

Deloitte Access Economics

Australia's aged
care sector:
economic
contribution and
future directions

Aged Care Guild

June 2016

Contents

Glossary.....	i
Executive Summary.....	ii
1 Introduction.....	1
2 The aged care sector in Australia.....	2
2.1 Snapshot of the Australian aged care sector.....	2
2.2 Industry trends.....	10
2.3 Policy environment.....	16
3 Economic contribution of the aged care sector.....	20
3.1 Direct economic contribution.....	20
3.2 Indirect economic contribution.....	22
3.3 Total economic contribution.....	24
3.4 Capital expenditure in aged care.....	26
4 Future directions.....	28
4.1 Nature of aged care services and delivery.....	28
4.2 Workforce and skills requirements.....	32
4.3 Investment and sustainability of growth.....	36
References.....	41
Appendix A : Economic contribution analysis modelling methodology.....	43
Appendix B : Details on future planning for the aged care sector.....	47

Liability limited by a scheme approved under Professional Standards Legislation.

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/au/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms.

Glossary

ABS	Australian Bureau of Statistics
ACAR	Aged Care Approval Rounds
ACFA	Aged Care Financing Authority
ACFI	Aged Care Funding Instrument
ANZSIC	Australia and New Zealand Standard Industry Classifications
CCW	Community Care Worker
CDC	Consumer Directed Care
CHC	Complex Health Care
CHSP	Commonwealth Home Support Program
DAE	Deloitte Access Economics
DAP	Daily Accommodation Payment
DSS	Department of Social Services
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortisation
FTE	Full-Time Equivalent
GDP	Gross Domestic Product
GOS	Gross Operating Surplus
HACC	Home and Community Care
HCF	High Care Facility
IO	Input-Output
PC	Productivity Commission
PCA	Personal Care Attendant
RAD	Refundable Accommodation Deposit

Executive Summary

Australia is currently undergoing a significant economic transition. As the economy rebalances away from the resources boom and mining-led growth, stronger growth in other sectors will be required to sustain Australia's economic growth, particularly in services industries. The aged care sector is set to play an important role as this transition plays out across the Australian economy.

The aged care industry provides older Australians with a range of different services, allowing them to access appropriate levels of care when and where they require it as they age. In delivering aged care services to the Australian community, the sector is both a vital supporter of the comfort and dignity of older Australians as well as an important contributor to the Australian economy.

As part of its economic activities, the aged care sector produces output, employs labour and pays wages, and generates returns to capital. Deloitte Access Economics estimates that the direct economic contribution resulting from this economic activity was \$13.5 billion in value added in 2014-15. This represents the value of production or the 'economic footprint' attributable directly to the aged care sector in the Australian economy. The direct contribution of the sector is approaching that of other important Australian industries such as residential building construction and the sheep, grains, beef and dairy cattle industry.

In addition to this direct economic contribution, the aged care sector utilises inputs from other industries in the Australian economy, such as food, accommodation and medical services. This indirectly generates economic activity by facilitating production and paying wages and returns in these other industries, with our estimates suggesting that the total value of this indirect economic contribution was a further \$4.1 billion in 2014-15.

As a service industry, the aged care sector has a sizeable workforce that directly employs more than 350,000 workers representing around 238,000 full-time-equivalent jobs in 2014-15. These jobs fill a diverse range of roles, from nurses and care workers to management and administrative staff. The aged care sector also draws on a large network of volunteers whose numbers are not included in the measured workforce and whose efforts are not included in measures of economic contribution.

The aged care sector is an important contributor of jobs and growth as the economic transition from the capital-intensive mining sector to more labour-intensive services sectors proceeds. In its February 2016 *Statement of Monetary Policy*, the Reserve Bank of Australia observed that, "strong growth in household services employment was underpinned by a large increase in health and social assistance employment ... partly reflect[ing] increased demand for aged and home-based care services as the population ages".

Future growth of the aged care sector is likely to be significant. According to Treasury's 2015 *Intergenerational Report*, the number of Australians aged 65 years and over is forecast to more than double over the next 40 years, increasing from around 3.6 million in 2014-15 to 8.9 million in 2054-55. Consistent with this trend, the Aged Care Financing Authority (ACFA) estimates that 76,000 new residential aged care places will be required by 2023-24 in order to meet demand.

Aged care is therefore an industry within the Australian economy that is poised to grow substantially into the future, with new capital investment by the residential aged care sector of \$1.7 billion in 2014-15. The call on public funding to support access to aged care services will also grow quickly. The 2016-17 Commonwealth Budget commits \$17.8 billion to support aged care services during the 2016-17 financial year, and Treasury's 2015 *Intergenerational Report* forecasts that public expenditure on aged care is expected to double as a share of the economy by 2055.

Given the significance of the aged care sector to the Australian economy and its growth potential, it is important that industry and government work together to secure access to and availability of quality aged care services into the future. The financial sustainability of aged care funding in the future is becoming an increasingly significant issue, and is one of the key themes in the government's ongoing reform of the sector. There have been moves to transition the aged care sector towards more consumer-oriented, market-based funding mechanisms to improve financial sustainability over time.

Partly in response to these developments, there is an increasing emphasis on consumer choice in aged care. For example, a growing number of older Australians are choosing to 'age in place' (i.e., at home) wherever possible. This is leading to higher uptake of home care packages and rising levels of dependency among those who eventually opt for residential aged care. Where residential care is selected, providers are increasingly tailoring services to individual residents' preferences, such as offering independent living arrangements, modern facilities and personalised care.

This shift towards a more consumer-centric market in aged care is consistent with changing consumer dynamics across the broader economy. Businesses across different industries are becoming increasingly responsive to consumer preferences to attract and retain customers, facilitated by advances in technology and communication. As an important part of the Australian economy, moving towards such a model in the aged care sector will ensure that the system becomes more flexible and responsive to changing circumstances in the future.

Opportunities and challenges will emerge as the aged care sector moves forward on its journey towards a more consumer-centric system. The *Aged Care Roadmap*, released in 2016, highlights a number of these issues, including aged care funding, investment sustainability and growth, changing consumer preferences, and workforce and skills requirements. The *Roadmap* recognises the need to provide quality and sustainable aged care services in the future and represents a considered view by industry and key stakeholders on the long-term path for a consumer-driven and market-based system.

Overall, the Australian aged care sector is experiencing significant change. Our consultations with key stakeholders in the sector indicate that the industry is adapting to these shifts by changing their services and how they are delivered, implementing new technologies, training their workforces and investing in new opportunities. Given the sector's social and economic importance, it will be critical that aged care providers and policymakers continue to work towards building a viable and sustainable system to support the growing number of older Australians in the future.

Deloitte Access Economics

1 Introduction

The aged care sector plays an important role in the Australian community. Demographic change and population ageing across Australia are increasing demand for aged care services, and this growth is expected to continue into the future. It is therefore critical that Australia's aged care system is viable and sustainable into the future, and that it is able to support older Australians with the appropriate level of care when and where they require it.

In addition, the aged care sector is an important part of the Australian economy. Growth in aged care has and will continue to have large positive economic impacts. As the Australian economy continues to transition from the resources boom and mining-led growth, aged care services represent a significant industry that can contribute to future growth in Australian living standards.

From an economic perspective, the aged care sector directly generates economic activity through the operation and provision of aged care services. This contributes to Australia's GDP as well as creating a large number of employment opportunities. Investment in new aged care facilities in recent years has yielded additional economic benefits associated with capital works and job creation in the construction phase. In addition to these direct economic impacts, the aged care sector also makes an indirect economic contribution through the interdependences between aged care services and other industries, such as food, accommodation and health care.

At the same time, substantial change is affecting the aged care industry. Factors such as the funding of aged care, sustainability of future investment in industry growth, and the nature of consumer preferences have important implications for the broader industry landscape. Combined with the ageing of the Australian population, these trends will affect the future direction of aged care in Australia.

In this context, the Aged Care Guild has commissioned Deloitte Access Economics to examine both quantitatively and qualitatively the economic contribution of the aged care sector in Australia, as well as to consider broader industry trends, policy issues, existing challenges and future implications. The purpose of this report is to highlight the significant contribution of the sector and outline future directions for the aged care industry in Australia. The report uses data and information collected from key stakeholders across the sector, including both for-profit and not-for-profit aged care providers as well as relevant policymakers.

The remainder of this report is structured as follows:

- Chapter 2 provides an overview of the aged care sector in Australia, including key industry trends and the current policy environment;
- Chapter 3 summarises the modelling of the economic contribution of aged care, including the industry's direct and indirect contributions to the Australian economy; and
- Chapter 4 discusses likely future directions of the aged care sector in Australia.

2 The aged care sector in Australia

The Australian aged care sector is large and complex. From an economic perspective, it is one of Australia's largest service industries, employing over 350,000 employees to deliver services to over one million people via some 2,000 service providers (ACFA, 2015). The aged care sector also plays an important social role in providing older Australians with a variety of care options in the later stages of their lives. There is significant public involvement in the sector, with \$17.8 billion of Commonwealth expenditure allocated to supporting aged care services in 2016-17.

This chapter provides an overview of the aged care sector in Australia, including the types of services offered, the nature of supply and demand for these services, the aged care workforce, and trends and changes that are currently affecting the sector. It also summarises the aged care policy environment and examines recent reforms to aged care.

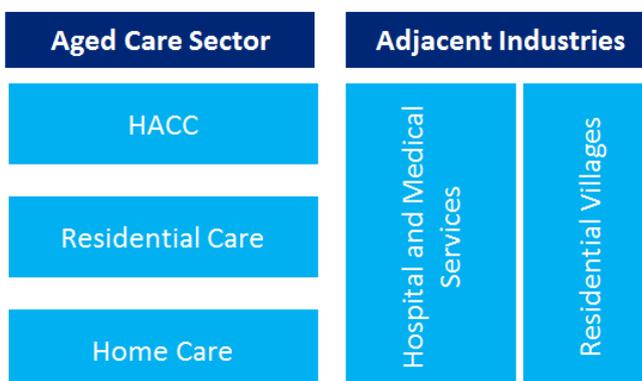
2.1 Snapshot of the Australian aged care sector

2.1.1 Supply of aged care in Australia

There are over 2,000 aged care service providers in Australia, supplying three different types of aged care services: Home and Community Care (HACC)¹; home care; and residential care. HACC provides entry level basic support for older people who need assistance to live independently. Home care includes four levels of care provided to older people living at home, ranging from basic to high-care needs. Residential care provides accommodation and support for those who choose to live within residential aged care facilities.

In addition, the aged care sector does not operate in isolation. The provision of residential care, home care and HACC services lies adjacent to other services and sectors in the Australian economy, such as hospital and medical services or retirement villages (Figure 2.1).

¹ As of 1 July 2015, HACC falls under the Commonwealth Home Support Program (CHSP). The data collected for 2013-14 that has been used in this report is specifically for HACC; hence this report will continue to use the terminology 'HACC' in referring to this program.

Figure 2.1: The aged care sector as part of the broader Australian economy

Source: Deloitte Access Economics, 2016.

The Australian government regulates the supply of aged care by specifying a national provision target of subsidised operational places for every 1,000 people aged 70 years or over (aged care provision ratio). The aged care provision ratio is set to grow from 113 places to 125 places by 2021-22 (ACFA, 2015).

As Table 2.1 illustrates, in 2013-14 there were over 1 million aged care places supplied across Australia, and the aged care sector as a whole generated around \$18 billion in revenue. While residential aged care places represented only 18% (189,300) of total aged care places, this type of aged care generated 82% (\$14.8b) of total revenue and received 73% (\$9.8b) of total Commonwealth funding to the aged care sector. In total, the Commonwealth provided around \$14.2 billion in funding to the aged care sector in 2013-14.

Table 2.1: Supply of aged care in Australia by service type, 2013-14

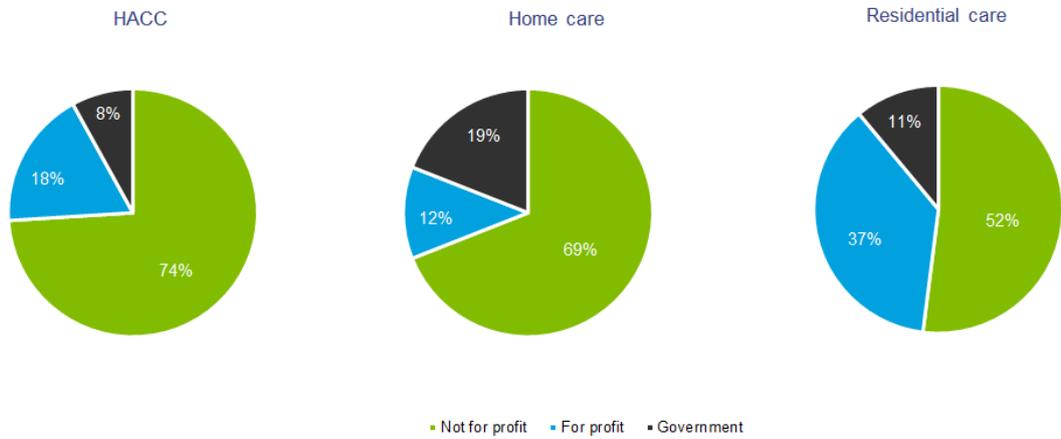
	HACC	Home care	Residential care	Other
Number of providers	1,676	504	1,016	-
Number of places	775,959	66,149	189,283	-
Commonwealth funding	\$1,701m	\$1,271m	\$9,814m	\$1,379m
Total revenue	\$1.8b	\$1.3b	\$14.8b	-

Note: Some providers offer more than one type of service, and are therefore included in more than one category.

Source: ACFA, 2015.

All three types of aged care services are supplied by a combination of for-profit, not-for-profit and government service providers. However, as Chart 2.1 illustrates, the majority of aged care services is supplied by not-for-profit service providers across all three types of care, with the market share of these providers ranging from 52% in residential care to 74% in HACC. Historically, the provision of aged care has fallen to the not-for-profit sector; however, over the last seven years, much of the growth in aged care supply reflects growth of for-profit providers (ACFA, 2015). This is especially true for residential care: while the number of for-profit residential care providers has remained stable over this period, the number of places supplied by each for-profit provider has increased.

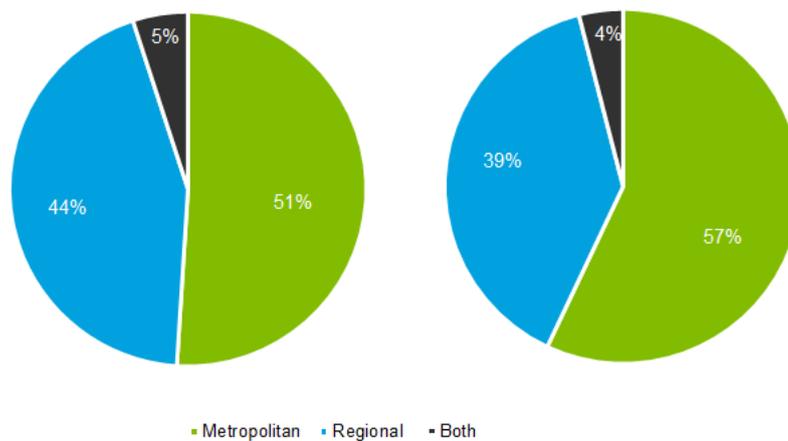
Chart 2.1: Aged care sector by ownership type, 2013-14



Source: ACFA, 2015.

Geographically, as shown in Chart 2.2, the majority of home care (51%) and residential care (57%) service providers in Australia operate solely in metropolitan areas (ACFA, 2015). The provision of aged care services – particularly residential places – can be costly, and private for-profit providers sometimes regard remote and regional areas as too expensive for them to operate profitably (Deloitte, 2015). For example, regional providers of residential aged care may incur higher costs owing to smaller facilities, as well as lower revenue per resident owing to a higher proportion of low care residents and greater dependence on donations for viability.

Chart 2.2: Geographic distribution: home care and residential care, 2013-14



Source: ACFA, 2015.

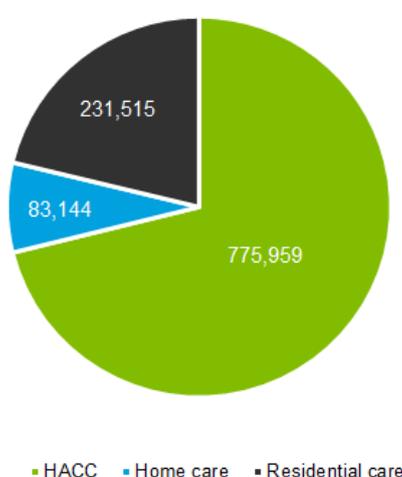
2.1.2 Demand for aged care in Australia

The demand for aged care is increasing as Australia’s population ages (see Section 2.2.1). In order to ensure that Australia’s aged care system is sustainable, the Australian Government

has introduced a demand-driven model of service delivery that promotes Consumer Directed Care (CDC) across the aged care sector.

Under such a model, demand for aged care services is dependent on consumer needs. For example, consumers who wish to 'age in place' (i.e. at home) but who require support services to do so may access HACC or home care services. In contrast, consumers who have high-care needs requiring 24-hour care and accommodation may need to access residential care. Chart 2.3 illustrates consumers of aged care by service type in 2013-14.

Chart 2.3: Consumers of aged care by service type, 2013-14



Source: ACFA, 2015.

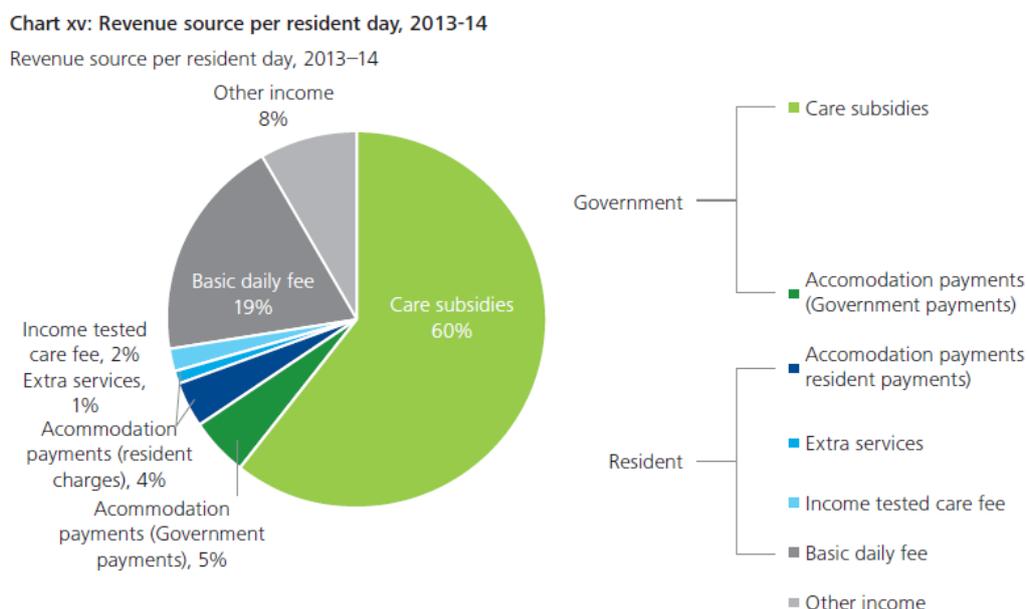
People who access residential aged care tend to be older than those in other types of aged care services, reflecting the fact that consumers typically require more substantial care and have greater accommodation needs as they age. Of the 231,515 people who accessed residential care in 2013-14, the average age was 84.5 years. By contrast, the average age of consumers of home care and HACC, respectively, was 82.3 and 80.3 years.

As noted in Table 2.1 above, the Commonwealth makes a significant contribution to funding aged care places across HACC, home care and residential care services. Consumers also contribute privately towards aged care services, spending \$4.1 billion on fees in residential care² and \$87 million on home care in 2013-14 (ACFA, 2015).

The extent to which the government subsidises aged care services and the mix between public funding and consumer payments differs for each service type. For home care, government funding is determined by the level of service needed by the consumer. The government subsidises the required level of service and consumers are required to pay a basic daily fee of up to 17.5% of the single basic pension (\$9.77). However, for residential care, funding arrangements are more complex. Figure 2.2 illustrates the current funding mix for residential aged care services.

² Including living expenses and accommodation costs but excluding refundable accommodation deposits.

Figure 2.2: Funding mix for residential care, 2013-14 (\$m)



Source: ACFA, 2015.

Government funding of residential care is means-tested and is based on the type and level of care provided as determined by the Aged Care Funding Instrument (ACFI). To supplement this, consumers of residential care pay either a 'rental style' Daily Accommodation Payment (DAP) or an upfront 'bond style' Refundable Accommodation Deposit (RAD), or a combination of the two – in addition to extra fees for the provision of extra services (e.g. Foxtel). On average, non-supported consumers of residential care tend to prefer the lump sum RADs payment method, with 41% choosing this option as compared with 35% choosing DAPs (ACFA, 2015).

2.1.3 Australia's aged care workforce

Aged care jobs

The aged care sector contributes significantly to employment in the Australian economy, employing across a range of occupations. These include 'direct care' jobs such as nurses, care workers and health professionals, as well as 'other' jobs such as management and administrative positions, pastoral care and ancillary care.

The aged care sector has grown from a total of approximately 262,000 workers in 2007 to 352,000 workers by 2012, representing a 34% growth in the size of the aged care workforce over the five year period (Chart 2.4). While more than half of the aged care workforce is employed in the residential care segment, which represented around 202,000 workers in 2012, the community care segment – which includes both HACC and home care workers and comprised 150,000 workers in 2012 – has seen a significantly higher rate of growth over the five year period. This reflects an increasing consumer preference to 'age in place', a trend likely to continue given recent reforms and the increased focus on community and home-based ageing services.

Chart 2.4: Size of aged care workforce in select years, 2003-2012

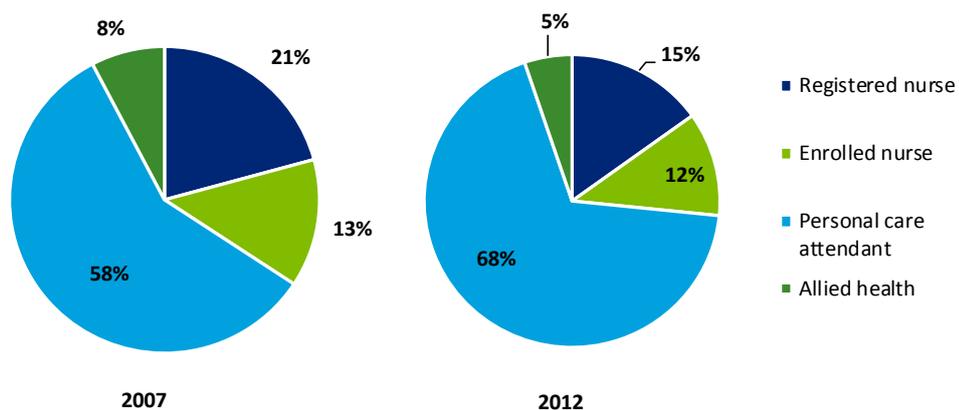


Note: Community aged care not represented in 2003 workforce survey.
Source: DSS (2012)

Almost 70% of all jobs in the aged care workforce in 2012 were in direct care roles. However, over the 2007 to 2012 period, there has been a change in the composition of the direct care workforce for both the residential and community aged care sub-sectors.

In the direct care residential workforce, demand has been increasing for personal care attendants (PCAs), who made up of 68% of the direct care workforce in 2012 (up from 58% in 2007). This reflects more general tasks now performed by PCAs, and is matched by a decrease in the proportion of registered nurses from 21% of the direct care workforce in 2007 to 15% in 2012 (Chart 2.5).

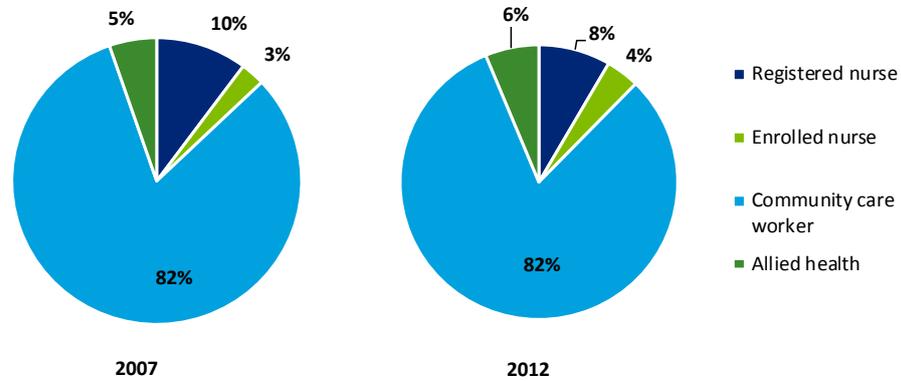
Chart 2.5: Composition of direct care residential aged care workforce, 2007 versus 2012



Note: Registered nurse combines categories 'nurse practitioner' and 'registered nurse', while 'allied health' includes 'allied health professional' and 'allied health assistant' for year 2012.
Source: DSS (2012)

The direct care community aged care workforce comprises predominantly community care workers, who make up 82% of the workforce (Chart 2.6). There has been little compositional shift over the 2007 to 2012 period compared with residential aged care.

Chart 2.6: Composition of direct care community aged care workforce, 2007 versus 2012

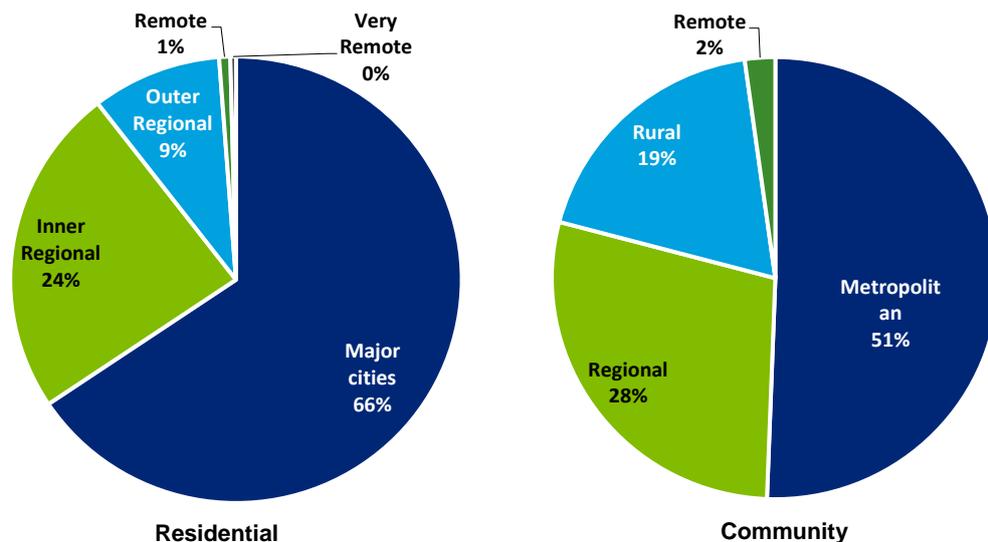


Note: Registered nurse combines categories 'nurse practitioner' and 'registered nurse', while 'allied health' includes 'allied health professional' and 'allied health assistant' for year 2012.

Source: DSS (2012)

Given that older Australians in all parts of Australia require residential and community aged care services, the workforce is dispersed across the country. As residential care facilities in regional and remote areas tend to be smaller in size than those in metropolitan areas, a greater share of older Australians living in remote regions tend to be served by community aged care services within their local communities, and as such there is a greater concentration of these workers in regional and remote areas (Chart 2.7). In 2012, 49% of community workers were located outside of metropolitan areas, compared to 34% (outside of major cities) for residential workers.

Chart 2.7: Location of aged care workforce, 2012



Note: Common location scale unavailable between the residential and community aged care sectors.

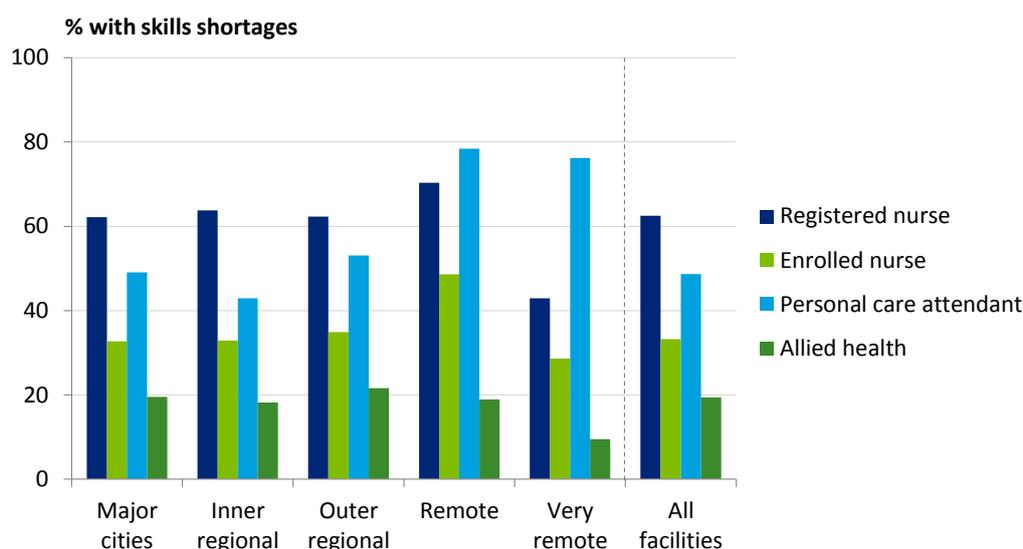
Source: DSS (2012)

Skills requirements

The aged care workforce has become increasingly qualified over recent years, particularly workers in direct care roles. In 2012, 87% of the direct care workforce had post-secondary school qualifications, an increase from 80% in 2007. However, many residential aged care facilities are reporting skills shortages across a range of direct care occupations.

Within residential aged care facilities, skills shortages are the greatest for registered nurses, with over 62% of all facilities reporting a skills shortage (Chart 2.8). There are particular shortages in remote locations, with the average vacancy for a registered nurse at 15 weeks, compared to 7 weeks for all facilities (DSS, 2012). While very remote locations report a lower skills shortage compared with all facilities, this could reflect the limited residential care services provided in very remote regions which could lead to relatively low labour demand for higher-care roles such as registered nurses in these areas.

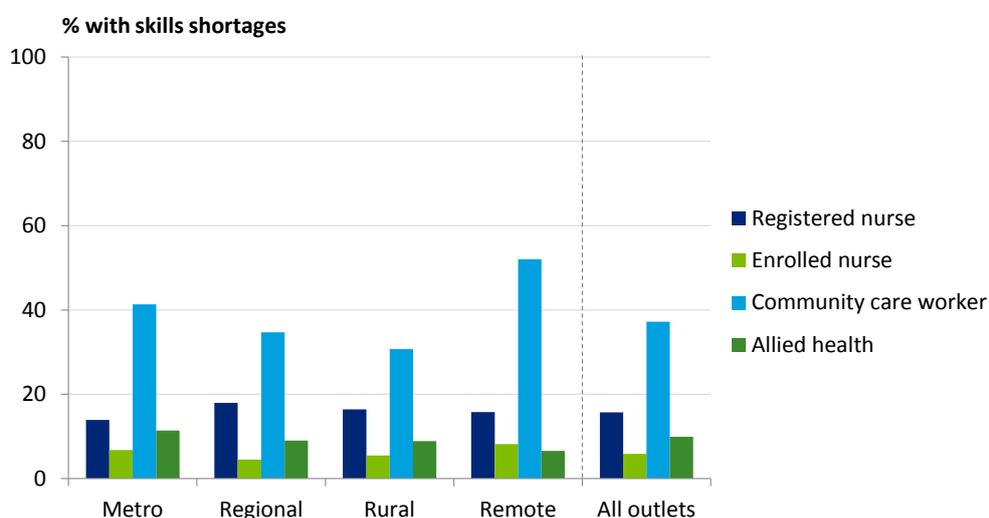
Chart 2.8: Skills shortage of residential direct care workforce, 2012



Source: DSS (2012)

The top three reasons given by surveyed facilities for the skills shortage include: (1) a lack of specialist knowledge; (2) geographic location of facility; and (3) recruitment too slow. Workers have also identified the following three areas of training as being the most valuable for the future: (1) dementia training; (2) palliative care; and (3) wound management.

On average in 2012 in the community care segment, fewer facilities reported skills shortages compared with the residential sector. The occupation with the highest skills shortage is community care workers (CCWs) (37% of outlets) (Chart 2.9). Shortages of CCWs were more likely in outlets in Metropolitan and Remote areas, while shortages of registered nurses were more likely to be reported by outlets in Regional areas.

Chart 2.9: Skills shortage of community direct care workforce, 2012

Source: DSS (2012)

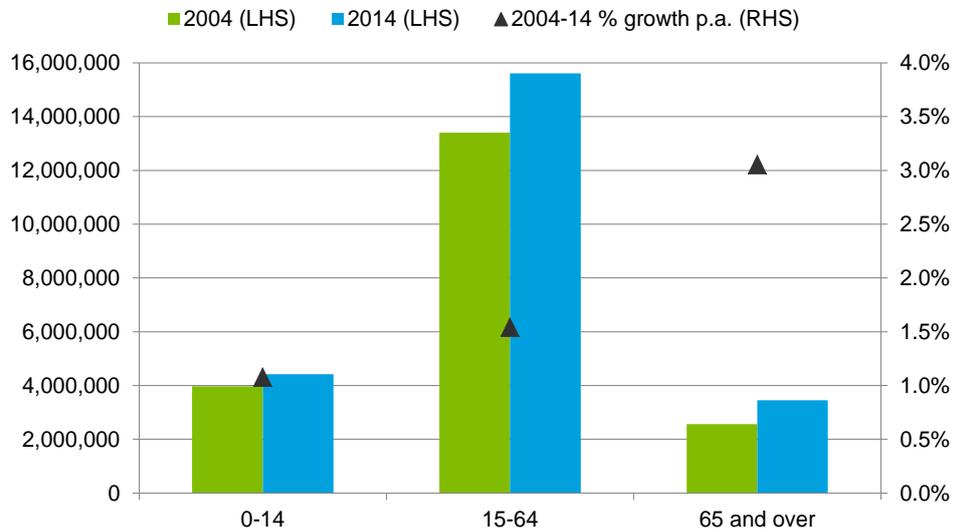
2.2 Industry trends

2.2.1 Demographic change

Australia's ageing population will significantly affect the demand for aged care services (Productivity Commission, 2011). There are two aspects to this demographic trend: first, the structure of Australia's population is changing; and secondly, the longevity of Australia's elderly has increased.

As Chart 2.10 illustrates, the structure of Australia's population is changing as the 'baby boomer' generation, which represents a significant proportion of Australia's total population, moves into the 65 years and older age group. Over the last decade, population growth in the 65 years and older age group has averaged around 3% per annum, significantly outpacing population growth in younger age groups over the same period.

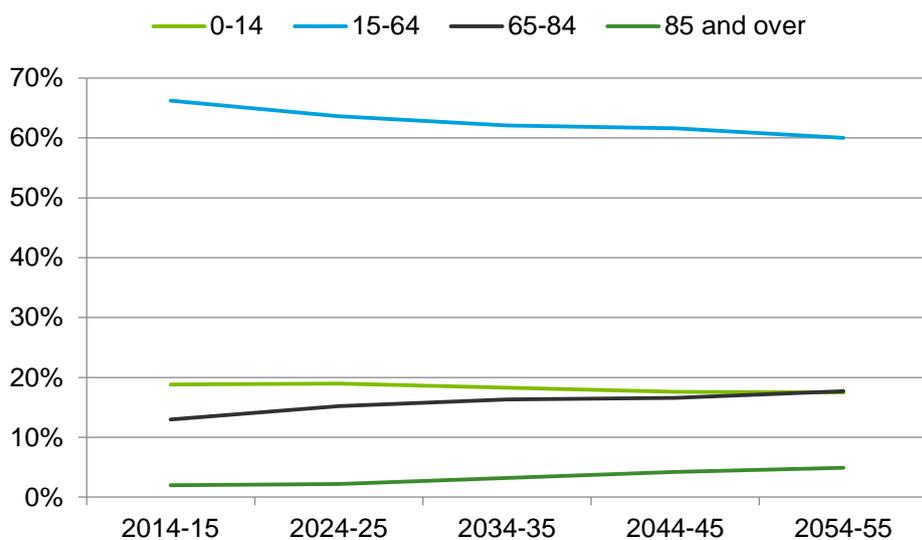
Chart 2.10: Australian population by age group, 2004 to 2014



Source: ABS, 2015.

This population cohort aged 65 years and over is forecast to more than double in size over the next 40 years from around 3.6 million in 2014-15 to around 8.9 million in 2054-55, according to the latest *Intergenerational Report* (Treasury, 2015). Expressed as a percentage of Australia's total population, 23% of the Australian population is forecast to be 65 years and over by 2054-55 (Chart 2.11). Most notably, the share of Australians aged 85 years and over is expected to be around 5% of the total population by 2054-55, up from only 2% in 2014-15.

Chart 2.11: Age breakdown of population projections, 2014-15 to 2054-55



Source: Treasury, 2015.

This illustrates the second key aspect of Australia's ageing population: longevity. Not only are Australians getting older, they are also living longer due to advances in medicine and technology (Treasury, 2015). The *Intergenerational Report* suggests that by 2055

Australians aged 60 or 70 can expect to live four to five years longer than 60 or 70 year-olds currently alive (Table 2.2).

Table 2.2: Projected further years of life expectancy, 2015 to 2055

	2015	2025	2035	2045	2055
Further life expectancy at age 60					
Men	26.4	27.9	29.3	30.5	31.5
Women	29.1	30.3	31.5	32.4	33.3
Further life expectancy at age 70					
Men	16.9	18.2	19.3	20.4	21.3
Women	19.3	20.4	21.4	22.3	23.1

Source: Treasury, 2015.

Combined, these two demographic trends will lead to a strong increase in demand for aged care services. They also have implications for the nature and quality of services demanded, as discussed in Section 2.2.3.

2.2.2 Funding of aged care

As discussed previously, the funding of aged care is complex: it is provided by both public and private sources; and differs greatly across HACC, home care and residential care services. The issue of how aged care services should be funded has been the subject of much discussion and reform over recent years. Funding in aged care is moving towards a more consumer-driven, market-based system, with the biggest financial reforms occurring in the residential aged care sector.

The Commonwealth's commitment to a more consumer-driven aged care system is reflected in its recent reforms to funding arrangements. In response to consumer preferences to live at home where possible, government has moved towards a consumer directed care (CDC) model, shifting funding allocations from service providers to consumers. For example, where previously the government funded home care service providers with per package payments to providers based on the categorisation of home care recipients, under the new system funds are provided to consumers who then choose their preferred mix of aged care services.

Combined with the shift towards CDC is a growing emphasis on 'user pays' payment structures (KordaMentha, 2014). The introduction of means-testing in residential care implies consumers who meet these income thresholds will be required to contribute more towards their aged care. However, increasing consumer contributions do not affect revenue for service providers since they are offset by lower government payments (ACFA, 2015). The net impact of these reforms shifts the aged care sector towards a more consumer-driven, market-based system where consumers have greater choice, flexibility and visibility of their aged care decisions.

Commonwealth expenditure on aged care is expected to double as a share of the economy by 2055, in line with changing demographics and consumer preferences (Treasury, 2015). In light of this, the Government has adopted several measures aimed at reducing the budgetary pressures associated with growing public expenditure on aged care services. For

example, in the 2014-15 Budget, the Commonwealth lowered the real annual growth rate in funding for HACC services (which falls under the Commonwealth Home Support Program as of 1 July 2015) from 6% to 3.5%, starting in 2018-19.

In the 2016-17 Budget, changes to the Complex Health Care (CHC) component of the Aged Care Financing Instrument (ACFI) have been implemented in order to reduce expenditure and stabilise funding growth in this area. The changes will halve the rate of indexation for payments in the CHC domain in 2016-17, while also introducing a new scoring matrix by changing the formula for deciding funding levels for CHC patients. These changes are estimated to generate \$1.2 billion in savings over for years.

Notwithstanding these changes, Commonwealth expenditure on aged care is still expected to grow over coming years. A total of \$78.6 billion has been allocated towards aged care over the four-year forward estimate period from 2016-17 to 2019-20 (Table 2.3). This represents a 7.7% increase on estimated expenditure in 2015-16 of \$16.5 billion and includes a 5.8% increase in expenditure on residential care and a 34.1% year-on-year increase in expenditure on home care. The Government intends to direct funding towards the delivery of home care services – consistent with the changing nature of consumer preferences discussed below in Section 2.2.3. Over the forward estimates period to 2019-20, expenditure on home care is forecast to increase at an average annual rate of 16.7%, compared with 5.9% for residential care.

Table 2.3: 2016-17 Budget aged care expenditure estimates, \$ billions

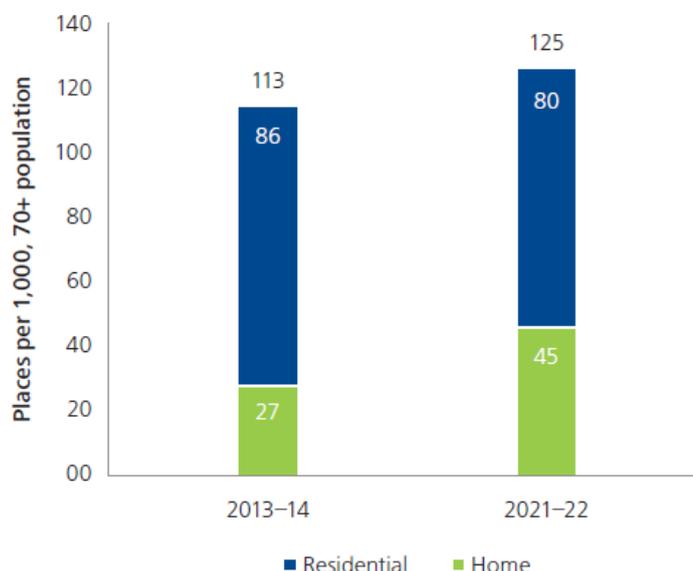
	2015-16	2016-17	2017-18	2018-19	2019-20
Total aged care services	16.502	17.768	19.015	20.198	21.655
<i>Residential care</i>	10.695	11.319	11.919	12.600	13.469
<i>Home care</i>	3.084	4.137	4.639	5.229	5.725

Source: 2016-17 Budget and Aged Care Guild, 2016.

2.2.3 Changing consumer preferences

As the Government moves towards a market-based consumer directed care model for the aged care industry, consumer preferences will become increasingly important in determining the types of aged care services provided. Over recent years, these preferences have been affected by three trends: firstly, consumers are increasingly preferring to age at home; secondly, those who move into aged care facilities want more personalised services; and thirdly, 'baby boomers' entering aged care generally demand a higher level and require more complex care.

The 'baby boom' generation differs from previous generations with respect to their economic, social and cultural attitudes (Hugo, 2014). They prefer to 'age in place' (i.e., at home) (Productivity Commission, 2011). The Government has responded to this preference by changing the aged care provision ratios and funding mix. For example, as seen in Chart 2.12, the current ratio between home care and residential care of 25:88 is expected to increase to 45:80 by 2021-22 (ACFA, 2015).

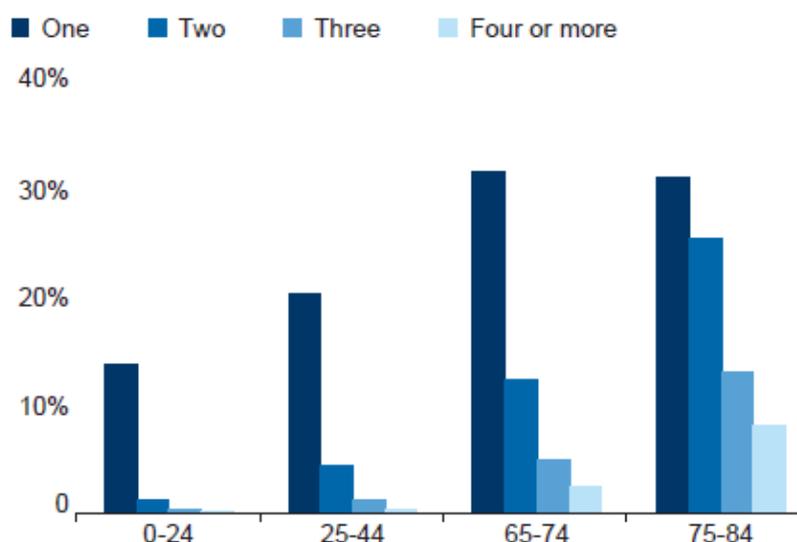
Chart 2.12: Aged care provision ratio targets, 2013-14 and 2021-22

Source: ACFA, 2015.

Our consultations with aged care providers across the industry suggest that new residents entering into residential aged care prefer a wider choice of living arrangements reflecting their pre-care lifestyles. This could include better dining, accessible technology (e.g. Foxtel and wi-fi availability) and optional outings and art-health activities.

Older Australians are increasingly diverse, which is leading to demands for living in culturally relevant care (Productivity Commission, 2011). Australia's first Indian aged care facility will be established in Melbourne in 2016, and demand for ethno-specific aged care facilities (SBS 2016) is growing. It is recognised that difficulty in communicating care needs or cultural needs will affect the wellbeing of older people receiving care (Productivity Commission, 2011).

Finally, chronic diseases and disabilities are increasingly prevalent in the Australian population, particularly among older Australians who often have multiple chronic health issues (comorbidity), as seen in Figure 2.3. This means that the health care aspect of aged care services is an increasingly important consideration for consumers. There is a trend towards more costly and specialised care, particularly as new health technologies are developed that allow for more complex and personalised care. For example, the increase in numbers of dementia patients in the aged care sector has prompted the development of specific home care dementia packages (ACFA, 2015).

Figure 2.3: Multiple chronic diseases by age, 2008

Source: KordaMentha, 2014.

2.2.4 Technological change and the aged care workforce

There is a common perception that technological change could displace jobs, thus reducing the size of the workforce (MYOB, 2015). However, technological innovation also creates new opportunities for job growth. For example, while technological innovation has resulted in less employment in menial or 'muscle power' jobs, there has been a significant long-term shift towards jobs that involve caring for others (FutureInc, 2016).

These roles include jobs in the aged care and health services sectors, as employment in these sectors involves non-routine manual tasks that cannot easily be automated or sent offshore (FutureInc, 2016). Renee Leon, Secretary for the Department of Employment, has previously remarked (SMH 2016):

Over the next five years there will be tens of thousands, probably hundreds of thousands, of jobs created in the caring sectors around community services and aged care and health care. This was creating personal care jobs that cannot be off-shored or automated and that will provide many entry-level and medium-skilled jobs for the workforces of the future.

With over 350,000 people currently employed in Australia's aged care sector (ACFA, 2015), the potential for significant employment growth in this industry could help offset the decline in jobs expected to follow automation of Australia's manufacturing sector. In the shorter term, employment growth in the aged care sector can also help to generate new job opportunities as the Australian economy and workforce continue to rebalance away from the resources boom and mining-led growth.

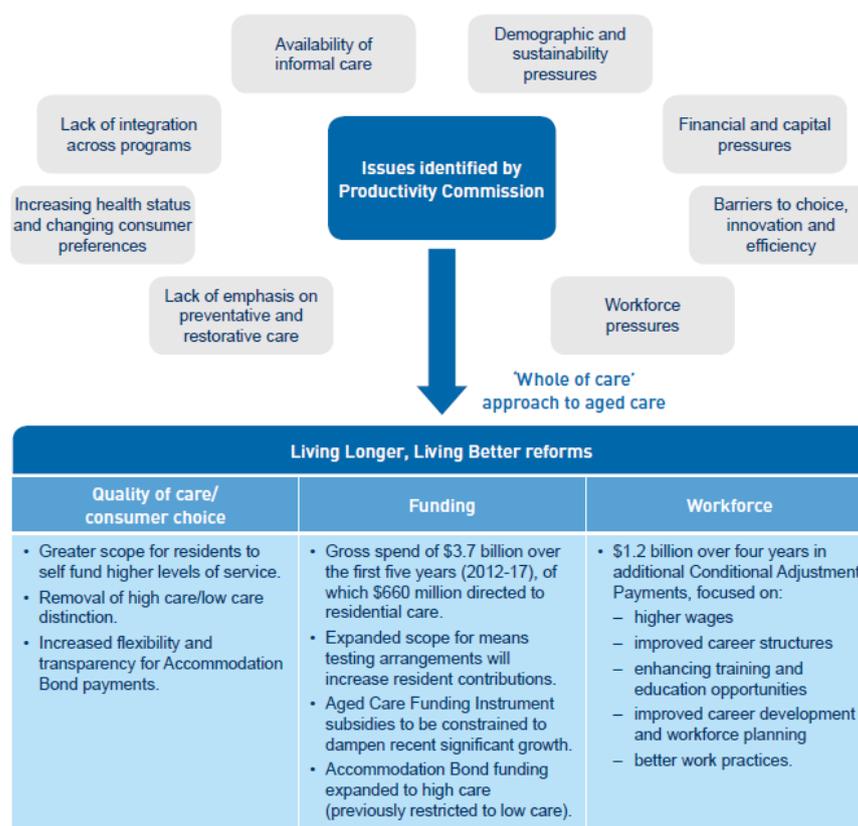
The aged care sector and its workforce will not escape the impacts of technological change. Technology employed in the aged care sector can complement the workforce by improving the working environment and quality of care, rather than providing a substitute for labour (Productivity Commission, 2011). The Productivity Commission (2011) has promoted

reforms aimed at removing barriers to adopting cost-effective technologies in aged care. Aged care providers are beginning to adopt different types of technology to improve the efficiency of their operations and service offerings (see Section 4.1).

2.3 Policy environment

The aged care sector is undergoing major policy reform as a result of the Australian Government’s commitment to providing sustainable aged care services and consumer-driven care. The Productivity Commission’s *Inquiry into Aged Care* (2011) sparked the implementation of the *Living Longer, Living Better* policy (2012), implementation of which commenced in July 2014 (Figure 2.4). The Aged Care Financing Authority (ACFA) and My Aged Care website were established under these reforms. Further policy, focused on providing consumers with greater choice and flexibility, was implemented through *Consumer Directed Care* (CDC) reforms in July 2015.

Figure 2.4: Living Longer, Living Better framework



Source: *Living Longer, Living Better*, 2012.

Policy reforms in the aged care sector have focused on providing sustainable, consumer-centric care through changes to consumer choice, funding and the aged care workforce. This focus has been reinforced by the recent release of the *Aged Care Roadmap* (2016) which sets out a future path for a sustainable, consumer-driven and market-based aged care system in Australia.

Figure 2.5 shows the timeline of the *Living Longer, Living Better* and *Consumer Directed Care* reforms. This section provides an overview of these reforms and the *Roadmap*.

Figure 2.5: Timeline of reforms



Note: A more detailed timeline can be found at Figure B.1 in Appendix B.
Source: ACFA, 2015.

Consumer-centricity

The CDC reforms intend to provide consumers of aged care services with greater control over the types of aged care services they access, who will deliver these services and when. The key component of CDC is consumer-centricity, which emphasises the wellbeing of the individual as defined by the individual.

In the 2015-16 Budget (The Commonwealth of Australia, 2015), the Government announced changes to increase consumer choice and flexibility for older Australians by directly allocating funding for home care packages to consumers rather than to service providers. To be eligible for the package, a consumer still needs to be assessed by an Aged Care Assessment Team to determine his or her care needs and associated level of funding.

The supply of packages continues to be regulated and the *My Aged Care Gateway* is responsible for prioritising clients' access to packages at the regional level. This will enable aged care recipients to receive services from a provider of their choice, including the ability to change providers. The *Increasing Consumer Choice Bill 2016* looks to remove the Aged Care Approval Rounds (ACAR) for home care. These changes are expected to commence from February 2017.

There is a strong consensus among residential care providers in favour of consumer-centric services. However, the extent to which consumer-centricity has been embedded in residential care is difficult to assess and there is no single CDC model for residential care that could be implemented (KPMG, 2014).

While the *Aged Care Roadmap* (2016) is not a policy reform, it does highlight important recommendations for the aged care industry to implement over the next seven years. One important recommendation is to provide a single aged care support system that is market-based and consumer-driven (Table 2.4).

Table 2.4: 'Consumer centricity' destination in the Aged Care Roadmap

Short term (within 2 years)	Medium term (3-5 years)	Long term (5-7 years)	Destination
<ul style="list-style-type: none"> • Minimised government restrictions • Greater consumer choice in delivery of Home Care Packages 	<ul style="list-style-type: none"> • Cease the allocation process for residential care places • Individualised funding that follows the consumer in home care 	<ul style="list-style-type: none"> • True consumer choice of care and provider across the system • Remove distinction between home and residential care 	A single aged care and support system that is market based and consumer driven, with access based on assessed need.

Note: A more detailed list of the recommendations can be found at Table B.2 in Appendix B.

Source: Aged Care Roadmap, 2016.

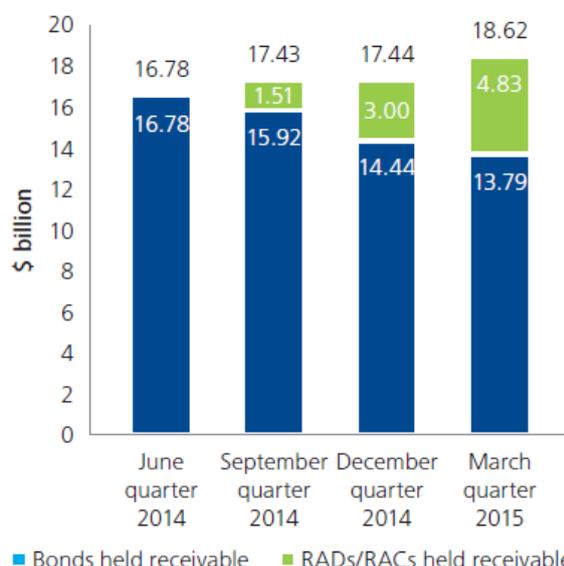
The impacts of these consumer-centric reforms have varied across the range of services provided and between the service providers. The overall consensus is that these reforms have been beneficial and they are supported by the aged care sector (Deloitte, 2015). The full impact will take time to emerge (ACFA, 2015).

Sustainability

Reforms to support the sustainability of aged care target funding and financing of the residential care sector. In particular, reforms relate to accommodation payment arrangements and changes to means-testing for the residential aged care sector. This has led to noticeable improvements in the financial performance of providers and increased merger and acquisition activity within the residential aged care sector (ACFA, 2015).

A key contributor to improved financial sustainability in the aged care sector was the reform of accommodation payments under *Living Longer, Living Better* (2012). The introduction of Refundable Accommodation Deposits (RADs), the removal of caps on daily charges in high care and allowing high-care residents to pay RADs has significantly increased the total lump sum accommodation pool in residential care (Figure 2.6). This has given aged care providers an additional source of liquidity and capital that can be used to finance investment in the sector, such as constructing new facilities or refurbishing old buildings and infrastructure.

Figure 2.6: Total lump sum accommodation pool



Source: ACFA, 2015.

The introduction of stronger income means-testing for consumers of residential care has further improved the financial sustainability of the aged care sector by better balancing public and private contributions (ACFA, 2015). These reforms reflect the recommendation under the *Aged Care Roadmap* (2016) to provide sustainable aged care financing arrangements where those who can contribute to their own care do so, with governments acting as a safety net when the market fails (Table 2.5).

Table 2.5: 'Sustainability' destination in the *Aged Care Roadmap*

Short term (within 2 years)	Medium term (3-5 years)	Long term (5-7 years)	Destination
<ul style="list-style-type: none"> Determine market informed price and alternatives to Bond Guarantee Scheme Undertake work on current funding arrangements to establish longer term financing arrangements 	<ul style="list-style-type: none"> New financial products that support consumer choice including continues access for vulnerable consumers Reform or replace Bond Guarantee Scheme 	<ul style="list-style-type: none"> Means test all income and assets Standardised government contributions to consumers regardless of whether they are in a home or residential setting 	Sustainable aged care sector financing arrangements where the market determines price, those that can contribute to their care do, and government acts as the 'safety net' and contributes when there is insufficient market response

Note: A more detailed list of the recommendations can be found at Table B.3 in Appendix B.
Source: Aged Care Roadmap, 2016.

The funding reforms have strengthened the sustainability of the aged care sector (ACFA, 2015). ACFA will continue to review the impact of these reforms on the sustainability of the sector and whether they affect the Government's objective of a sustainable, consumer-driven aged care sector.

3 Economic contribution of the aged care sector

Economic contribution modelling captures the full economic footprint resulting from production in a particular sector. Results are provided in metrics such as value added and employment, which fit within the national income accounting framework. This chapter presents estimates of the economic contribution of the aged care sector (across residential care, HACC and home care services) to the Australian economy in financial year 2014-15.

Our analysis includes estimates of:

- the direct contribution of the aged care sector, generated as the returns to labour in the form of wages and salaries, and the returns to capital in the form of gross operating surplus (GOS) from the sector's activities; and
- the indirect contribution or flow-on impacts of the sector, generated by the industry-specific inputs required to support activity in the aged care sector.

Appendix A includes further details on the methodology of economic contribution modelling.

3.1 Direct economic contribution

The Aged Care Financing Authority (ACFA) *2015 Report on the Funding and Financing of the Aged Care Industry* found that the aged care sector's total revenue was \$17.9 billion in 2013-14. This comprises:

- \$14.1 billion (83%) for residential care;
- \$1.8 billion (10%) for Home and Community Care (HACC); and
- \$1.3 billion (7%) for home care.

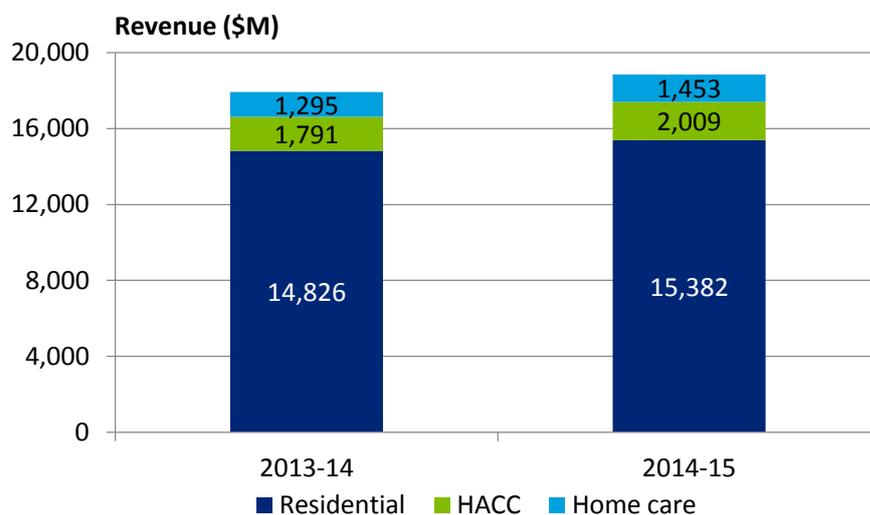
Assuming that the revenues and operating expenditures for each service grow in line with the number of Australian Government subsidised aged care places (DSS, 2014; DSS 2015), Deloitte Access Economics estimates that revenue for the Australia aged care sector was \$18.8 billion in financial year 2014-15.³ This implicitly assumes that growth in revenue is proportional to the number of places (which is likely given the sector is relatively more labour intensive and there are fewer gains from scale in production), and does not consider the effect on revenue and operating expenditure from compositional shifts – for example, in the distribution of higher-care versus lower-care places or the allocation of places between States and Territories.

The revenue shares of HACC and home care services are greater in 2014-15 (11% and 8%, respectively), since these sub-sectors have grown faster in response to Government funding

³ DSS reports aged care places for 'total home care' and 'residential care'. HACC and home care grow by 10% (using the 'total home care' growth rate), and residential care by 2%. Revenue is then adjusted to 2014-15 real dollars.

changes (see Section 2.2.2). The breakdown of sector revenue in 2013-14 and 2014-15 is given in Chart 3.1.

Chart 3.1: Aged care sector revenue by service type, 2013-14 and 2014-15



Note: Revenue figures are given in current dollars.
Source: DSS (2015); Deloitte Access Economics (2016)

The direct economic contribution of the sector in terms of value added can be derived using the financial information provided in the 2015 ACFA report. In economic terms, value added measures the value of output (i.e. goods and services) generated by the sector's factors of production (i.e. labour and capital) as measured in the income to those factors of production.

- Wages are mapped to the ACFA category of 'salaries', and include income payments as well as superannuation and income tax; and
- GOS and taxation are proxied by 'earnings before interest, taxation, depreciation and amortisation' (EBITDA).

Direct employment figures are taken from the latest available *The Aged Care Workforce Report* (DSS, 2012). This includes the pay-as-you-go direct care staff, administrative and ancillary staff employed by the sector.⁴ Figures have been scaled up to 2014-15 using the growth in Australian Government subsidised aged care places as a proxy for growth in employment.

Using this methodology, Deloitte Access Economics estimates that in financial year 2014-15 the aged care sector directly contributed \$13.5 billion in value added to the Australian economy and supported approximately 238,000 full-time equivalent (FTE) jobs. Given the labour intensive nature of the sector, 87% of this direct contribution (equivalent to \$11.7 billion) represents payments to labour. The remaining 13% (\$1.9 billion) represents

⁴ Due to data limitations, 'community care' workers reported in the Workforce Report were attributed between the HACC and home care sub-sector based on their revenue shares. This assumes a similar labour intensity between the two sub-sectors.

payments to capital (GOS). The breakdown by type of aged care service is given in Table 3.1.

Table 3.1: Direct contribution of aged care sector operations, 2014-15

	Residential care	HACC	Home Care	Total
Operating revenue (\$M)	14,826	1,791	1,295	17,912
Direct value added (\$M)	11,303	1,238	952	13,493
<i>Wages (\$M)</i>	9,663	1,238	805	11,706
<i>Gross operating surplus (\$M)</i>	1,640	-	146	1,787
Direct employment (FTE)	133,521	60,578	43,804	237,904

Source: Deloitte Access Economics (2016)

3.2 Indirect economic contribution

In economic terms, the indirect contribution of an industry is a measure of the demand for goods and services produced in other sectors as a result of demand generated by the industry; that is, it represents the flow-on impacts of the sector in other parts of the economy. The indirect contribution of the aged care sector is modelled using survey data from Aged Care Guild members primarily active in residential care. Data were collected on: (1) the breakdown of intermediate inputs required to support aged care operations; and (2) the proportion of intermediate inputs sourced from overseas.⁵ In this case, survey respondents reported no direct purchase of goods and services from overseas.

The respondent providers represent approximately 14% of revenue for the aged care sector. The survey proportions are weighted based on the operating expenditure of the respondents, and applied to the broader aged care sector. The accuracy of the indirect economic contribution modelling consequently depends on the similarity of the intermediate input usage of the respondent providers (i.e. private for-profit providers who primarily operate residential care places) and the broader aged care sector.

The intermediate inputs are then:

- mapped to the relevant Australian Bureau of Statistics (ABS) Australian and New Zealand Standard Industry Classifications (ANZSIC) industries;
- adjusted for the price received by producers of intermediate inputs (basic price) by removing consumption taxes from the price paid by the aged care sector (purchaser's price); and
- used as inputs in the Deloitte Access Economics in-house Input-Output (IO) model based on the 2012-13 ABS Input-Output (IO) tables (ABS 2015). By using the 2012-13 tables, it is assumed that:
 - the production structure in the overall sector has remained constant;⁶ and

⁵ Intermediate inputs for the sector (and sub-sectors) are defined as revenue minus GOS, wages, depreciation and interest, as these categories have been accounted for in the direct contribution. Expenditure categories included administrative costs, catering costs, professional services, insurance, repairs and maintenance, advertising and marketing, equipment, travel and accommodation, and other.

⁶ This is a reasonable assumption given that whole sectors are unlikely to change production processes over the short term.

- the production structure is linear and an additional dollar of production will use the same resources as the average production in 2012-13.

The top ten ANZSIC industries used as intermediate inputs into the aged care sector are shown in Table 3.2. The top five industries are:

- Residential Care and Social Assistance Services (29%) represents 'other' non-specified expenditure categories, and would reflect the intermediate input requirements of the wider industry;
- Food and Beverage Services (18%) for catering expenses, such as meals provided at residential care facilities;
- Building Cleaning, Pest Control and Other Support Services (13%) for building cleaning (including external contracts) and other repair and maintenance services;
- Employment, Travel Agency and Other Administrative Services (11%) for agency and administration costs; and
- Non-Residential Property Operators and Real Estate Services (5%) for rent and other occupancy costs.

Table 3.2: Surveyed intermediate input breakdown by ANZSIC industries

Industry	Proportion of intermediate input (%)
Residential Care and Social Assistance Services	29.1
Food and Beverage Services	18.3
Building Cleaning, Pest Control and Other Support Services	12.7
Employment, Travel Agency and Other Administrative Services	11.4
Non-Residential Property Operators and Real Estate Services	4.7
Professional, Scientific and Technical Services	4.7
Electricity Transmission, Distribution, On Selling and Electricity Market Operation	4.3
Accommodation	2.3
Insurance and Superannuation Funds	1.9
Health Care Services	1.8
All other industries	8.7
Total	100.0

Source: Deloitte Access Economics (2016)

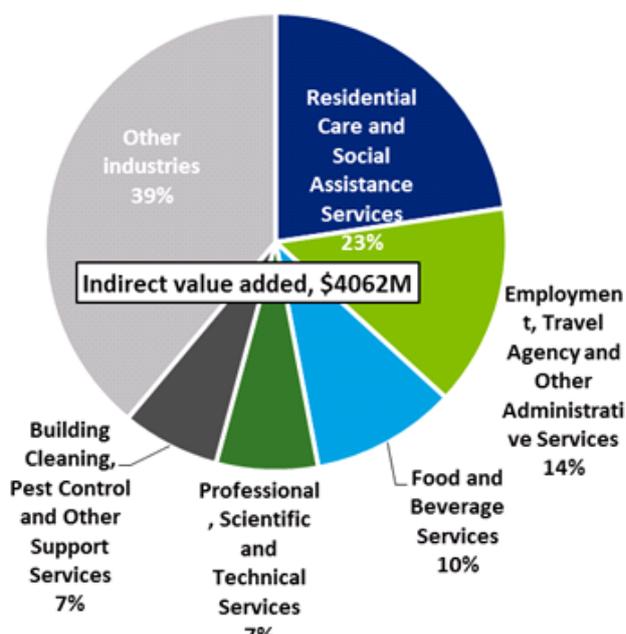
Given the aged care sector's linkages to other sectors through its demand for intermediate inputs, the sector as a whole indirectly contributed an additional \$4.1 billion in value added to the Australian economy in 2014-15, and supported an additional 39,600 FTE jobs (Table 3.3). Each dollar of revenue for the aged care sector contributes an additional \$0.22 in indirect value added in the Australian economy.

Table 3.3: Indirect contribution of aged care sector operations, 2014-15

	Residential care	HACC	Home Care	Total
Intermediate input (\$M)	771	501	3,167	4,439
Indirect value added (\$M)	2,895	707	460	4,062
<i>Wages (\$M)</i>	1,931	483	314	2,728
<i>Gross operating surplus (\$M)</i>	964	224	146	1,334
Indirect employment (FTE)	29,114	6,379	4,141	39,634

Source: Deloitte Access Economics (2016)

A breakdown of the indirect value added by industry is given in Chart 3.2. This chart takes into account the subsequent rounds of flow-on effects in economic activity generated by the industries used as intermediate inputs for the aged care sector. Once all flow-on impacts have been modelled through the Australian economy, our analysis finds that the Residential Care and Social Assistance Services industry captures the largest share of indirect value added resulting from the aged care sector's demand for intermediate inputs, at 23% of the total (or \$934 million in 2014-15).

Chart 3.2: Indirect value added from the aged care sector, 2014-15

Source: Deloitte Access Economics (2016)

3.3 Total economic contribution

Combining the direct and indirect contributions yields the total economic contribution. In 2014-15, the aged care sector's total economic contribution to Australia was \$17.6 billion, equal to approximately 1.1% of gross domestic product (GDP), and 277,500 FTE jobs, equal to 2.8% of the labour force. The average dollar of revenue from the aged care sector contributes \$0.98 to value added in the Australian economy, and every one million dollars of revenue supports 15 FTE jobs.

The results, broken down by aged care service type, are shown in Table 3.4. Residential care contributes 81% of the sector's total value added (\$14.2 billion) and 59% of total employment (162,600 FTE jobs). This is followed by HACC, with 11% of value added and 24% of employment; and home care, with the remaining 8% of value added and 17% of employment. The residential sector contributes relatively less to employment compared with its contribution to value added since it is more capital intensive than home care services.

Table 3.4: Total contribution of aged care sector operations, 2014-15

	Residential care	HACC	Home Care	Total
<i>Direct contribution</i>				
Value added (\$M)	11,303	1,238	952	13,493
Employment (FTE)	133,521	60,578	43,804	237,904
<i>Indirect contribution</i>				
Value added (\$M)	2,895	707	460	4,062
Employment (FTE)	29,114	6,379	4,141	39,634
<i>Total contribution</i>				
Value added (\$M)	14,198	1,945	1,411	17,555
Employment (FTE)	162,635	66,958	47,945	277,538

Source: Deloitte Access Economics (2016)

The direct economic contribution of the aged care sector is approaching that of other important Australian industries such as residential building construction and the sheep, grains, beef and dairy cattle industry, which each directly contributed around \$15.5 billion in value added to the Australian economy in 2013-14 (Table 3.5). Given the service-based nature of aged care operations, the indirect economic contribution of the aged care sector is below that of these two industries, which tend to rely on more intermediate inputs in their production.⁷ However, the aged care sector's direct contribution to employment in terms of FTE jobs is higher than in these other industries – as a service industry, aged care is comparatively more labour intensive.

⁷ Other service-based industries such as finance and health care have a similarly low ratio of indirect to direct value added, due to relatively few intermediate inputs being used in providing these services.

Table 3.5: Comparison of aged care economic contribution with other industries

	Aged care (2014-15)	Residential building construction (2013-14)	Sheep, grains, beef and dairy cattle (2013-14)
<i>Direct contribution</i>			
Value added (\$M)	13,493	15,432	15,547
Employment (FTE)	237,904	169,488	192,525
<i>Indirect contribution</i>			
Value added (\$M)	4,062	37,195	13,066
Employment (FTE)	39,634	313,864	99,724

Source: Deloitte Access Economics (2016)

3.4 Capital expenditure in aged care

The aged care sector also makes significant capital investments, especially residential aged care providers. These investments include capital expenditure on new buildings, refurbishments and upgrades of existing buildings. New capital investment by the residential aged care sector in 2014-15 was \$1.7 billion (DSS, 2015). This does not include capital expenditure invested in machinery and other capital equipment, or investments made by providers of HACC and home care services.

In general, the capital expenditure of a firm or sector is *not included* when measuring its economic contribution. This is because the returns to capital (GOS) and the depreciation of fixed capital stock have been captured through the direct contribution modelling. As such, any major capital expenditure undertaken by the firm or sector will not show up in the operating statement. Nonetheless, it is still the case that current capital expenditure induces measurable economic activity. It is possible to consider the induced effects on intermediate demand in the construction industry. However, these results *cannot be added* to the direct and indirect measures of value added and employment derived from the operating expenditure of the sector and presented in Table 3.4.

We evaluate the induced effects associated with the aged care sector's capital expenditure by attributing the \$1.7 billion of investment in 2014-15 to the Non-Residential Building Construction industry as a generic output or revenue shock.⁸ The direct and indirect impacts of this shock on value added across the economy can then be modelled.

In 2014-15, capital investment in the aged care sector contributed a total of \$1.5 billion to value added. This was comprised of \$553 million as a direct contribution (i.e. wages and GOS paid to the Non-Residential Building Construction Industry) and \$907 million as an indirect contribution (i.e. additional value added generated as flow-on economic activity resulting from purchases of intermediate inputs into the construction process). In total, almost 10,000 FTE jobs were supported by this capital expenditure. The breakdown by direct and indirect contributions is given in Table 3.6.

⁸ An economic shock is an unexpected event that produces a significant change within an economy, typically by impacting supply and demand in different markets. In the generic shock used for this modelling, we assume that the firms hired to undertake the construction of new aged care facilities have the same profitability and input use as the average firm in the sector.

Table 3.6: Total contribution of aged care sector investment, 2014-15

	Direct	Indirect	Total
Value added (\$M)	553	907	1,461
Employment (FTE)	2,431	7,545	9,975

Source: Deloitte Access Economics (2016)

4 Future directions

The *Aged Care Roadmap* (2016) sets out a future path for a sustainable, consumer-driven and market-based aged care system in Australia. It represents a considered view by industry and key stakeholders on the broad future directions that the aged care sector should work towards in the long run. The *Roadmap* recognises that substantial change is affecting the sector as a whole, with factors such as the sustainability of future investment in industry growth, changing consumer preferences and funding arrangements within the sector having important implications for the broader industry landscape.

Achieving the market-based and consumer-centric aged care system that has been envisioned in the *Aged Care Roadmap* is dependent on action by both industry and government. This chapter explores what the future might look like, highlighting how aged care providers and policymakers are currently working towards the long-term directions as set out in the *Roadmap*, along three different dimensions:

- the nature of aged care services and the delivery of these services in the future;
- how skills requirements in the aged care workforce might change; and
- the required new investment to achieve a sustainable aged care sector.

4.1 Nature of aged care services and delivery

The nature of aged care services and how they are delivered is changing, and will continue to do so in response to the demographic, consumer, technological and funding trends discussed in Section 2.2.

Consumer directed care (CDC) and aged care services

The provision of aged care services is moving towards a consumer-centric model for both home care and residential care services. CDC has embedded consumer-centricity in home care; with the residential care sector embracing CDC principles (KPMG, 2014). For example, our consultations with residential care providers highlighted the more personalised style of service preferred by many new resident and that, as a result, some facilities are now offering relationship-based rather than task-based care, where a dedicated team of staff attends the same group of residents in order to develop a lasting and personalised service relationship.

In the future as the aged care system transitions further towards a market-based, consumer-driven system, aged care providers will be required to tailor their services and packages to suit consumer preferences. Our consultations suggest that consumers of residential aged care are increasingly willing to pay for more specialised or 'high end' accommodation and services, and the industry is adapting to this by investing in modern facilities and refurbishing old homes. The range of lifestyle activities on offer at residential facilities is also increasing to meet consumer demand, including better dining experiences, more outings and recreational activities.

A more consumer-centric model for delivering aged care suggests that service providers will need to consider the increasing diversity of older Australians and their preferences and expectations, including cultural, linguistic, sexual and gender diversity. As the Productivity Commission (2011) noted, catering to diversity is essential to providing quality aged care services – for example, a resident in distress will tend to revert back to familiar cultural or linguistic practices, making it crucial to have services in place to provide the appropriate assistance (Productivity Commission, 2011). At the same time, providing aged care services that address these diversity considerations is likely to raise costs for providers.

The increasing number of consumers who are preferring to 'age in place' also has important implications for the future of the aged care sector, as more Australians take control of decision-making relating to their care. With many Australians choosing to remain at home on a home care package before entering residential accommodation at an older age, residential providers are increasingly accommodating consumers with higher care needs. This represents an opportunity for aged care providers to offer a wider range of services across both residential and home care to meet future consumer demands and preferences. Providers could also leverage other services and industries in order to supply combined or integrated packages to the market, as discussed in Box A below.

Box A: Market implications of the shift towards consumer directed care

The Productivity Commission's *Inquiry into Aged Care* report in 2011 identified asymmetry between consumers and providers as a significant impediment towards transitioning the aged care sector to a market-based industry. The report highlighted that consumers need more information, discretion and line of sight on the money that was being spent on their behalf by the government in aged care services.

Since then, reforms have been implemented to facilitate a 'rebalancing' between aged care consumers and providers, empowering consumers with the shift towards consumer directed care. This has provided the aged care industry with the opportunity to consider what types of new services could be offered to older Australians under a more consumer-centred aged care system.

This includes, for example, an integrated approach across different types of aged care services. David Tune, Chair of the Aged Care Sector Committee, notes that "as consumers with low care needs increasingly prefer to age at home, there is a trend towards entering residential care at a later stage of life. Providers of residential aged care could capitalise on this by offering an integrated package of home care services that transitions into a residential care place once the consumer's demand changes to a higher care facility as they age." In this manner, providers can leverage other services and industries to provide combined service models in the aged care market – for example, by opening up the existing premises and activities of residential aged care facilities (e.g. gardens, recreation rooms and lifestyle activities) to day visitors or short-term stays by non-residents, such as home care recipients.

Importantly, the new aged care services that emerge with the shift towards a consumer-centric market-based system should not be limited to those which are prescribed as being eligible for subsidies within the Government's funding system. As a significant share of the future consumer base of aged care is not currently in the group of funding recipients, there is a significant opportunity for aged care providers to be more innovative in proactively responding to consumer demands as the system shifts towards consumer directed care.

Technology and aged care services

There is strong empirical evidence that increased consumer choice improves consumer wellbeing (Productivity Commission, 2011). Aged care providers that are unable to meet preferences for increasingly personalised, specialised and complex care in a more consumer-centric market may not be viable in the future. However, the provision of such services can be costly given the scale and scope of aged care packages. In order to provide these services in an efficient manner, aged care providers will access new technologies in their customer care and management operations wherever possible.

The aged care sector can use technology to facilitate the labour-intensive components of service provision, and to deliver aged care services in a more efficient fashion. The Productivity Commission (2011) has promoted reforms to remove barriers to the adoption

of cost-effective technologies. As discussed in Box B below, aged care providers are beginning to use such technologies to increase the efficiency of their operations and improve their services to consumers. New technologies can be used to improve patient management practices and monitor residents in a less intrusive manner. Our consultations suggest that they are being adopted by a number of aged care providers as they invest in building new facilities and refurbishing old infrastructure.

Box B: The use of technology in delivering aged care services

Allity is a residential aged care services provider in Australia, operating 44 homes across four states (Victoria, NSW, South Australia and Queensland). These homes provide around 3,700 residential care places across the nation, primarily in metropolitan areas. Allity also has a significant number of projects underway, including investing in building new homes as well as refurbishments of existing homes.

Given the shift towards a market-based, consumer-directed model for aged care services, Allity recognises that it is important that the design briefs of these new homes reflect what is important to the consumer. David Armstrong, CEO of Allity, highlights a number of features of one of their newer homes as an example of this: “our Greenwood facility in Normanhurst contains 107 rooms with ensuites, and has been built to present as a boutique hotel-style accommodation. Bedrooms have been designed with warmth and character and offer plenty of private space. The Home provides an average gross floor area of 89 sqm per resident, and an average suite size of over 24 sqm plus ensuite in addition to external access to courtyards or balconies.”

The size of Greenwood and other similar new residential aged care facilities means that staffing can be expensive. This means that the use of technology is important in order to provide an appropriate level of care and service to all residents across a large area. According to David, these technologies include “systems to manage our residents’ care which allows us to tailor it to their individual needs as well as increasing the efficiency of our staff, maximising their available time with our residents. The care plans can also be centrally reviewed ensuring consistent high quality care is provided across the group, as well as allowing us to benchmark our homes.”

Other initiatives at Allity focus on improving residents’ environment. David says that this includes “using technology to remove institutional alarms and alert signage by replacing them with discreet phone messaging linked to nurse call systems. We enhance their lifestyle by connecting them with their family and friends via the internet, or providing them with cinema experiences without leaving the home. We are also evaluating virtual reality options to allow residents to enjoy various locations around the world from the comfort of their bed.”

Other ways in which technology can be applied to the aged care sector include improving transparency across the industry. As part of a consumer-centric market, it is important that consumers of aged care can gather information about providers and their services in order

to make informed decisions. Technology can be used to aid consumer decisions – our consultations indicated that service providers are using their websites to offer a 'one-stop shop' for consumers seeking information about their aged care packages. Online marketplaces and ratings websites for aged care services, such as the *Better Caring* online platform, can also assist consumers with their decision-making. Moreover, some aged care providers are developing apps so that families of those in care can receive regular information about and communicate with their relatives in aged care.

Moving towards a consumer-driven market for aged care services will encourage competition and drive greater technological innovation within the sector. This was recognised by the *Aged Care Roadmap* (2016), which calls for an agile aged care sector with core standards regulated by government. The use of technology in aged care services will become increasingly important as the sector moves towards a more market-based system.

4.2 Workforce and skills requirements

As the aged care sector grows and the services provided continue to change, the skills that required of the workforce will also evolve. The aged care workforce employs over 350,000 workers and has grown by 34% over a five year period, as discussed in Section 2.1.3. Given the significant role played by the workforce in delivering aged care services, it will be important that both existing employees and future workers entering the aged care sector are equipped with the necessary skill sets.

There is increasing demand for a more highly skilled aged care workforce as older Australians enter residential care at later stages and with more complex medical conditions and comorbidity. This is already apparent in parts of the workforce, with 62% of residential facilities reporting a skills shortage of registered nurses. Our consultations with providers of residential aged care services indicated that admitting residents with higher care needs on average means that providers need to upskill their workforce, as described in Box C.

Box C: The evolving aged care workforce

Evolving trends in consumer diversity and increased complexity of care requirements will significantly shape the aged care workforce. Ross Johnston, Managing Director and Chief Executive Officer of Regis Aged Care, believes the composition of the aged care workforce has changed notably in response to these trends over the last five years.

“Of our approximately 6,800 staff, roughly 10% are registered nurses,” says Ross. “Registered nurses are in high demand as care requirements become increasingly complex, but can be hard to find – especially in regional areas. Graduate nurses enter into a competitive labour market, with the majority preferring to specialise in acute areas through placements in hospitals rather than aged care facilities.” As such, Regis runs an overseas nurses program that recruits nurses out of the UK and Ireland to work in regional facilities, providing them with the necessary training in order to meet the needs of residents in the company's regional facilities.

The skills required of the aged care workforce are also changing in response to increased consumer diversity in culture and ethnicity. Ross notes, “there is more diversity in our staff now compared to the workforce five years ago. Practical experience in providing for different cultures and languages is becoming increasingly valued, and we are investing significantly in recruiting and training an appropriately diverse workforce of carers to cater to these requirements.” This includes, for example, one of Regis' residential facilities in Melbourne which has a large Indian residential cohort, where staff are trained to present food in a manner that is most culturally appealing.

This could, for example, include hiring more registered nurses in residential homes that had previously been lower care facilities. Providers noted that it can be challenging to source sufficiently skilled and experienced registered nurses, particularly in regional areas, and that in-house training and mentoring are often required. The difficulties faced by aged care providers in attracting and retaining these workers could increase in future as the sector continues to grow and as competition for highly skilled care workers increases. This could particularly affect home and community care services, where the rate of growth is likely to be high, and where the labour intensity of supplying these services is also relatively high.

In addition, advances in medicine and patient care mean that continuous training and skills development are necessary in the aged care workforce. These advancements mean that in order to provide best practice patient management and residential care services, workers must be updating their skills on an ongoing basis, particularly in areas where boundaries are often challenged and new areas explored, such as managing patients with cognitive issues.

Technology can help to augment the labour requirements of aged care providers. Section 4.1 highlights how the use of new technology can improve the efficiency of aged care services. However, it is important to note that these technologies can only be used appropriately if the aged care workforce is suitably skilled. The Productivity Commission (2011) suggested that technology adopted by the aged care sector will complement the workforce – such as by improving the quality of care or the working environment. In doing

so, it will be important that aged care workers both now and in the future are able to access the training required to operate new technologies.

Stakeholders across the aged care sector have important roles to play in addressing these skills requirements. As highlighted in the *Aged Care Roadmap (2016)*, service providers, governments and education institutions all need to work together to address the skills challenges facing the industry. Our consultations suggest that aged service providers will need to play the most significant part in attracting, retaining and training their workforce, as described in Box D below. It is up to the providers themselves to identify how the skills requirements in their organisations are changing as the industry grows and the nature of aged care service delivery evolves, and it is also the responsibility of these providers to communicate these skills requirements to other stakeholders across the industry.

Box D: Skills requirements in the aged care workforce

Ensuring that the aged care sector is equipped with a suitably skilled workforce in the future requires coordinated action by industry, government and education providers. Nick Mersiades, Director of Aged Care at Catholic Health Australia, considers that aged care providers across the industry have the most important role to play in determining the skills they will need in their workforce as it continues to grow, and in shaping their workplaces to be able to attract and retain these necessary skills.

“Given the unique role of the government in the sector as a funder and regulator of aged care services, the government does have a responsibility for ensuring that the policy environment facilitates and sustains a viable aged care industry and enables aged care providers to be competitive in the labour market. Also, as the primary funder and regulator of the university and vocational education sectors and formulator of immigration policies, government has a responsibility to ensure policies in these areas are responsive to workforce requirements,” Nick says. “However, it is up to providers themselves – either individually or as a sector – to communicate on the skills they will require in the future to both education providers and the broader market. Providers also need to deliver an attractive working environment that will encourage skilled workers to join the aged care workforce.”

The skills required of the aged care workforce are likely to evolve over the coming years. For example, carers and other employees in the sector will increasingly be expected to be familiar with new technologies, such as in relation to patient management and communication. Nick also considers that ongoing developments in health care will affect the nature of skills required in the aged care workforce. In particular, “this will become more important as more older Australians enter aged care with dementia and other cognitive issues. The frontier of knowledge on how to manage people with such conditions is constantly being pushed out. It’s therefore imperative that aged care workers are undertaking up-to-date training on best practice in caring for people with these conditions. This is a task for both employers – who will need to deliver quality services in order to be competitive – and for employees, who must ensure that their skills remain relevant in the future workforce.”

As a sector with significant labour demand and that will face increasing competition for skilled workers, providers must offer an attractive environment in order to engage new and existing workers to the aged care sector.

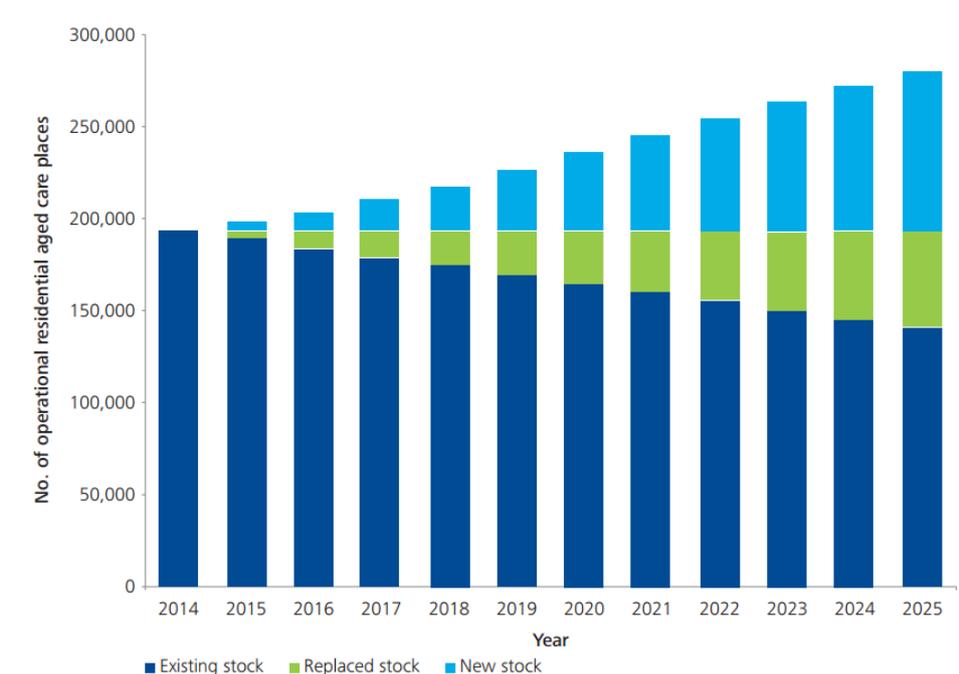
The *Aged Care Roadmap* notes that government and education providers can also play a role in developing a well-trained workforce that is adept at adjusting care to meet the needs of older Australians. As a funder and regulator of the aged care sector, the government has a responsibility to ensure that the policy environment is sustainable and stable, and will facilitate the growth of a viable industry in the future. In addition, government policy in relation to education, employment and immigration can also have implications for the workforce and skills supply more broadly.

Beyond this, education providers such as universities and vocational education and training (VET) providers can work to ensure that their course offerings are relevant to the skills required in the aged care sector and address industry needs, as well as providing accessible and up-to-date research. As highlighted in the *Roadmap*, collaboration and partnerships between industry, vocational, higher education and research organisations will be required to ensure that an appropriately skilled aged care workforce can be developed to deliver flexible, quality aged care services into the future.

4.3 Investment and sustainability of growth

Significant future investment is required in the aged care sector to ensure that the number of aged care places can meet demand for services over the coming years. In the residential sector alone, ACFA has forecast the need for approximately 82,000 additional places over the next decade in order to meet growing demand fuelled by the ageing Australian population (Chart 4.1). In addition to these new places, a significant proportion of existing stock will also be required to be replaced with new stock. Overall, this will require an investment of \$33 billion in residential care over the next decade (ACFA, 2015).

Chart 4.1: Number of operational residential aged care places required in the next decade – 2014-2025

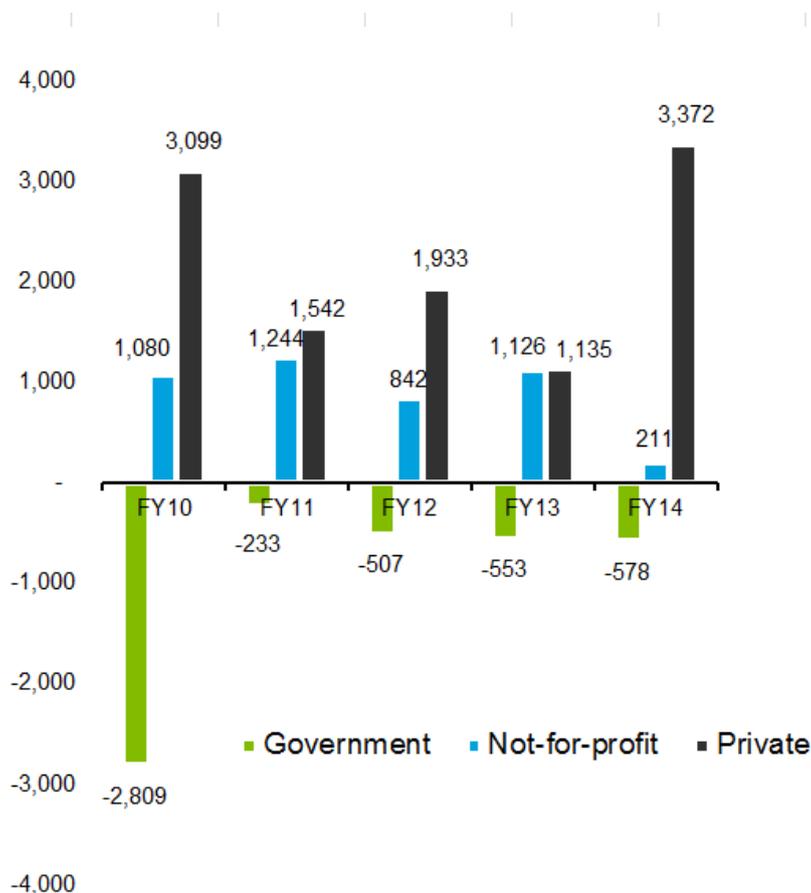


Source: ACFA, 2015.

Over recent years, investment in residential aged care has been led by the for-profit sector (Chart 4.2). In the latest 2015 Aged Care Approvals Round, for-profit providers were awarded 63% out of 10,940 new licences, and private residential operators made up nine of the 10 largest allocations of residential places (O’Keeffe, 2016). In addition to these new licences, there has been a growing trend for private residential providers to acquire existing facilities in order to build up their portfolios and networks of residential homes in particular areas. Combined with the number of residential places allocated to private providers over

recent years, this increasing consolidation within the residential care sector has seen for-profit providers increase the relative size of their operations over the past seven years (ACFA, 2015).

Chart 4.2: Residential care-additional place by operator type, 2010-14



Source: ACFA, 2014.

However, not-for-profit providers also play an important role in the residential aged care sector. Growth in the not-for-profit sector is organic, with providers using surpluses from their existing operations to construct new facilities and renovate existing buildings to accommodate growing demand, as highlighted in Box E below. This includes investing in growth in remote and regional areas, with many not-for-profit providers having historically operated residential aged care services in these remote regions. In addition, there has been some consolidation taking place in the not-for-profit sector over recent years, as smaller organisations have seen the value in merging with larger not-for-profit providers in order to provide residential care services.

Box E: Growth in the not-for-profit residential care sector

The not-for-profit sector in the residential aged care industry is growing; however, the way in which it has grown differs considerably from the for-profit sector. According to Jim Longley, Deputy Secretary of Ageing, Disability and Home Care (NSW Department of Family and Community Services) and former CEO of Anglican Retirement Villages, “not-for-profit providers are lowly geared compared to the for-profit providers. While a large not-for-profit provider might have a larger capital base and lower risk profile than a for-profit provider, their growth potential is lower as they are unable to raise new equity to finance growth, as a for-profit provider can do.”

As a result of this, growth in the operations of not-for-profit residential care providers is organic – that is, growth is financed using surpluses from their existing operations. While this means that the not-for-profit sector as a whole is unable to grow at the same pace as for-profit aged care providers, Jim believes that “the Australian aged care sector benefits from the growth of both not-for-profits and for-profit providers”.

Jim notes that the sustainability of growth for particular organisations within the not-for-profit sector can depend on the organisation's size. “Larger not-for-profits have more resources, giving them a greater capacity to meet government requirements and accommodate the impact of funding changes.” This has led to some consolidation taking place in the not-for-profit sector over recent years, through the merging of relatively small not-for-profit providers with larger not-for-profits. These smaller organisations are then able to benefit from the resources and economies of scale achieved by the larger providers, while still retaining their local heritage in catering to the requirements of their community.

Home and community care services will also need to grow in the future to meet consumer demand. As discussed previously, the increasing preference for Australians to ‘age in place’ will result in a significant increase in demand for home care, and create opportunities for aged care providers to offer innovative new services and products such as integrated home and residential care packages. While not-for-profit providers tend to be the main providers of home and community care, our consultations indicate that some private providers are taking up opportunities to invest in this area. These providers are seeking to expand their home care services and position themselves to provide packages to particular segments of the home care market, such as high-end palliative care, as highlighted in Box F below.

Box F: Investing in opportunities in home care in the future

Arcare is an aged care services provider that supplies both residential care services and home care packages. The company operates 2,500 residential places and 355 home care packages across Victoria and Queensland, with a number of new projects also commencing in NSW. Home care has been offered by Arcare since 2005, when they acquired a small facility that was an existing provider of around 50 home care packages. Since then, the company has also been allocated additional home care places through the Aged Care Approvals Round process, and is seeking to continue to expand and invest in its home care offerings.

Consumers are increasingly preferring to 'age in place' and take up home care options where a high level of care in a supported environment is not required. Colin Singh, CEO of Arcare, sees the home care space as a growth opportunity in the future. However, in addition to these opportunities, Colin believes that "there will also be more competition in home care in the future as the market is deregulated. This means that we need to position ourselves with a point of difference in the provision of home care services. For example, we are providing extensive support for clients with mental health concerns. Our model of care, which provides ongoing wellness monitoring, ensures we are accessible, work closely with specialist providers and enable clients to remain well supported in their home environment. The concepts of wellness, reablement and rehabilitation are imbedded in every aspect of support we provide."

In addition, Arcare is working on integrating its home care and residential care service offerings. According to Colin, "we are trialling joint programs in two of our facilities, with resident outings also offered to home care participants, and relevant lifestyle activities within residential facilities such as hairstyling, movie and café programs also being available to people in home care packages. We encourage active living with an emphasis on relationships. The benefits of opening up joint programs and creating new friendships for our residents and home care clients is immense. We are also looking to technology to further enhance social connectedness, as well as creating efficiencies in operations, ensuring maximum Package funding can be utilised to achieve client goals."

Moreover, Colin says that "if a resident would like to exit from one of our residential facilities and is able to do so, we look at the services they value and may still require upon their departure, and aim to connect them to these services through a home care package." As opportunities for the integration of home care and residential programs continue to arise, it is important that the national conversation continues to break down the barriers between the two different types of services, in order to ensure that consumers in each group are able to gain the maximum benefits presented by engaging with the other.

Given the significant investment that will be required to accommodate future growth in the aged care sector, the dynamics of the policy and investment environment across the industry will become increasingly important. As the *Aged Care Roadmap* (2016) highlights,

growth in the aged care sector will need to be sustainable from the perspective of the government's fiscal constraints, the viability and profitability of providers of aged care services, and the affordability of these services for older Australians.

It will be important for the Government and other key stakeholders to be aware of how changes to regulation of the aged care sector – especially with respect to funding allocations, means-testing, supply regulations and access to capital (e.g. through refundable accommodation deposit bonds) – could affect the sustainability of the sector. Appropriate attention must be given to the investment environment in order to ensure that the sector can grow sustainably and contribute to the welfare of older Australians as well as the nation's future economic prosperity.

References

- Aged Care Financing Authority (2015), *Third Report on the Funding and Financing of the Aged Care Sector*.
- Aged Care Sector Committee (2016), *The Aged Care Roadmap*.
- Australian Bureau of Statistics (ABS) (2015). *Catalogue 5209.0.55.001 Australian National Accounts: Input-Output Tables, 2012-13*.
- Deloitte (2015), *How consumer driven care is reshaping the community care sector*.
- Department of Social Services (DSS) (2012), *The Aged Care Workforce, 2012 – Final Report*.
- DSS (2014), *Total operational places by service type – 30 June 2014*. Accessed 16 May 2016 from: <https://www.dss.gov.au/our-responsibilities/ageing-and-aged-care/tools-and-resources/ageing-and-aged-care-research-and-statistics/general-ageing-and-aged-care/total-operational-places-by-service-type-30-june-2014>.
- DSS (2015), *Total operational places by service type – 30 June 2015*. Accessed 16 May 2016 from: <https://www.dss.gov.au/ageing-and-aged-care-tools-and-resources-ageing-and-aged-care-research-and-statistics-general-ageing-and-aged-care/total-operational-places-by-service-type-30-june-2015>.
- DSS (2015), *2014-15 Report on the Operation of the Aged Care Act 1997*.
- FutureInc (2016), *The future of work: how can we adapt to survive and thrive*.
- IBIS World (2014), *Accommodation for the Aged in Australia*.
- KordaMentha (2014), *Residential aged care industry-consolidation and convergence*.
- KPMG (2014), *Applicability of CDC in residential aged care*.
- MYOB (2015), *How artificial intelligence will change the future of business*. Accessed 22 October 2015 from: <http://myob.com.au/myob/news-1258090872838?articleId=144188209010>.
- O'Keeffe, Darragh (2016), *Growth of for-profit aged care continues with 2015 ACAR*. Accessed 19 May 2016 from: <http://www.australianageingagenda.com.au/2016/03/23/growth-profit-aged-care-continues-2015-acar/>
- Productivity Commission Inquiry Report (2011), *Caring for Older Australians*.
- SBS (2016), *First aged care facility for Indian-Australians*. Accessed 13 May 2016 from: <http://www.sbs.com.au/yourlanguage/content/first-aged-care-facility-indian-australians>

Sydney Morning Herald (SMH) (2016), *Aged care and health sectors will provide new jobs of the future, says report*. Accessed 13 May 2016 from:

<http://www.smh.com.au/business/workplace-relations/aged-care-and-health-sectors-will-provide-new-jobs-of-the-future-says-report-20160225-gn3g6v.html>

The Commonwealth of Australia (2012), *Living Longer, Living Better*.

The Commonwealth of Australia (2015), *Consumer Directed Care*.

The Commonwealth of Australia (2015), *Budget 2015-16*.

The Commonwealth of Australia (2016), *Budget 2016-17*.

The Commonwealth of Australia (2016), *Increasing Consumer Choice Bill*.

The Hon Sussan Ley MP, (2016), Media Release – Greater Choices in Home Care, 11 February.

Treasury (2015), *Intergenerational Report Australia in 2055*.

Appendix A: Economic contribution analysis modelling methodology

Contribution – the general approach

Economic contribution studies are intended to quantify measures such as value added, exports, imports and employment associated with a given industry or firm, in a historical reference year. The economic contribution is a measure of the value of production by a firm or industry.

Value added

Value added is the most appropriate measure of an industry or company's economic contribution to gross domestic product (GDP) at the national level, or gross state product (GSP) at the state level.

The value added of each industry in the value chain can be added without the risk of double counting across industries caused by including the value added by other industries earlier in the production chain.

Other measures, such as total revenue or total exports, may be easier to estimate than value added but they 'double count'. That is, they overstate the contribution of a company to economic activity because they include, for example, the value added by external firms supplying inputs or the value added by other industries.

Measuring the economic contribution

There are several commonly used measures of economic activity, each of which describes a different aspect of an industry's economic contribution:

- **Value added** measures the value of output (i.e. goods and services) generated by the industry's factors of production (i.e. labour and capital) as measured in the income to those factors of production. The sum of value added across all entities in the economy equals gross domestic product. Given the relationship to GDP, the value added measure can be thought of as the increased contribution to welfare.

Value added is the sum of:

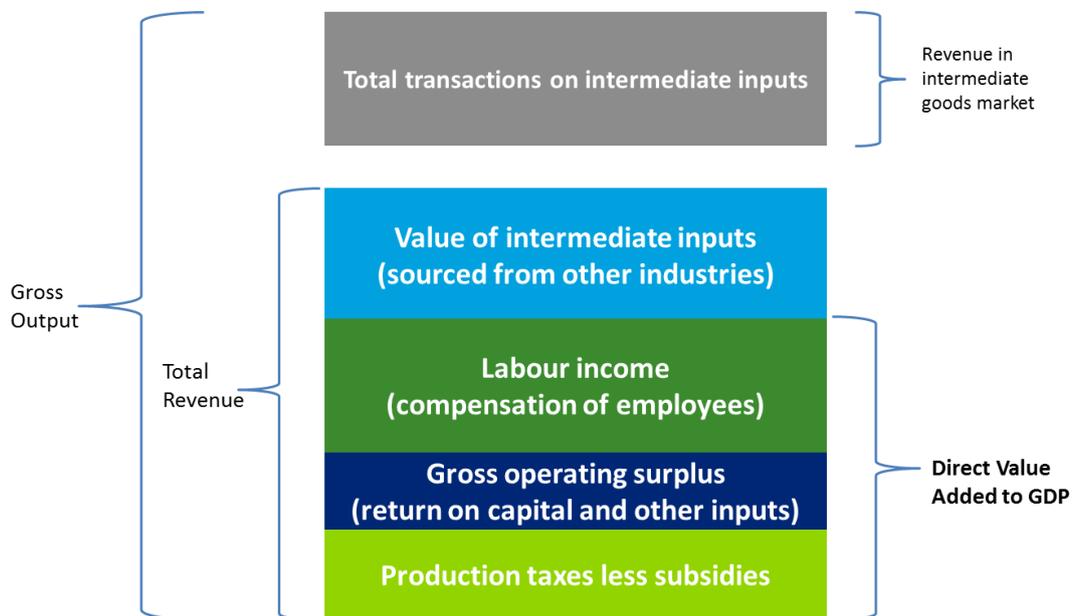
- Gross operating surplus (GOS). GOS represents the value of income generated by the entity's direct capital inputs, generally measured as the earnings before interest, tax, depreciation and amortisation (EBITDA).
- Tax on production less subsidy provided for production. This generally includes company taxes and taxes on employment. Note: given the returns

to capital before tax (EBITDA) are calculated, company tax is not included or this would double count that tax.

- Labour income is a subcomponent of value added. It represents the value of output generated by the entity's direct labour inputs, as measured by the income to labour.
- **Gross output** measures the total value of the goods and services supplied by the entity. This is a broader measure than value added because it is an addition to the value added generated by the entity. It also includes the value of intermediate inputs used by the entity that flow from value added generated by other entities.
- **Employment** is a fundamentally different measure of activity to those above. It measures the number of workers that are employed by the entity, rather than the value of the workers' output.

Figure A.1 shows the accounting framework used to evaluate economic activity, along with the components that make up gross output. Gross output is the sum of value added and the value of intermediate inputs. Value added can be calculated directly by summing the payments to the primary factors of production, labour (i.e. salaries) and capital (i.e. gross operating surplus (GOS), or profit), as well as production taxes less subsidies. The value of intermediate inputs can also be calculated directly by summing up expenses related to non-primary factor inputs.

Figure A.1: Economic activity accounting framework



Source: Deloitte Access Economics.

Direct and indirect contributions

The **direct** economic contribution is a representation of the flow from labour and capital in the company.

The **indirect** contribution is a measure of the demand for goods and services produced in other sectors as a result of demand generated by the industry. Estimation of the indirect economic contribution is undertaken in an input-output (IO) framework using Australian Bureau of Statistics input-output tables which report the inputs and outputs of specific sectors of the economy (ABS 2010).

The total economic contribution to the economy is the sum of the direct and indirect economic contributions.

Limitations of economic contribution studies

While describing the geographic origin of production inputs may be a guide to a firm's linkages with the local economy, it should be recognised that these are the type of normal industry linkages that characterise all economic activities.

Unless there is significant unused capacity in the economy (such as unemployed labour) there is only a weak relationship between a firm's economic contribution as measured by value added (or other static aggregates) and the welfare or living standard of the community. Indeed, the use of labour and capital by demand created from the industry comes at an opportunity cost as it may reduce the amount of resources available to spend on other economic activities.

This is not to say that the economic contribution, including employment, is not important. As stated by the Productivity Commission in the context of Australia's gambling industries:⁹

Value added, trade and job creation arguments need to be considered in the context of the economy as a whole ... income from trade uses real resources, which could have been employed to generate benefits elsewhere. These arguments do not mean that jobs, trade and activity are unimportant in an economy. To the contrary they are critical to people's well-being. However, any particular industry's contribution to these benefits is much smaller than might at first be thought, because substitute industries could produce similar, though not equal gains.

In a fundamental sense, economic contribution studies are simply historical accounting exercises. No 'what-if', or counterfactual inferences – such as 'what would happen to living standards if the firm disappeared?' – should be drawn from them.

The analysis – as discussed in the report – relies on a national input-output table modelling framework and there are some limitations to this modelling framework. The analysis assumes that goods and services provided to the sector is produced by factors of production that are located completely within the state or region defined and that income flows do not leak to other states.

The IO framework and the derivation of the multipliers also assume that the relevant economic activity takes place within an unconstrained environment. That is, an increase in economic activity in one area of the economy does not increase prices and subsequently

⁹ Productivity Commission (1999), *Australia's Gambling Industries*, Report No. 10, AusInfo, Canberra, (page 4.19).

crowd out economic activity in another area of the economy. As a result, the modelled total and indirect contribution can be regarded as an upper-bound estimate of the contribution made by the supply of intermediate inputs.

Similarly the IO framework does not account for further flow-on benefits as captured in a more dynamic modelling environment like the CGE model.

Input-output analysis

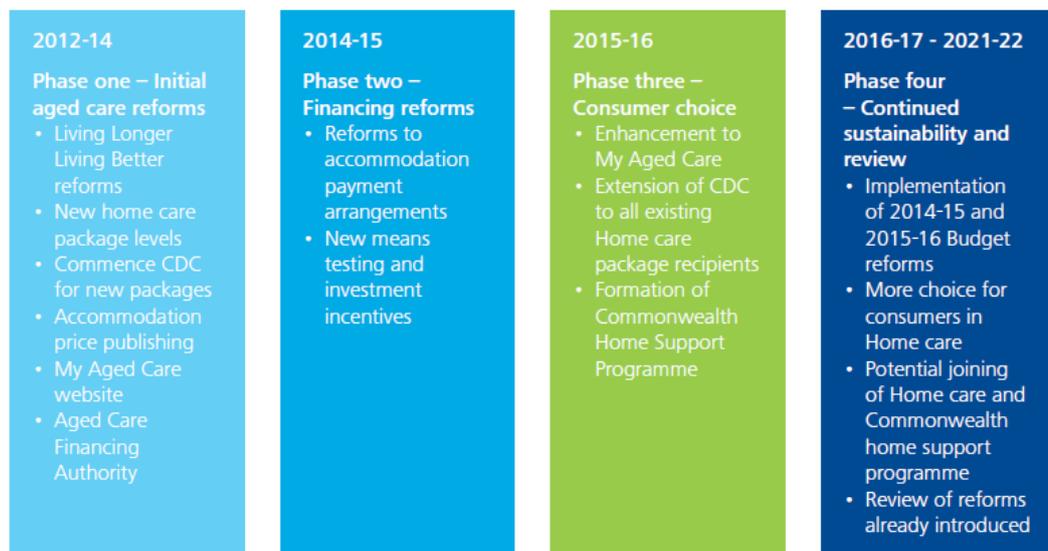
Input-output tables are required to account for the intermediate flows between sectors. These tables measure the direct economic activity of every sector in the economy at the national level. Importantly, these tables allow intermediate inputs to be further broken down by source. These detailed intermediate flows can be used to derive the total change in economic activity associated with a given direct change in activity for a given sector.

A widely used measure of the spill-over of activity from one sector to another is captured by the ratio of the total to direct change in economic activity. The resulting estimate is typically referred to as 'the multiplier'. A multiplier greater than one implies some indirect activity, with higher multipliers indicating relatively larger indirect and total activity flowing from a given level of direct activity.

The input-output matrix used for Australia is derived from the Australian Bureau of Statistics 2012-13 Input-Output Tables (2015). The industry classification used for input-output tables is based on ANZSIC, with 114 sectors in the modelling framework.

Appendix B: Details on future planning for the aged care sector

Figure B.1: Timeline of reforms



Source: ACFA, 2015.

Table B.2: ‘Consumer centricity’ destination in the *Aged Care Roadmap*

Short term (within 2 years)	Medium term (3-5 years)	Long term (5-7 years)	Destination
<ul style="list-style-type: none"> • Government will reduce controls on distribution of places and pilot allocation of places with minimal regional restrictions. • Develop robust modelling for estimating future demand. • Home Care Package consumers choose any provider to deliver care and packages are portable. 	<ul style="list-style-type: none"> • Monitor unmet demand and supply patterns to inform removal of supply controls in aged care. • Cease the allocation process for residential care places. • Amalgamate existing home care programmes to form an integrated care at home programme with individualised funding that follows the consumer. 	<ul style="list-style-type: none"> • Seamless movement between home based and residential care with true consumer choice of care and provider across the spectrum. • Uncap supply. • Remove distinction between care at home and residential care, creating a single aged care system — agnostic as to where care is received. 	<p>A single aged care and support system that is market based and consumer driven, with access based on assessed need.</p>

Source: Aged Care Roadmap, 2016.

Table B.3: ‘Sustainability’ destination in the Aged Care Roadmap

Short term (within 2 years)	Medium term (3-5 years)	Long term (5-7 years)	Destination
<ul style="list-style-type: none"> • Undertake work on current funding, financing and means testing arrangements in order to establish longer term financing arrangements. • Determine the market informed price government is prepared to pay. • Examine alternative arrangements to the Bond Guarantee Scheme. 	<ul style="list-style-type: none"> • New financial products are available to support consumer choice. • Measures are in place to enable continued access for vulnerable consumers including additional government assistance if required. • Integrate fee arrangements for home care and Commonwealth home support to support the new care at home programme. • Reform or replace the Bond Guarantee Scheme. 	<ul style="list-style-type: none"> • Means test all income and assets. • A consumer will receive the same government contribution, regardless of whether they are receiving care and support in their home or in a residential setting. 	<p>Sustainable aged care sector financing arrangements where the market determines price, those that can contribute to their care do, and government acts as the ‘safety net’ and contributes when there is insufficient market response</p>

Source: Aged Care Roadmap, 2016.

General use restriction

This report is prepared solely for the Aged Care Guild by Deloitte Access Economics. This report is not intended to and should not be used or relied upon by anyone else and we accept no duty of care to any other person or entity. The report has been prepared for the purpose of estimating the economic contribution of the aged care sector and outlining future directions for the sector. You should not refer to or use our name or the advice for any other purpose.

Contact us

Deloitte Access Economics
ACN: 149 633 116

Grosvenor Place
225 George St
Sydney NSW 2000
PO Box N250
Sydney NSW 1220 Australia

Tel: +61 2 9322 7000
Fax: +61 2 9322 7001

www.deloitteaccesseconomics.com.au

Deloitte Access Economics is Australia's pre-eminent economics advisory practice and a member of Deloitte's global economics group. For more information, please visit our website www.deloitteaccesseconomics.com.au

About Deloitte

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/au/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms.

Deloitte provides audit, tax, consulting, and financial advisory services to public and private clients spanning multiple industries. With a globally connected network of member firms in more than 150 countries, Deloitte brings world-class capabilities and deep local expertise to help clients succeed wherever they operate. Deloitte's approximately 200,000 professionals are committed to becoming the standard of excellence.

About Deloitte Australia

In Australia, the member firm is the Australian partnership of Deloitte Touche Tohmatsu. As one of Australia's leading professional services firms, Deloitte Touche Tohmatsu and its affiliates provide audit, tax, consulting, and financial advisory services through approximately 6,000 people across the country. Focused on the creation of value and growth, and known as an employer of choice for innovative human resources programs, we are dedicated to helping our clients and our people excel. For more information, please visit our web site at www.deloitte.com.au.

Liability limited by a scheme approved under Professional Standards Legislation.

Member of Deloitte Touche Tohmatsu Limited

© 2016 Deloitte Access Economics Pty Ltd