# E Cost and workforce implications

This appendix provides indicative projections of the cost and workforce implications of the Commission's proposals compared to the status quo. The structure of this appendix is:

- section E.1 provides cost projections for the current system through to 2050
- section E.2 explores key components of reforms contained in this report
- section E.3 compares the medium and long-run costs of the Commission's proposals with those of the status quo
- section E.4 provides workforce projections through to 2050
- section E.5 outlines the Commission's methodology for the cost and workforce projections. It also explores how sensitive the projections are to alternative economic and demographic assumptions.

# The projections are exploratory and therefore indicative

The Commission conducted exploratory costings of Australia's aged care system under the recommendations outlined in the report. The costings are indicative only; they are intended to provide policy makers with a broad guide as to what the proposed system would cost under a number of explicit assumptions. The Commission notes that data limitations inhibited its ability to conduct a more substantial assessment of the costs and benefits; the adoption of the Commission's recommendations to expand data collection and dissemination should enable a more substantial analysis in the future.

# **E.1** Projecting the cost of the current system

The 2010 Intergenerational Report (IGR) (Australian Government 2010d), projected that the public cost of Australia's aged care system would increase from 0.8 per cent of GDP in 2010 to 1.8 per cent of GDP by 2050.

In its draft report, the Commission calculated a revised cost of public expenditure on aged care of 1.5 per cent of GDP by 2050. Further information available to the

Commission since the draft report has led to a new projection of 1.8 per cent of GDP by 2050 (which is coincidentally equal to the IGR projection). The public cost of these arrangements is projected to rise from \$9.4 billion in 2010 to \$69.4 billion in 2050 (in 2010 dollars). The Commission has termed this scenario the 'revised IGR projection'.

# Assumptions that differ from the 2010 Intergenerational Report

Since the 2010 IGR was prepared, and since the draft report was published, additional information has been released. This is principally about costs and usage rates for different services in the aged care system. Using this information, the Commission developed a revised projection of the costs of aged care assuming the continuation of current policies. This revised Productivity Commission projection is not necessarily endorsed or approved by Treasury.

The revised cost projection is based on adjustments to these assumptions:

- per place costs
  - new information was available to the Commission 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.

#### Per place costs

The same public per place cost of aged care were used by Treasury in the 2010 IGR and in the Henry Review (2010), and they were based on cost estimates provided by the Department of Health and Ageing (DoHA) in its submission to the Senate Finance and Public Administration Committee Inquiry into Residential and Community Aged Care in Australia (2008b). The Henry Review reported the average per place cost by package types and the average private contribution to these costs (table E.1). Using this information, the Commission was able to estimate the public per place cost of these programs. It should be noted that some of the cost estimates in the DoHA submission were for 2007-08 while others were expressed in 2007-08 dollars.

Table E.1 Aged care costs by funding source

	Average annual cost per recipient	Average private contribution per cent	Assumed public cost per recipient <sup>a</sup>
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).

More up-to-date data (to 2010) on the actual public cost of aged care places has become available. To compare the IGR per place costs to the actual costs for 2010, the Commission adjusted the costs from table E.2 using the assumed growth in per place costs from the IGR. The projected costs for residential care appear similar, however, the IGR's projected public costs for community care were substantially higher than the actual costs in 2010.

Table E.2 Comparing per place public costs for 2010

	IGR assumption <sup>a</sup>	Actual public cost
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

<sup>&</sup>lt;sup>a</sup> 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.

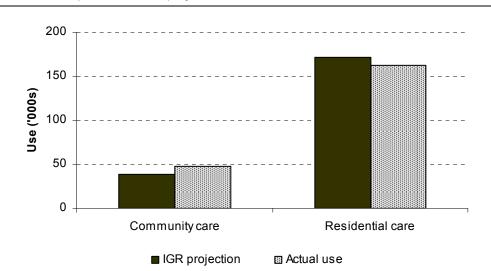
Sources: Commission calculations; DoHA (2010n).

#### Number of people using aged care services in 2010

The Commission also had access to more recent data 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 E.1). More recent data also shows slightly higher use of HACC services in 2010.

Figure E.1 Use of aged care under current policies

Comparison of IGR projected use and actual use in 2010<sup>a</sup>



<sup>&</sup>lt;sup>a</sup> Number of people in care on 30 June 2010. Community care includes CACP, EACH and EACH-D packages but does not include HACC services.

Data source: 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 public cost components of aged care (2010, p. 145). Currently, some policy settings restrict the growth of a number of these cost components. Because the Commission proposes changes to policy settings, however, it was necessary to incorporate greater detail about these policy settings in the assumptions for the cost projections.

The approach taken by the Commission was to prepare the cost projections in nominal terms so as revisions to CPI projections could be incorporated into the costings. To replicate the IGR cost projections, it was necessary to convert the projected real cost indexation rates into nominal indexation rates (box E.1). The Commission calculated that the assumed per place indexation rate for the IGR report was 4.14 per cent per annum for most of the projection period (table E.3).

# Box E.1 Converting real cost indexation rates to nominal rates

The 2010 IGR report states that the CPI beyond the forward estimates period is assumed to grow at 2.5 per cent per annum (the mid-point of the Reserve Bank's inflation target range). For the forward estimates period, the CPI was assumed to grow in line with the 2010-11 Mid-Year Economic and Fiscal Outlook (table E.3). To calculate the resulting nominal increase in per place costs, the Commission created an 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 + the CPI growth rate/100). As the IGR assumed a real increase in per place costs of 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 E.3 Assumed per place cost indexation for IGR 2010

	CPI	Nominal aged care cost indexation — IGR 2010
2011-12	3.0	4.65
Rest of projection period	2.5	4.14

Sources: Australian Government (2010d, 2010k).

For the final report, the Commission followed the IGR approach of indexing all public aged care costs by 4.14 per cent a year. This deviates from the draft report where, for community care packages, the Commission used an index consistent with the assumed growth in the Age Pension.

Under current policy settings, the amount that aged care providers can charge for everyday living expenses in residential care is linked to changes in the rate of the single Age Pension (that is, 84 per cent of the single full rate Age Pension).

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 in average weekly earnings. The Commission 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 weekly earnings to increase at a rate of 4 per cent per year in nominal terms (or 1.46 per cent in real terms).

In preparing the revised IGR projections, the Commission assumed that the per place cost of everyday living expenses in aged care will grow by 4 per cent per year in nominal terms.

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. Accommodation bonds, which are paid in low level and extra service residential care, are the principal private cost in aged care. As outlined in chapter 7, 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 used a conservative assumption that under current policy settings, bonds would continue to expand, but at a lower rate of 5.3 per cent per year on average.

#### Other changes in the projections since the draft report

The Commission held a workshop for Government agencies on the cost projections prepared for the draft report in February 2011 (appendix A). Based on feedback from the workshop and subsequently from participants, a number of changes were made to the assumptions underlying the cost projections, including changes to:

- the proportion of residents in aged care facilities receiving high care services assumed to reach 77 per cent by 2050 compared to an assumption of 70 per cent in the draft report
- the number of people assumed to pay accommodation bonds for the final report cost projections the number is higher than that assumed for the draft report
- the treatment of the conditional adjustment payments and extra service fees—this was altered to reflect the likelihood of people in extra service residential facilities receiving high or low care
- the procedure used to allocate the cost for residential care between high and low care residents — this was refined to more accurately apportion minor cost components.

# **E.2** Key components of the reforms

Consistent with the cost projection methodology outlined in section E.1, the Commission developed indicative and exploratory projections of the cost of the key proposals contained in this 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 proposed reforms, but not to a continuation of the current arrangements.

Using these assumptions, the Commission developed indicative cost projections for the key proposals outlined in this report — with the public cost of the aged care system projected to be 2.0 per cent of GDP in 2050<sup>1</sup>. This compares to the revised IGR projection — assuming continuation of current arrangements — of 1.8 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 projections consistent with the 2010 IGR, the private cost of Government–subsidised aged care would be 0.7 per cent of GDP in 2050. The projected private cost of Government–subsidised aged care associated with the Commission's proposals is 0.9 per cent of GDP in 2050, largely reflecting the impact of the introduction of a new co–contribution regime. That is, the Commission's proposals aimed at improving the quality of aged care in Australia are projected to increase the total cost of aged care (public and private) from 2.5 to 2.9 per cent of GDP in 2050.

The approach used to develop these cost projections is similar to that used for the 2010 IGR (Australian Government 2010d), the Hogan Review (2004b), and the Productivity Commission (PC 2005b). In most respects, descriptions of what settings have been assumed provides sufficient information to explain how the Commission developed its cost projections. However, greater detail is provided to explain how the Commission projected the expected use of future aged care and how the lifetime stop-loss limit has been assumed to operate.

# Key design features of the proposed new aged care system

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

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<sup>&</sup>lt;sup>1</sup> The 2.0 per cent of GDP projection in 2050 rests on assumptions of a maximum of 25 per cent contribution to the cost of care, a lifetime stop-loss limit of \$60 000 and a flat \$50 per day accommodation charge in residential care.

- the establishment of an *Aged Care System* that would be responsible for providing most of the (entitlement based) services required by older Australians with care needs
  - some existing low level services that will be available through Community and Carers support services including on a block funding basis
- introducing a comprehensive (income and asset) means test for determining the co-contributions to care payments for services provided through the Aged Care System
  - the income test would be based on gross income and include deemed interest for any assets subject to the Age Pension asset test
  - a separate asset test for care co-contributions would be applied to assets not subject to the Age Pension means test (including a care recipient's share of the equity in their principal residence, residential care bonds and the proposed Australian Age Pensioners Savings Accounts)
- requiring people in residential care to be fully responsible for their own accommodation costs, unless they qualify as supported residents
  - when determining who is eligible for accommodation subsidies, a person's total assets would be included in the asset test (including their share of equity in their former principal residence)
- setting a price for supported accommodation that is sufficient to provide a basic standard of accommodation (equivalent to 1.5 beds per room)
- giving consumers the choice of paying for residential care accommodation through periodic charges or an equivalent (or discounted) bond
- the establishment of an (indexed) lifetime stop-loss mechanism to protect individuals from very high out-of-pocket expenses for the care component of aged care costs
- the removal of quantitative restrictions on the number of community and residential care places.

# **Expected co-contributions**

To calculate the projected cost of the proposed scheme, it was necessary to make assumptions about the co-contributions people would make to the cost of care services provided through the *Aged Care System*. Some elements of the proposed reforms, including co-contribution arrangements and price setting, would be set by the Government on the transparent and public recommendations of the proposed Australian Aged Care Commission. As such, the report does not make specific

recommendations on the level of co-contributions (the co-contributions assumed in this appendix should be viewed as indicative only). However, the assumed co-contributions are an important component of the cost projections, and as such, details are provided below, along with the approach used to calculate them.

Between the draft and final reports, the Commission altered the assumptions relating to the way assets contributed to a person's care co-contributions. As outlined in chapter 3, older Australians, as a whole, are expected to enjoy growing levels of wealth in the future. However, not all older people will have the capacity to contribute to their aged care costs. While this evidence suggests that older Australians as a group will have greater capacity to contribute to their care costs, it is important that the distributional impacts of any proposed co-contribution regime are assessed prior to implementation to avoid unintended adverse outcomes.

The current evidence base for determining the distributional impact of altering means testing arrangements is thin — primarily because the collection of official data is tailored towards current policy settings. Based on the data currently available, the Commission has combined data sources to best approximate the distributional effects of its proposals. However, more data is required to comprehensively address the distributional impacts of the proposals.

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

The Commission also 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 rate 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, and are not included in this analysis as a private co–contribution. As such, the use of higher quality services should not affect the level of government expenditure. No attempt has been made to incorporate this demand for higher quality services into the private cost projections as it is purely discretionary expenditure.

The Commission assumed that people with sufficient assets would pay for all of their accommodation charges in residential care. For those with limited assets, the Government is assumed to fully or partially cover their accommodation costs, subject to their circumstances.

As outlined in chapter 7, the Commission is proposing that the means test for determining who is eligible for accommodation subsidies be tightened. At present, people are eligible for an accommodation subsidy if they have unprotected assets below a given threshold. The proposed change would alter how the former principal residence is treated — so that all residents would be treated in a consistent manner.

#### Changing the means test for supported residents

Under current arrangements, a person is deemed to be a fully supported resident if their non protected assets are less than \$39 000. The threshold for partially supported residents varies with changes in the 'maximum accommodation charge' (that is, the highest accommodation subsidy the Government will pay). In March 2011, the partially supported resident threshold was \$102 544. The Commission did not recommend changing these thresholds — but by implication, the partially supported resident threshold would increase if a higher 'maximum accommodation charge' were to be adopted (as recommended in chapter 7).

Under present arrangements, the principal residence is excluded from the supported resident asset test if:

- the partner or dependent child is living in the resident's former principal residence
- a carer eligible for an income support payment has lived in the resident's former principal residence for at least two years
- a close relative who is eligible for an income support payment has been living in the resident's former principal residence for at least five years. (DoHA 2011h, p. 2)

As such, the rules surrounding protected assets result in different treatment between residents. The Commission recommends that the asset test for determining whether a person should receive an accommodation subsidy when in residential care should be based on all of their assets (or <u>their share</u> of jointly held assets). The Commission is also proposing that that a protected person could continue to live in the principal residence even after any other members of the household enter residential care.

Identifying the distributional impact of altering the supported resident asset test arrangements requires information on all of the following items:

- the value of the principal residence of the care recipient
- the value of other assets of the care recipient
- the presence of protected people living in the care recipient's principal residence.

There are three main data sources that can be used to identify the impact of this change:

- administrative data on supported residents
- the Survey of Income and Housing undertaken by the ABS
- the Household, Income and Labour Dynamics in Australia (HILDA) survey.

Under present arrangements, to be eligible to be a supported resident, a person must first be assessed by Centrelink. Through this process, information is collected on the value of assets. For people who are home owners, the process would either identify the existence of protected people in the house or estimate the value of the principal residence. Information is not collected on the value of the principal residence if a protected person is living in the house.

The ABS Survey of Income and Housing collects information on house values and includes information on the relationship of people in the household. Unfortunately, it does not identify who owns the house. In addition, for older Australians, the sample size is very small.

The usefulness of the HILDA database for this purpose is diminished because of the very small sample size of older Australians, although it appears to have most, if not all, of the information required to determine how the proposed change in the asset test would affect individuals. For example, HILDA includes information on:

- the estimated equity in the principal residence
- who within the household owns the residence
- the value of other assets held by older Australians
- the relationship between the owner of the residence and other residents
- the social security status of other residents.

Of the sample of the 450 people aged 80 years and over in HILDA, 138 were not homeowners, 184 were home owners but lived alone leaving a maximum sample of 128 people where the proposed reforms could result in a different treatment. Of this group, only 9 people had apportioned assets (excluding their share of the value of the residence they lived in) below the current partially supported resident threshold. While information from HILDA was used to determine the co–contributions under the proposed reforms, the sample size of people who could be affected by the change in the supported resident assets arrangements was too small to use as a basis for projecting the distributional impact of this change.

#### Changing the maximum accommodation charge

The 'maximum accommodation charge' is used to determine the supported resident subsidy. For a supported resident, providers receive payments equal to the maximum accommodation charge, with the supported resident means test determining how much of this charge is paid for by the individual and how much is paid for by Government — the Government contribution is the supported resident subsidy.

For costing the proposals in this report, it was assumed that the 'maximum accommodation charge' for supported residents would be \$50 per resident per day in 2011 dollars, with this amount indexed by the CPI. As this charge is expected to cover an approved basic standard of accommodation, this price is assumed to be paid for the accommodation of each resident. No attempt has been made to incorporate private demand for higher quality accommodation services.

To determine the possible cost implications of this change, two conservative simplifying assumptions were made:

- the change in the means test arrangements were not explicitly incorporated
  - as explored above, the evidence base for determining the distributional impact of the change in means testing arrangements is not robust
  - excluding the impact of the change in means test results in the direction of the estimation error being known — the projected public cost of raising the maximum accommodation charge will be overstated
  - if any attempt was made to incorporate the changed means test, it is not clear what the direction or magnitude of the resulting error might be.
- it was assumed that all facilities would be eligible for the higher maximum accommodation charge
  - while the Commission recommends that the subsidy rate for supported residents in facilities that do not meet a basic standard could be lower than the full supported resident rate (see chapter 7), no data is available on the number of supported residents in facilities that either do not meet or were not assessed against this standard
  - this assumption is also conservative and results in the projected cost being overstated.

#### How was the \$50 per day accommodation charge determined?

Under the Commission's proposals, the Government pays for a basic standard of accommodation for supported residents. A key part of that standard is that there should be no more than two people to a room and that the average number of beds per room should not exceed 1.5. To meet this standard, no more than half of supported residents can be accommodated in shared rooms with the remainder being in single rooms.

The Commission considers that the current methods of charging for accommodation need reform. In particular, the daily rate that applies for high care non–extra service places is insufficient to ensure new investment (chapter 7). This suggests that the current payments for supported residents are also inadequate, an appropriate charge for the basic standard should be set after an adequate assessment by the Australian Aged Care Commission and transparent recommendations to the Government.

The Commission sought advice from a number of providers about what an appropriate charge for a shared and a single bed room would be if the proposals were implemented. Providers indicated that it would be difficult to determine what they would need to charge under a business model where non–supported residents could choose to pay a periodic charge for accommodation rather than a bond.

Providers gave cost estimates for a single room in their facilities, either based on current funding arrangements or assumptions about future funding arrangements. These estimates ranged from \$60 to over \$100 per resident per day. While the range in appropriate accommodation charges for single rooms seems large, this was in part attributable to the differing locations and variations in the quality of the facilities.

Providers were generally unable to indicate what an appropriate accommodation charge for a shared room would be, although clearly, it would be lower than for a single room.

Another basis for comparison is the income providers are receiving for their accommodation at present. Given the concerns that existing accommodation income streams are insufficient to encourage the development or redevelopment of non-extra service high care residential facilities, a sufficient 'maximum accommodation charge' would need to exceed the average income currently earned.

The Commission has inferred that the approximate income that providers received from all sources for their non extra service accommodation in 2010 was on average \$39.46 per resident per day (this is both for high care and for low care). This assumes that:

- the average bond held for people not in extra service places in that year was just over \$215 000 (only paid by people who were classified as low care on entry)
  - all people who were not in an extra service place, but had paid a bond (53 742 as of 30 June 2010) had the maximum retention amount of \$299 a month withheld
    - an assumption is necessary because no information is available on how long people who have paid bonds have spent in residential care (current regulations stipulate that people who have been in residential care for more than five years will not have retention amounts taken from their bond).
  - residential care providers earned 9 per cent interest per annum on the bond.
- for all residents who did not pay a bond (98 770 as of 30 June 2010 including those in non extra service high and low care places), the providers received \$26.88 per resident per day (the average accommodation charge as advised by DoHA for 2009–10).

For illustrative purposes only, the Commission has used an <u>indicative</u> \$50 per day accommodation charge for all residents. The Commission does not presume that this amount should be adopted; that would be a decision for the Government to make on the transparent advice of the proposed Australian Aged Care Commission.

#### Impact of raising the supported resident rate

If the 'maximum accommodation charge' for supported residents was increased without a change to the supported resident means test, it would increase the number of partially supported residents — but not the number of fully supported residents.

The current means testing arrangements for supported residents uses the value of a person's unprotected assets to determine the maximum contribution the person could make to the accommodation charge. As of March 2011, people with assets (excluding protected assets) of \$39 000 or less make no contribution to their accommodation costs. Under current arrangements, people are expected to pay \$1 a day towards the accommodation charge for every \$2080 in assets they have above the \$39 000 asset threshold.

For existing supported residents, increasing the maximum accommodation charge would not affect the contribution they are expected to make towards their accommodation expenses. For example, an individual with \$80 000 of non-protected assets is already expected to contribute \$19.71 per day for their accommodation. A person's contribution would not change if the 'maximum

accommodation charge' was increased to \$50 per day. For that person, the Government would fully fund the increase in the accommodation charge.

However, a higher accommodation charge would mean that some residents who currently pay the full charge would have part or all of the increase paid by the Government. Table E.4 outlines the highest amount a person can be asked to contribute towards their accommodation charge based on the current means test. As an example, if the 'maximum accommodation charge' was increased to \$50 a day — the amount assumed for costing the Commission's proposals — a person with assets of \$130 000 would be expected to contribute \$43.75 per day towards their accommodation expenses, with the Government paying the remainder. As such, this person would become a partially supported resident.

Table E.4 Maximum possible daily accommodation charge by assets

Assets (\$)	Assets above the threshold (\$)	Maximum daily contribution to accommodation costs (\$)
39 000	0	0
45 000	6 000	2.88
60 000	21 000	10.10
70 000	31 000	14.90
80 000	41 000	19.71
90 000	51 000	24.52
100 000	61 000	29.33
102 544	63 544	30.55
110 000	71 000	34.13
130 000	91 000	43.75
150 000	111 000	53.37

Source: Commission calculations.

Raising the 'maximum accommodation charge' from the current rate of \$30.55 (as of March 2011) to \$50 a day would increase the partially supported resident asset threshold from \$102 554 to \$143 000 (all other things being equal). Such a change would result in an increase in the number of partially supported residents. However, there is insufficient information to assess the magnitude of this change or the associated Government cost for supported residents. While Centrelink assesses the capacity for incoming residents to contribute to their care and accommodation costs:

statistics on these assessments are not made available to DoHA and are not published

- people can choose not to have an assessment done allowing them to pay
  - any level of accommodation bond in low care or in an extra service place or
  - up to the 'maximum accommodation charge' for a high care non–extra service place.<sup>2</sup>

Centrelink has information on a subset of assets held by full or part rate pensioners. These data were supplied in \$50 000 asset increments. Leaving aside the proposed change in means test (because of the currently scarce evidence base on the distributional impact), raising the 'maximum accommodation charge' from \$30.55 (as at March 2011) to \$50, only people with assets between \$100 000 and \$150 000 could be affected as their status could change from being non–supported residents to partially supported residents. As shown in table E.5, the percentage of pensioners aged 70 years and over who have assets in different ranges. This indicates that less than 11 per cent of age pensioners could become partially supported residents if the 'maximum accommodation charge' was increased to \$50 a day.

Table E.5 Assets held by age pensioners aged 70 years or over
As at June 2010<sup>a</sup>

Assets (\$) b	Per cent
Less than 100 000	75
100 000 to less than 150 000	11
150 000 or more	14

<sup>&</sup>lt;sup>a</sup> Age Pension (excludes Manually assessed, Suspended and Zero rate customers and recipients paid by Department of Veterans Affairs).
<sup>b</sup> Only assets included in the Age Pension asset test – excludes the principal residence and accommodation bonds.

Source: Centrelink administration data (provided by FaHCSIA).

The three main limitations with using the Centrelink data to approximate the increase in partially supported residents is that it:

- excludes information on people not receiving the Age Pension
- excludes recipients who are paid a pension through the Department of Veterans' Affairs
- includes pensioners who have paid an accommodation bond and therefore would not be supported residents regardless of the 'maximum accommodation charge'.

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Under the Commission's proposals, people who are not fully or partially supported residents would be expected to either pay the provider's published periodic accommodation charge or a bond. This periodic charge would not necessarily be the same as the maximum accommodation charge for supported residents in that facility.

The inclusion of pensioners who have paid an accommodation bond in the Centrelink data is particularly problematic for determining the change in supported residents. As at 30 June 2010, 23 per cent of permanent residents were either full or part pensioners who had paid an accommodation bond (table E.6). This group would comprise just over 7 per cent of the age pensioners aged 70 years or over as at 30 June 2011

Table E.6 People paying accommodation bonds by pension status<sup>a</sup>
Permanent residents as at 30 June 2010

Pension status	Number who paid bond	Per cent of those who paid a bond	Per cent of all residents
Full pensioners	18 241	40	11
Part pensioners	19 471	43	12
Non pensioners / Means not disclosed	7 377	16	5
Total	45 089	100	28

a Pension status is derived from income test using 20 March 2010 thresholds.

Source: Data supplied by DoHA.

As an alternative, the Commission constructed some simplified estimates to indicate the likely magnitude of change in the number of supported residents and the possible cost to Government of increasing the 'maximum accommodation charge' (table E.7). These calculations take as their base the maximum accommodation charge that prevailed from September 2010 of \$28.72 per day. These estimates are based on the assumptions that:

- existing supported residents would continue to be supported residents and will pay no more towards their accommodation in residential care. For such people, the Government would be responsible for any increased accommodation charges
- the number of partially supported residents is proportional to the value of the 'maximum accommodation charge'
  - for new partially supported residents, it is assumed that the Government would be responsible for half of the increase in the 'maximum accommodation charge'.

Table E.7 Implications of changing the accommodation subsidya

Per day subsidy amount (\$)		Percentage of residential care residents estimated to be supported	Cost difference to government compared to arrangements as at September 2010 (\$m)
20	58 500	36	-200
30	62 000	38	20
40	65 700	41	253
50	69 100	43	498

**a** Assuming no change in the supported resident asset test. For the indicative costing of the proposals, a maximum accommodation charge of \$50 per day has been used for illustrative purposes.

Source: Commission calculations.

#### Assumed co-contributions for care

Under the Commission's proposed co-contribution arrangements, people with annual incomes below \$17 443 (as of March 2011) and assets beyond those counted in the Age Pension asset test of \$39 000 (as of March 2011) 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 \$3373 in annual income, a person is assumed to pay 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 \$30 140 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. It was assumed that these thresholds would increase in line with CPI.

#### Community and Carers support services

For the purposes of developing cost projections, all people receiving HACC–type services in the future are assumed to be receiving support through the *Community and Carers support services*. This assumption has been made to simplify the cost projections. Based on the recommendations outlined in chapter 9, many of the types of services currently provided under HACC will be provided through the proposed *Aged Care System*.

For costing purposes, full pensioners are assumed to pay the same amount for HACC-type services under the Commission's proposals. All people earning more than \$1100 a fortnight are assumed to pay the maximum rate of co-contribution for

these services — either \$22.71 or \$31.80 a fortnight in 2010 (assumed to be indexed by CPI for later years), on average, if the maximum co–contribution rate was 25 or 35 per cent respectively. People with incomes between full pension level and \$1100 a fortnight (in 2010) are assumed to make a co–contribution according to a sliding scale.

#### Payments for residential care under the Commission's proposal

The amount of co-contribution for residential care has been calculated separately for accommodation, care and everyday living expenses. All people with more than \$143 000 in total assets are expected to pay for their accommodation costs (with the Government paying all of the accommodation costs for people with total assets below \$39 000 as at March 2011). All residents are assumed to pay a basic fee for everyday living expenses equal to 84 per cent of the single Age Pension, currently \$553.05 per fortnight.

# Elasticities of demand for aged care

The Hogan review assumed a price elasticity of demand of -0.5 for aged care services — indicating 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 those services, 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 these services. If that were the case, they would not change their use of aged care services 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 start to reduce their use of aged care until their co–contributions have risen by a minimum of 5 per cent.

#### **Unmet demand**

The Commission's proposals include the removal over time of the quantitative limits on community and residential aged care places. Under such a change, it is likely that more people will use aged care services. This section explores the evidence on the current level of unmet demand for aged care places and discusses how such information has been incorporated into the projected cost of the proposed reforms.

To get an indication of the magnitude of unmet demand, the Commission compared the number of people approved for care through an Aged Care Assessment Team (ACAT) assessment 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 2009<sup>3</sup>, there was 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 E.8). 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.

To incorporate the scope for more people to use aged care services if quantitative restrictions on aged care places are 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 based on feedback obtained during this inquiry. 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 E.5).

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

Table E.8 First lifetime approval or entry into aged care<sup>a</sup>

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

<sup>&</sup>lt;sup>a</sup> 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.

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 proposed reforms. As the proposals involve an increase in user 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 limit

The Commission is recommending an (indexed) lifetime stop-loss arrangement for care costs (but not for accommodation costs or everyday living expenses). The rationale for this mechanism is to shield older Australians from the risk of excessive or catastrophic care costs. The proposed lifetime stop-loss limit is designed to work in concert with a range of safeguards for those with limited means (chapter 7). If the maximum co–contribution rate for care costs is 25 or 35 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.

The Commission developed an indicative guide to the aggregate co-contributions aged care users would make to their care costs. Table E.9 provides an indication of the impact of the stop—loss mechanism if the maximum care co-contribution was 25 per cent of care costs while table E.10 is applicable if the maximum rate was 35 per cent.

Table E.9 Likely coverage of lifetime stop-loss arrangement — co-contributions between 0 and 25 per cent of care costs

Per cent of aged care expenditure paid for by the Government and per cent of aged care users who have any care co–contributions paid for by the Government

Indicative stop-loss limit	Care contributions paid for by Government in 2050	Aged care users likely to reach the limit in 2050
\$	Per cent	Per cent
0	100	100
20 000	46	22
40 000	21	10
60 000	10	5
80 000	4	2
100 000	2	1
120 000	<1	<1

Source: Commission calculations.

Table E.10 Likely coverage of lifetime stop-loss arrangement — co-contributions between 0 and 35 per cent of care costs

Per cent of aged care expenditure paid for by the Government and per cent of aged care users who have any care co–contributions paid for by the Government

Indicative stop-loss limit	Care contributions paid for by Government in 2050	Aged care users likely to reach the limit in 2050
\$	Per cent	Per cent
0	100	100
20 000	51	23
40 000	27	11
60 000	15	6
80 000	8	3
100 000	5	2
120 000	2	1

Source: Commission calculations.

For the purposes of costing the proposed aged care system, the Commission has assumed an indicative lifetime stop-loss limit of \$60 000. To maintain its real value over time, the lifetime 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 indicative value of \$60 000 as the lifetime stop-loss limit, the Commission projects that between 5 and 6 per cent of older Australians would be protected by the stop-loss limit, with 10 to 15 per cent of private care contributions being covered — depending on the maximum co–contribution rate for care costs.

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 used a combination of information sources to approximate this distribution. The indicative projections of the lifetime 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 duration of receiving aged care is based on estimates of recent use (see below). While it is unclear whether the future pattern of aged care use will necessarily be consistent with recent use, there are no alternatives for projecting future use.

#### Probability of needing combinations of aged care services

A number of data sources were 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 E.11).

Table E.11 Lifetime risk of requiring aged care<sup>a</sup> and residential care<sup>b</sup>, 2006–08

	At birth	At age 65	At age 75	At age 85	At age 95	At age 100 or over
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

<sup>&</sup>lt;sup>a</sup> 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). <sup>b</sup> This table is based on a technical paper provided by DoHA that is not publicly available. DoHA has also provided a publicly available technical paper on the lifetime risk of needing residential care, but that paper does not include estimates of the risk of using intensive aged care. The estimates of the risk of using residential care from the publicly available paper are slightly higher than in this table, with the lifetime risk for a 65 year old woman being 54 per cent and 37 per cent risk for a 65 year old man (DoHA 2011i).

Source: Data supplied by DoHA.

The 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.

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 went to hospital, the most likely movements after their hospital stay would be returning to community care, moving to residential care or death.

The separations from CACP packages for 2007-08 are provided in table E.12. For this purpose, 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. The Commission assumed that people who died while receiving community care did not receive residential care during their lives. It is conceivable, however, that a small number of people who died in community care had previously received residential care, and then moved back into the community before their deaths. There was no information available to determine the frequency of such events.

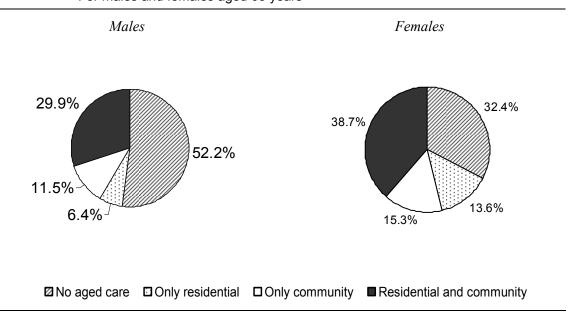
Table E.12 Separations from CACP in 2007-08

Reason for separation	Number	Per cent
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 E.12), 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 38.7 per cent (slightly more than 2.5 multiplied by those who only use community care — 15.3 from table E.11). 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 E.2).

Figure E.2 Projected probability of using combinations of aged care
For males and females aged 65 years



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

#### Estimated length of time receiving aged care services

DoHA prepared a publicly available technical paper on the length of stay in residential care for this inquiry (DoHA 2011i). It also provided extracts from its administrative databases on the use of residential and community care by individuals. 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 been operating

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 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 E.13) and on CACP packages (table E.14) 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 E.13). This implies that 64 per cent of men who entered residential care between July 1997 and 31 December 2007 spent less than two years in residential care.

Table E.13 **Probability of remaining in residential care**After a given length of time

	Males	Females
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 E.14 **Probability of remaining on CACP**After a given length of time

	Males	Females
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 used their assumed lifetime use of care as set out in table E.13. Similarly, for those people assumed to only use community-based care, the Commission used the assumed lifetime length of care as set out in table E.14. 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 would be 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).

#### Information on the income and assets of older Australians

The Commission proposes the introduction of a comprehensive means test that takes into consideration both the income and the assets (including the principal residence and accommodation bonds) of each person when calculating the co-contribution that the person is expected to make towards their cost of their care provided through the *Aged Care System*.

The income and asset 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).

#### Assumed income and asset distributions for older Australians

The Commission proposes that the assets part of the comprehensive means test for care co-contributions should only include assets excluded from the Age Pension asset tests. The only asset in the HILDA database that would be excluded from the Age Pension means test is the apportioned equity in the principal residence.

For non pensioners, only the asset 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 assets 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 data from HILDA was indexed to be consistent with the increase in pensions between June 2006 (the end of the HILDA data collection period) and June 2010 (the period for which income—tested fee information was provided). The household equity data was indexed consistent with residential care bonds (5.3 per cent a year nominal growth).

The HILDA database only shows if people are receiving a government pension or income support — it does not indicate whether they are full or part pensioners. The Commission assumed that the lowest four income deciles of pensioners to be full pensioners while the highest six deciles are assumed to be 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 age pensioners in the HILDA database reported incomes substantially below the full Age Pension amount. The Commission assumed that no pensioners had income below the prevailing single 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 that 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 were included in the estimates (only 4 per cent pay the full cost of their care). The more critical issue is that 17 per cent of non-pensioners/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 non-pensioners paying the capped fee have a fortnightly income of \$2881 — which will understate the projected co-contributions from this group.

A two-stage process was used to project the income and assets 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 non-pensioners
- increasing the relative proportion of non-pensioners and part pensioners to reflect the expected greater affluence of a large number of older Australians in the future.

The Commission inflated the income decile thresholds 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 years and older population assumed to fall into each category are set out in tables E.15 and E.16.

#### Combining this information into a lifetime stop—loss limit projection

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

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

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 were projected to exceed a range of lifetime stop-loss limits and the proportion of private care co—contributions that would exceed those limits (tables E.9 and E.10).

Table E.15 **Distribution of population aged 80 years and over, 2010**By income and asset category <sup>a</sup>

		Median apportioned equity in principal residence (\$)			
		0	400 000	500 000	
(\$)	Low (<=20 000)	20.1	29.9	7.7	
Annual income	Medium (>20 000, <50 000)	6.8	12.2	8.1	
	High (>=50 000)	1.4	4.9	9.0	

<sup>&</sup>lt;sup>a</sup> Includes some household assets that have been apportioned among all adults in the household. Source: Commission calculations sourced from HILDA (2010).

Table E.16 **Distribution of population aged 80 years and over, 2050**By income and asset category, 2010 dollars <sup>a</sup>

		Median apportioned equity in principal residence (\$)			
	0 1 237 000 1				
(\$)	Low (<=32 000)	13.8	21.1	5.1	
Annual income	Medium (>32 000, <83 000)	9.8	17.4	11.4	
Annu	High (>=83 000	2.0	6.8	12.5	

<sup>&</sup>lt;sup>a</sup> Includes some household assets that have been apportioned among all adults in the household. Source: Commission calculations sourced from HILDA (2010).

#### Characteristics of older Australians in the HILDA database

The HILDA database has a small sample size of older Australians. As such, there is an increasing chance that respondents will not accurately represent the underlying population. To explore the possible extent of biases arising from the small sample of older Australians, some key demographic variables were extracted from the HILDA database.

In all groups of people aged 70 years and over in the HILDA database, the majority of the group is female. The share of the group that is female increases in older groups (table E.17).

Table E.17 Gender distribution of individuals aged 70 years or over

Age group	Proportion who are male	Proportion who are female	Number of observations
	Per cent	Per cent	
70-74	45	55	518
75-79	48	52	472
80-84	36	64	308
85-89	35	65	126
90+	25	75	44

Source: HILDA (2010) Release 8.0.

When compared to actual population statistics for 2006 (ABS 3201.0) the HILDA data typically overstates the proportion of females in older age groups. The largest difference is for the 80–84 year age group where the population statistics show that 59 per cent of the population was female compared with the HILDA estimate of 64 per cent.

The HILDA database appears to reflect changes in relationship status by age. This was most evident in relation to the marked growth in the proportion of the population who indicated that they are widowed in the HILDA database (table E.18) which is consistent with the 2006 Census (ABS cat. no. 2068.0).

Table E.18 Relationship distribution of individuals aged 70 years or over

Per cent of respondents by age group

Age group	Married	De Facto	Separated	Divorced	Widowed	Never married / de facto	Non response
70-74	65	1	3	8	18	3	3
75-79	55	1	2	6	28	4	4
80-84	40	1	0	4	46	4	6
85-89	29	0	0	2	64	2	4
90+	11	0	0	2	68	7	11

Source: HILDA (2010) Release 8.0.

The 2007–08 Survey of Income and Housing reports rising home ownership by age group and an increasing proportion of lone person households by age group (ABS 4130.0). These trends are also evident in the HILDA database, along with additional detail on relationship status (table E.19).

Table E.19 Probability of holding property equity

Per cent of respondents by age

Age group	Legally married	Separated	Divorced	Widowed	Not married, separated, divorced or widowed
18-19	0	na	na	na	1
20-24	41	0	0	na	8
25-29	61	53	11	100	23
30-34	76	38	19	50	35
35-39	82	45	27	50	44
40-44	86	40	37	64	53
45-49	87	55	31	46	62
50-54	89	57	41	100	65
55-59	90	62	40	78	68
60-64	86	62	46	76	47
65-69	90	69	55	75	79
70-74	87	40	67	70	79
75-79	81	63	33	75	70
80-84	78	100	42	76	62
85-89	81	na	50	63	100
90+	17	na	0	67	33

Source: HILDA (2010) Release 8.0.

While there are concerns about the small sample size of the HILDA database for the older age groups, the data appears to show consistent trends with other published sources. The added advantage of using the HILDA database is the ability to combine information on personal details along with assets and income — providing a basis for determining the effects of the proposed reforms.

# E.3 Medium and long run projections of the Commission's proposals

While the Commission provides estimated costs of the proposed reforms in 2050, the costs through the implementation period and into the medium term are also policy relevant. This section provides details on the cost projections relative to forward estimates and a continuation of current policies. In addition, it provides information on the assumed use of aged care over the medium term and compares the long term cost of the proposed scheme under alternative assumptions.

## Costs compared to forward estimates

As part of the 2011–2012 Budget, the Australian Government provided an estimate of the future nominal public expenditure of age care for each financial year until 2014–15 (Australian Government 2011d). Table E.20 outlines how the modelled costs of the Commission's proposals compare with these forward estimates. The table also compares costs under the forward estimates with those of the 'revised IGR' scenario which is used as the point of comparison for the Commission's proposals beyond the forward estimates period.

It should be noted that the forward estimates values in table E.20 do not include the assessment costs and the cost of labour force initiatives.<sup>4</sup> This is to ensure that the costs of the Commission's proposals and the figures outlined in the forward estimates are broadly comparable. It should be noted that potential start up costs from the proposed Australian Aged Care Commission have not been included. For these projections, it has also been assumed that the Government will be in a position to implement the new co–contribution regime relatively early — from 1 July 2012. This comparison should therefore be treated with caution as it is purely illustrative.

Table E.20 How does the cost of the proposed scheme compare to forward estimate costs of aged care?

For forward estimate perioda

	2012-13	2013-14	2014-15
	\$ million	\$ million	\$ million
Forward estimates <sup>b</sup>	12 385	13 182	14 095
Revised IGR	12 055	12 847	13 826
Commission proposals	11 077	12 084	13 310

<sup>&</sup>lt;sup>a</sup> Forward estimates are published in nominal dollars for financial years. For all other tables and figures in this appendix a reference to a single year is for the financial year ending 30 June in the nominated year. <sup>b</sup> Includes the National Partnership on transitioning responsibilities for aged care and disability services and expenditure items relating to Budget outcome items 4.5, 4.6, 4.7 and 4.8 in the Department of Health Budget Papers and outcome item 2.4 in the Department of Veterans' Affairs Budget Papers.

Sources: Department of Health and Ageing and Department of Veterans Affairs 2011-12 Budget Papers, Australian Government Budget Paper no. 3 and Commission calculations.

The Commission has not estimated cost savings outside of the aged care system that may be achieved under its proposals. Four aspects of the Commission's recommendations that could lead to cost savings for the Government are:

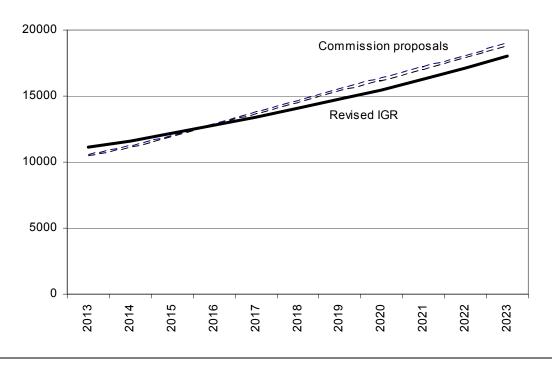
Assessment costs are effectively the additional costs of introducing and operating the Gateway over the current costs of providing existing functions that the Gateway will be responsible for.

- a reduced need for older Australians to access acute and sub–acute health care services as a result of better assessment procedures and a greater continuity of aged care
- providing sub-acute services in residential care at lower cost compared to the same services delivered in hospitals
- a reduced need for care services by older Australians due to their movement into more age-appropriate housing
- possible financial gains for the government by administering the Australian Age Pensioners Savings Account scheme.

# Costs compared to the 'revised IGR projection'

As a way of showing how the proposed reforms would affect government expenditure beyond the forward estimate period, the revised IGR projection was used as the basis for comparison (figure E.3). Figure E.3 shows separate lines indicating costs based on a maximum co–contribution rate of 25 and 35 per cent — with the marginally higher line reflecting the 25 per cent maximum co–contribution rate.

Figure E.3 Projected cost of aged care in the medium term
In millions of 2010 dollars



Data source: Commission calculations.

The indicative cost projections encompassing the Commission's key proposals, outlined in figure E.3, are influenced by the proposed implementation plan. Under the proposed reforms, new care recipients with the means to do so would be expected to make a higher co–contribution to their care costs from the introduction of the reforms while the expansion in aged care places is intended to occur over a number of years. The proposed timing of these two changes contributes to the indicative costing initially being below the projected cost of a continuation of the current arrangements (the revised IGR projection) over the first three years of the projection period.

## Gradual expansion of aged care places

As discussed in section E.2, the Commission identified unmet need for care services among older Australians. In the long term, it is proposed that this unmet need will be addressed by removing the quantitative limitations on aged care places that currently exist. However, there are concerns that a sudden removal of the restrictions on the supply of age care places may cause difficulties as current providers may be unable to provide the formal aged care services people currently need — this concern is particularly pertinent for community care services, where the unmet demand for services is likely to be greatest.

The Commission proposed a controlled expansion in community care packages to occur before the restrictions on aged care places are removed (chapter 17). For these indicative projections, the hours of community care provided is assumed to grow by around 20 per cent per annum until the amount of unmet need is met. It is unclear when unmet demand could be met through such an approach. For this reason, the Commission has considered that the final phase of the implementation plan could begin from five years after the initial phase is implemented.

It is also proposed that a new and temporary community care package be developed—the Community Care Intermediary Package (CCIP). At present, there is a large gap between the average level of services provided under CACP and EACH packages. The proposed CCIP is intended to provided aged care services to older people whose needs exceed what is typically provided under CACP, but who do not require an EACH package. When the Commission's reforms are fully implemented, there will be a continuum of care and hence the intermediate level would no longer be required.

For the purposes of projecting the cost of care places, CCIP is assumed to be equal to 60 per cent of an EACH package. It was assumed that clients receiving a CCIP place would receive around 70 per cent of the direct care hours of a person

receiving an EACH package. The difference in the assumed relative cost and contact hours between CCIP and EACH packages arise because the Commission considers that a CCIP package will involve less complex care than an EACH package and that a greater share of the CCIP contact hours will be delivered by personal care workers.

For the purposes of costing the Commission's proposals, community care packages are assumed to expand for the first time in 2013, with the assumed unmet demand being met by:

- 2017 for CACP
- 2020 for EACH and
- 2024 for EACH-D.

The number of CCIP packages is assumed to expand until 2020. For the purposes of costing the Commission's proposals, after 2020, the places are assumed to be gradually re-absorbed into CACP-type packages. This two-stage process has been used to:

- allow a more accurate representation of the cost and care places during the transition arrangements
- ensure that the projections of care places beyond the transition period is consistent with the approach to projecting future needs outlined in section E.5.

The assumed number of community care places being used for selected years in the transition period is outlined in table E.21.

Table E.21 Assumed community care places through transition period '000 places per year

	2012	2013	2015	2017	2019	2021	2023
CACP	45.2	51.3	67.3	86.5	92.4	98.4	105.4
CCIP	0.0	3.0	9.0	12.5	13.3	12.0	5.0
EACH	5.9	7.1	10.3	14.8	21.3	23.1	24.6
EACH-D	2.9	3.5	5.0	7.2	10.3	14.8	21.4

Source: Commission calculations.

To ensure a consistent basis for projecting costs during the transition period, the number of residential care places has needed to be revised. Using the age-based use approach to projecting aged care use (as outlined in section E.5), the projected use of residential care was less than what was projected for the revised IGR scenario. However, such an outcome is unlikely because community care places are expected to only increase gradually. As such, it was assumed that there would be a gradual

convergence from the actual number of residents in care in 2010 to the projected care levels calculated using the age base use approach.

# Indicative long term public costs under different care co-contribution and lifetime stop-loss assumptions

The Commission explored what the impact of different combinations of maximum care co-contribution rates and stop-loss limits would be on the indicative public cost of aged care in 2050 (table E.22). The largest differences in indicative costs — measured as a per cent of GDP in 2050 — occurs when the lifetime stop-loss amount is changed from \$40 000 to \$60 000.

Table E.22 Indicative public cost of proposed aged care arrangements
As per cent of GDP in 2050 based on different assumptions

Lifetime stop-loss amount (\$)	25 per cent maximum co–contribution rate	35 per cent maximum co–contribution rate
40 000	2.04	2.03
60 000	2.00	1.98
80 000	1.98	1.96
100 000	1.97	1.94
120 000	1.97	1.93

Source: Commission calculations.

The choice of maximum care co-contribution rates appears to have relatively limited impact on the public cost of the proposed scheme. This is largely due to:

- the design of the indicative comprehensive means test where most people are assumed to make the same co-contribution even when the maximum rate is changed from 25 to 35 per cent of care costs
- the scheme including a lifetime stop-loss mechanism, which limits the increase in co-contributions made when a higher maximum rate is chosen.

# E.4 Workforce projections through to 2050

One of the key challenges in implementing the proposed reforms will be the capacity of the workforce to meet the expected growth in demand for aged care services — aged care services are inherently labour intensive and this is unlikely to change significantly in the near future.

This section outlines how the workforce requirements of the Commission's proposed aged care system were derived. Projections presented in this section are

indicative only. They are inherently uncertain and would be significantly different if any of the underlying assumptions changes.

## Methodology

The factors that were taken into account when calculating future workforce requirements are the projected use of aged care places (dealt with above) and the staffing levels required to service these places.

*Staffing levels* per aged care place were estimated using information from the 2007 National Aged Care Workforce Census (NACWC) (Martin and King 2009) and the 2008 Community Care Census (DoHA 2010e).

The NACWC provides information on the total number of workers and full-time equivalent direct care workers that delivered residential aged care services in late 2007 (between October and November). Taking the estimated number of workers and the number of residents in care during this period, it was possible to derive a ratio of the number of workers per resident during the census period for both direct care workers and all workers employed by residential services.<sup>5</sup> It was not possible to distinguish differences in the care requirements for high and low care residents. As such, a uniform staff ratio was calculated for all residents. This ratio underestimates the required residential aged care workforce as the proportion of residents with high care needs is expected to increase throughout the projection period.

The NACWC is not able to differentiate between staff who are delivering HACC services from staff delivering community care packages. However, the community care part of the NACWC provides some indication of the number of support workers required to assist in the delivery of community care services.

The Community Care Census provides information from which the average number of care hours received by packaged care clients by type of package can be calculated. This information was used to calculate the number of hours of care that would be required to deliver aged care services in the community at different care package levels as they currently exist. In order to calculate the staffing levels required during the transition stage, it was assumed that delivery of a community

Direct care workers include nurses, personal carers and allied health professionals. Recognising that many workers in each setting are part-time rather than full-time employees, the total number of direct care workers was also estimated. All workers includes direct care workers and support workers (for example, catering staff and maintenance staff).

care intermediary package (CCIP) would require 70 per cent of the staffing level of an EACH package.

#### Results

Based on the methodology outlined above, and assuming that staff to client ratios are maintained at their 2007-2008 levels, the Commission estimated that about 980 000 workers (including support staff) will be required to deliver aged care services (not including community support services) by 2050 if the proposals are implemented (table E.23).

These projections suggest that the current workforce will need to more than quadruple in size by 2050, with nearly 80 per cent of the projected growth required to support the delivery of residential care services. However in terms of relative growth, the total residential care workforce is expected to grow by only three fold compared to a nearly eight fold increase in the total community care workforce.

Table E.23 Projections of aged care workforce demand

	2010	2020	2030	2040	2050
Residential care					
Direct care workers (FTE workers)	85 000	107 000	157 000	254 000	353 000
Direct care workers (total workers) Total residential care workforce	144 000	182 000	266 000	431 000	598 000
(direct and support workers)	189 000	239 000	349 000	565 000	785 000
Community care					
Direct care workers (FTE workers)	11 000	41 000	57 000	82 000	102 000
Direct care workers (total workers) Total community care workforce	19 000	66 000	92 000	132 000	164 000
(direct and support workers)	22 000	78 000	109 000	156 000	194 000
Total workforce requirement <sup>a</sup>	212 000	317 000	459 000	721 000	979 000

a Total workforce requirement may not reflect sum of components due to rounding.

Source: Commission calculations

## E.5 Key assumptions and sensitivity analysis

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

- the age–specific disability levels of older Australians
- the 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 public costs of services as a consequence of the financial co-contributions that care recipients are expected to make.

These factors have been incorporated into the Commission's projections of aged care expenditure.

Where sensitivity analysis has been undertaken, the potential impact of alternative assumptions has typically been reported as percentage points of GDP to two decimal places. This additional level of detail provides a better basis for comparison — especially as some of the variation in projections are less than 0.1 percentage points of GDP.

## Disability levels among older Australians

Changes in the prevalence of age-specific disability rates can potentially have a considerable effect 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 influence 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 (see chapter 3). The Review cited international evidence that age—specific disability rates were declining in industrialised countries as the basis for this assumption. The Review noted, however, that the evidence specific to Australia of decreasing disability prevalence among older people was less clear. The Review suggested 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 Surveys of Disability, Ageing and Carers (SDAC), undertaken by the ABS in 1998, 2003 and 2009. While there have been variations in the age-specific disability rates between the surveys, very little of the change has been statistically significant. Of the change that has occurred, most has been in reduced age-specific disability rates (appendix H). Given this, the Commission has made the conservative assumption 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). Any

reduction in age-specific disability rates will reduce both the public and private costs of aged care.

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 (as assumed in Hogan Review 2004). Under this assumption, the public cost:

- of the revised IGR projection would fall from 1.83 to 1.56 per cent of GDP in 2050
- of the Commission's proposals would fall from 2.00 to 1.81 per cent of GDP in 2050 (assuming a 25 per cent maximum co–contribution rate and a \$60 000 lifetime stop-loss limit).

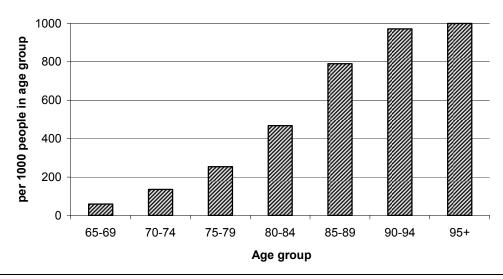
#### Growth in the number of older Australians

Currently the use of formal aged care services increases rapidly for people aged 85 years and older (figure E.4). 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 E.4 Use of aged care services by age group

Use in 2008 per 1000 people in age group a



<sup>&</sup>lt;sup>a</sup> 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 actual number of people receiving services.

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

## Projecting future use based on current age-specific and sex-specific use

For the revised IGR scenario, the Commission attempted to estimate the cost of a system that is comparable to the existing arrangements. As such, the number of aged care places was projected using current age-specific and sex-based rates of use of aged 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 approach were to be maintained, it is likely that the actual ratios would rise in the future in response to the underlying demographic trends. Indeed, the planning ratio was initially set at 100 places per 1000 people aged 70 years in 1985 and has since been increased to 113 places per 1000 people aged 70 years or over (DoHA, sub no. 482).

The most commonly used aged care program in all age groups is HACC, with intensive community care packages (CACP, EACH and EACH–D collectively) being the least used in most age groups (table E.24). 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 fall in the future (DVA 2009) although another cohort of veterans

associated with the Vietnam War is expected to increasingly use these services in the future.

Age-specific and sex-specific ratios of aged care use were used to project the number of aged care places in the future (table E.24).

Table E.24 Age and sex based use rates of aged care services in 2008<sup>a</sup>

People using services per 1000 people in age and sex cohort

	HACC Veterans' programs		Community packages	Residential care
Males				
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
Females				
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+ <b>c</b>	514	95	60	412

<sup>&</sup>lt;sup>a</sup> 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. <sup>b</sup> Client data for Veterans' programs — Veterans' Home Care and Community Nursing — is from 2008-09. <sup>c</sup> 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 if they move between services during a year (for example, from HACC or a Veterans' program to residential care).

Source: Commission calculations.

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

## Box E.2 Projecting the number of community aged care places

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

$$CC_{x} = \sum_{s=m}^{f} \sum_{a=1}^{n} ASP_{x}^{as} \times ASU^{as}$$

$$CACP_{x} = \frac{21}{25} \times CC_{x}$$

$$EACH_{x} = \frac{2.4}{25} \times CC_{x}$$

$$EACH_{x} = \frac{1.6}{25} \times CC_{x}$$

#### 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

With 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 expected to be 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 will decrease the availability of carers
  - this would tend to increase care demand and costs
- the overall impact would be determined by the relative impacts of these somewhat opposing 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 (however, not all specific needs lead to additional costs).

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 reduce the intensity of services required for individuals
  - the introduction of the Australian Age Pensioners Savings Account scheme could lead to a greater uptake of age appropriate housing
- the widespread availability of internet and advanced telecommunication devices (including monitoring 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.

#### Residential care versus community care

For the revised IGR scenario, the Commission assumed that the ratio of residential care places to intensive community care places would prevail throughout the projected period. While the relative ratio of community and residential care community care places is expected to be maintained, the Commission assumed that the overall planning ratio would change to maintain current age based usage rates. 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
- there is evidence of 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 reduction in the relative availability of informal carers and workforce shortages, although this would also be manifested in demand for residential care.

If a further shift from residential care to community care was assumed to occur, but the age-specific 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 these assumptions, the total cost (public plus private) decreases by 0.4 percentage points of GDP in 2050 (to 2.5 per cent of GDP). However, because the private contribution to community care packages is substantially less than the contribution for residential care (given the private contribution for accommodation and everyday living expenses), the public cost increases by 0.2 percentage points of GDP in 2050 compared to the revised IGR projection (to 2.0 per cent of GDP).

### Intensity of community care

Currently, 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 this 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 under current arrangements for each package are similar 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 percentage points of GDP higher than the revised IGR scenario in 2050. Given that the Commission's proposal is for people to make a proportional co—contribution towards the cost of their care, the change in public cost would be smaller for the Commission's proposal.

## Change in the average cost of care — wage costs

Future wage costs will have a substantial impact on the future cost of aged care. Chapter 14 highlights that the current wage structure of aged care workers may not be sufficient to attract and retain staff. This difficulty is likely to be compounded 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 would rise by 4 per cent a year in nominal terms (Treasury 2010). The Commission explored the sensitivity of these projections to alternative wage cost assumptions.

To illustrate this, 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. Importantly, 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 this 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 2.25 per cent of GDP in 2050, compared to the revised IGR estimate of 1.83 per cent of GDP. For the proposed reforms, if the annual growth in nominal wages was assumed to be 5 per cent, the projected public cost would increase from 2.00 to 2.48 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. The compounding effects of 40 years of 5 per cent nominal wage growth compared with 40 years of 4 per cent nominal wage growth produce this illustrative outcome.

## Financial co-contributions of care recipients

The current aged care arrangements contain a number of safety net arrangements to ensure that people with limited means can access the care they need. With safety nets remaining an important feature of aged care into the future, 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, and 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 the 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 pensioners<sup>6</sup> 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 2010 IGR. 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 non-pensioners, just over 10 per cent of people receiving aged care services are non-pensioners. This suggests that full and part

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<sup>6</sup> 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.

pensioners are over-represented among aged care consumers, especially in the HACC and CACP programs, and among residential care clients (table E.25).

Table E.25 Pension status of aged care recipients

Per cent of recipients of an aged care program in 2008<sup>a</sup>

	HACCb	CACP	EACH	EACH-D <sup>c</sup>	Residential care
Age Pension <sup>c</sup>	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

<sup>&</sup>lt;sup>a</sup> Columns may not sum to 100 because of rounding. <sup>b</sup> Includes people receiving HACC for disability support as well as aged care. <sup>c</sup> Includes people receiving a full or part Age Pension. For residential care, this includes anyone receiving a Centrelink pension — not just an Age Pension.

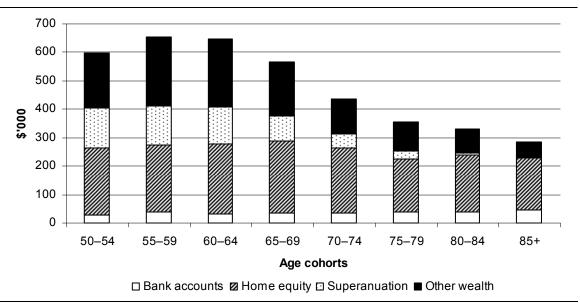
Sources: DoHA (2009c, 2010e); AIHW (2009c).

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 or over (AIHW 2009c, 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, the Commission expects 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 will draw down on their financial and household wealth in retirement (figure E.5). The study, which used the 2002 HILDA survey, also found that the rate of home ownership 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 E.5 Household wealth of Australian families with at least one member aged 50 or over

Household wealth in 2002



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

It is unlikely that the age of entry into care will fall 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. 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 1.83 under the revised IGR projection to 2.08 per cent of GDP.