

The dynamics of residential aged care in Australia: 8-year trends in admission, separations and dependency

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Abstract

The aims of this paper are to analyse changes in dependency of residents in residential aged care homes consequent upon the passing of the Commonwealth Aged Care Act in late 1997, and to establish the extent of resultant changes in the dynamics of residential aged care. The paper outlines the major changes brought by the Aged Care Act, and evidence for the effects of these changes is examined to test the hypothesis that changes in dependency generated changes in turnover and length of stay. The findings show that the proportion of admissions classified at higher categories of the Resident Classification Scale has increased over time, and that the trend to higher classification is even more pronounced by the time residents separate. As funding of residential aged care is based on resident dependency, change in dependency and in the dynamics of the aged care system have potentially significant consequences for Commonwealth funding of providers to ensure care can be provided commensurate with resident needs. The conclusions take up a number of implications of the findings for future policy in relation to planning and funding of residential aged care as a new resident funding system based on the Aged Care Funding Instrument (ACFI) is phased in from mid 2007.

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What is known about the topic?

As legislation covering residential care determines who is admitted and the care provided to residents, changes in legislation will lead to changes in the characteristics of residents of aged care homes.

What does this paper add?

This paper provides a comprehensive review of admissions and separations by Resident Classification Scale (RCS) category from 1999 to 2006, illustrating higher proportions of residents classified at the higher categories. The analysis further suggests that the upward shift is due primarily to increasing proportions of admissions at the two highest care categories and that ageing-in-place from low to high care has played a secondary role.

What are the implications for practitioners?

The authors suggest that recent trends mean residential aged care is increasingly concerned with higher dependency residents, and continuation of these trends will see diminishing demand for low care, with potentially significant consequences for funding and planning.

THE COMMONWEALTH Aged Care Act, passed in October 1997, introduced three major changes that sought to integrate the previously separate nursing homes and hostels into a single residential aged care system. Each of these changes had consequences for the classification of resident dependency and flows of residents through the system, and the general view has been that dependency of residents in aged care homes in Australia has been increasing over time. Given that more dependent residents can be expected to have shorter stays, the aims of this paper are to examine the evidence for increasing dependency of those admitted to, resident in and separating from residential care, and to investigate the changing dynamics generated by changes in resident movement into and out of residential care at different levels of dependency.

The first major change introduced by the *Aged Care Act 1997* (Cwlth) was the replacement of the

two separate instruments for assessing resident dependency, the Resident Classification Instrument used in nursing homes and Personal Care Assessment Instrument used in hostels, with a single Resident Classification Scale (RCS). Details of the RCS are set out in the Residential Care Manual.¹ The RCS was designed to fund residents consistently on the basis of dependency and related care needs and so provide a standard measure of dependency across the full spectrum of residential care. Residents are classified into one of eight categories on the basis of their score on the 20-item RCS. In line with classification of the least dependent residents as RCS8 and the most dependent residents as RCS1, RCS8 is the lowest category and RCS1 the highest in terms of dependency and associated funding.

Care funding based on the RCS is one of four components of residential care funding. No care funding is provided at RCS8, with care benefits then ranging from \$26.80 per day at RCS7 to \$125.23 per day at RCS1 as of July 1 2007. The gradient in care benefits means that changes in the classification of the resident population have potentially major consequences for Commonwealth outlays on residential care, and for provider incomes. The second component, the basic Resident Daily Fee is also income-tested and is set at a flat rate. Care benefits are income-tested, and care fees paid by residents are offset against Commonwealth benefits paid to providers. Third, additional daily fees can only be charged by homes approved to provide "extra services". Income from care fees and daily fees paid by residents has stabilised at around 20% of total government and user expenditure on residential aged care over the last few years.² The fourth element, the Accommodation Charge, is income and asset tested and is directed to capital rather than operating costs.

The second major change was to allow for "ageing-in-place" of residents who had been admitted to a hostel but whose care needs had increased. Piloting of the RCS confirmed that a proportion of residents in hostels were as dependent as those in nursing homes and had equivalent care needs,^{3,4} and to address this overlap, the RCS

funded all residents on the basis of their RCS category instead of the type of facility in which they lived. Ageing-in-place enabled residents whose dependency increased to remain in the same home, whereas previously they would have had to move to a nursing home to receive higher funding consistent with their care needs. Hostels and nursing homes became known as low care and high care homes respectively. Low care homes could only admit residents whose dependency was at the four lowest RCS categories, and RCS8–5 became synonymous with low care. RCS4–1 became synonymous with high care, and while high care homes could admit residents at lower RCS categories, strong demand for beds and financial disincentives precluded this outcome.

The third change was in the way that admissions and separations were recorded. Those who aged-in-place in the same facility had a single stay, and for consistency, those who were admitted to one home at any level of care and subsequently transferred to another home, whether at the same or a different level of care, were also recorded as having only one admission to the residential aged care system. The immediate effects of these changes have been reported in an analysis of ageing-in-place in former hostels in the first nine months of the RCS which found that 11% of residents of former hostels had been reclassified to high care RCS categories.^{5,6}

Prior to the implementation of the RCS and the consolidation of what had previously been recorded as separate stays for residents who moved from hostels to nursing homes, it was not possible to make direct comparisons of length of stay (LOS) across the full spectrum of dependency found in residential care. The release of the latest Statistical Overview of Residential Aged Care in Australia, for 2005–06, means that consistent data are now available for eight years,⁷ providing a sufficient time series for analysing trends and for establishing whether any observed changes in dependency have been associated with the hypothesised decline in LOS and other changes in the dynamics of residential aged care. These 8 years also cover the time from the introduction of the RCS to its replacement by the ACFI.

Data and methods

The data used in this analysis are taken from the Statistical Overviews of Residential Aged Care published annually by the Australian Institute of Health and Welfare, from 1998–99 to 2005–06. Data set out in the Appendix are for those admitted for permanent care only (ie, those admitted for respite care are excluded), and for whom an RCS was completed (only a small number of separations occur before an RCS is completed).

Trends in the distribution of dependency across the eight RCS categories are compared for admissions, residents and separations. Changes in these distributions can result only from changes in dependency of admissions or from subsequent reclassifications of residents to either higher or lower RCS categories. Residents can only be reclassified when they have been in a home for a year or after a “catastrophic event” that results in a change in care needs over two RCS categories.

Separations are recorded only when a resident exits the system by way of death or discharge to another setting. The only exceptions are residents who are transferred to an acute hospital but are expected to return to the home, and who are hence covered by hospital leave provisions; deaths of residents while on hospital leave are recorded as separations by death in the residential care database. The small proportion of residents who are transferred to hospital without an expected return to the aged care home are recorded as separations to hospital; they account for less than 5% of separations.

Changes in the proportion of admissions, residents and separations in each RCS category are described in turn, and three further indicators of the expected changes in the dynamics of residential care associated with changes in resident dependency are then reported. First, the turnover rate compares separations at each RCS category with the resident population in the same category; a turnover of 33% thus indicates that one resident separates in a year for every three residents in the category. Second, median length of completed stay is estimated from turnover for each category as the interval in which half of all

residents would have separated; further to the above example, turnover of 33% would see 100% turnover in 3 years, with 50% separating in 1.5 years, giving a median LOS of 1.5 years.

Reclassification of residents from one category to another over time gives rise to a number of limitations in using category-based turnover and median LOS, calculated from turnover, as indicators of the dynamics of residential care. These limitations are discussed below, and to address them, a third measure of throughput is presented. Throughput captures the extent of change in dependency between admission and separation by comparing admissions to and separations from each RCS category each year. Throughput of 100% means that the same number of residents are admitted to and separate from the same RCS category, although they are not necessarily the same residents. Throughput below 100% means that fewer residents separate from the RCS category than were admitted at that RCS, indicating that residents are reclassified out of the category before they separate, while throughput above 100% means that more residents separate at the category than were admitted at that RCS, indicating that residents are reclassified into the category. It is recognised that many of those admitted in any year will separate in a later year, but a number of constraints on admissions at different RCS levels and on growth of bed supply (discussed below) mean that the dynamics of the aged care system approximate a “steady state”, and that the relativities between admissions and separations in any one year provide a reasonable proxy of trends over time.

Results

Trends in RCS distribution of admissions, residents and separations

Four distinct patterns of shifts across RCS categories from admissions to residents and then to separations in each year, and over time, can be discerned in Box 1. First, by 2005–06 only a very small proportion of admissions were at RCS8. The share of residents at RCS8 was smaller than

I Distribution of admissions, residents and separations to residential aged care in Australia, from 1998–99 to 2005–06

Year ended June 30	Resident Classification Scale category*								Total
	8	7	6	5	4	3	2	1	
Admissions (%)									
1999	3.1	17.4	10.1	8.6	4.6	17.9	25.9	12.4	100.0
2000	2.3	16.8	10.3	8.9	4.7	16.7	26.0	14.4	100.0
2001	1.7	14.9	10.6	9.9	4.7	15.6	25.5	17.3	100.0
2002	1.4	13.8	10.8	10.5	4.6	14.8	25.3	18.9	100.0
2003	1.0	12.7	10.8	11.1	4.7	14.6	24.6	20.5	100.0
2004	0.8	11.1	10.6	12.0	4.8	14.5	24.5	21.9	100.0
2005	0.6	10.7	11.5	14.0	5.1	14.3	24.5	19.3	100.0
2006	0.6	9.7	11.6	15.4	4.4	13.8	24.3	20.2	100.0
Residents (%)									
1999	2.2	16.1	10.0	8.5	4.9	20.0	26.3	12.2	100.0
2000	1.9	16.0	10.2	8.6	4.9	19.0	26.6	12.9	100.0
2001	1.4	14.7	10.8	9.6	4.6	17.3	26.3	15.4	100.0
2002	1.1	13.8	11.4	10.8	4.4	15.8	25.8	16.9	100.0
2003	1.0	13.4	11.5	11.8	4.6	14.7	24.8	16.8	100.0
2004	0.8	11.9	11.8	13.0	4.7	14.9	24.7	18.2	100.0
2005	0.6	10.1	10.1	11.7	5.6	14.9	24.5	22.5	100.0
2006	0.4	8.8	9.8	12.1	5.1	14.3	24.2	23.4	100.0
Separations (%)									
1999	1.3	7.5	5.0	5.2	4.3	21.9	37.9	17.0	100.0
2000	0.9	6.7	5.0	5.2	3.8	18.7	37.3	22.3	100.0
2001	0.7	6.4	5.5	6.1	3.7	16.1	32.9	24.2	100.0
2002	0.6	5.9	5.7	6.6	3.9	15.6	33.9	27.8	100.0
2003	0.4	5.2	5.0	6.6	3.5	14.5	33.1	30.2	100.0
2004	0.3	4.5	4.9	6.6	3.5	14.4	32.0	33.8	100.0
2005	0.3	3.8	4.5	6.4	3.8	14.0	31.6	35.6	100.0
2006	0.2	3.2	4.0	6.1	3.9	13.6	31.4	37.5	100.0

* 8 = lowest dependency; 1 = highest dependency. Source: See Appendix.

the share of admissions, and the further fall in separations at RCS8 indicates the progression to higher RCS categories over residents' stays.

Second, the proportion of all admissions at RCS7–5 has remained steady at just above one third over the 8 years. However, within these categories, there has been a steady decline in admissions at RCS7 and an increase in RCS5, the highest RCS at which admissions to low care can

be made. The declining proportions of residents who remain to separate at a low care RCS provides strong evidence of the extent of ageing-in-place: by 2005–06, some 13% of separations were at RCS8–5, barely one-third the share of admissions at these categories.

Third, RCS4 has accounted for a minor but very stable part of admissions, residents and separations over the whole period under review.

RCS4 is a small waist in the overall RCS distribution, due in part to two-category shifts from RCS5 to RCS3 leap-frogging over RCS4.

Fourth, the share of all admissions at RCS3–1 has remained remarkably steady. This stability is due largely to the very limited change over the 8 years in the share of all beds in high care homes to which admissions can be made at these categories. Within this overall stability however, a marked increase in admissions at RCS1 has offset a decline in admissions at RCS3. This shift has flowed through to a modest increase in the balance of residents across RCS3–1. The share of all separations occurring at RCS3–1 has increased somewhat more, and the most pronounced shift is the doubling of the proportion of all separations occurring at RCS1, from 17% to 37%. The shift to higher levels of dependency in the population receiving care in aged care homes is clearly evidenced by the increases in the share of all care provided at RCS1, with more than one in three of all those admitted to residential care at any RCS category now receiving care at RCS1 for some time before the end of their stay.

Relationships between dependency and turnover, length of stay and throughput

Turnover, median LOS and throughput for each RCS category are detailed in Box 2. There is a clear gradient from lower turnover and longer stays at RCS8 to higher turnover and shorter stays at RCS1.

There is, however, no evidence of clear trends in turnover and median LOS for each RCS category over the 8 years. This apparent lack of change can be explained by two factors. First, increasing dependency leads to reclassification, not “dependency creep” within a category whereby dependency of those classified at RCS4 becomes like that of those once categorised at RCS3 and so on. Second, and as a consequence of reclassification, those in any one RCS category at separation are a mix of those admitted at the same RCS and those admitted at other, almost always lower, categories. Estimation of LOS on the basis of RCS at separation means those with accumulated LOS are removed from their admission RCS and included

in their separation RCS, and this “swings and roundabouts” effect is likely to mute any trends towards short LOS on the part of those admitted to and discharged from higher RCS categories.

The lack of change in total turnover and median LOS is at odds with the hypothesis that LOS overall would fall due to increasing dependency. While the considerable increase in the proportion of all admissions at RCS1 over the period indicates higher dependency on admission, the expected increase in overall turnover and reduction in median LOS is not evident. One explanation for the failure to find these outcomes is that total separations at RCS1 include a proportion admitted at other RCS categories. A second explanation is that median LOS estimated from turnover may be an unreliable indicator of actual median LOS, as LOS distribution is highly skewed. It is not possible to calculate actual median LOS from data published only by broad LOS categories, but all RCS categories show a long tail of separations occurring after stays of more than 8 years. Overall, 8% of residents had such long stays; the proportions were lowest for RCS7–3, ranging between 5.3% (RCS5) and 7% (RCS3), compared with 14.3% at RCS8 and 8.1% and 9.3% at RCS2 and 1, respectively.⁸ The higher proportions at RCS 2–1 with very long stays again reflect the accumulated stays of those who are recategorised, and mask likely shorter stays of those who are admitted and separate at RCS2–1. The impact of separations of younger residents who may have accumulated very long stays is taken up below.

The extent of movement between RCS categories at admission and separation is seen in the trends in throughput. Throughput not only shows a steep gradient across the RCS categories, but contrasting trends for low and high care categories over time. All the low care categories have throughput well below 100%, at some 30% to 40%, and throughput has fallen over time. Not only have the low care categories accounted for fewer admissions, but the proportion remaining at a low care RCS category until they separate has also fallen with increasing ageing-in-place before separation at a high care RCS category.

2 Turnover, median length of stay and throughput, by dependency category length of stay, in residential aged care, Australia, 1998–99 to 2005–06

Year ended June 30	Resident Classification Scale category*								Total
	8	7	6	5	4	3	2	1	
% Turnover (separations per 100 residents)									
1999	13.1	13.8	15.8	19.2	29.7	38.9	46.6	43.6	31.9
2000	13.2	13.1	15.9	19.2	26.7	36.6	47.0	50.6	32.7
2001	14.2	14.5	17.3	20.6	26.7	34.8	43.4	47.1	33.6
2002	13.8	13.9	17.1	20.4	27.3	34.0	43.3	47.5	32.3
2003	13.5	13.6	15.6	19.8	24.9	33.2	44.8	49.2	33.3
2004	13.8	13.4	15.1	18.1	24	32.4	42.7	50.4	32.7
2005	15.9	11.9	14.2	17.3	21.7	29.6	40.7	50.1	31.7
2006	12.6	11.8	13.1	16.1	21.9	28.4	41.6	51.3	32.0
Estimated median length of stay by Resident Classification Scale at separation (years)†									
1999	3.8	3.6	3.2	2.6	1.7	1.3	1.1	1.1	1.6
2000	3.8	3.8	3.1	2.6	1.9	1.4	1.1	1.0	1.5
2001	3.5	3.4	2.9	2.4	1.9	1.4	1.2	1.1	1.5
2002	3.6	3.6	2.9	2.5	1.8	1.5	1.2	1.1	1.5
2003	3.7	3.7	3.2	2.5	2.0	1.5	1.1	1.0	1.5
2004	3.6	3.7	3.3	2.8	2.1	1.5	1.2	1.0	1.5
2005	3.1	4.2	3.5	2.9	2.3	1.7	1.2	1.0	1.6
2006	4.0	4.2	3.8	3.1	2.3	1.8	1.2	1.0	1.6
% Throughput (separations per 100 admissions)									
1999	56.3	45.7	49.0	59.7	85.2	106.5	140.4	136.1	97.4
2000	48.5	42.0	48.9	60.0	76.8	98.2	139.5	172.3	99.4
2001	50.0	43.9	50.8	63.6	81.3	93.4	125.6	157.1	100.2
2002	50.9	41.5	48.3	59.4	84.9	95.3	126.4	158.4	96.4
2003	38.9	37.2	41.9	53.5	73.3	94.4	127.6	172.6	95.8
2004	37.2	36.1	39.1	48.2	69.8	91.2	122.4	175.5	94.5
2005	46.8	33.8	37.8	43.9	72.0	93.6	123.2	176.4	95.7
2006	32.1	32.9	34.4	39.0	87.9	97.2	127.5	183.0	98.6

* 8 = lowest dependency; 1 = highest dependency. † Median length of stay estimated as the time in which half the residents would have separated, ie, reciprocal of turnover /2.

Among the high care RCS categories throughput is considerably higher, approaching 100% for RCS3 and exceeding 100% for RCS2–1. The trends in throughput for RCS4, 3 and 2 over time, however, resemble those of low care, with the proportion of admissions to and separations from each of these categories falling over time. The cumulative effect of upward reclassification of residents combined with increased admissions at RCS1 is evident in the

substantial increase in throughput at RCS1. At the beginning of the period, there were 136 separations at RCS1 for every 100 admissions at RCS1, but by 2005–06, there were 183 separations for every 100 admissions. Assuming that all those admitted to RCS1 also separated at RCS1, this trend shows a doubling in the number of residents whose dependency was at a lower RCS category on admission but increased before they separated at RCS1.

The extent of this reclassification supports the muting effect on any reduction in LOS for RCS1 noted above.

Extent of ageing-in-place from low to high care

The extent to which changes in the RCS distribution and resident dependency are associated with ageing-in-place can be seen by dividing admissions at RCS8–5 into those who separate at these categories and those who separate at RCS4–1. This comparison is made on the basis of the “steady state” of the residential aged care system overall, as noted above. In 2005–06, low care RCS categories accounted for 36.7% of all admissions but only 13.5% of separations; the balance of 23.2% of admissions at low care aged-in-place to separate at high care. While these separations have contributed to increased throughput in the high care RCS categories, those who age-in-place account for a much smaller part of throughput in residential care than the 63.2% now admitted and separating at RCS4–1. The major part of increases in throughput at higher levels of dependency can therefore be attributed to upwards movement within high care rather than shifts from low to high care.

Discussion

The higher dependency in the residential aged care population shown in our analysis points to

more dependent individuals being selected for admission to residential care. The factors contributing to this increasing selectivity can be found in changes in both the aged population from which admissions to aged care homes are drawn and in the aged care system.

Changes in the aged population

Continuing increases in life expectancy at older ages have been reported in Australia since the 1970s,⁹ and associated declines in the onset of profound restrictions in core activities of daily living until advanced old age have been projected.¹⁰ In line with these trends, it could be expected that entry to residential care would be delayed and age at admission would rise. This outcome is evident in the upwards shift in the age of individuals at the time of admission to residential care detailed in Box 3.

The proportion of admissions aged less than 65 years is small, at less than 5%. Of the 6505 residents of aged care homes who were aged less than 65 in 2005–06, 85% were aged 50–64. The number of young people in aged care homes, especially those aged under 50, has fallen over time due to concerted efforts to provide more appropriate forms of supported accommodation for these individuals. At the same time, the higher proportion of younger admissions at RCS3–1 compared with older admissions needs to be noted. In 2005–06, 68% of admissions aged

3 Age and mode of separation of admissions to permanent residential aged care in Australia, 1998–99 to 2005–06

Year to June 30	Age in years at admission (no. [%])					% separations due to death
	Below 65	65–74	75–84	85–89	90 and over	
1999	1982 (4.7)	5 637 (13.4)	17 791 (42.3)	10 326 (24.6)	6 315 (15.0)	76.1%
2000	1934 (4.5)	5 379 (12.6)	17 822 (41.6)	10 914 (25.5)	6 824 (15.9)	83.0%
2001	1856 (4.2)	5 305 (12.0)	18 100 (41.0)	11 428 (25.9)	7 435 (16.9)	83.4%
2002	1832 (4.1)	5 083 (11.3)	18 611 (41.2)	11 674 (25.9)	7 942 (17.6)	84.9%
2003	1907 (3.9)	5 234 (10.8)	19 943 (41.2)	12 389 (25.6)	8 883 (18.4)	85.6%
2004	1939 (3.9)	5 229 (10.5)	20 529 (41.2)	12 916 (25.9)	9 165 (18.4)	86.6%
2005	2 076 (4.2)	5 067 (10.4)	20 214 (41.3)	12 221 (25.0)	9 340 (19.1)	86.6%
2006	2 165 (4.1)	5 193 (9.8)	21 634 (40.8)	13 714 (25.9)	10 258 (19.4)	85.7%

under 65 were classified RCS3–1 compared with 58% of admissions aged 65 and over.¹¹ Although they are a small group, and their life expectancy is shorter than their age peers, their severe but largely stable disabilities means that those admitted at younger ages are likely to have protracted stays before they leave the aged care home, and much longer stays than those admitted at advanced ages. The disproportionate impact of the these longer completed LOS on average LOS at higher RCS categories is another factor contributing to the stability of LOS noted above and calls for further analysis of LOS by age group for each RCS category.

The proportion of admissions in the 65–74 years cohort has fallen by 3.6 percentage points over the 8 years. This decline is all the more marked when growth of this cohort in the total population is taken into account, indicating that rates of admission to residential aged care in this young-old age cohort have been falling. The proportion of admissions at age 90 years and over has increased from 15% to 19%, and between these age groups, the large proportion of admissions in the 75–89 years group has remained stable, although a shift upwards within this age group is seen in more detailed data for each 5-year age group. Increasing age at admission has been associated with more of those admitted remaining until the end of their life. The proportion of separations from residential aged care due to death increased from some 76% in 1998–99 to close to 86% in 2005–06.

Changes in bed supply

Over the 8-year period, the number of residential aged care beds grew from 140 651 to 166 291, an increase of 18%. While the needs-based planning process that governs bed supply could be expected to generate steady growth in line with growth of the aged population, a contraction in bed supply early in the period was followed by an expansion. The annual Aged Care Approvals Rounds (ACAR) in the 3 years leading up to and following on from the change of federal government in late 1996 saw low levels of new approvals, with no approval of any new beds in 1997–98. A very large catch-up

allocation was then made in the 2000–01 ACAR, and approvals have been at a steadier level since.² As a consequence of these fluctuations and the time lag for approved beds to become operational, the ratio of beds per 1000 population aged 70 and over fell from 87.1/1000 in 1998 to 81.7/1000 in 2002, then began to recover to reach 85.6/1000 in 2006.¹¹

Short-term changes in bed supply underlie some of the marginal changes seen in admissions, turnover and throughput from year to year. For example, the increase in throughput evident from 1998–99 to 2000–01 can be attributed to a squeeze effect of declining bed supply over those years; admissions were largely limited to replacing separations from existing beds. As bed growth recovered from 2002, more admissions were made to new beds, most of which were low care beds; the increase in admissions at RCS5 in particular reflects this growth. As there were few separations from these new beds at least in the short term, overall throughput then fell marginally.

Changes in availability of alternative modes of care

Against the fall in bed supply, community care services have expanded. In addition to the steady growth of the Home and Community Care Program, the increase in Community Aged Care Packages (CACPs) has particularly extended the capacity of community care to delay admission to low care. CACPs were introduced to provide an alternative to low care as hostel growth faltered in the mid 1990s, and the number of CACP places has grown very substantially, from 6.3/1000 aged 70 and over in 1998 to 18.2/1000 in 2006. Extended Aged Care at Home (EACH) packages that provide a yet higher level of community care were introduced only in 2004, but with only 1.6 places available per 1000 aged 70 and over in 2006, their impact on admissions to residential care is yet to be felt.

A second change in available modes of care that has contributed to delays in admission is the growth of residential respite care. Over the period under review, respite admissions increased more than permanent admissions, by 22% compared

with 16%. The effectiveness of respite care in forestalling permanent admission is evidenced by the high proportion of respite residents who return to the community; this proportion has remained constant at around two thirds of respite separations over the 8-year period. Third, there have been concerted efforts to reduce discharges of older people from acute care to residential aged care. A wide variety of transition care initiatives aimed at reducing admission of older people to hospital and facilitating discharge to the community rather than residential care were taken through the Working Group on Care of Older Australians established by the Australian Health Ministers' Advisory Council (AHMAC) in early 2001.^{*12} These initiatives in pre- and post-acute care, many including some rehabilitation services, have since consolidated, but it is not possible to identify the overall impact on admissions to residential care from hospitals as no data on this topic have been published in the Statistical Overviews of Residential Aged Care since 1997. In 1996–97 however, 63% of admissions to high care were from hospital.¹³

Finally, there has been steady growth of a variety of retirement accommodation outside the Commonwealth program. Retirement villages offer an alternative to those at the lowest levels of residential care, and increasing provision of assisted living services in retirement villages is widening this margin. The availability of these alternative modes of care taken together with falling admissions among the young-old signal a real fall in demand for residential care at the lowest levels of low care.

Changes in care practices

Changes in care practices that have seen increasing complexity in the care delivered to residents

at all levels of care, and especially at RCS1 and 2, have combined with the changes already outlined to heighten perceptions of increasing resident dependency on the part of staff working in aged care homes. Over and above the availability of new technologies, a number of other factors have driven the level of technical care and range of support being provided.

First, a high proportion of admissions to high care occur on discharge from hospital; many have high levels of acuity and continuing need for high levels of technical nursing care. While funding supplements for enteral feeding and oxygen add to RCS funding (each by an amount equivalent to 10% of RCS1 funding), there are concerns that other areas of complex technical care are not adequately covered by the RCS.

Second, the accreditation of care standards has driven improvements in quality of care, including more individualised care planning and documentation. Accreditation has been accompanied by the release of best practice guidelines for medication management, pain management and palliation in aged care that have increased awareness of the scope of nursing practice in these areas.^{14–16} The increasing age of admissions to residential care, the increasing proportion of admissions at high care RCS, especially RCS1, followed by relatively short stays ending in death, means that residential aged care increasingly involves end-of-life care, and the need for more attention to a palliative approach was identified by O'Connor and Pearson in their recent call for a shift in focus from ageing-in-place to dying-in-place.¹⁷ The best practice guidelines on palliation that aim to enhance the resident's quality of life in the face of progressive decline towards the end of life, and call for care practices to minimise inappropriate transfers to acute hospitals, go some way to responding to this call.

Third, an escalation of care needs of even a small number of residents already classified at RCS1 can create considerable pressure on staff time, skills and resources in individual homes, especially in smaller homes where there is little scope to reallocate staff. These experiences are very real for the staff concerned and understanda-

* Four evaluation projects were undertaken as part of the AHMAC initiative: (1) Mapping of services at the interfaces of acute and aged care; (2) Service provision for older people in the acute-aged care system; (3) Examination of length of stay for older persons in acute care and sub-acute sectors; (4) Feasibility study on linking hospital morbidity and residential aged care data to examine the interface between the two sectors. Full reports are available at <http://www.health.gov.au/internet/wcms/publishing.nsf/content/health-minconf.htm>

bly contribute to the view that increases in dependency are not matched by funding increases. The short-term adjustments in staffing and other aspects of care delivery that are needed to respond to peaks in demands for care in any home at particular times contrasts with longer term adjustments in the flow of RCS funding. As a casemix system, funding based on the RCS balances the costs of care of individuals above and below the average in each category over time, and aggregate data show that such fluctuations are averaged out; in particular, most residents classified at RCS1 have been below the mid-point of scores in the RCS1 band.¹⁸

It is also recognised that care practices and rating of dependency have been influenced by the RCS itself. The extensive documentation required to support RCS classification may have contributed to heightened identification of resident dependency and care needs over time. There are also strong financial incentives to maximise RCS classifications, and the much higher weighting of some RCS items compared with others opens the way for gaming.

Conclusions

The analysis of the dynamics of residential aged care shows clear trends of increasing proportions of admissions, residents and separations at progressively higher RCS categories over the 8-year period. The analysis further suggests that the upward shift is due primarily to increasing proportions of admissions at the highest levels of care and reclassification within high care, with ageing-in-place from low to high care playing a secondary role. As a measure of the extent to which residents are classified upwards after admission as their dependency increases and then separate at higher care categories, throughput shows that by 2005–06, RCS2–1 had come to account for a very large part of the dynamics of residential care.

The findings do not however support the hypothesis that increasing dependency would result in an overall reduction in LOS. Median LOS is recognised as a poor measure of what is a highly skewed distribution, and the failure to find

changes in LOS may in part be due to limitations of the basic analyses reported and the restriction to using published data on RCS at separation. Further analysis to distinguish LOS for those admitted to and separating from the same RCS category compared with those admitted to and separating from different categories, and by age at admission, is needed to provide a fuller understanding of the dynamics of residential aged care.

The changes seen within the aged care system are associated with wider changes that have reduced the likelihood of admission of individuals with low dependency on one hand, and have restricted admission to those with high dependency on the other. Age of admission has increased in line with mortality trends, an apparent compression of morbidity and relative stability in the prevalence and duration of severe and profound handicap. The squeeze effect of the decline in bed availability relative to the aged population has been felt most at high care, while increasing availability of alternative modes of care enabling individuals to remain in the community appears to have had more effect on admission to low care. Changes in care practices have also been felt most in delivering care to residents in RCS4–1, who need the most complex care.

The findings reported here raise a number of implications for the future planning and funding of residential care. First, use of the population aged 70 years and over as the basis for planning no longer accords well with the population from which admissions are drawn and continuing changes in mortality and disability at older ages. Second, the balance of low and high care places adopted in planning is increasingly out of kilter with the diminishing share of admissions and separations accounted for by low care homes. Many of those admitted to residential care at any level have not previously been using any community care services or respite care,¹⁹ and the potential for further reductions in demand indicated by such findings is likely to be greatest at lower rather than higher levels of dependency.

The phasing in of the Aged Care Funding Instrument (ACFI) from mid 2007 is expected

to bring some reallocation of funding between residents at different levels of dependency. The basic analyses presented here have revealed considerable shifts in dependency of the residential care population, and more sophisticated analyses are required to extend understanding of the funding implications of the dynamics of the aged care system. Full matrices of admissions and separations at each RCS category for each year need to be analysed to track the scale and timing of change in dependency of admis-

sions and reclassifications of residents associated with policy changes and other factors. Analyses of the shares of total bed-days occupied by residents at different levels of dependency are also needed for estimating costs of residential care. Such analyses are essential to establish baselines and for ongoing monitoring of reallocation of funding through the ACFI in relation to changes in dependency and care needs of those who are admitted to, resident in and separate from aged care homes over time.

Appendix

Number of admissions, residents and separations by Resident Classification Scale category, 1998–99 to 2005–06

Year ended June 30		Resident Classification Scale category*								Total
		8	7	6	5	4	3	2	1	
1999	Admissions	914	6 755	4 199	3 565	2 050	8 406	11 040	5 122	42 051
	Residents	3 944	22 383	13 036	11 072	5 875	22 995	33 279	15 971	128 555
	Separations	515	3 085	2 056	2 129	1 746	8 949	15 501	6 971	40 952
2000	Admissions	827	6 840	4 363	3 700	2 117	8 125	11 388	5 513	42 873
	Residents	3 027	21 869	13 399	11 538	6 081	21 781	33 835	18 786	130 316
	Separations	401	2 873	2 133	2 221	1 625	7 975	15 889	9 501	42 618
2001	Admissions	626	6 485	4 745	4 217	2 016	7 639	11 588	6 808	44 124
	Residents	2 210	19 589	13 941	13 033	6 131	20 487	33 559	22 712	131 659
	Separations	313	2 846	2 412	2 680	1 640	7 138	14 554	10 696	44 229
2002	Admissions	495	6 231	5 166	4 854	1 990	7 113	11 661	7 632	45 142
	Residents	1 829	18 602	14 582	14 152	6 198	19 912	34 043	25 457	134 775
	Separations	252	2 586	2 496	2 884	1 690	6 776	14 742	12 091	43 517
2003	Admissions	491	6 479	5 560	5 717	2 225	7 126	12 005	8 111	48 365
	Residents	1 414	17 698	14 969	15 474	6 558	20 255	34 213	28 470	139 051
	Separations	191	2 408	2 331	3 061	1 632	6 730	15 315	14 001	46 328
2004	Admissions	403	5 924	5 878	6 479	2 361	7 408	12 277	9 048	49 778
	Residents	1 085	15 942	15 200	17 280	6 854	20 842	35 234	31 469	143 906
	Separation	150	2 136	2 301	3 122	1 649	6 756	15 030	15 882	47 026
2005	Admissions	312	5 219	5 625	6 842	2 484	6 983	12 008	9 444	48 918
	Residents	916	14 868	14 972	17 338	8 235	22 047	36 280	33 255	147 911
	Separations	146	1 765	2 126	3 006	1 789	6 536	14 791	16 663	46 822
2006	Admissions	269	4 766	5 653	7 530	2 151	6 759	11 875	9 883	48 886
	Residents	666	13 318	14 795	18 267	8 652	23 163	36 372	35 281	150 514
	Separations	84	1 567	1 943	2 936	1 891	6 568	15 146	18 085	48 220

* Source: Australian Institute of Health and Welfare (AIHW). Residential aged care in Australia 2005-06: a statistical overview. Canberra: AIHW, 2007. (AIHW cat. no. AGE 54) and annually from 1998–99.⁷

Competing interests

The authors declare that they have no competing interests.

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