74

years) are relatively stable. Despite the increasing number of men, women continue to predominate. And although the number of residents from a non-English-speaking background has increased, the trend has been evident in residential aged care and in wider population projections²² for decades.

Table 5. People aged ≥65 years living in aged care establishments, selected disability and health characteristics, 2018

Note: calculations were undertaken using the health establishment survey population, excluding those residing in hospitals or 'other homes'. Data are sourced from the Australian Bureau of Statistics²¹

	% People
Disability group	
Sensory and speech	62
Intellectual	54
Physical restriction	88
Psychosocial	73
Uses aids or equipment for:	
Managing incontinence	73
Eating	33
Getting into or out of a bed or chair	58
Moving about the place of residence	76
Managing health conditions using medical aids	39
No. long-term health conditions	
5–8	54
≥9	23
No. impairment types	
5–8	35
≥9	38

Mean length has stabilised at 30 months after a period of decline, but mean values cannot reflect the broad distribution in length. Residential aged care must cater for those who spend only their last weeks of life as residents, as well as those who live there for a substantial number of years. In effect, residential aged care facilities must be both a place to die and a place to live. Some 41% of first-time admissions are from hospital, suggesting that a proportion of residents is entering following an adverse health event that required hospitalisation. Exits from residential care are increasingly and predominantly due to death, with transfers to other facilities and to hospital decreasing over time.

However, in order to understand the implications of these trends, it is important to consider the broader aged care and social context. Outside of residential aged care, the aged care system has changed, with a substantially expanded suite of community care services providing options that were not available in the public sector a decade ago. Yet effective community care requires secure housing, and there is some evidence of a decline in the housing security of older Australians. The proportion of older home owners with mortgages is rising, as is the proportion of older private renters, those in housing stress and those who are homeless.^{23,24} Home owners are less likely to enter residential aged care, and private renters more so.²⁵

The role of informal carers who provide the major share of support to older Australians living at home remains essentially unchanged. Current cohorts of older Australians continue to have low rates of childlessness at least until those born in the 1960s,^{26,27} the baby boomer generation (now aged 56–74 years) is sibling rich and increased male longevity means more intact married (or partnered) couples at older ages.²⁸ Children and partners reduce the likelihood of entering residential care.^{25,29,30}

Disability rates have declined among older Australians, as have rates of severe or profound core activity restriction (Table A2). The substantial reduction in stroke rates³¹ can be

expected to progressively reduce the number of people in residential care as a result of stroke-related disability. The non-fatal burden of disease trends show a decline in relation to cardiovascular disease, as well as hearing- and vision-related problems, but increases in relation to neurological disease, endocrine disease (mainly diabetes) and falls.³² The increasing prevalence of diabetes is likely to place additional healthcare demands on the aged care sector in the future.^{33,34}

Although it is often assumed that the number and proportion of people with dementia and other cognitive disorders in residential aged care will increase, there is actually considerable debate about what is happening with incidence rates and what is likely to happen in the future. Evidence from England, Holland and the US³⁵ indicates declines in the age-standardised incidence rates for dementia, with researchers speculating that this may be a result of more aggressive treatments of cardio- and cerebrovascular risk factors such as hypertension, diabetes and hypercholesterolaemia. Although we have no comparable Australian data, the age-standardised hospitalisation rates where dementia is mentioned as a diagnosis reduced by 23% between 2006–07 and 2016–17.³⁶ It is plausible that age-standardised dementia rates may fall in coming decades. Nonetheless, with growth in the older population this will still translate into a larger number of people with dementia, and a significant proportion of the residential aged care population.

Study limitations

The residential aged care data analysed in this paper are drawn in from national administrative data collections. The analyses presented here draw on variables for which data are collected and made available through the Australian Institute of Health and Welfare public access databases. It should be noted that the primary purpose of these data collections is not research, and, in particular, that the care needs data collected through the Aged Care Funding Instrument are part of the national payment system.

Imagining the future

What may the trends described in this article mean for residential aged care services in the future? Analyses of this kind can offer insights into a possible future, rather than linear projections of what will be. As the Royal Commission deliberates on the aged care system as it currently exists, as well as on a potential blueprint for the future, it is timely to consider how the changes and continuities that characterise residential aged care can contribute to our thinking on a better future. There are implications for physical infrastructure, for resident engagement and activity, for care needs and quality of life and for the workforce. What changes could we envisage in imagining a better aged care sector?

Physical design that is friendly to the presence of family, friends and the community is important to resident engagement, activity and quality of life. We could, for example, plan for more accommodation that is appropriate for couples, given the implications of increased male longevity. This may be where both partners are residents, but also applies where a non-resident partner wishes to spend days or nights in the company of their loved one. In a sector that is used to a strong preponderance of

women, an increasing proportion of men could require adjustments in relation to multi-occupant rooms as well as shared spaces (both inside and out of doors) that accommodate the activities and interests of male residents. For all groups of residents, we could plan better for family-friendly spaces for adults and children to visit, whether it be in the last weeks of life or over multiple years of living as a resident in an aged care facility. And there could be inclusions of various kinds to accommodate family members staying overnight with a resident who is distressed, acutely ill or dying. With dementia and other cognitive disorders continuing to affect a substantial proportion of residents, physical infrastructure and dementia-friendly design will continue to be an important priority.

A better residential aged care sector could be more attuned to the diverse needs of its residents than it has been in the past. People in their 60s have very different lifetime experiences from those in their 90s, and this affects expectations and preferences in areas as diverse as food and the use of technology. Increasing proportions of residents from non-English-speaking backgrounds will mean a greater need for cultural competencies and greater access to care workers familiar with the language of residents or to technology-based translation solutions.

All the indicators on patterns of use, dependency and disability point to a greater concentration of residential care services on a very high dependency population, with multiple comorbidities and care needs across multiple domains, including complex healthcare needs. The only counterbalancing factor to this trend may be a small proportion of older people with insecure housing tenure who will require entry to residential aged care at lower levels of dependency because of their need for secure accommodation.

Given the characteristics of residents, the need for skilled nursing care, chronic disease management, physical rehabilitation, optimum nutritional support and mental health care is undeniable. Given the large number and proportion of residents who will die in a residential aged care service, so too is the need for a workforce skilled in palliative care. Indeed, it is only rational to claim that palliative care is core business for a care setting where over 80% of those leaving care die. Accepting the need for health care as an integral part of residential aged care will challenge the programmatic, financial and regulatory silos that have developed in this sector, but that change does need to come.

Consider the following thought experiment: imagine what it would take to routinely provide 'hospital in the home' care to people living in residential aged care who require acute hospital services. Consider the reasons why it cannot be done. And then consider the reasons why it should be done.

Conclusion

Although the demographic profile of residents is changing, rates of use are declining and average length is shortening, the number of people in residential aged care continues to increase. The changes documented in this article regarding who is using residential care and how residential care is being used, when combined with some key trends in the broader population of older Australians, offer valuable insights in designing an improved aged care system for the future.

Competing interests

The author declares no competing interests.

Acknowledgements

The author acknowledges the valuable comments provided by John Goss and Nick Brown. This research did not receive any specific funding.

References

- 1 House of Representatives Standing Committee on Expenditure. In a home or at home: accommodation and home care for the aged. Canberra: Australian Government Publishing Service; 1982.
- 2 Office of the Royal Commission. A history of aged care reviews. Adelaide: Royal Commission into Aged Care Quality and Safety; 2019.
- 3 Productivity Commission. Report on government services part F (community services). Canberra: Productivity Commission Australia; 2020.
- 4 Australian Institute of Health and Welfare (AIHW). GEN aged care data. Findings based on use of GEN data. Canberra: AIHW; 2020.
- 5 Borotkanics R, Rowe C, Georgiou A, Douglas H, Makeham M, Westbrook J. Changes in the profile of Australians in 77 residential aged care facilities across New South Wales and the Australian Capital Territory. *Aust Health Rev* 2017; 41: 613–20. doi:10.1071/AH16125
- 6 Khadka J, Lang C, Ratcliffe J, Corlis M, Wesselingh S, Whitehead C, Inacio M. Trends in the utilisation of aged care services in Australia, 2008–2016. *BMC Geriatr* 2019; 19: 213. doi:10.1186/s12877-019-1209-9
- 7 Broad JB, Ashton T, Gott M, McLeod H, Davis PB, Connolly MJ. Likelihood of residential aged care use in later life: a simple approach to estimation with international comparison. *Aust N Z J Public Health* 2015; 39: 374–9. doi:10.1111/1753-6405.12374
- 8 Australian Bureau of Statistics (ABS). Australian demographic statistics, Sep 2019. Catalogue no. 3101.0. Canberra: ABS; 2019. Available at: <https://www.abs.gov.au/ausstats/abs@.nsf/7d12b0f6763c78caca257061001cc588/5815ff86422ef241ca25858a00260a37!OpenDocument> [verified 30 June 2020].
- 9 Australian Bureau of Statistics (ABS). Disability, ageing and carers, Australia: summary of findings, 2018. Canberra: ABS; 2019. Available at: <https://www.abs.gov.au/ausstats/abs@.nsf/mf/4430.0> [verified 30 June 2020].
- 10 Productivity Commission. Report on government services, part F (community services). Canberra: Productivity Commission Australia; 2010.
- 11 Australian Institute of Health and Welfare (AIHW). GEN aged care data: admissions into aged care. Canberra: AIHW; 2019. Available at: <https://www.aihw.gov.au/reports/aged-care/gen-aged-care-data-admissions-into-aged-care/contents/summary> [verified 30 June 2020].
- 12 Australian Institute of Health and Welfare (AIHW). Movement between hospital and residential aged care 2008–09. Canberra: AIHW; 2013. Available at: <https://www.aihw.gov.au/reports/aged-care/movement-between-hospital-and-residential-aged-care/contents/table-of-contents> [verified 30 June 2020].
- 13 Australian Institute of Health and Welfare (AIHW). GEN aged care data: people leaving aged care. Canberra: AIHW; 2019. Available at: <https://www.aihw.gov.au/reports/aged-care/gen-aged-care-data-people-leaving-aged-care/contents/summary> [verified 30 June 2020].
- 14 Australian Institute of Health and Welfare (AIHW). Residential aged care in Australia 2007–08: a statistical overview. Canberra: AIHW; 2009. Available at: <https://www.aihw.gov.au/reports/aged-care/residential-aged-care-in-australia-2007-08/contents/table-of-contents> [verified 30 June 2020].
- 15 Australian Institute of Health and Welfare (AIHW). Residential aged care in Australia 2008–09: a statistical overview. Canberra: AIHW; 2010. Available at: <https://www.aihw.gov.au/reports/aged-care/residential-aged-care-in-australia-2008-09-a-stat/contents/table-of-contents> [verified 30 June 2020].

- 16 Australian Institute of Health and Welfare (AIHW). Residential aged care in Australia 2009–10: a statistical overview. Canberra: AIHW; 2011. Available at: <https://www.aihw.gov.au/getmedia/4bb86c5e-ec2e-49e8-a3be-daa934606192/12669.pdf.aspx?inline=true> [verified 30 June 2020].
- 17 Australian Institute of Health and Welfare (AIHW). Residential aged care in Australia 2010–11: a statistical overview. Canberra: AIHW; 2012. Available at: <https://www.aihw.gov.au/reports/aged-care/residential-aged-care-in-australia-2010-11/data> [verified 30 June 2020].
- 18 Australian Institute of Health and Welfare (AIHW). GEN fact sheet 2015–16: People leaving aged care. Canberra: AIHW; 2017. Available at: https://www.gen-agedcaredata.gov.au/Resources/Factsheets-and-infographics/Exits_factsheet.pdf?ext= [verified 7 July 2020].
- 19 Cullen D. Medium- and long-term pressures on the system: the changing demographics and dynamics of aged care. Adelaide: Royal Commission on Aged Care Quality and Safety; 2019.
- 20 Australian Institute of Health and Welfare (AIHW). GEN: Explore people's care needs in aged care. Canberra: AIHW; 2019. Available at: <https://www.gen-agedcaredata.gov.au/Topics/Care-needs-in-aged-care/Explore-care-needs-in-aged-care> [verified 30 June 2020].
- 21 Australian Bureau of Statistics (ABS). Survey of disability, ageing and carers. Findings based on use of ABS TableBuilder data. Canberra: ABS; 2018.
- 22 Gibson D, Braun P, Benham C, Mason F. Projections of older immigrants: people from culturally and linguistically diverse backgrounds, 1996–2026, Australia. Canberra: Australian Institute of Health and Welfare; 2001. Available at: <https://www.aihw.gov.au/reports/aged-care/projections-of-older-immigrants-people-from-cultu/contents/table-of-contents> [verified 30 June 2020].
- 23 Australian Bureau of Statistics (ABS). Housing occupancy and costs, 2015–16. Catalogue no. 4130.0. Canberra: ABS; 2017. Available at: <https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4130.02015-16?OpenDocument> [verified 30 June 2020].
- 24 Australian Housing and Urban Research Institute. How has homelessness changed between 2011–2016? Melbourne: Australian Housing and Urban Research Institute; 2018. Available at: <https://www.ahuri.edu.au/policy/ahuri-briefs/how-homelessness-changed-between-2011-2016> [verified 22 February 2020].
- 25 Kendig H, Gong CH, Cannon L, Browning C. Preferences and predictors of aging in place: longitudinal evidence from Melbourne, Australia. *J Hous Elder* 2017; 31: 259–71. doi:10.1080/02763893.2017.1280582
- 26 Rowland DT. The prevalence of childlessness in cohorts of older women. *Australas J Ageing* 1998; 17: 18–23. doi:10.1111/j.1741-6612.1998.tb00219.x
- 27 Evans A, Gray E. Census 2016: location and education affects how many children you have. Canberra: Australian National University; 2017. Available at: <https://www.anu.edu.au/news/all-news/census-2016-location-and-education-affects-how-many-children-you-have> [verified 25 June 2020].
- 28 Gibson D, Goss J. Ninety and not out – understanding our oldest old. *Australas J Ageing* 2020; 39: e62–9. doi:10.1111/ajag.12695
- 29 Rowland DT. Consequences of childlessness in later life. *Australas J Ageing* 1998; 17: 24–8. doi:10.1111/j.1741-6612.1998.tb00220.x
- 30 Jamieson H, Abey-Nesbit R, Bergler U, Keeling S, Schluter PJ, Scrase R, Lacey C. Evaluating the influence of social factors on aged residential care admission in a national home care assessment database of older adults. *J Am Med Dir Assoc* 2019; 20: 1419–24. doi:10.1016/j.jamda.2019.02.005
- 31 Australian Institute of Health and Welfare (AIHW). Cardiovascular disease. Canberra: AIHW; 2019. Available at: <https://www.aihw.gov.au/reports/heart-stroke-vascular-diseases/cardiovascular-health-compendium/data> [verified 24 February 2020].
- 32 Australian Institute of Health and Welfare (AIHW). Australian Burden of Disease Study: impact and causes of illness and death in Australia 2015. Australian Burden of Disease series no. 19. Catalogue no. BOD 22. Canberra: AIHW; 2019. Available at: <https://www.aihw.gov.au/reports/burden-of-disease/burden-disease-study-illness-death-2015/contents/table-of-contents> [verified 25 June 2020].
- 33 Farrer O, Yaxley A, Walton K, Miller M. Characteristics of older adults with diabetes: what does the current aged care resident look like? *Nutr Diet* 2018; 75: 494–9. doi:10.1111/1747-0080.12418
- 34 Haines HM, Bannon-Murphy H, Amos T, Krones R. Prevalence and management of diabetes in residential aged care facilities in north-east Victoria, Australia. *Aust Fam Physician* 2016; 45: 908–11.
- 35 Schoeni RF, Freedman VA, Langa KM. Introduction to a supplement on population level trends in dementia: causes, disparities, and projections. *J Gerontol B Psychol Sci Soc Sci* 2018; 73: S1–S9. doi:10.1093/geronb/gby007
- 36 Australian Institute of Health and Welfare (AIHW). Hospital care for people with dementia 2016–17. Canberra: AIHW; 2019. Available at: <https://www.aihw.gov.au/getmedia/34d3dd23-56be-4809-b61f-62b7697b9dc4/aihw-age-94.pdf.aspx?inline=true> [verified 30 June 2020].

Appendix 1. Supplementary data**Table A1. Number of people aged <65 years living in residential aged care, permanent residents by age and sex, as of 30 June, from 2009 to 2019, Australia**Data are sourced from the Australian Institute of Health and Welfare⁴

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	% Change 2009–19
Women												
Age (years)												
0–49	388	338	312	287	299	279	262	247	238	237	206	–47
50–54	393	393	387	335	348	377	383	354	350	355	301	23
55–59	801	767	758	751	747	735	715	769	758	735	689	14
60–64	1431	1441	1483	1461	1470	1473	1492	1517	1500	1448	1369	4
Total	3013	2939	2940	2834	2864	2864	2852	2887	2846	2775	2565	15
Men												
Age (years)												
0–49	421	376	345	305	305	307	292	306	305	273	236	44
50–54	472	503	456	440	419	412	394	397	388	381	329	30
55–59	940	938	915	922	913	916	866	894	891	854	802	15
60–64	1656	1724	1719	1684	1704	1779	1838	1765	1813	1765	1674	–1
Total	3489	3541	3435	3351	3341	3414	3390	3362	3397	3273	3041	13
Persons												
Age (years)												
0–49	809	714	657	592	604	586	554	553	543	510	442	45
50–54	865	896	843	775	767	789	777	751	738	736	630	27
55–59	1741	1705	1673	1673	1660	1651	1581	1663	1649	1589	1491	14
60–64	3087	3165	3202	3145	3174	3252	3330	3282	3313	3213	3043	1
Total	6502	6480	6375	6185	6205	6278	6242	6249	6243	6048	5606	14

Table A2. Percentage of people with profound or severe core activity limitation, by age and sex, AustraliaData are sourced from the Australian Bureau of Statistics⁹

Age (years)	2003	2009	2012	2015	2018
Men					
65–69	9.5	8.4	9.7	8.4	7.6
70–74	11.6	12.8	12	9.6	10.8
75–79	18.7	16.2	15.2	14.9	15.8
80–84	27.3	23.5	26.6	24	19.6
85–89	38.9	41.1	38.1	32.5	35.6
≥90	59.4	58	62	51.2	48.9
Women					
65–69	10.3	9.4	9.1	8.6	8.4
70–74	17.4	15.1	12.8	13.7	9.9
75–79	21.5	19.1	21.1	16.8	17.7
80–84	40.5	31.4	32.2	32.8	28.6
85–89	57.3	49.9	51	48.1	48.6
≥90	79	75	69.1	68.3	66.4