
D Cost implications of recommended changes

This appendix provides indicative projections of the cost of public aged care system based on key proposals contained in the draft report. The appendix provides additional information and analysis for consideration by policy makers and stakeholders. The Commission is seeking feedback to assist with the preparation of the final report.

The structure of this appendix is:

- section D.1 provides cost projections of the current system through to 2050
- section D.2 provides cost projections based on key reforms contained in the draft report
- section D.3 provides some information on the methodology used to prepare the cost projections and explores how sensitive the projections are to alternative economic and demographic assumptions.

Projections are indicative and exploratory

The Commission has conducted exploratory costings of Australia's aged care system under the recommendations outlined in this report. It should be emphasised that these costings should be viewed as indicative only — that is, they are intended to provide policymakers with a broad guide as to what the reformed system, as proposed in the draft report, would cost under a number of explicit assumptions. Stakeholders wishing to comment on these projections and their underlying assumptions are invited to provide a post draft submission to this inquiry.

D.1 Projecting the cost of the current system

In the 2010 Intergenerational Report (IGR), it was projected that the public cost of Australia's aged care system would rise from 0.8 per cent of GDP in 2010 to 1.8 per cent of GDP in 2050.

The Commission has sought to revise the IGR projections using more up to date usage rates and per place costs for different aged care services. This had the effect of decreasing the projected public cost of the aged care system to 1.5 per cent of GDP in 2050. Using this approach, the public cost of the current system is projected to rise from \$9.4 billion in 2010 to \$55.9 billion in 2050 (in 2010 dollars). The Commission has termed this scenario the ‘revised IGR projection’.

Replicating IGR cost projections

The Commission attempted to ensure that the approach used to develop cost projections was broadly comparable to the methodology used in the 2010 IGR. The IGR projections are based on:

... current spending per person receiving aged care services (indexed for growth in costs) and the projected number of older people. The projection combines base participation rates by age and gender for the main aged care programs with the projected population by age and gender. Together with assumed growth in the average (government) cost per participant, this provides a base projection. The projection method is very similar to the one used in IGR 2007 and adapts and extends the aged care model used by the Productivity Commission. (Treasury 2010, p. 144)

The first step was to test if the Commission’s approach would replicate the IGR cost projections using the assumptions of the 2010 IGR report.

Many of the assumptions needed to replicate the IGR aged care projections are contained in the supporting analysis of the IGR, including assumed cost indexation and disability rates. In addition, projections for key macroeconomic variables such as growth in GDP and the CPI were also available from the IGR. The IGR did not contain explicit assumptions about the current per place costs for aged care. Instead, the Commission used per place costs contained in the Henry Review (2010, p. 634).

Treasury supplied sufficient information to enable the Commission to complete the replication of the cost projections — including population projections (table D.1) and the relative use of different aged care services.

Using this information and the cost approach developed by the Commission (2005b), the projected cost of care in 2050 was estimated to be 1.8 per cent of GDP — consistent with the 2010 IGR projection. This comparison indicates that using the previous PC approach would give reasonably consistent cost projections with the IGR approach.

Table D.1 Projected size of selected age cohorts and their share of total population^a

	2010	2020	2030	2040	2050
0–64	19 241 000 86.67%	21 487 000 83.61%	23 584 000 80.77%	25 645 000 78.67%	27 744 000 77.28%
65–74	1 617 000 7.28%	2 364 000 9.20%	2 843 000 9.74%	3 128 000 9.60%	3 488 000 9.72%
75–84	988 000 4.45%	1 311 000 5.10%	2 001 000 6.85%	2 487 000 7.63%	2 808 000 7.82%
85–99	391 000 1.76%	525 000 2.04%	788 000 2.70%	1 295 000 3.97%	1 765 000 4.92%
100+	4 000 0.02%	7 000 0.03%	14 000 0.05%	24 000 0.07%	50 000 0.14%
Total	22 200 000	25 700 000	29 200 000	32 600 000	35 900 000

^a Percentages may not sum to 100 due to rounding errors.

Source: Data supplied by Treasury.

Revising the IGR projections

Since the 2010 IGR was prepared, additional information has been released, in particular, about costs and usage rates for different services in the aged care system. Using this information, the Commission developed a revised projection of the cost of aged care assuming current policies continued. This revised projection is a Productivity Commission projection and should not be considered to have been endorsed or approved by Treasury.

The revised cost projection is based on three adjusted assumptions relating to:

- recent per place costs
 - new information was available on both the public cost and the private co-contributions for aged care services.
- the number of people using each type of aged care service in 2010
- the application of separate indexation rates to different components of aged care costs.

Recent per place costs

The Commission has assumed that the public per place cost of aged care used in the IGR 2010 projections was consistent with those outlined in the Henry Review (2010). The Henry Review reported the average per place cost by package types and the average private contribution to these costs (table D.2). Packaged care includes Community Aged Care Packages (CACP), Extended Aged Care at Home packages (EACH) and Extended Aged Care at Home – Dementia packages (EACH-D). Using this information, the Commission was able to estimate the public per place cost of these programs. While the Henry Review did not indicate what year the data related to, the information appears to have been sourced from the DoHA submission to the Senate Finance and Public Administration Committee Inquiry into Residential and Community Aged Care in Australia (2008b). Some of the cost estimates in that submission were for 2007-08 and others were expressed in 2007-08 dollars.

Table D.2 Aged care costs by funding source

	<i>Average annual cost per recipient</i>	<i>Average private contribution per cent</i>	<i>Assumed public cost ^a</i>
Residential high care	63 300	26	46 800
Residential low care	39 550	53	18 600
EACH packages	43 630	5	41 400
EACH-Dementia packages	49 150	5	46 700
CACPs	15 100	16	12 700

^a Public cost assumed to be for 2007-08.

Source: Henry Review (2010).

Since the IGR was released, more up to date data on the actual public cost of aged care has become available — with information now available for 2010 (table D.3). To compare the IGR per place costs to the actual costs for 2010, it was necessary to adjust the costs from table D.2, using the assumed growth in per place costs from the IGR. The projected costs for residential care appear similar — however, the IGR projected public costs for community care were substantially higher than the actual costs in 2010. This is a major factor contributing to the Commission’s ‘revised IGR projection’ being lower than the projection contained in the 2010 IGR.

Table D.3 Comparing per place public costs for 2010

	<i>IGR assumption^a</i>	<i>Actual public cost</i>
Residential high care	51 000	51 550
Residential low care	20 000	20 150
EACH packages	45 000	39 250
EACH-Dementia packages	51 000	43 450
CACPs	14 000	12 700

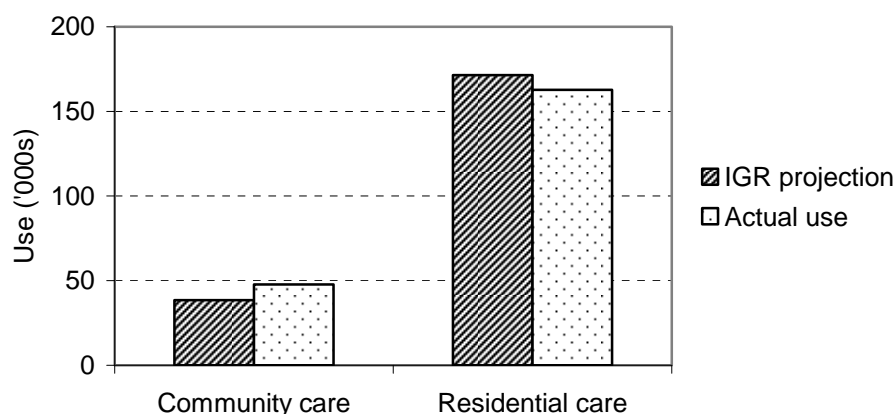
^a It has been assumed that the IGR used the estimated per place cost from the Henry Review as relevant for 2007-08. To arrive at equivalent projections for 2010, they have been inflated by the IGR assumed annual rate of aged care cost increases (4.14 per cent) for two years.

Sources: Commission calculations; DoHA (2010n).

Number of people using aged care services in 2010

In preparing the revised cost projections, the Commission had access to more recent information on the actual use of aged care services from DoHA (2010n). Comparing the IGR projections to the actual number of people receiving care in 2010, it is clear that there has been a change in the pattern of use since the IGR projections were developed. For example, the actual use of residential care — which has the highest public per person cost — was lower than the IGR projection for 2010 (figure D.1). When this information is used as the basis for projecting future residential care use, it makes a substantial difference to the cost projection for 2050. Conversely, community care packages were more widely used in 2010 than was projected.

Figure D.1 Use of aged care under current policies
Comparison of IGR projected use and actual use in 2010^a



^a Number of people in care on 30 June 2010. Community care includes EACH, EACH-D and CACP packages but does not include HACC services.

Data sources: Data supplied by Treasury; DoHA (2010n).

Projected cost indexation

The 2010 IGR assumed a real annual growth rate of 1.6 per cent in unit costs for all cost components of aged care (Treasury 2010, p. 145). At present, some policy settings restrict the growth of some of these cost components. As the Commission is proposing changes to some of these restrictions, it was necessary to incorporate greater detail about these current policy settings in the assumptions for the cost projections.

The approach taken by the Commission has been to prepare the cost projections in nominal terms so as to readily incorporate any revisions to CPI projections into its costings. To replicate the IGR cost projections, it was necessary to convert the projected real cost indexation rates into nominal indexation rates (box D.1). The Commission has calculated that the assumed per place indexation rate for the IGR report was 4.14 per cent for most of the projection period (table D.4).

Box D.1 Converting real cost indexation rates to nominal rates

The IGR report states that the CPI beyond the forward estimates period is assumed to grow at 2.5 per cent per annum. For the forward estimates period, the CPI was assumed to grow in line with the 2010-11 Mid Year Economic and Fiscal Outlook (table D.4). To calculate the resulting nominal increase in per place costs, the Commission created index series for CPI growth and for the real growth in per place costs. The nominal growth in per place costs can be obtained by multiplying these two index series.

For example, in 2012-13, the CPI is projected to grow by 2.5 per cent. If the base value for the CPI index in 2011-12 was 1, then the index value for 2012-13 would be 1.025 ($1 + \frac{\text{CPI growth rate}}{100}$). As the IGR assumed real increase in per place costs is 1.6 per cent per year, the index value for real per place costs in 2012-13 would be 1.016 (assuming the index value for 2011-12 was 1). If the two index values are multiplied, the value for 2011-12 would be 1 while the value for 2012-13 would be 1.0414 — indicating an increase in the nominal per place costs of 4.14 per cent.

Table D.4 Assumed per place cost indexation for IGR 2010

	<i>CPI</i>	<i>Nominal aged care cost indexation — IGR 2010</i>
2010-11	2.75	4.39
2011-12	3.0	4.65
Rest of projection period	2.5	4.14

Sources: Australian Government (2010i), Treasury (2010).

Under current policy settings, the amount that aged care providers can charge the Government for community care and for everyday living expenses in residential care is linked to changes in the rate of the single age pension. In preparing the revised IGR projections, the Commission has assumed that the per place public cost of these aged care items will grow by 4 per cent per year in nominal terms.

Currently, the age pension is indexed by the greater of CPI or male total average weekly earnings — with earnings typically being the larger of the two. The IGR does not include projections for growth in male total average weekly earnings, but it does include assumptions for the growth of average weekly earnings. The Commission has used average weekly earnings as a proxy for the growth in male total average weekly earnings, and by extension, the growth in the age pension. The IGR assumption is for average wages to increase at a rate of 4 per cent per year in nominal terms.

In effect, for Home and Community Care (HACC), community care packages and everyday living expenses in residential care, the per place growth in public cost was assumed to increase by 4.14 per cent a year for most of the IGR projection period. In contrast, the Commission has assumed that these items will grow by 4 per cent per year — the growth in per place HACC costs is consistent with the assumed growth for other community based aged care. Over the 40 year projection period, this would result in per place public costs being 5 per cent lower than if the IGR per place cost assumptions had been used.

The remaining per person aged care costs that are publically funded, either in part or in full, are assumed to increase by the rates in table D.4 — consistent with the 2010 IGR assumptions. These include the public costs for the following residential care items:

- accommodation charges
- care payments (based on the Aged Care Funding Instrument) and
- a residual item that includes enteral feeding supplements, oxygen supplements, supported residents supplements, infrastructure subsidies and rural and remote supplements.

The 2010 IGR only included public cost projections for aged care, but as the Commission is examining the overall funding of the aged care sector, it was necessary to make assumptions about the growth in private costs. Most or all of the cost for many aged care items is funded by taxpayers. Where the cost is shared, the Commission has assumed that the rate of growth in private cost would be the same as the growth in public costs.

The main cost item that is fully privately funded is residential care accommodation bonds that are paid for low level residential care and extra service residential care (whether high or low care). As outlined in Chapter 6 of this report, average residential accommodation bonds increased from around \$58 000 in 1997-98 to almost \$233 000 in 2009-10 — a nominal growth rate exceeding 12 per cent per year. The Commission had to make assumptions about private contributions to care costs. In recent years, bonds have increased at a rate higher than the growth in GDP or the CPI. It has been assumed that under current policy settings, bonds would continue to expand, but at a lower rate of 5.3 per cent per year on average.

D.2 Projecting the cost of the proposals in the draft report

Using the same cost projection methodology outlined in section D.1, the Commission has developed indicative and exploratory projections of the cost of proposals contained in the draft report. To develop these projections, it was necessary to:

- identify indicative parameters that could be used to illustrate the proposals
- make some specific assumptions relevant to the reforms outlined in the draft report, but not to a continuation of the current policies.

Using an exploratory set of assumptions, the Commission was able to develop an indicative cost projection for the key proposals outlined in the draft report — with the public cost of the aged care system projected to be 1.9 per cent of GDP in 2050. This compares to the Commission's revised IGR projection — assuming continuation of current policies — of 1.5 per cent of GDP. However, this projection would change if underlying economic circumstances changed, if the health and aspirations of older Australians changed or if other assumptions about the proposed system were used.

The Commission also projected what the private cost of aged care would be under each of these scenarios. However, these projections do not include discretionary expenditure on extra services or higher quality services that people may choose to consume. Under the revised IGR projection, the private cost of aged care is projected to be 0.8 per cent of GDP in 2050. The projected private cost associated with the key proposals outlined in the draft report was 0.9 per cent of GDP in 2050.

The approach used to develop these cost projection is similar to the approach used for the 2010 IGR (Treasury 2010), the Hogan Review (2004b), and by the Productivity Commission (PC 2005). In most respects, descriptions of what settings

have been assumed will provide sufficient information to explain how the Commission has developed the cost projections. However, greater detail is provided to explain how the Commission projected the expected use of future aged care and how the life time stop-loss has been assumed to operate.

Key design features of the proposed new aged care system

The main design features of the proposed system that are relevant for this appendix are:

- introducing a comprehensive (income and asset) means test for determining the co-contributions to care payments for services valued above a relatively low threshold
- requiring people in residential care to be fully responsible for their own accommodation costs, unless they qualify as supported residents (see below)
- setting a price for supported accommodation that is sufficient to provide a basic standard of accommodation
- giving consumers the choice of paying for residential care accommodation through periodic charges or a bond equivalent (which should eliminate the payment of bonds in excess of the cost of accommodation)
- a stop-loss mechanism to protect individuals from very high out-of-pocket expenses for aged care
- the removal of quantitative restrictions on the number of care places.

Expected co-contributions

In order to calculate the projected cost of the proposed scheme, it was necessary to make assumptions about the co-contribution people would make to the cost of their care. In the draft report, the Commission is proposing that an independent regulatory commission be established which would recommend what co-contributions people should make to their care. The co-contributions assumed in this appendix should be viewed as indicative only. However, as they are an important component of the cost projections, details of the assumed co-contributions are provided below, along with the approach used to calculate them.

To place the assumed co-contributions into context, information on what people are currently paying for aged care is also presented. This information is also important because the projected quantity of care used under the Commission's proposal is assumed to be responsive to the change in prices that aged care clients will face.

The four guiding principles for developing the co-contribution assumptions were:

- the co-contribution to care costs should be consistent regardless of the care setting
- people should be responsible for their own accommodation and every day living expenses (with safety nets available for those of limited means)
- people should contribute to their care and accommodation payments if they have the capacity to pay (treating income and assets in a like manner)
- no one should pay more than the cost of their aged care.

Consistent with these principles, the approach for projecting user co-contributions differs according to whether it is for everyday living expenses, accommodation or care.

It was assumed that the contribution towards a basic standard of everyday living expenses in residential care, to be paid by all residents, would be calculated in the same manner as at present (that is 84 per cent of the prevailing single age pension). It is assumed that this cost will be met privately (including from pension income). While people will be free to purchase additional or higher quality services beyond this standard, such purchases will be the responsibility of individuals. As such, the use of higher quality services should not impact on the level of government expenditure. No attempt has been made to incorporate this demand for higher quality services in the private cost projections as it is purely discretionary expenditure.

Where people have sufficient assets, it was assumed that they will pay for all of their accommodation charges in residential care. For those with limited assets (with assets below \$98 000 in 2010 — currently defined as supported residents), the Government is assumed to subsidise their accommodation costs — while for those with very limited assets (below \$38 500 in 2010), the Government is assumed to cover the entire accommodation cost.

The Government is only projected to contribute to a basic standard of accommodation (proposed to be a two-bed room with shared bathroom). The cost of that basic standard of accommodation in 2010 is assumed to be \$40 per resident per night. However, when developing the cost projections, it was assumed that only half of the residents who received government accommodation subsidies in 2010 were in facilities that meet this standard, steadily declining until all residents are assumed to be in accommodation of at least the new minimum standard by 2027. The Commission has no information on what standard of rooms supported residents are currently occupying. For the proportion of facilities that have been assumed not to

reach the new accommodation, the existing accommodation payment is assumed to prevail — currently being \$28.72 per night per resident.

Assumed co-contributions for care

People with annual incomes below \$20 900 and assets below \$313 250 have been assumed to pay no more than 5 per cent of the cost of their care in a community setting, and none of their care costs in residential care. If a person's income or assets exceed these thresholds, they are assumed to make a greater co-contribution to their care costs. For each additional \$2875 in annual income, a person is assumed to pay the basic 5 per cent of care costs plus an additional 1 per cent of their care costs. For additional assets, a person is assumed to pay an extra 1 per cent of care costs for each additional \$68 215 in assets. The additional contributions for income and assets are assumed to be additive. If people's income and assets exceed these thresholds, they would be expected to pay the extra cost of care because of their higher incomes plus the extra cost of care because of their assets.

The Commission assumed that a person who has assets of \$313 250 would need to have an annual income of \$78 400 in order to pay the maximum co-contribution rate of 25 per cent. Similarly, an individual with an annual income of \$52 000 would be expected to pay 25 per cent of care costs if their assets were over \$932 000.¹

The Commission explored what impact a higher maximum co-contribution to care costs would have on the cost projections. The Commission's projections show that raising the maximum care co-contribution an individual may be expected to pay from 25 to 35 per cent will reduce the public cost of the system by 0.1 per cent of GDP in 2050.

The Commission also explored what the implications of a higher rate of growth in bonds would have on the cost projection of the proposals in the draft report. If the rate of growth of bonds was assumed to be 12 per cent per year, the public cost of the draft report proposals would be 2.0 per cent of GDP in 2050, 0.1 percentage points higher.

¹ These numbers are slightly different to those reported in chapter 6 as a result of additional analysis that was carried out for this appendix after the draft report chapters were finalised and printed.

Low level services

Full pensioners are assumed to pay the same amount for low level services as they currently pay under the HACC program. For this analysis, anybody receiving care valued below a threshold (for example, \$100 worth of services a week on average) has been assumed to receive low level services. All people earning more than \$1100 a fortnight are assumed to pay 25 per cent of the cost of their low level services — or \$22.71 a fortnight in 2010 on average. People with incomes between these levels are assumed to pay according to a sliding scale. This is analogous to the current hardship provisions for HACC rather than an explicit means test.

Payments for residential care

The amount of co-contribution for residential care has been calculated separately for accommodation, care and everyday living expenses. All people with more than \$98 000 in assets in 2010 are expected to pay for their accommodation costs (with the Government paying all of the accommodation costs for people with assets below \$38 500 in 2010). Residents have been assumed to pay the same amount for care delivered in a residential care setting as they would under the EACH program (although full pensioners of limited means are assumed not to make a contribution to their care costs, as they would be covered by hardship provisions). All residents are assumed to pay a basic fee for everyday living expenses equal to 84 per cent of the single age pension.

Elasticities of demand for aged care

The Hogan review assumed a price elasticity of demand of -0.5 for aged care services — that is, that a 1 per cent increase in price would lead to a 0.5 per cent decrease in the quantity of aged care used (Hogan 2004). This assumption was based on estimates from a US study published in 1998. That study found consumers had very different responses to price changes depending on their circumstances, with elasticities for different groups found to range from -0.15 to -1.92 (Reschovsky 1998).

The Commission assumed that price elasticities would range from -0.5 (for those on the lowest income) to -0.2 (for those on higher incomes) for all services except low intensity aged care. For low intensity aged care, the price elasticities were assumed to range from -0.06 to -0.01.

As aged care services are heavily subsidised, it is likely that many people are currently paying less than they would be willing to pay for those services. If that

were the case, they would not change their use of aged care until the co-contribution rate exceeded what they are willing to pay for these services. To reflect this, it has been assumed that all groups, except people with low incomes and low assets, will not reduce their use of aged care until their co-contributions have risen by 5 per cent.

Unmet demand

The proposals in the draft report recommend the removal over time of the quantitative limits on aged care places. If such a change was to be implemented, it is likely that more people would use aged care services than would be the case if these limits were retained. This section explores the evidence on the current level of unmet demand for aged care places and indicates how this information has been incorporated into the projected cost of the reforms outlined in the draft report.

Subsidised aged care services are currently rationed, directly and indirectly, by Government. The Australian Government controls the number of allocated residential care beds and community care packages, and the number of HACC services that are delivered is limited by the block funding provided by the Australian, state and territory Governments.

Because the volume of aged care services is limited by policy decisions (principally planning ratios), DoHA does not need to constantly monitor whether the supply of places is sufficient to meet demand, although a significant gap in the provision of services would likely lead to community pressure to increase capacity.

An estimate of unmet demand is, however, essential for projecting the cost of implementing the Commission's reforms for the relaxation of supply constraints. While data is available on the number of services provided, current data do not allow an assessment of underlying demand.

One approximation of demand is the number of people approved by Aged Care Assessment Teams (ACAT or Aged Care Assessment Services in Victoria) — noting that this would only be relevant for more intensive (non HACC) services. However, there are a number of difficulties with this approach:

- the widely reported wait times both to receive an ACAT assessment and to enter care may be discouraging people from being assessed for care
- an older person's circumstances and conditions change over time — their condition can improve, deteriorate or they may die. ACAT assessments may take the potential for increased need into account, but that need may not eventuate

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- people only learn about the amount they are expected to pay for aged care after they have been assessed — so approved care does not necessarily reflect the type or quantity of services a person is willing to contribute to under current subsidy arrangements.

An alternative basis for estimating the demand for care is the ABS Survey of Disability, Ageing and Carers. However, this survey is based on a self assessment of care needs while the ACAT approval process is an externally validated, objective assessment of people's care needs against consistent criteria. The ACAT approval data is therefore likely to be a more reliable indicator of need for services, while noting that the interaction of the above factors means that it is uncertain whether the approval data would be biased toward over or under-estimating demand. The Commission is continuing to work closely with DoHA to better identify the current level of demand for aged care services.

To obtain an approximate indication of the magnitude of unmet demand, the Commission has compared the number of people approved for care through an ACAT assesment for the first time in their lives to the number of people who enter care for the first time. The information provided on approvals for care and entry into care are from different data sets, and there is currently no basis for identifying which individuals have entered care.

Data supplied by DoHA clearly shows that in each year between 2006 and 2009², there is a substantial difference between the number of people approved for more intensive care for the first time in their lives and the number entering such care for the first time (table D.5). However, the difference between approvals and entry into care has narrowed. In 2006, while 66 000 people were admitted into care for the first time, 134 000 (just over twice as many) were approved for care for the first time. In effect, the assessed need exceeded supply by 102 per cent. By 2009, this measure of unmet need had declined to 49 per cent.

² The comparison between first lifetime approval and entry into care has only been presented for four years as DoHA has advised the Commission that data on approvals in earlier years were incomplete.

Table D.5 First lifetime approval or entry into aged care^a

	<i>First lifetime ACAT approval</i>	<i>First lifetime admission</i>	<i>Difference between approved and admitted</i>	
	<i>'000 people</i>	<i>'000 people</i>	<i>'000 people</i>	<i>% of first lifetime admissions</i>
2006	134	66	68	102
2007	123	69	55	79
2008	117	72	46	64
2009	108	72	36	49

^a First lifetime approval is the number of people who were approved for any of respite care, CACP, EACH, EACH-D or permanent residential care in a given year — but only if they have never been approved by the same ACAT team for any of these services before. There may be some double counting if people had previously been approved for care by an ACAT team in another region. First lifetime entry into care is the number of people who enter respite care, CACP, EACH, EACH-D or permanent residential care in a year who have never used any of those services before.

Source: DoHA *Aged Care Data Warehouse*, supplied by DoHA on 24 September (admissions) and 10 November (approvals) 2010.

The gap between approvals and entry for care has narrowed for each year since 2006 both because less people are being approved for care for the first time and more people are accessing care for the first time. Most of the change is because of the reduced number of first lifetime approvals. It is not clear whether this is as a result of:

- a change in the approval criteria or the application of those criteria
- longer delays in receiving an ACAT assessment, and/or
- ACAT behaviour in response to the limited supply of services.

At least one ACAT has indicated that it is only approving people with more urgent care needs, with the result being shorter waiting times for those approved (Stephens et al. 2010). Some aged care providers have noted that some teams are withholding approvals for care until places are available (Blue Care, sub. 254, p. 58; Communio 2007).

A further consideration is that many people approved for care by an ACAT assessment are already receiving HACC services. Therefore, a proportion of unmet demand would actually be ‘partially met demand’ rather than ‘completely unmet demand’. However, there will also be people who need HACC services who do not currently receive them. The best source of information on unmet demand for HACC services is likely to come from the 2009 ABS Survey of Disability, Ageing and Carers. Information from that survey is gradually being released from mid December 2010 through to April 2011. It is hoped that the Commission will be able to explore the unmet demand results from that survey in the final report.

To incorporate the scope for more people to use aged care services if quantitative restrictions on aged care places were removed, the Commission calculated an indicative maximum level of aged care use. This was calculated by inflating the number of people using intensive aged care places in 2010 (CACP, EACH, EACH-D and residential care) by the proportional difference between the number of first lifetime approvals by an ACAT team and the first lifetime entry into intensive aged care — for 2009, this was 49 per cent. All of this potential increase in aged care use was assumed to occur in community care settings. Potential age based usage rates for care were then calculated for 2010 and projected into the future using the projected increases in population (see *Mix of services* in section D.3).

This maximum additional care use was then used as the base quantity from which to project aged care use for the indicative representation of the proposals contained in the draft report. As the proposals involve an increase in co-contributions, particularly for the wealthy, the actual use of aged care projected for this scenario is below the maximum additional care use that had been calculated. However, projected aged care use is substantially above the current rate of care use and the projected level of care use under the Commission's revised IGR projection.

The lifetime stop-loss amount

The Commission is recommending a lifetime stop-loss arrangement for care costs (but not for accommodation costs or everyday living expenses). The rationale for this mechanism is to shield people from excessive or catastrophic care costs. In effect, it is envisaged as an alternative to private insurance products which, if introduced, are unlikely to perform other than a modest role (chapter 7). It has been recommended to work in concert with a range of safeguards for those with limited means (chapter 6). Assuming that the maximum co-contribution to care costs is 25 per cent, the vast majority of Australians would already be shielded from excessive care costs. However, a small number of people will receive intensive aged care services for an extended time.

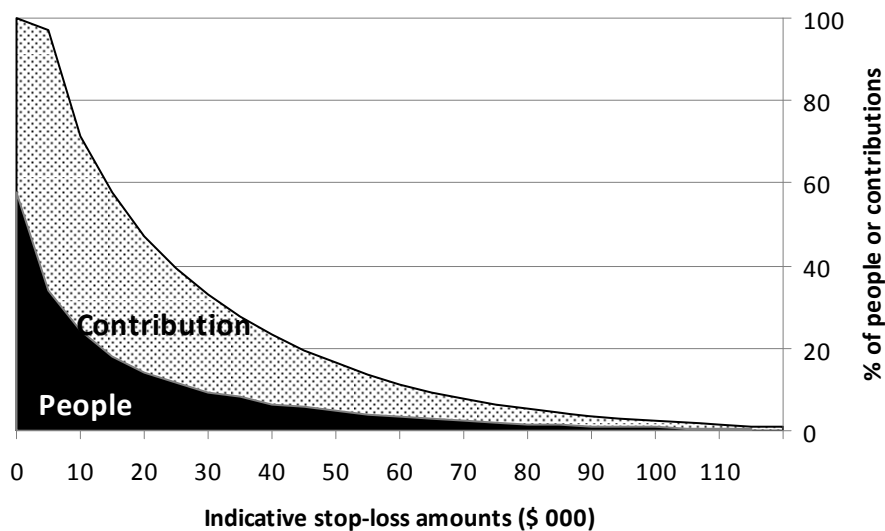
Based on the assumed co-contributions ranging from 5 to 25 per cent, the Commission has developed an indicative guide to the aggregate co-contributions aged care users would make to their care costs (figure D.2).

For the purposes of costing the proposed aged care system, the Commission has assumed a stop-loss limit of \$60 000. It should be noted that this number is indicative only, and as such, should not be viewed as an endorsement by the Commission of this particular limit. To maintain the real value over time, the

stop-loss limit amount would have to be indexed in the future — the assumed rate of indexation was the 2010 IGR CPI assumption (2.5 per cent in most years).

With this exploratory value of \$60 000 as the stop-loss limit, the Commission projects that about 3 per cent of older Australians would be protected by the stop-loss, with just over 10 per cent of private contributions being covered.

Figure D.2 Projected percentage of care recipients expected to reach indicative stop-loss amounts



Data source: PC projections.

In order to project the number of people and the proportion of private care co-contributions that could be covered by a stop-loss mechanism, it is necessary to have information on the distribution of lifetime aged care experiences. The Commission has used a combination of information sources to approximate this distribution. The indicative projections of the stop-loss amount are based on:

- estimates of the probability of needing aged care
- the estimated length of time people are likely to receive aged care
- projections about the future income and assets of older Australians
- projections of the proposed co-contributions for different types of care.

The information on the probability of needing aged care and the likely length of time receiving aged care is based on estimates of recent use (see below). However, it is not clear that the future pattern of aged care use will necessarily be consistent with recent use. In the absence of reasonable alternatives for projecting future use, estimates of recent use have been used.

Feedback is sought on this approach as well as alternative ideas of projecting the distribution of individual lifetime care co-contributions.

Probability of needing combinations of aged care

A number of data sources have been drawn on to approximate the probability of people requiring:

- no aged care services during their lifetime
- only residential care services during their lifetime
- only community-based aged care services during their lifetime
- both community-based and residential aged care services during their lifetime.

DoHA prepared an unpublished technical paper for the Commission's use in this inquiry on the lifetime risk of entry into intensive aged care. In that paper, DoHA defined 'intensive aged care' as comprising CACP, EACH, EACH-D, Transition Care and permanent and respite residential care.

The DoHA technical paper provided estimates of the probability of people requiring either any type of intensive aged care or requiring residential care in their lifetime, based on the ABS life tables for 2006–08 (table D.6).

Table D.6 Lifetime risk of requiring aged care^a and residential care
2006–08

	<i>At birth</i>	<i>At age 65</i>	<i>At age 75</i>	<i>At age 85</i>	<i>At age 95</i>	<i>At age 100 or over</i>
Remaining lifetime risk of requiring care (per cent)						
Females	62.4	67.6	71.7	79.4	82.9	65.1
Males	41.7	47.8	52.5	62.0	66.9	41.3
Remaining lifetime risk of requiring residential care (per cent)						
Females	48.3	52.3	55.8	63.6	70.4	55.9
Males	31.7	36.3	40.1	48.8	55.3	33.8

^a Probability of ever using at least one of the following — residential aged care, community aged care packages (CACP) or extended age care at home packages (EACH or EACH-D).

Source: Data supplied by DoHA.

Lifetime risk of using residential care is comprised of the risk of a person needing to use only residential care (but not community care) plus the risk of a person needing to use residential care and community care during their life. The risk of needing 'intensive aged care' is the risk that a person will need residential aged care, plus the risk that a person will only need community-based aged care during their life.

As such, the probability that a person will only need community-based aged care during their lives can be inferred by subtracting the lifetime risk of needing residential care from the lifetime risk of needing ‘intensive aged care’.

For example, the lifetime probability of a 65 year old female only needing community based aged care is inferred to be 15.3 per cent (the probability of needing intensive aged care services less the probability of needing residential care — 67.6 per cent minus 52.3 per cent). Using the same approach, the inferred lifetime probability that a 65 year old man will only need to use community-based aged care services is 11.5 per cent.

The Australian Institute of Health and Welfare (AIHW 2009e) publishes statistics on the reasons why people separate from intensive community-based aged care services. The reasons for separation from CACP packages are categorised as:

- death
- to hospital
- to residential aged care
- to other CACP outlet
- other community/holiday
- other.

While people are defined as separating from such care if they move from one form or provider of community care to another, such a change is not relevant for determining whether a person will only use community care during their lives, or if they will use both community care and residential care. If a person separated from community care because they go to hospital, the most likely movements after their hospital stay would be returning to community care, moving to residential care or dying.

The separations from CACP packages for 2007-08 are provided in table D. 7. The only definitive changes from this list of separations are moving to residential care (in which case a person will have used both residential care and community care during their lives), or death. It was assumed that if a person dies while receiving community care, they did not receive residential care during their lives. Although it is possible that a small number of people had received residential care, and then moved back into the community before their deaths — that possibility was not explored nor was information available to determine the frequency of these situations.

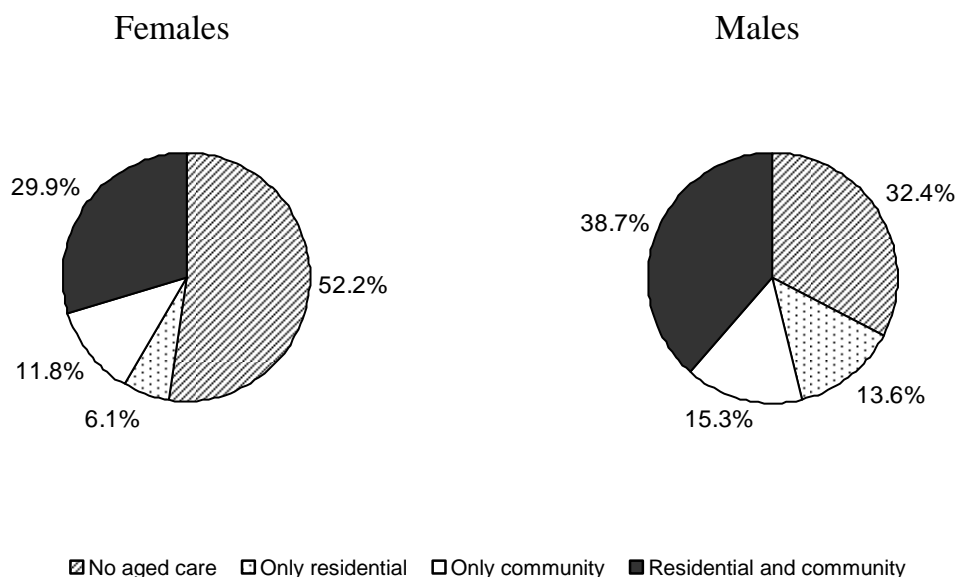
Table D.7 Separations from CACP in 2007-08

<i>Reason for separation</i>	<i>Number</i>	<i>Per cent</i>
Death	2 911	18.4
To hospital	764	4.8
To residential aged care	7 364	46.5
To other CACP outlet	1 222	7.7
Other community/holiday	943	6.0
Other	2 631	16.6

Source: AIHW 2009e.

For every person who died while on a CACP package in 2007-08 (18.4 per cent from table D.7), slightly more than 2.5 people moved from a CACP package to residential care (46.5 per cent). The separations from CACP packages were not separately available for females and males. The pattern of separations has been assumed to apply to both genders. Accordingly, it was assumed that the proportion of females aged 65 years of age who are likely to use both residential and community-based care during their lifetime was 38.8 per cent (2.5 multiplied by those who only use community care — 15.3 from table D.6). The corresponding figure for males was 29.9 per cent. The probability of only using residential care can then be calculated as the remainder (figure D.3).

Figure D.3 Projected probability of using combinations of aged care



Data source: Commission calculations based on data supplied by DoHA and AIHW (2009e).

Estimated length of time receiving aged care services

DoHA prepared a technical paper on the length of stay in residential care for this inquiry. They also provided extracts from their administrative databases on individuals' use of residential care and individuals' use of community care. The Commission used the supplied administrative data to estimate the probability of spending different lengths of time receiving aged care services.

The administrative data includes a range of information for all people who were admitted to either community or residential care between July 1997 and the end of December, 2009 including:

- age
- date of first use for that type of care
- whether they are still receiving the care
- date they left care (for those that have left care).

The Commission used this data to estimate the probability of continuously receiving either residential care or a CACP package for various lengths of time. Separate estimates were made for males and females. While information was available for people receiving care under EACH or EACH-D, the small number of people using these programs and the relatively limited time these programs have operated for meant that the estimated length of time on those programs was an unreliable basis for projecting the expected lifetime use of care.

To estimate the probability of continuously receiving care for at least a specific length of time, it is necessary to identify the people who have received care for that length of time or longer, and to identify the number of people who could have received care for that length of time. For example, the number of people in the data set who could have received care continuously for a year can be determined by identifying all individuals who were admitted to care at least a year before the cut-off date for the extract — in this case 31 December 2009. As such, all people admitted to care on or before 31 December 2008 could have received care continuously for at least a year.

Using this approach, the Commission calculated the probability of remaining in residential care (table D.8) and on CACP packages (table D.9) for various lengths of time. For example, the probability of a male spending at least two years in residential care is 36 per cent (0.36 from table D.8). This implies that 54 per cent of men who entered residential care between July 1997 and 31 December 2007 spent less than two years in residential care.

Table D.8 Probability of remaining in residential care

After a given length of time

	<i>Males</i>	<i>Females</i>
1 month	0.89	0.94
2 months	0.82	0.89
3 months	0.77	0.86
4 months	0.73	0.83
6 months	0.67	0.79
9 months	0.60	0.74
1 year	0.54	0.69
18 months	0.44	0.60
2 years	0.36	0.53
3 years	0.23	0.39
4 years	0.15	0.28
5 years	0.094	0.190
6 years	0.058	0.125
7 years	0.035	0.079
8 years	0.021	0.048

Source: Data supplied from DoHA.**Table D.9 Probability of remaining on CACP**

After a given length of time

	<i>Males</i>	<i>Females</i>
1 month	0.95	0.96
2 months	0.89	0.90
3 months	0.83	0.85
4 months	0.78	0.80
6 months	0.69	0.73
9 months	0.59	0.63
1 year	0.50	0.55
18 months	0.37	0.42
2 years	0.27	0.32
3 years	0.15	0.19
4 years	0.09	0.12
5 years	0.052	0.073
6 years	0.031	0.046
7 years	0.019	0.027
8 years	0.010	0.015

Source: Data supplied from DoHA.

For people assumed to use only residential care, the Commission has used their assumed lifetime use of care as set out in table D.8. Similarly, for those people assumed to only use community-based care, the Commission has used the assumed lifetime length of care as set out in table D.9. For people assumed to use a

combination of residential and community care, the Commission assumed that the length of time spent in residential care was not influenced by the length of time spent in community care or vice versa. For example, if someone was assumed to use both community and residential care, their assumed probability of spending at least two years in each type of care is 9.7 per cent for males and 17.0 per cent for females. These probabilities are determined by multiplying the relevant probability for remaining in residential care for at least two years (0.36 for males and 0.53 for females) with the relevant probability of receiving community care for at least two years (0.27 for males and 0.32 for females).

Projected co-contributions for different types of care

While the draft report proposes replacing the current system of community-based care programs with a single program of care capable of delivering differing levels of care (according to a person's need), for ease of calculation, the stop-loss projections have been based on existing policies. HACC services have not been included in the stop-loss calculations, but community-based aged care packages and residential aged care have been included.

The assumed care co-contributions have been based on the average per person cost of existing community-based aged care packages, with the growth in per place cost indexed according to the assumed growth in the full single age pension. The rate of co-contributions has been projected according to the comprehensive income and assets test described earlier in this appendix, and the assumed distribution of income and assets of older Australians.

Assumed income and asset distributions for older Australians

The Commission's draft report proposes the introduction of a comprehensive means test that takes into consideration both an individual's income and assets when calculating the co-contribution they are expected to make towards their cost of care. This test would apply where the person receives care services valued above a low level threshold of, say, \$100 a week on average. Below that threshold, a simpler test would be used to determine co-contributions. As such, it was necessary for the Commission to make assumptions about the income and asset distributions of older Australians, both now and in 2050 as the basis for projecting co-contributions.

The income and wealth distribution of full and part pensioners (effectively all recipients of government income support) is based on the HILDA wave 8 database (Watson 2010). It draws on the household asset supplementary questions from the 2006 survey for people aged 80 or over (the group most likely to need aged care).

While most income data is attributed to individuals, only some of the wealth data is attributed to individuals, with most being attributed to the household. In the absence of any more definitive data, the Commission has apportioned household wealth equally among all members of the household aged 18 or over.

For non pensioners, only the wealth information from HILDA was used. A large proportion of non pensioners aged 80 and over indicated that they earned no income (including from superannuation, interest, dividends or rental properties) even though many had one or more of those types of assets. As such, the wealth information from HILDA was combined with the income estimates derived from the daily income tested fees information for non pensioners/means not disclosed people in residential aged care during June 2010 (supplied by DoHA).

The income and wealth data from HILDA was indexed to be consistent with the increase in pension between June 2006 (the end of the HILDA data collection period) and June 2010 (the period that income tested fee information became available for).

The HILDA database only indicates if people are receiving a government pension or income support — it does not indicate if they are full or part pensioners. The lowest four income deciles of pensioners have been considered to be full pensioners while the highest six deciles part pensioners. The Commission applied a uniform adjustment factor to the income and asset distribution so that the assumed proportion of full and part pensioners for 2010 and 2050 is consistent with the 2007 IGR assumptions.

Some pensioners in the HILDA database had incomes substantially below the full age pension amount. The Commission assumed that no pensioner could have income below the full pension rate.

As discussed above, for older Australians not receiving government pensions, the income data has been calculated from the amount of daily income tested fees that non pensioners are paying. While the amount of the daily income tested fee a person can pay is dependent upon their income, it cannot exceed the person's care costs or a capped amount. Only non pensioners paying less than the full cost of their care have been included in the estimates (only 4 per cent pay the full cost of their care). The bigger issue is that 17 per cent of self funded retirees/means not disclosed residents are paying the capped amount of the daily income tested fee. In June 2010, a person could pay the capped amount if their fortnightly income was \$2880 or higher. It was assumed that all self funded retirees paying the capped fee have a fortnightly income of \$2881 — which will understate the projected co-contributions from this group.

A two stage process has been used to project the income and wealth of people aged 80 years or older for 2050 involving:

- inflating the income and assets for each income and asset combination for full pensioners, part pensioners and self funded retirees
- increasing the proportion of self funded retirees and part pensioners to reflect the expected greater affluence of a large number of older Australians in the future.

The Commission has inflated the income and assets deciles used for the 2010 analysis by the projected rate of pension increases. To simplify the presentation of the costings, the asset and income deciles were amalgamated into nine different categories. The upper and lower limits of these categories, and the percentage of the 80+ population assumed to fall into each category are set out in tables D.10 and D.11.

Combining this information into a stop-loss projection

For each of the identified income and asset categories, it was assumed that:

- the distribution of males and females would be the same
- the probability of using aged care would be the same (any care, community care only, residential care only)
- the distribution of time in care was assumed to be the same.

If people used community-based care, it was assumed that they had an 84 per cent chance of using CACP type services, 10.4 per cent chance of using EACH type services and a 5.6 per cent chance of using EACH-D type services (in line with current planning ratios — DoHA 2010p). The care co-contribution for residential care was assumed to be the same as for EACH-D type services, except for people with incomes below \$20 900 and assets below \$313 250 who were assumed to make no co-contribution to their care costs as they are already contributing 84 per cent of their pension to their everyday living costs.

All up, there were 197 200 possible combinations of income, assets, care combinations and assumed length of time receiving that care. For each of these combinations, the Commission calculated a projected lifetime care co-contribution and a weighting (reflecting the combined probability of being in a specific income and asset combination, the probability of using a specific combination of aged care and the probability of spending a specific length of time in each type of aged care).

This information and these assumptions were used as a basis for estimating the proportion of people whose care co-contributions are projected to exceed a range of lifetime stop-loss limits and the proportion of private care co-contributions that would exceed those limits (figure D.2).

Table D.10 Distribution of population aged 80+, 2010

By income and asset category ^a

		Assets		
		Low	Medium	High
		(<=200 000)	(>200 000, <800 000)	(>=800 000)
Annual Income	Low (<=20 000)	20.1	29.9	7.7
	Medium (>20 000, <50 000)	6.8	12.2	8.1
	High (>=50 000)	1.4	4.9	9.0

^a Includes some household assets that have been apportioned among all adults in the household.

Source: Commission calculations sourced from HILDA (2010).

Table D.11 Distribution of population aged 80+, 2050

By income and asset category ^a Asset and income thresholds are in 2010 dollars.

		Assets		
		Low	Medium	High
		(<=267 000)	(>267 000, <1 297 000)	(>=1 297 000)
Annual Income	Low (<=32 000)	13.8	21.1	5.1
	Medium (>32 000, <83 000)	9.8	17.4	11.4
	High (>=83 000)	2.0	6.8	12.5

^a Includes some household assets that have been apportioned among all adults in the household.

Source: Commission calculations sourced from HILDA (2010).

D.3 Key assumptions and sensitivity analysis

The level of Government expenditure on aged care services in the future will primarily be influenced by five factors:

- disability levels of older Australians
- growth in the number of older Australians
- any change in the care mix between residential and community care
- changes in the average cost of residential and community care services per person
- changes to the costs of services as a consequence of the financial contributions that care recipients are expected to make.

Each of these factors has been incorporated into the Commission's projections of aged care expenditure.

Disability levels among older Australians

Changes in the prevalence of age specific disability rates have the potential to have a considerable affect on the cost of the aged care system. A reduction in the disability levels of older Australians, for example, could be expected to result in the deferral of their need for care services (particularly intensive care services), and as such, have a downward effect on the overall cost of the system. Increasing disability rates would have the converse effect.

The Hogan Review (2004) assumed that age specific disability rates would fall by 0.25 per cent per annum through to the end of their projection period in 2042-43. The Review cited international evidence that age specific disability rates were declining in industrialised countries as the basis for this assumption. The Review notes, however, that the evidence specific to Australia of decreasing disability prevalence amongst older people was less clear. The Review also suggests that even if the disability prevalence of people aged 65 years or older is not falling in aggregate, the disability rates of individual age cohorts within this group may be.

To ascertain the extent that age specific disability rates in Australia have been changing, the Commission examined the three most recent Survey of Disability, Ageing and Carers (SDAC), undertaken by the ABS in 1998, 2003 and 2009. Given the limited release of data from the 2009 survey at this point in time, only the total disability rate was examined. This aggregates all people with even a mild core activity limitation and without specific limitations or restrictions as well as those

with severe or profound disabilities. The final report will examine the 2009 survey more closely as more results are released.

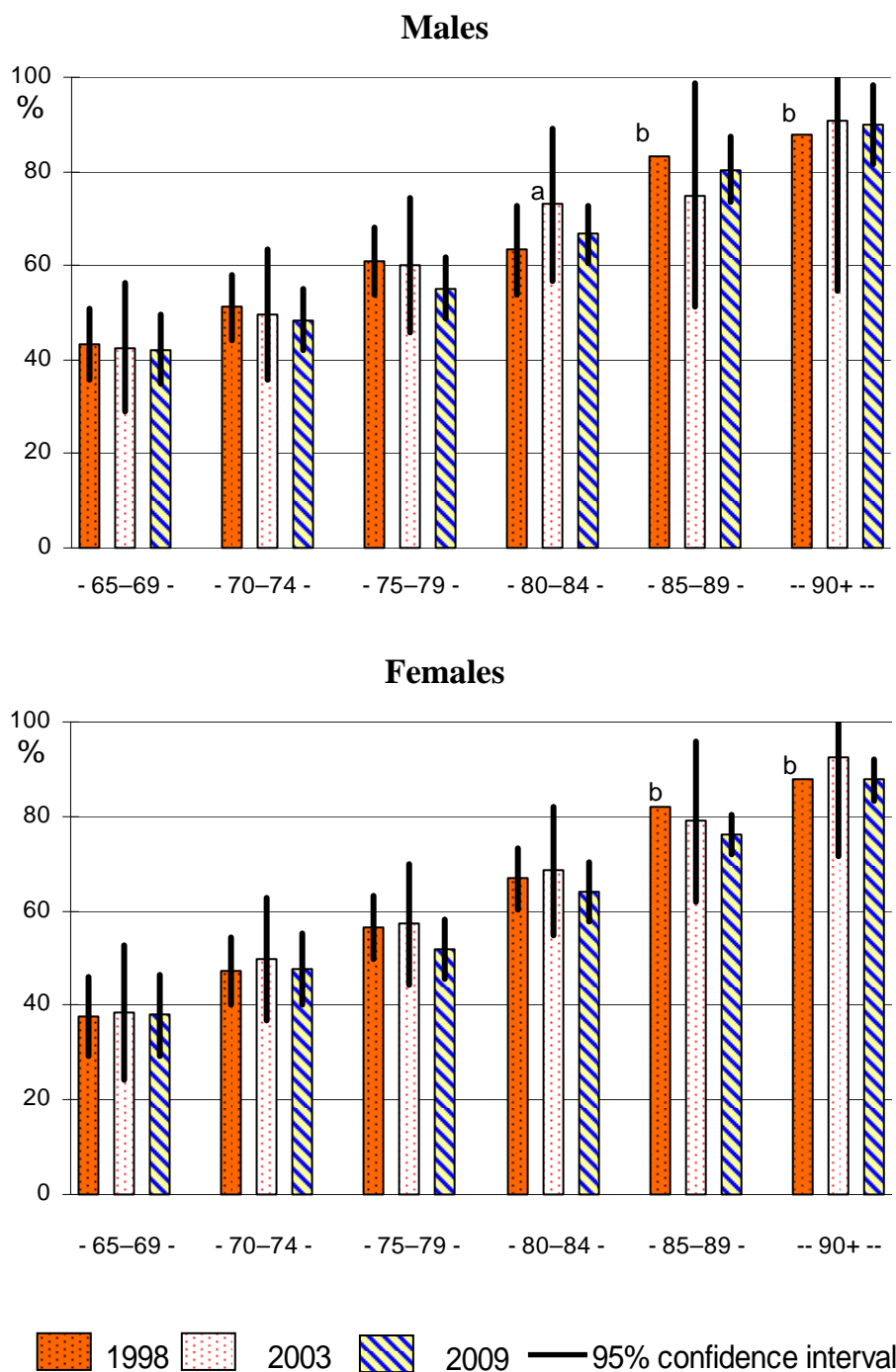
The ABS notes that while the data provided in the 1998, 2003 and 2009 SDACs are generally comparable, there are some differences. Of most relevance to the Commission's analysis, the ABS states that the 2003 and 2009 surveys have attempted to obtain better coverage of disability.

While there have been variations in the age specific disability rates between the surveys, very little of the change has been statistically significant.³ The rate of age specific disabilities declined over time for some of the five year age groups. The direction of change is different between the surveys and for others, there has been an increased rate of disabilities (figure D.4). Given this, the Commission has assumed that the existing age specific disability rates will prevail throughout the period for which it is projecting the costs of Australia's aged care system (through to 2050).

To indicate how sensitive the cost projections would be to alternative assumptions about disability rates, the Commission also projected what the public cost would be if the age specific disability rates were to decline by 0.25 per cent per year. Under those assumptions, the public cost of the revised IGR projection would decline from 1.5 to 1.4 per cent of GDP in 2050. The projected cost of the reforms outlined in the draft report would decline 1.9 to 1.7 per cent of GDP in 2050 if the same reduction in age specific disability rates was assumed.

³ To be statistically significant, the new estimate needs to be outside of the 95% confidence interval, indicated by the vertical black lines in figure D.2. The 95% confidence interval ranges from the estimated disability rate, plus and minus two relative standard errors. Because the upper end of some of these ranges exceeds 100% of the population, some of the ranges do not appear symmetrical.

Figure D.4 Age and sex specific disability rates
disability rates by age and sex groups for 1998, 2003 and 2009



a Statistically significant change from preceding survey. For men aged 80 to 84 years of age, the estimated higher disability rate for 2003 is statistically significantly different from the 1998. When the age specific estimates for people are compared (that is, men and women combined) there are also significant declines in disability rates for the 75–79 and 80–84 year old groups between the 2003 and 2009 surveys. **b** The 1998 survey published results for the age group 85+, but the 2003 survey did quote results from 1998 for the 85–89 and 90+ age groups, but did not include information on the confidence intervals for that year.

Data sources: ABS 4430.0, Disability, Ageing and Carers, Australia, Summary of Findings, 1998, 2003 and 2009.

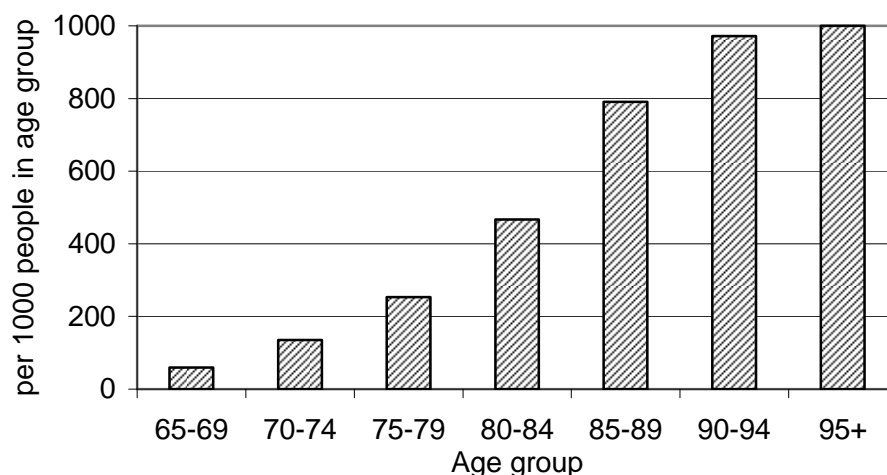
Growth in the number of older Australians

The number of people age 85 years or older is of particular relevance for aged care expenditure. Currently the use of formal aged care services increases rapidly for this cohort (figure D.5). The proportion of people aged 85 years or older is expected to nearly treble from 1.8 per cent of the population in 2008 to 5.1 per cent in 2050 (assuming population projections consistent with the 2010 IGR). This is primarily a consequence of greater longevity and the bulge in population associated with baby boomers from about 2030. Ageing will exert substantial pressure on aged care expenditure.

The provision of ‘intensive aged care’ places in Australia is currently guided by the national planning benchmark. That benchmark indicates a target of 113 aged care places per 1000 people over the age of 70 in Australia by June 2011 (DOHA 2010p).

Figure D.5 Use of aged care services by age group

Use in 2008 per 1000 people in age group ^a



^a Includes those using HACC, Veterans' Home Care, Community Nursing (DVA program), CACP, EACH, EACH-D and residential care in 2008 compared to population in age range on 30 June 2008. Some people can be receiving services from more than one program, so these numbers will overstate the number of people receiving services.

Data sources: AIHW (2009c, 2009d); ABS (2010e).

Projecting future use based on current age and sex specific use

For the revised IGR scenario, the Commission has attempted to estimate the cost of a system that is comparable to existing arrangements. As such, the number of aged care places has been projected using current age and sex based rates of use of age care rather than the current planning ratios. While this departs from the established

approach for projecting the cost of an existing system, the planning ratio is designed as a tool to meet the demand for aged care places and is subject to review (DoHA 2010p). If the planning ratios were to be maintained, it is likely that they would rise in the future in response to the underlying demographic trends.

The most commonly used aged care program in all age groups is HACC, with intensive community care packages being the least used in most age groups (table D.12). The aged care programs run by the Department of Veterans' Affairs — Veterans' Home Care and Community Nursing — are also large programs with slightly more than 100 000 clients in 2008-09. However, the number of people eligible for Veterans' aged care programs is projected to decline in the future (DVA 2009).

Age and sex specific ratios of aged care use have been used to project the number of aged care places in the future. Assuming that there were no changes in the probabilities of people needing aged care, in the age those care needs developed or in the ease of access and speed of entry into aged care, this would result in a comparable system to present.

Table D.12 Age and sex based use rates of aged care services in 2008

People using services per 1000 people in age and sex cohort

<i>Males</i>	<i>HACC</i>	<i>Veterans' programs^b</i>	<i>Community packages</i>	<i>Residential care</i>
65–69	66	2	2	6
70–74	100	3	4	13
75–79	179	8	8	27
80–84	277	62	17	57
85–89	325	254	30	117
90+	275	239	51	246
<i>Females</i>	<i>HACC</i>	<i>Veterans' programs^b</i>	<i>Community packages</i>	<i>Residential care</i>
65–69	95	1	3	6
70–74	174	4	7	13
75–79	292	20	15	37
80–84	403	79	30	94
85–89	509	130	48	209
90+ ^c	514	95	60	412

^a Data includes those people in residential care or on CACP, EACH or EACH-D packages on 30 June as well as the number of people who used HACC throughout the year. The population is the end of financial year population for the age and gender group. ^b Client data for Veterans' programs — Veterans' Home Care and Community Nursing — is from 2008-09. ^c Total for this age groups exceeds 1000 people because some people use more than one service in a year. People can use more than one service in a year if they receive services from more than one program at a time or that they move between services during a year (for example from HACC or a Veterans' program to residential care).

Source: Commission calculations.

Box D.2 outlines the mathematical representation of the projection methodology for community care. A similar approach has been used to project the number of residential care places.

Box D.2 Projecting the number of community aged care places

To enable the Commission analysis to be replicated, the methodology for projecting community based aged care places for the revised IGR scenario can be represented as:

$$CC_x = \sum_{s=m}^f \sum_{a=1}^n ASP_x^{as} \times ASU^{as}$$

$$CACP_x = \frac{21}{25} \times CC_x$$

$$EACH_x = \frac{2.4}{25} \times CC_x$$

$$EACH - D_x = \frac{1.6}{25} \times CC_x$$

Where:

CC_x = Projected community care places in year x

$CACP_x$ = Projected CACP places in year x

$EACH_x$ = Projected EACH places in year x

$EACH-D_x$ = Projected EACH-D places in year x

a = age range (0–64, 65–69, 70–74, 75–79, 80–84, 85–89, 90+)

s = sex (male or female)

x = projection year (2010 to 2050)

ASP_x^{sa} = age and gender specific population in projection year

ASU^{sa} = age and gender specific usage of community care in base year (2008)

The number of people using aged care places in 2008 has been obtained from the AIHW reports (2009c, d). ABS (2010e) was the source of the historical population data, while the ABS population projection B was used to calculate future aged care places (ABS 2008d).

Mix of services

Even if there is no change in the frequency or type of disability, frailty or impairment experienced by older Australians in the future, changes in living arrangements and support structures could alter the mix of needed services. Some features that influence the cost of aged care include:

- men are living longer. Over the next 40 years, the average age difference between married couples is less than in previous cohorts
 - by itself, this would tend to increase the availability of carers. While it may increase the demand for services to be delivered to multiple members of the same household, it could reduce the intensity of care required and allow the delivery of care to be more effectively organised
- smaller family sizes and increased frequency of separations, which would decrease the availability of carers
 - this would tend to increase care demand and costs.
 - the overall impact would be determined on the relative impacts of these two factors
- the historic pattern of immigration into Australia could lead to demand for more culturally specific services, and from some cultural/ethnic groups that have few services at present.

Other factors may decrease (or limit the increase in) the per person cost of aged care. While the following factors have been identified, the effect of such assumptions on the projected cost have not been estimated:

- there has been an increase in age appropriate housing in recent decades. The continuation of such a trend could offset the need for some aged care services, and decrease the intensity of services required for individuals
- the widespread availability of internet and advanced telecommunication devices could enable people to delay entry into residential care
 - these tools have the potential to overcome social isolation, provide ready contact to family, friends and medical providers and provide older people with greater confidence about their ability to continue living at home safely
- other technological developments may enable the same quality of aged care services to be delivered at a lower cost, or for the quality to be increased for the same cost.

Other factors that would influence the mix of services required are the availability of carers and the rate and nature of disabilities.

High and low residential care

While current planning ratios for aged care indicate that half of all people entering aged care facilities should be classified as low care when they enter, part of the existing aged care policy is to allow ageing in place. Ageing in place allows people to remain in a designated low care place even when their care needs are subsequently assessed as high. This means that the proportion of residents actually living in residential care facilities who have high care needs will exceed the planning ratio. In 2004, the proportion of high care residents was 66 per cent (AIHW 2006). Late in the draft process, information was released on the proportion of high care residents in 2009 — 75 per cent (AIHW 2009c) — but which was not reflected in the analysis for the draft report.

The Commission has assumed that 70 per cent of people in residential care facilities have high care needs. When preparing the 2010 Intergenerational Report, it was assumed that the proportion of high care places would increase to 77 per cent near the end of the projection period. If this assumption is utilised in the Commission's projections, the public cost of aged care would increase by 0.03 per cent of GDP in 2050 compared to the Commission's 'Revised IGR' projection.

Residential care versus community care

For the revised IGR scenario, the Commission has assumed that the ratio of residential care places to intensive community care places will prevail throughout the projected period. The ratio of 25 intensive community care places for every 88 residential care places is intended to be achieved by 2011 (DoHA 2010n).

The most plausible alternative would be to assume a higher proportion of community care places. Two sets of evidence support this approach:

- over recent years, the share of community care places in the planning ratio has been increased
 - this is consistent with a perceived preference for people to receive aged care services in their homes, rather than move to residential facilities
- the Commission has been informed that there are extensive waiting times for accessing community care packages, while the number of vacancies in residential care has increased.

Factors that could limit the expansion in community care packages include the possible reduced availability of informal carers and labour shortages.

If a further shift from residential care to community care was assumed to occur, but that the care needs of people do not change, then the type of community care required would be closer to the intensity provided by EACH or EACH-D packages than that provided by CACP.

To demonstrate how sensitive the projected cost would be to the assumed mix between residential and intensive community care, an extreme alternative scenario was constructed where it was assumed that no one used residential care, and that all those previously assumed to use residential care received EACH-D packages instead. Under this assumption, the total cost (public plus private) decreases by 0.4 per cent of GDP in 2050. However, because the private contribution to community care packages is substantially less than the contribution for residential care, the public cost increases by 0.3 per cent of GDP in 2050 compared to the revised IGR projection.

Intensity of community care

At present, most of the intensive community care places are provided by the CACP program. Submissions to the inquiry indicate that a number of people currently on CACP packages have care needs that exceed the services that can be provided under that program.

If the proportion of EACH and EACH-D places were higher, the public cost of aged care would rise. EACH and EACH-D packages are more costly to deliver than CACP packages, but the co-contribution people are expected to make for each package are the same in dollar terms.

If half of the intensive community care packages were EACH and EACH-D packages (say, for example, 30 per cent EACH places, 20 per cent EACH-D places and 50 per cent CACP packages), the public cost would be 0.08 per cent of GDP higher than the revised IGR scenario in 2050.

Change in the average cost of care — wage costs

In addition to unmet demand, future wage costs will have a substantial impact on the future cost of aged care. Chapter 11 highlights that the current wage structure of aged care workers may not be sufficient to attract and retain staff. The ability of aged care providers to attract sufficient staff is likely to be more difficult in the future because of the increasing number of older Australians requiring care and support and the expected tightening of the overall labour market, making competition for workers more intense.

In the revised IGR projection, it was assumed that wages in aged care will rise by 4 per cent a year in nominal terms (Treasury 2010). The Commission explored how sensitive the indicative projections are to alternative wage cost assumptions.

To indicate how sensitive the projected cost of aged care would be to alternative assumptions for wages growth, a higher wage growth assumption was selected — this arbitrary assumption should in no way be considered as the Commission’s proposal or recommendation of what the rate of growth of wages in the aged care sector should be. If prevailing wage costs in the future were higher than those assumed under the revised IGR projection, it would increase the cost of the existing aged care system, as well as that of any alternative approach, including the proposals outlined in the draft report.

For the existing aged care system, if wages were to increase by 5 per cent a year (in nominal terms), the public cost would increase to 1.9 per cent of GDP in 2050, compared to the revised IGR estimate of 1.5 per cent of GDP. For the proposal contained in the draft report, if the annual growth in nominal wages was assumed to be 5 per cent, the projected public cost would increase from 1.9 to almost 2.3 per cent of GDP in 2050. This sensitivity analysis is based on the assumption that wages account for 70 per cent of the cost of aged care delivered in community settings and 50 per cent of the cost of aged care provided in residential settings.

Financial co-contributions of care recipients

The aged care arrangements currently contain a number of safety net arrangements to ensure that people with limited means can access the care they need. The Commission has discussed the advantages of re-targeting these safety nets in the future. With safety nets set to continue, one factor that will influence the projected cost is the number of people expected to be eligible for those arrangements.

Some of the basis for determining eligibility for a safety net includes pension status, means tests based on an income or assets test, or less formal hardship provisions.

The average wealth of retirees has been steadily growing. In particular, rising house values have contributed to this increased wealth, but this increase is not universal. A reducing, though substantial, proportion of people are expected to be reliant on single age pension, including people with little or no superannuation who do not own property or financial assets.

The Commission assumed that there will be a decline in the number of full pensioners⁴ from 55 per cent in 2010 to 36 per cent of those over the qualifying age for the age pension in 2050 — which is consistent with the projections in the 2007 Intergenerational Report. The proportion of self funded retirees is estimated to increase from 20 to 24 per cent over the same time period.

While around 20 per cent of people who have already reached the age pension qualifying age can be described as self funded retirees, just over 10 per cent of people receiving aged care services are self funded retirees. This suggests that full and part pensioners are over-represented among aged care consumers, especially in the HACC and CACP programs, and among residential care clients (table D.13).

Table D.13 Pension status of aged care recipients

Percent of recipients of an aged care program in 2008

	<i>HACC^b</i>	<i>CACP</i>	<i>EACH</i>	<i>EACH-D^c</i>	<i>Residential care</i>
Age pension ^a	65	74	68	69	70
Disability support pension	14	3	3	1	
Veterans' Affairs pensions	8	12	11	11	18
Other government pension or benefit	3	>1	1	1	
No pension or benefit or unknown pension status	10	11	17	19	12

^a Includes people receiving a full or part age pension. For residential care, this includes anyone receiving a Centrelink pension — not just an age pension. ^b Includes people receiving HACC for disability support as well as aged care. ^c Columns may not sum to 100 because of rounding.

Sources: DoHA (2009c, 2010e); AIHW (2009c).

There are good reasons why pensioners are over represented among people receiving aged care. The majority of people entering intensive aged care are aged 80 years old or over (AIHW 2009c and d). As they are an older cohort than those most recently retired, they are less likely to have accumulated superannuation during their working life. In addition, after 15 or more years in retirement, it is to be expected that they will have drawn down a proportion of their savings and investments to fund their retirement.

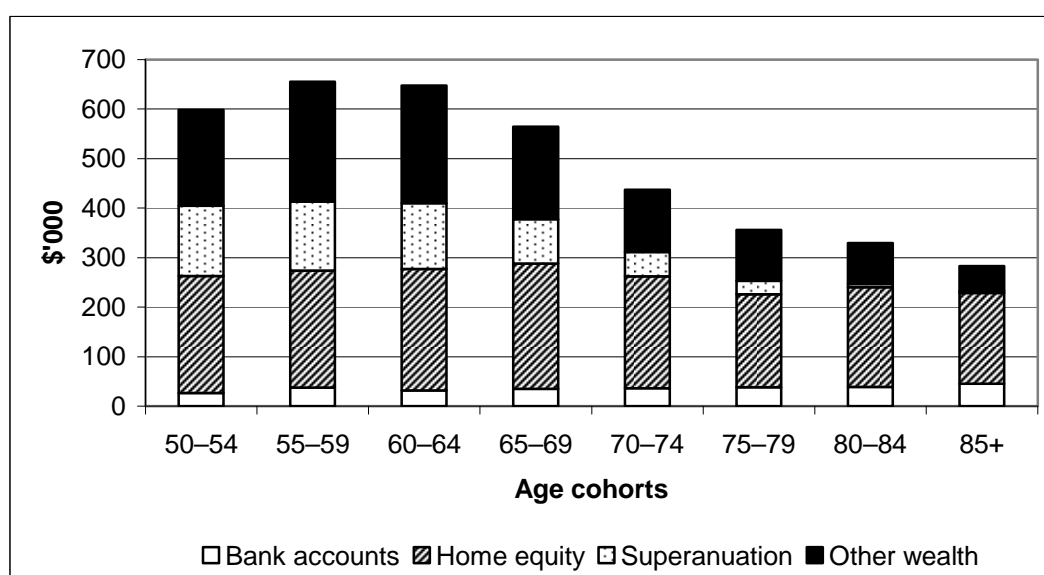
A study of the wealth of Australian households with at least one person aged 50 years of age or older suggested both that future generations of retirees are likely to be wealthier upon retirement, and that they draw down on their financial and household wealth in retirement (figure D.6). The study, which used the 2002

⁴ Includes people receiving the full rate of the age pension, a Department of Veterans' Affairs pension or receiving other government support or pension with a payment equal to or greater than the full pension amount.

HILDA survey, also found that the rate of homeownership among older Australians falls substantially — from 78 per cent of people aged 60–69, to 50 per cent of people aged 85–89 and only 33 per cent of those aged 90 or over. In contrast, people aged 85 or over were found to have the most funds in bank accounts (Lim-Applegate et al. 2006). More recent data released by the ABS estimated that 83 per cent of people aged 65 and over either owned their house outright or had a mortgage (ABS 2009a).

Figure D.6 Household wealth of Australian families with at least one member aged 50 or over

Household wealth in 2002



Data source: Lim-Applegate et al. (2006).

It is not clear if the age profile of future users of aged care services will differ from the current pattern. However, it is unlikely that the age of entry into care will reduce over the projection period. As such, it is likely that the proportion of pensioners consuming aged care services will continue to be higher than the proportion of people over the age pension qualifying age who are pensioners.

Accordingly, the Commission has adopted the plausible assumption that, over the projection period, a higher proportion of people receiving subsidised aged care services will be full or part pensioners. Even if the Government were paying for all aged care costs except for the basic daily fee in residential care — effectively assuming all aged care consumers were full pensioners — the public cost of aged care in 2050 would increase from 1.5 under the revised IGR projection to 1.8 per cent of GDP.

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