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Planning ratios and population growth: will there be a shortfall in residential aged care by 2021?

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ABSTRACT

A major change in the Australian residential aged care system has been the recent shift in emphasis away from the more intensive nursing home type care toward the less intensive hostel level of care. Under the Aged Care Reform Strategy, the benchmark for nursing home type care has been set at 40 beds per thousand persons aged 70 and over, and for hostel type care at 52.5 beds per thousand persons aged 70 and over, to be achieved by the year 2011. This paper presents projections of hostel and nursing home utilisation from 1993 to 2021, based on current age and sex specific utilisation rates, and compares them with projected levels of supply. The findings suggest that there may be a general shortage of residential care from the turn of the century. They also highlight a likely shortage of nursing home type care for high dependency aged persons, particularly in the period from 2006 to 2016.

The nature of the problem

Australian aged care services have undergone a series of substantial reforms in recent years under the rubric of the Aged Care Reform Strategy. One quite explicit and major aim of these reforms has been the targeting of available resources on those most in need, defined in terms of both dependency levels and financial status. A key component of that process has been a deliberate reduction in the relative emphasis accorded to nursing homes within the aged care system, in favour of increased provision in the hostel and home and community care sectors (HHCS 1991). The intention of such changes has been to maintain the level of residential care provision in the vicinity of 100 places per thousand persons 70 and over, yet restrain expenditure increases resulting from an ageing population by matching the more expensive, and intensive, forms of care to those most in need of such services.

In a recent paper, we explored the outcomes of these intentional policy shifts in terms of changes in the supply of nursing home beds and hostel places since 1985 (Gibson, Liu and Choi, forthcoming). Our results, based on several different indicators, suggested that a more substantial reduction in the availability of nursing home beds had occurred than that indicated simply by changes in the official planning ratio.

Reports up until that date had focussed virtually exclusively on monitoring changing levels of supply in terms of the official planning ratio—the number of beds or places available per thousand persons 70 and over. But this indicator is not sensitive to the changing internal age structure of the population 70 and over, and the period from 1985 to 1993 saw a marked increase in the very old (80 and over) age groups. In these older age groups, there is a greater likelihood of high levels of disability, and of admission to residential care (Gibson and Liu, 1993).

In terms of the official planning ratio, between 1985 and 1993 the number of nursing home beds decreased by 13 per thousand persons 70 and over, while hostel places increased by 8 places per thousand persons 70 and over. For total residential care provision, this reflects an apparently modest overall decrease of 5 places per thousand persons 70 and over (or 5 per cent), to a total of 94 residential care places in 1993.

Our earlier work reported a series of alternative measures (of which two are presented in Table A1 in the Appendix). If the changing numbers of places are considered in relation to the population aged 75 and over, there has been a 10 per cent reduction in supply. Using this measure, the period saw a decrease of 26 nursing home beds per thousand persons 75 and over, an increase of 9 hostel places per thousand persons 75 and over, and an overall decrease in residential care provision of 17 places per thousand persons 75 and over.

The numbers of residential care places can also be considered in relation to the numbers of highly dependent aged people in the population[1]. In these terms, there has been a reduction of 61 nursing home beds per thousand highly dependent persons aged 70 and over, and an increase of 25 hostel places. This means a net reduction between 1985 and 1993 of 36 residential care places per thousand highly dependent persons aged 70 and over, or in percentage terms, an 8 per cent decrease.

While these trends are of some interest in themselves, they also raise important questions about the possible consequences of intended further decreases in the supply of nursing home beds, and about the adequacy of the residential care system overall, as the proportion of very old people amongst the aged continues to increase into the next century. The proportion of very old people in the population is particularly salient for predicting likely patterns of demand for and utilisation of aged care services. These are the age groups where the risks of physical disabilities, dementia and related disorders, poor general physical and/or emotional health, and the unavailability of informal care all increase, with consequent higher likelihood of reliance on government funded services and assistance.

The increasing numbers of very old people result both from variations in the size of birth cohorts, and from increased longevity. An important issue for any projections work in this area is the impact of greater longevity on levels of disability—whether disability rates will remain constant from one cohort to the next. Despite extensive debate as to whether we will experience a 'compression of morbidity' or a 'pandemic of morbidity', there is as yet no clear resolution of this issue emerging in the international literature (Robine, Mathers and Brouard, 1993). In the absence of any such resolution, the arguments presented in this paper are based on the assumption that age and sex specific levels of severe disability will not change significantly over the next quarter century, and that

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[1] 'Highly dependent' is defined here as those persons who are classified by the ABS Disability and Ageing Survey (1988) as severely handicapped.

hence current patterns of utilisation provide a useful indication of likely patterns in the future.[2]

The analyses presented in this paper project current patterns of service utilisation forward until 2021, comparing those utilisation patterns with several alternative models of supply and service utilisation. The key dynamic in these projections is the ageing of the aged population over the next quarter of a century. The main determinants of actual service utilisation will be the structure of the services supplied, in terms of both the quantity of particular service types and the eligibility criteria for admission to those services.

The findings

In the period since 1986, the population aged 80 and over has been increasing at a substantially more rapid rate than the rest of the aged population. This trend will continue until 2006. Figure 1 shows the rates of increase for the 60 to 79 age group, the 70 and over age group and the 80 and over age group.[3] In numerical terms, the population aged 80 and over is projected to increase by 19 per cent in

2 International trends in disability-free life expectancy suggest an expansion of light and moderate, but not of severe disability. They are consistent with the dynamic equilibrium hypothesis. According to this hypothesis, the increase in life expectancy is partly explained by a slowing down of the progression of chronic diseases. Thus, although the decline in mortality leads to an increase in the prevalence of disability, these disabilities are less severe (see Robine et al, 1993).

3 Table A2 in the Appendix presents the data on which this figure is based.

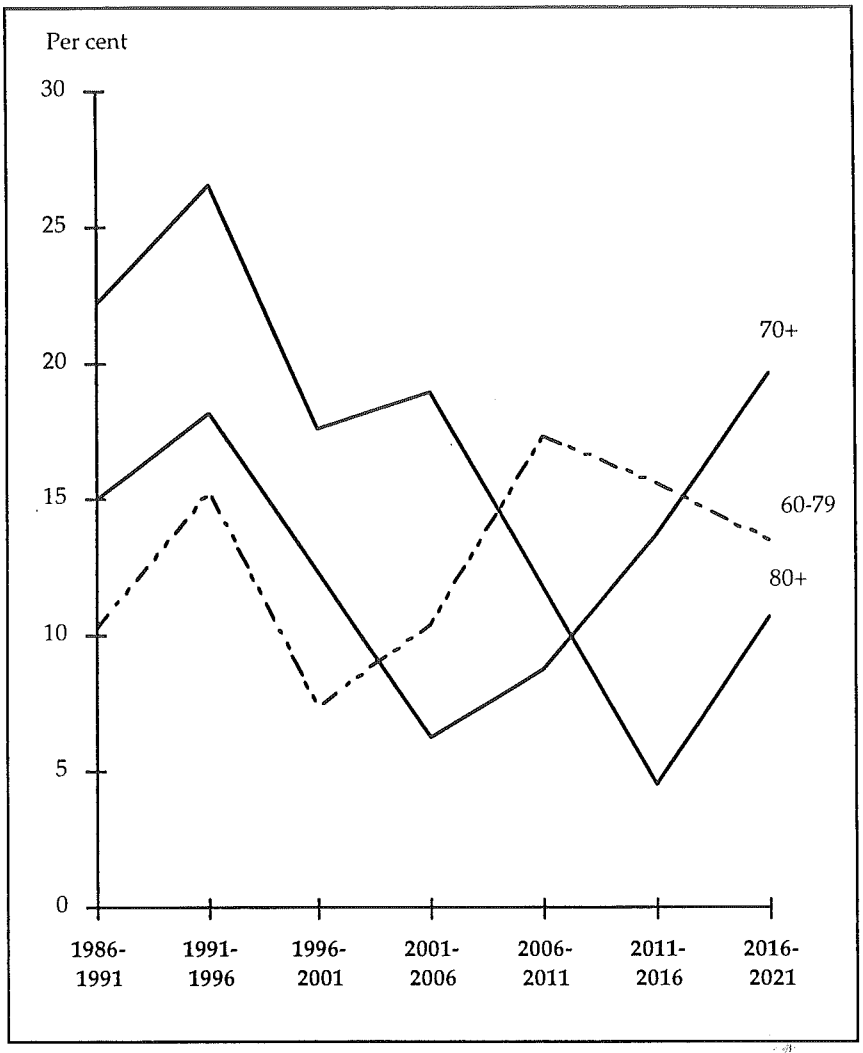

Figure 1 : Population increase rates per five years

the period from 2001 to 2006, but by 6 per cent for those aged 70 and over. The trend should reverse by the year 2011, when the rate of increase will be higher amongst the younger old, but will revert again to the current pattern from 2021 onward.

Nursing homes

In 1993, there were 74,494 nursing home beds. In 2011, if the intended planning ratio of 40 beds per thousand persons 70 and over has been reached, there will be 78,572 beds, and if that ratio is maintained, by 2021 there will be 106,908 beds. The first two rows of Table 1 show the likely level of supply based on current government policy. The first row starts with the current (1993) supply, and interpolates linearly over the period to 2011 when the 40 bed planning ratio is

reached. The figures then represent the total number of beds required in each year to meet that planning ratio. The second row converts the 40 beds per thousand persons 70 and over planning ratio into absolute numbers of beds for the population at that point in time.

Table 1.: *Nursing home projections for persons aged 60 and over 1993–2021*

	1993	1996	2001	2006	2011	2016	2021
Planned level of supply	74,494	75,200	76,300	77,400	78,600	89,300	106,900
40 beds per 1000 benchmark	55,000	60,500	68,000	72,200	78,600	89,300	106,900
Use based on 1993 utilisation rates	70,277	78,500	92,400	105,600	119,300	131,400	145,200
Use based on 1993 RCI 1–3 utilisation rates	53,543	59,900	70,600	80,700	91,100	100,200	110,700

The third and fourth rows of the table show two potential utilisation patterns for that period. Of course, actual utilisation will be determined, or at least constrained, by the level of supply. But these calculations project possible patterns of utilisation, using current age and sex specific utilisation rates (for persons aged 60 and over) and ABS population projections for the period under scrutiny.[4]

The third row shows a potential model of utilisation based on current (1993) utilisation rates. As the policy intention is to reduce the supply of nursing home beds, it is hardly surprising that the projection of current utilisation patterns exceeds likely supply by 1996, and that the disparity between the two widens rapidly as the ratio of nursing homes beds to persons aged 70 and over is reduced. From 2011 onward, when supply should stabilise at 40 beds per thousand persons 70 and over, the ageing of the aged population continues to widen the disparity until 2021, when the gap between the two begins to narrow again.

[4] Persons aged under 60 have been excluded from this analysis. To the extent that persons aged under 60 continue to occupy nursing home and hostel beds, the analyses subsequently presented in this paper under-enumerate the potential shortfall of residential care services. The projections are based on ABS (1994) Series A population projections.

Of more practical and immediate policy relevance is the last row of the table, which shows potential utilisation rates based on the age and sex specific utilisation patterns of nursing home residents whose Resident Classification Instrument score (RCI) is either 1, 2, or 3—the more dependent component of the nursing home resident population, on which nursing home services are increasingly being targeted. At present, supply (74,494) exceeds utilisation by RCI 1–3 residents (53,543), and likely supply will continue to do so until 2001. But by 2006, the number of nursing home beds required to accommodate RCI 1–3 level residents at current age and sex specific utilisation rates will be 80,700, well in excess of the 77,400 beds likely to be available on the basis of present day planning. The discrepancy reaches a peak of 12,500 in 2011, then declines to 3,600 by 2021.

Hostels

Unlike nursing homes, the policy direction for hostels is an increase in the level of supply, from the 1993 level of 40 places per thousand persons 70 and over, to a projected level of 52.5 by 2011. Our analysis assumes that these levels are met. It should be recognised, however, that while the federal government has direct control over nursing home bed approvals, and can therefore firmly constrain expansion in that sector, it cannot (under current policy arrangements) directly enforce the converse—that is, the expansion of the hostel sector. Approvals of additional hostel places can be made only as non-government and private-for-profit bodies put forward proposals, and such proposals are likely to be dependent on a range of factors including perceived profitability of the hostel sector. It is possible, therefore, that the intended growth in hostels may not occur at this pre-determined rate.

In 1993, there were 54,429 hostel places in Australia, well below the number (72,177) which would have been required by the 52.5 places per thousand official planning ratio. On current policy planning, that benchmark should be reached around 2011, when 103,100 places would be available. The first row of Table 2 shows current supply in 1993, and then interpolates linearly for 1996, 2001 and 2006, until 2011 when the 52.5 places per thousand planning ratio should be achieved. The planned supply figures from 2011 on are identical to the 52.5 per thousand planning ratio figure (row 2).

Table 2: *Hostel projections for persons aged 60 and over 1993–2021*

	1993	1996	2001	2006	2011	2016	2021

Planned level of supply	54,429	62,500	76,000	89,600	103,100	117,200	140,300
52.5 places per 1000 benchmark	72,200	79,400	89,200	94,800	103,100	117,200	140,300
Use based on 1993 hostel utilisation rates	49,401	55,300	65,200	74,600	84,200	92,200	101,800
Use based on 1993 hostel + RCI 4 & 5 utilisation rates	66,135	74,000	87,000	99,500	112,400	123,400	136,300

The third row of the table shows a potential model of utilisation based on current (1993) utilisation rates. The intended expansion of supply in this sector more than keeps pace with projected increases in utilisation driven by population ageing, with the difference between the two widening further in each successive time period.

Yet the expansion of the hostel sector is clearly intended, in planning terms, to absorb some of the lower level demand for residential care which can no longer be met by the nursing home sector. The fourth row of the table shows projected utilisation rates if the less dependent nursing home residents (RCI 4 and 5) were to be included in the hostel service utilisation projections. The table shows that the planned level of supply in the hostel sector will not be sufficient to accommodate current hostel residents in addition to RCI category 4 and 5 residents of nursing homes until 2021, when the increasing numbers of younger aged in the population (with lower residential care utilisation rates) begin to affect the analysis. At this point, it should also be noted that the absolute number of additional places (23,100) required to meet the 52.5 planning ratio through the 2016 to 2021 period is quite substantial, reflecting the large growth in size of the base population.

Nursing homes and hostels—the balance of care

Taken separately, these projections show a likely shortfall in the capacity of the nursing home system to accommodate even RCI category 1 to 3 residents (the more dependent residents) into the next century at current utilisation patterns, and a similar incapacity of the hostel sector to soak up the remaining clients of the nursing home sector, whilst continuing to accommodate current utilisation patterns in the hostel sector.

Table 3 summarises these data. The first row reports the difference between the planned supply of nursing home beds, and projected utilisation patterns for RCI category 1 to 3 residents only. While supply exceeds the projected utilisation

levels until 2001, from 2006 there is a substantial shortage of nursing home level care. The second row shows the difference between the planned supply of hostel places, and the projected utilisation patterns for hostel residents together with nursing home residents in RCI categories 4 and 5. These figures must be interpreted with caution, however, as the movement of level 4 and 5 nursing home residents to the hostel level of care will be accomplished gradually throughout the period until 2011, if at all, on current plans. The intended level of hostel accommodation could not accommodate existing hostel plus the lower level dependency residents, however, until 2021.

Table 3: *Difference between planned supply and projected utilisation rates for nursing home and hostel residents: 1993–2021*

Difference for:	1993	1996	2001	2006	2011	2016	2021
Nursing Homes (RCI 1–3)	20,951	15,300	5,700	–3,300	–12,500	–10,900	–3,800
Hostels (+ RCI 4&5)	–11,706	–11,500	–11,000	–9,900	–9,300	–6,200	4,000
Total difference	**9,245**	**3,800**	**–5,300**	**–13,200**	**–21,800**	**–17,100**	**200**

The final row of the table shows the net effect, taking into account the two sources of residential care, and regardless of whether residents are accommodated in nursing homes or hostels. These data show that despite the policy undertaking to maintain residential care levels at approximately the same levels of provision, that level of supply will fail to meet current levels of utilisation by a substantial number of nursing home beds from 2001 onward, but particularly in the period from 2006 to 2016.

The situation eases in 2021, due to the growth in numbers of the younger aged during this period, but it should be noted that this is a cyclical phenomenon. From 2021 to 2031, the very old will again be increasing at a much more rapid rate than the remainder of the aged population, with consequent potential increases in the demand for aged care services.

Some alternative scenarios

The analysis presented here suggests a potential crisis in residential aged care services. Yet, the time frames allow substantial modification to current policies, and there are a number of elements which are either amenable to such changes, or are already in place. The planning ratios of 40 and 52.5 for nursing homes and hostels respectively are not, for example, fixed for all time. At every stage of the policy development process they have been put forward as 'subject to review' as the implementation process continued. Apart from straightforward modifications to the planned level of supply of residential care, however, the most significant set of alternative scenarios revolve around the expansion of various kinds of home based care.

The growth of expenditure on the Home and Community Care Program in recent years has been considerable (Gibson and Liu, 1993). In addition, there is the emergence of Community Aged Care Packages, and their projected expansion to eventually provide intensive community services to 7.5 people per thousand persons 70 and over. The question in terms of alternative scenarios is to what extent the reduction in the supply of residential care will be ameliorated by these developments.

In many ways this is a vexed question. A fully informed analysis would require an accurate representation of the dependency profiles of clients across each service area, information which is not as yet available to us (Rickwood, 1994). We have no empirical basis from which it is possible to assert that some particular subset of hostel residents could be appropriately cared for at home, or indeed what 'appropriately cared for' might mean at an aggregate level. In general in Australia, we lack accurate information on the number of clients served by our home and community care programs, the package of service which those clients are receiving, and we have no information at all about the outcome of such services. Indeed, we have yet to establish what an identifiable 'unit of service' is in the community care sector.

All of these raise substantial difficulties if we wish to identify possible trade-offs between the reduction of residential care and the expansion of 'formal' community services. The problem reaches even further levels of difficulty if the huge (and predominant) contribution provided by family and friends were to be considered as part of the projection.

Yet some provisional attempts can and indeed must be made to plot alternative scenarios. However, some clear limits and reservations must be acknowledged at the outset. First, the analysis is strictly limited to formal services—that is, those provided or funded (at least partially) by the government. Second, it must be stated that the appropriateness and interchangeability of particular services to the various client groups remains unestablished at the aggregate level, and is outside the scope of the present analysis.

Third, the ageing of the aged population, and the concomitant increase in the proportion of severely disabled aged persons, is not restricted to those aged persons in institutions. The same phenomenon will occur amongst aged persons resident in the community; there too there will be an increased demand for formal and informal assistance as the proportion and absolute number of severely disabled aged people increase. It cannot be assumed, therefore, that persons 'displaced' from residential care will obtain ready access to even a substantially expanded community care sector.

The role of Community Aged Care Packages

At present, government policy suggests that when fully implemented, Community Aged Care Packages will accommodate 7.5 people per thousand persons aged 70 and over. Table 4 includes these packages, indicating the total numbers of persons likely to be served at each point in time.

If the total shortfall in residential care reported above is taken into account (row 1), the availability of aged care packages at the projected level of 7.5 places per thousand persons aged 70 and over would compensate for the shortfall until 2006. By 2011 a substantial gap again emerges, which then disappears by 2021 as the structure of the aged population reverts to a younger profile. It should be re-iterated, however, that Community Aged Care Packages do not actually exist in anything like these numbers; at present less than 2000 have been established. The likely take-up rate by the hostel and nursing home sectors of this policy option is unclear.

Table 4: *Community aged care packages and the residential care shortfall*

	1992	1996	2001	2006	2011	2016	2021
Shortfall of residential care	9,245	3,800	–5,300	–13,200	–21,800	–17,100	200
Planned (7.5 per 1000 70+) Community Aged Care Packages	10,300	11,300	12,700	13,500	14,800	16,700	20,000

There are some problems, moreover, with assuming that community aged care packages once established will be exclusively allocated to persons who would otherwise have sought institutional care.

Firstly, it must be recognised that in this scenario community aged care packages are assumed to be an appropriate substitute for residential care services for some current residents of nursing homes and hostels. The sector of care most likely to provide those residents remains unspecified. But given the high level of frailty associated with nursing home residents in RCI categories 1 to 3, and the distinctively different profiles of nursing home residents on factors such as incontinence from either community care or hostel residents (Rickwood, forthcoming) it seems unlikely that the nursing home sector would provide a substantial source of such clients. The shortfall of nursing home level care for high dependency residents suggested by Table 3 is therefore unlikely to be ameliorated by this availability of community care packages.

Secondly, a significant proportion of the community aged care packages may well be accessed by people who would otherwise have stayed in the community and not entered residential care. Eligibility for nursing home or hostel care is determined by severity of disability. However the corollary of this is not that those people who remain in the community are necessarily less disabled. Most severely handicapped aged people are cared for in the community; it is only amongst severely disabled persons aged 85 and over that the majority are in institutional care (Rowland, 1991:122). Eligibility for nursing home or hostel care as indicated by severity of disability is a necessary, but not sufficient condition for the utilisation of residential care . Other factors intervene in the decision, such as the availability of a range of formal and informal supports and the willingness to 'make do' with what are essentially inadequate levels of assistance rather than enter residential care.

Compounding these trends during this period will be a likely decline in the proportion of informal carers on purely demographic grounds, without even

considering the potential effects of other factors such as higher labour market participation amongst women. Rowland (1991:126) documents a reduction in the so-called 'caretaker ratio' of from 3.5 potential carers per octogenarian in 1986 to 1.8 by 2031.[5] This reduced availability of carers, and the potential overload which those who continue to care may face, could be expected to lead to increased pressure on formal services during this period.

The emergence and expansion of Community Aged Care Packages or other intensive forms of community based services will meet a need for assistance amongst highly dependent people without carers, and those whose carers are carrying overly heavy caring responsibilities. Such a program development is doubtless overdue, and may defer institutionalisation for many such people. It is important to keep firmly in view, however, that severely disabled persons who would never have entered residential care can be expected to compete quite successfully on a 'need for service' basis for community aged care packages with that subgroup of the frail aged who will need to be 're-located' from residential care services if the planned reduction in the supply of residential services is to occur.

Conclusions

These data point to the strong likelihood that there will be a shortage of nursing home level care for high dependency (RCI 1–3) aged people by the year 2006. Even allowing for the fact that some existing residential care clients could in future be successfully supported at home by Community Aged Care packages, it seems unlikely that many of these will be drawn from amongst the high dependency aged residents currently accommodated in nursing homes and classified at the RCI 1–3 levels.

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[5] The 'caretaker ratio' is the number of adult women aged 50 to 64 years to the number of people aged 80 and over. While obviously this ratio has shortcomings, it is based on the large proportion of caretakers in this age and sex group, and provides a useful shorthand indicative measure of change in availability of family carers in demographic terms.

The data also suggest that there may be a shortage of residential care in general from the turn of the century. If the projected level of Community Aged Care Packages is met, then this shortfall will occur somewhat later—around 2006. However, on this scenario, a substantial number of high dependency nursing home residents (RCI 1–3) will be accommodated in hostels.

Moreover, the assumption that Community Aged Care packages will exclusively or even mainly absorb clients from the residential care sector, rather than high dependency clients currently in the community, would appear on the face of it to be an unlikely one. The ageing of the aged population means that in the community care sector, as in the residential care sector, the proportion of very old and very disabled people is increasing. The majority of even the severely disabled aged are cared for in the community. And demographic evidence suggests that this period may well see a reduction in the numbers of carers available, possibly in addition to a reduced capacity or willingness to care, owing to both increased labour market participation, and the older ages of the potential carers themselves.

The demand on community based services by those currently accommodated at home is thus likely to expand, with concomitant demands on program areas such as Community Aged Care Packages, and the Home and Community Care Program more generally. Such services are therefore likely to require quite significant expansion if they are to simultaneously deal with the consequences of a reduced level of provision in the residential care sector.

Finally, it must be recognised that the utilisation of the standard planning ratio of services per thousand persons aged 70 and over to describe level of supply over time has significant shortcomings. While the best available measure when it was generated, improvements in data availability now allow more accurate calculations to be made. In particular, the 70 and over planning ratio is not sensitive to the changing internal structure of the population over 70, and hence to likely changes in demand. The policy aim of 40 nursing home beds per thousand persons aged 70 and over was determined on the basis of 1983 data, at

a time when only 11 per cent of people 70 and over were aged 85 and over.[6] In 2021 that proportion will be 16 per cent. It appears beyond dispute that 40 nursing home beds per thousand persons 70 and over in 1983 and 2021 do not represent an equal level of supply—these are two quite disparate aged populations.

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[6] The 40 nursing home beds per thousand persons 70 and over was first publicly announced in the report of the Nursing Homes and Hostels Review (1986, pp. 25 and 44). The calculations and interpretations which underlie this are drawn from data collected and analysed by Rhys Hearn and Hearn (1985) and Howe and Preston (1985) which employ predominantly 1983 nursing home data.

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APPENDIX

Table A.1: *Three indicators of residential care provision : a comparison*

	Nursing Homes	Hostels	Nursing Homes and Hostels
Places per thousand 70 and over			
1985	67	32	99
1993	54	40	94
Change 1985 to 1993	–13	+8	–5
Percent change 1985 to 1993	–19%	+25%	–5%
Policy Target (in 93)	40	52.5	92.5
Change yet to be made	–14	+12.5	–1.5
Places per thousand 75 and over			
1985	117	57	174
1993	91	66	157
Change 1985 to 1993	–26	+9	–17
Percent change 1985 to 1993	–22%	+16%	–10%
Places per 1000 severely handicapped 70 and over			
1985	285	139	424
1993	224	164	388
Change 1985 to 1993	–61	+25	–36
Percent change 1985 to 1993	–21%	+18%	–8%

Source: Calculated from Gibson, Liu and Choi (forthcoming), ABS (1993), DHSH (1994).

Table A2 : *Population projections, Australia, June 1993–2021, per cent increase by age group*

	1986–91	1991–96	1996–2001	2001–06	2006–11	2011–16	2016–21
Age 60–79	10	15	7	10	17	16	13
Age 80+	22	27	18	19	12	5	11
Age 70+	15	18	12	6	9	14	20

Source : calculated from ABS 1994 (Series A).

Table A3 : *Population projections, Australia, June 1993 —2021 ('000)*

	1993	1996	2001	2006	2011	2016	2021
Males							
<60	7,552.4	7,758.3	8,095.6	8,357.5	8,492.5	8,619.9	8,705.8
60–64	355.3	348.8	405.2	490.3	611.3	627.9	685.3
65–69	330.5	334.9	322.9	376.7	456.9	570.2	587.5
70–74	250.5	276.7	293.0	284.7	333.5	406.4	508.4
75–79	163.4	178.7	219.9	234.8	230.0	271.5	333.3
80–84	93.5	106.7	121.9	151.2	162.7	161.2	192.3
85+	51.8	61.1	79.1	95.1	118.1	134.3	140.7
Total	**8,797.4**	**9,065.2**	**9,537.6**	**9,990.3**	**10,405.0**	**10,791.4**	**11,153.3**
Females							
<60	7,335.2	7,549.8	7,909.4	8,194.7	8,341.6	8,463.3	8,538.5
60–64	357.4	350.0	400.0	485.2	617.7	650.3	711.0
65–69	355.8	353.9	337.3	385.9	468.1	595.3	627.2
70–74	303.6	324.9	329.6	315.3	361.4	439.0	558.6
75–79	230.9	245.8	284.8	290.4	279.4	321.8	392.9
80–84	157.9	176.9	194.6	227.3	234.1	227.8	264.9
85+	123.2	141.5	176.2	206.5	245.1	271.2	281.6
Total	**8,864.0**	**9,142.8**	**9,631.9**	**10,105.3**	**10,547.4**	**10,968.7**	**11,374.7**

Source : ABS 1994:49

Table A4 : ***Utilisation rates for nursing homes and hostels—number of residents per 1000 population by age and sex 1993***

	Nursing home		Hostel
	All residents	RCI 1–3 residents	All residents
Males			
<60	0.16	0.11	0.07
60–64	2.40	1.51	1.31
65–69	5.45	3.52	2.89
70–74	10.65	7.62	5.41
75–79	23.54	17.66	12.8
80–84	48.21	36.06	31.76
85+	110.56	80.89	88.55
Females			
<60	0.16	0.12	0.06
60–64	2.31	1.73	1.22
65–69	4.93	3.49	2.75
70–74	11.65	8.77	7.94
75–79	30.31	23.41	23.45
80–84	75.14	57.89	62.31
85+	210.21	165.71	145.27

Sources : ABS 1994:49; Nursing home and hostel data provided by the Department of Human Services and Health 1994

Table A5 : *Projected nursing home residents June 1993–2021*

	1993	1996	2001	2006	2011	2016	2021
Males							
60–64	851	835	971	1,174	1,464	1,504	1,641
65–69	1,802	1,826	1,761	2,054	2,491	3,109	3,203
70–74	2,667	2,946	3,119	3,031	3,551	4,327	5,413
75–79	3,847	4,207	5,177	5,528	5,415	6,392	7,847
80–84	4,508	5,144	5,877	7,290	7,844	7,772	9,272
85+	5,727	6,755	8,745	10,514	13,057	14,848	15,556
Total	**19,402**	**21,714**	**25,650**	**29,592**	**33,823**	**37,952**	**42,932**
Females							
60–64	826	809	924	1,121	1,428	1,503	1,643
65–69	1,753	1,744	1,662	1,901	2,306	2,933	3,090
70–74	3,536	3,784	3,839	3,672	4,209	5,113	6,506
75–79	6,998	7,450	8,632	8,801	8,468	9,753	11,908
80–84	11,864	13,292	14,621	17,078	17,589	17,116	19,904
85+	25,898	29,745	37,039	43,409	51,523	57,009	59,195
Total	**50,875**	**56,823**	**66,717**	**75,983**	**85,523**	**93,427**	**102,246**

Sources : derived from Tables A1 and A2.
Note : residents aged under 60 were excluded from the analysis.

Table A6 : *Projected nursing home RCI 1–3 residents June 1993–2021*

	1993	1996	2001	2006	2011	2016	2021
Males							
60–64	538	528	614	743	926	951	1,038
65–69	1,164	1,179	1,137	1,326	1,608	2,007	2,068
70–74	1,908	2,108	2,232	2,169	2,541	3,096	3,873
75–79	2,885	3,155	3,883	4,146	4,061	4,794	5,885
80–84	3,371	3,847	4,396	5,452	5,867	5,813	6,934
85+	4,190	4,942	6,398	7,692	9,553	10,863	11,381
Total	**14,057**	**15,760**	**18,659**	**21,528**	**24,556**	**27,524**	**31,179**
Females							
60–64	620	607	694	842	1,071	1,128	1,233
65–69	1,241	1,235	1,177	1,346	1,633	2,077	2,188
70–74	2,664	2,851	2,892	2,766	3,171	3,852	4,901
75–79	5,404	5,753	6,666	6,797	6,540	7,532	9,196
80–84	9,141	10,241	11,266	13,159	13,553	13,188	15,336
85+	20,415	23,448	29,198	34,219	40,615	44,940	46,664
Total	**39,486**	**44,135**	**51,892**	**59,129**	**66,583**	**72,717**	**79,518**

Sources : derived from Tables A1 and A2.

Note : residents aged under 60 were excluded from the analysis.

Table A7 : *Projected hostel residents June 1993–2021*

	1993	1996	2001	2006	2011	2016	2021
Males							
60–64	467	458	533	644	803	825	901
65–69	955	968	933	1,088	1,320	1,648	1,698
70–74	1,355	1,497	1,585	1,540	1,804	2,198	2,750
75–79	2,092	2,288	2,815	3,006	2,945	3,476	4,267
80–84	2,970	3,389	3,872	4,803	5,168	5,120	6,108
85+	4,587	5,411	7,004	8,421	10,458	11,893	12,459
Total	**12,426**	**14,011**	**16,742**	**19,503**	**22,498**	**25,160**	**28,183**
Females							
60–64	436	427	488	592	754	793	867
65–69	978	973	927	1,061	1,287	1,636	1,724
70–74	2,410	2,579	2,616	2,503	2,869	3,485	4,434
75–79	5,415	5,764	6,679	6,810	6,552	7,547	9,214
80–84	9,839	11,023	12,126	14,163	14,587	14,195	16,506
85+	17,897	20,555	25,596	29,998	35,605	39,397	40,907
Total	**36,975**	**41,322**	**48,433**	**55,127**	**61,654**	**67,052**	**73,654**

Sources : derived from Tables A1 and A2.

Note : residents aged under 60 were excluded from the analysis.