# Annual financial sustainability report

2015-16

Sarah Johnson BCom FIAA
Scheme Actuary

# **Executive summary**

## Introduction

This annual financial sustainability report is required under section 180B of the NDIS Act. This report provides an assessment of the financial sustainability of the NDIS after the three year trial period.

## The scheme at 30 June 2016

At 30 June 2016, 30,281 participants have had approved plans. Comparison between the revenue received during the trial from both the Commonwealth and State/Territory governments (the "funding envelope") and the amount of support used by participants, results in a small surplus over the three years (approximately 1.5% of the funding envelope).

## **Current pressures**

Whilst the scheme was within the funding envelope for the three years of trial, there are some current pressures which are requiring management responses. These pressures are:

- Higher than expected numbers of children entering the scheme
- Increasing package costs over and above the impacts of inflation and ageing ("superimposed" inflation)
- Potential participants continuing to approach the scheme
- Lower than expected participants exiting the scheme
- A mismatch between benchmark package costs and actual package costs.

## **NDIS** insurance approach

The NDIS insurance approach allows pressures on the scheme to be identified early and management responses put in place to respond to these pressures. Specifically, data is collected on participants (including the characteristics of the participants, costs and outcomes), and this actual experience is compared with the baseline projection. This actuarial monitoring occurs continuously and allows management to put in place strategies as required.

It is not unreasonable that some emerging pressures are evident after three years of the NDIS. This is common in any statutory insurance or social welfare reform, and also reflects the fast implementation of the NDIS. The current pressures are a reflection of the original implementation, and learning from this implementation has assisted with the management responses.

## Management responses

Importantly the data and evidence is available to understand what is driving these pressures and operational responses are underway to address the cost pressures. All else being equal, if these responses are as effective as expected then the trends identified should be mitigated, and it is reasonable to expect financial sustainability throughout transition and full scheme.

Two specific initiatives are the Early Childhood Early Intervention (ECEI) approach and the reference package and first plan approach.

- The ECEI approach is being progressively rolled out. The ECEI approach provides a gateway to the NDIS for children 0-6 years, which aims to ensure only children meeting the eligibly criteria for the NDIS enter as a participant. The gateway also provides support for children to access mainstream and community services when they do not meet the criteria, but need some support to access these services.
- The reference package and first plan process is a method for better aligning the level of function and need with support packages for participants when they first enter the scheme. This process is now underway, but ongoing refinement of this process to ensure the right assessment tools and questions is used is critical. This method for allocating funds should also be a focus at plan review. Importantly, this process assists in determining the reasonable and necessary support package from which participants can then plan their supports to be meet their goals.

In addition to these two initiatives, NDIA management has put in place a Sustainability and Liability Review Working Group led by the CEO to oversee the initiatives addressing the cost pressures identified above. Further initiatives include:

- Analysis of reasonable and necessary costs across the lifespan with emphasis on levels
  of community participation and supports to live outside of the family home (including
  supported independent living). This analysis leverages work undertaken by the
  Independent Advisory Council (IAC) on reasonable and necessary support.
- Development of guidelines on reasonable levels of family support across the lifespan.
- Analysis of the possibility of a gateway for people with psychosocial disability to make sure that the right people with psychosocial disability enter the scheme and that people are supported to access mainstream and community services. Further, work on reference packages for people with psychosocial disability is also underway.
- Further guidance on chronic health conditions and the role of other support systems in supporting people with chronic health conditions.

 Investment in the School Leavers Employment Support initiative to assist school leavers into employment. This initiative also has the potential for wider economic benefits, such as reduced reliance on income support.

A change management strategy is required to ensure these initiatives are implemented successfully. Specifically:

- Training for staff and ECEI partners in the new approaches, along with appropriate support.
- Communication to the sector on the approaches, along with working with the sector to achieve the intended outcomes of the NDIS.
- Project management to oversee the implementation of the initiatives.

It will also be critically important to collect appropriate data and carefully monitor these change initiatives and the implementation of the change management strategy. The actuarial team will work closely with management to provide ongoing reporting and feedback on the process and outcomes of the above measures.

# **Contents**

E	xecutiv	e summary	. 2
С	ontents	5	. 5
Li	st of al	obreviations	. 7
Li	st of ta	bles and figures	. 8
1.	Intro	oduction	10
	1.1	Background	10
	1.2	Sections of this report	12
	1.3	Reliances and limitations	12
2.	Info	rmation and data	13
	2.1	Information systems	13
	2.2	Data available for analysis	13
3.	Bas	eline projection	15
	3.1	Data, assumptions and methodology	15
	3.2	Baseline projection – 2015-16	17
4.	Sch	eme experience	19
	4.1	Participants	19
	4.2	Committed supports and actual payments	20
	4.3	Comparison of experience across trial sites	22
	4.4	Trends in plan costs over time	33
	4.5	Analysis of entries and exits from the scheme	35
	4.6	Reference packages and the first plan process	37
	4.7	Participant outcomes and use of mainstream services	41
5.	Cur	rent pressures	43
6.	Mar	naging financial sustainability	50
	6.1	Management responses to experience	50
	6.2	Management of other risks to financial sustainability	55
App	endix A	A Actuarial control cycle	58
App	endix E	Assumptions used in baseline projections	63
App	endix (	C Inflation assumptions	67
App	endix [	Trends in participant numbers by month	68
App	endix E	E Key characteristics of participants at 30 June 2016	73

# **List of abbreviations**

AAT	Administrative Appeals Tribunal
ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
CAC	Commonwealth Authorities and Companies
CALD	Culturally and Linguistically Diverse
CPI	Consumer Price Index
DHS	Department of Human Services
DSS	Department of Social Services
ECEI	Early Childhood Early Intervention
ICT	Information and communications technology
ILC	Information, Linkages and Capacity Building
LGA	Local Government Area
NBM	Nepean Blue Mountains
NDIA	National Disability Insurance Agency
NDIS	National Disability Insurance Scheme
NIIS	National Injury Insurance Scheme
NSW	New South Wales
NT	Northern Territory
OECD	Organisation for Economic Co-operation and Development
PC	Productivity Commission
SA	South Australia
SACS	Social and Community Services
SDAC	Survey of Disability Ageing and Carers
TAS	Tasmania
VIC	Victoria
WA	Western Australia

# List of tables and figures

Figure 1.1 NDIS Operating Locations	. 10
Table 2.1 Summary of data available for actuarial analysis	. 13
Table 3.1 Baseline projection of the NDIS	. 18
Table 4.1 Actual payments compared with committed support – payments as at	
30 June 2016	. 21
Figure 4.1 Cumulative prevalence of 0-6 year olds by site at each quarter end	. 23
Figure 4.2 Cumulative prevalence of 7-14 year olds by site at each quarter end	. 24
Figure 4.3 Cumulative prevalence of 15-24 year olds by site at each quarter end	. 25
Figure 4.4 Cumulative prevalence of 25-44 year olds by site at each quarter end	. 26
Figure 4.5 Cumulative prevalence of 45-64 year olds by site at each quarter end	. 27
Figure 4.6 Average package costs at 30 September 2015, 31 December 2015,	
31 March 2016 and 30 June 2016 of 0-6 year old participants	. 28
Figure 4.7 Average package costs at 30 September 2015, 31 December 2015,	
31 March 2016 and 30 June 2016 of 7-14 year old participants	. 29
Figure 4.8 Average package costs at 30 September 2015, 31 December 2015,	
31 March 2016 and 30 June 2016 of 15-24 year old participants	. 30
Figure 4.9 Average package costs at 30 September 2015, 31 December 2015,	
31 March 2016 and 30 June 2016 of 25-44 year old participants	. 31
Figure 4.10 Average package costs at 30 September 2015, 31 December 2015,	
31 March 2016 and 30 June 2016 of 45-64 year old participants	. 32
Figure 4.11 Percentage of participants with more than one plan by trial site – cumulative	
since scheme start	. 33
Figure 4.12 Percentage of participants with more than two plans by trial site	. 34
Figure 4.13 Change in committed supports between participants' first initial plan approval	
and their latest amended second plan for an average participant – by site	. 35
Table 4.2 Number of people approaching the scheme each month	. 36
Table 4.3 Exit rates by age group	. 37
Table 4.4 Major disability groups	. 38
Table 5.1 Estimated cost of participants and potential participants - Barwon - 30 June 20	16
	. 44
Table 5.2 Estimated cost of participants and potential participants (sensitivity analysis) -	
Barwon – 30 June 2016	
Table 5.3 Estimated cost of participants and potential participants - Hunter $-30\mathrm{June}$ 201	6
	. 46
Table 5.4 Estimated cost of participants and potential participants (sensitivity analysis) -	
Hunter – 30 June 2016	
Figure A.1 Monitoring scheme financial sustainability (actuarial control cycle)	. 58
Figure A.2 Monitoring participant outcomes and costs	
Table B.1 Breakdown of eligible participants by age	. 63
Table B.2 Breakdown of eligible participants by disability	. 63
Table B.3 Exit rate by age	. 64

T. I. B. 4 E. W. (4. I. 1995)	~ 4
Table B.4 Exit rate by disability	
Table B.5 Rate of incidence by age	
Table B.6 Rate of incidence by disability	
Table B.7 Annual cost by age	
Table B.8 Annual cost by disability	
Table C.1 Inflation and SACS assumptions	
Figure C.1 Wage price index inflation (%) from June 1999 to June 2016	
Figure C.2 CPI inflation (%) from June 1999 to June 2016	67
Figure D.3 Approved plans by month that the plan was first approved compared with the	
bilateral agreements and the actuarial model – QLD	
Figure E.1 Eligible participants – age distribution	
Figure E.2 Active participants with approved plans – gender distribution	
Figure E.3 Active participants with approved plans – Indigenous distribution	
Figure E.4 Active participants with approved plans – CALD distribution	
Figure E.5 Active participants with approved plans – primary disability distribution (NSW -	
Hunter, SA, TAS and VIC trial sites)	
Figure E.6 Active participants with approved plans – primary disability distribution (ACT, I	
WA and NSW – NBM sites)	
Figure E.7 Active participants with approved plans – primary disability distribution (QLD s	
Figure E.8 Active participants with approved plans – disability and early intervention (NS)	
Hunter, SA, TAS and VIC trial sites)	81
Figure E.9 Active participants with approved plans – disability and early intervention (AC)	Γ,
NT, WA, and NSW – NBM sites)	82
Figure E.10 Active participants with approved plans – disability and early intervention (QL	_D
sites)	83
Table F.1 Committed support to date and amount committed to be provided in 2013-14,	
2014-15, 2015-16 and beyond <sup>,</sup>	86
Figure F.1 Comparison of committed supports expected to be provided in 2013-14 with the	
funding envelope	
Figure F.2 Comparison of committed supports expected to be provided in 2014-15 with the	ne
funding envelope	
Figure F.3 Comparison of committed supports expected to be provided in 2015-16 with the	ne
funding envelope	
Figure F.4 Distribution of package costs by trial site - NSW (Hunter), SA, TAS and VIC tr	
sites	
Figure F.5 Distribution of package costs by trial site – ACT, NT, WA and NSW (NBM) site	es90
Figure F.6 Distribution of package costs by trial site – QLD site	91
Figure F.7 Total package costs and number of participants by trial site and annualised	
committed support band	
Figure F.8 Distribution of committed supports by trial sites – NSW (Hunter), SA, TAS and	
VIC trial sites	95
Figure F.9 Distribution of committed supports by trial sites – ACT, NT, WA and NSW (NB	M)
sites	96

# 1. Introduction

# 1.1 Background

The National Disability Insurance Scheme (NDIS) Act received Royal Assent on 28 March 2013, and the NDIS became fully operational on 1 July 2013 with the commencement of NDIS trial sites.

At 30 June 2016, the NDIS operated in nine locations (Figure 1.1):

- The Hunter trial site Newcastle, Lake Macquarie, and Maitland Local Government Areas (LGAs) in New South Wales.
- The Nepean Blue Mountains site Blue Mountains, Hawkesbury, Lithgow and Penrith LGAs in New South Wales for 0-17 year olds.
- The Australian Capital Territory
- The Tasmanian trial site 15-24 year olds.
- The Barwon trial site Greater Geelong, Surf Coast, Queenscliff and Colac-Otway LGAs in Victoria.
- The South Australian trial site 0-14 year olds.
- The Perth Hills trial site Swan,
   Kalamunda and Mundaring LGAs in Western Australia
- The Barkly region in the Northern Territory
- The North Queensland site Townsville and Charter Towers Regional Council for 0-17 year olds, and Palm Island Aboriginal Shire for 0-64 year olds.



- The Hunter, Barwon, South Australian and Tasmanian sites commenced on 1 July 2013
- The Australian Capital Territory, Perth Hills and Barkley region commenced on 1 July 2014
- The Nepean Blue Mountains site commenced on 1 July 2015





• The North Queensland site started on 1 April 2016.

Heads of Agreement signed by the Commonwealth government and all State/Territory governments (except Western Australia) outline that the full scheme will be rolled out between 2016-17 and 2018-19. Bilateral agreements for transition specify the roll-out timetable.

An Insurance Principles Manual has been developed which outlines the process for monitoring and managing the financial sustainability of the NDIS.

The Insurance Principles Manual outlines the steps in the Prudential Governance Framework, and this Annual Financial Sustainability Report corresponds to Step 6. Specifically, this report provides an assessment of the financial sustainability of the NDIS after the three years of trial.

The requirements of this report are specified in the NDIS Act and Rules Specifically section 180B(1) of the NDIS Act which states:

The Scheme Actuary must do all of the following each time an annual report on the Agency under section 9 of the CAC Act<sup>1</sup> is being prepared:

- a. assess:
  - i. the financial sustainability of the National Disability Insurance Scheme; and
  - ii. risks to that sustainability; and
  - iii. on the basis of information held by the Agency, any trends in provision of supports to people with disability
- b. consider the causes of those risks and trends;
- c. make estimates of future expenditure of the National Disability Insurance Scheme;
- d. prepare a report of that assessment, consideration and estimation;
- e. prepare a summary of that report that includes the estimates described in paragraph (c).

-

<sup>&</sup>lt;sup>1</sup> Now the PGPA Act.

# 1.2 Sections of this report

The sections of this report are as follows:

- An executive summary
- **Introduction** including the background to the scheme and report, along with reliances and limitations to the report (section 1).
- **Information and data**, including a description of the data available for actuarial analysis (section 2).
- Baseline projection (section 3).
- Analysis of **scheme experience** (section 4).
- **Pressures** on full scheme costs based on scheme experience, if unmanaged, using the Barwon and Hunter trial sites (section 5)
- **Impact of operational responses** to scheme experience and management of financial sustainability (section 6).

## 1.3 Reliances and limitations

This work was conducted for the sole use and benefit of the National Disability Insurance Agency (NDIA) and the NDIS Board to assist with monitoring, reporting, and management of the financial sustainability of the scheme.

No liability is accepted for loss or damage howsoever arising in the use of this document by the NDIA or third parties for other than the purpose stated above, or for any use of this document, without full understanding of the reliance and limitations noted herein, or for errors or omissions arising from the provision of inaccurate or incomplete information.

It is the responsibility of the NDIA and third parties to ensure that recipients of copies of, or extracts from, this document understand the reliances on which any conclusions in this document are based.

This report has been prepared in accordance with all relevant Professional Code of Conduct guidelines of the Institute of Actuaries of Australia. Further, where appropriate, this report has also been prepared in accordance with the International Standard of Actuarial Practice 2: Financial Analysis of Social Security Programs.

# 2. Information and data

This section provides a summary of the information available to undertake actuarial analysis and the systems from which this information is obtained.

# 2.1 Information systems

For the three years of trial, the NDIA obtained information from the following systems:

- Siebel Siebel was the system used for case management. Front line staff enter
  information about participants and participant plans into the Siebel case management
  system. The Siebel system was also accessed by service providers to claim payments
  for supports provided to participants, and by participants who are self-managing to claim
  payments.
- SAP SAP is the Agency finance system. All payments to and from the Agency are made using SAP.
- Data warehouse The NDIA data warehouse was hosted by the Department of Social Services (DSS) until October 2015. From October 2015, the data warehouse has been hosted by the Department of Human Services (DHS). The NDIA receives daily snapshots of Siebel into the data warehouse via text extracts. The actuarial team converts this information into useable metafiles. Note: the data warehouse does not have a longitudinal capability. At present the actuarial team combines daily data to provide a longitudinal record of participants.

The May 2015 Federal Budget announced that DHS would become the NDIA's ICT supplier. This included the build of a new case management system in SAP. This system went live on 1 July 2016.

# 2.2 Data available for analysis

The following table summarises the data available in the current systems for actuarial analysis. The use of this data and information in the context of the actuarial control cycle is included in Appendix A.

Table 2.1 Summary of data available for actuarial analysis

Data	Description						
Access	Demographic information (age, gender, disability, Indigenous status, CALD						
requests to the	status)						
NDIS	Contact details						
	Outcome of request (for example: eligible, ineligible)						
NDIS	Plan approval date						
participant	All supports included in the plan, including quantity and cost						
plans	Length of plan						
	Length of individual support in the plan (note: some support items within						
	plans are for a shorter period of time than the length of the plan)						

Data	Description
	Participant goals
	Mainstream and informal supports
Payments to	Service provider submitting the claim for payment
service	Participant for whom the support was provided
providers	The support item provided
•	Quantity of support provided
	Cost of support provided
	Dates of when the support was provided
Payments to	Participant submitting the claim for payment
participants	The support category provided
	Total cost spend on support category
	Period of reimbursement
Data on level of	At 30 June 2016, 46% of participants have information recorded on their level
function	of severity using diagnostic/functional assessment tools. This allows a
Determina	reference package (which is a benchmark level of funding) to be calculated.
Data on	At 30 June 2016, 23,856 Short-Form Outcomes Framework (SFOF)
outcomes	questionnaires had been completed: 13,290 for participants (around 37%) and 10,566 for their family/carers. These data are still in the process of being
	and 10,500 for their family/carers. These data are still in the process of being analysed and are not discussed in this report.
"Section 55	List of clients receiving support from service providers in the existing disability
data" <sup>2</sup>	system, including age and contact details.
Productivity	The PC original costings of the NDIS. This was based on the 2009 ABS
Commission	Survey of Disability, Ageing and Carers, and the cost of supports from
	accident compensation schemes, and State/Territory disability systems.
costings	
Epidemiological	Incidence, prevalence and relative risk mortality on a range of disabilities,
data	from accident compensation schemes, and the Burden of Disease Study. <sup>3</sup>
Commonwealth	Information on entry to residential aged care was used inform projections of
aged care data	participants remaining in the NDIS past the age of 65 years.
ABS population	3222.0 Population Projections, Australia, 2012 (base) to 2101 (Series B)
projections	Projections of new participants entering the scheme.
Financial	Data from Siebel were reconciled with financial information in SAP.
information	

<sup>&</sup>lt;sup>2</sup> Under section 55 of the NDIS Act, the NDIA CEO can request information held by other persons to ensure the integrity of the NDIS. This has allowed the NDIA to request information from service providers receiving funding under existing Commonwealth and State/Territory programs on the number of people they provide services to who might be eligible for the NDIS.

<sup>3</sup> <a href="http://www.aihw.gov.au/burden-of-disease/">http://www.aihw.gov.au/burden-of-disease/</a>

# 3. Baseline projection

This section presents the baseline cost projection of the NDIS. The baseline projection builds on the Productivity Commission estimate of full scheme costs, supplemented with other data to determine a more detailed breakdown of the participant population, including entry and exit rates from the NDIS. However, the year on year total cost of the scheme is in line with the Productivity Commission estimate. This projection can be considered as the best estimate, on the evidence available to date, of the cost trajectory of a well-functioning NDIS when it reaches maturity. Hence, it is a target projection from which to monitor the actual scheme experience.

# 3.1 Data, assumptions and methodology

## 3.1.1 Productivity Commission estimate

The Productivity Commission estimated that the annual cost of the NDIS was \$13.6 billion in 2011. This estimate included approximately \$12.5 billion in care and support, and \$1.1 billion in administrative costs. Inflating care and support component to 2015-16 values results in an annual amount of \$16.5 billion.

# 3.1.2 Additional data used to supplement the Productivity Commission estimate

Additional data was used to obtain a more detailed breakdown of the Productivity Commission estimate to allow monitoring of actual experience against expected experience. The Productivity Commission estimate was based on the Australian Bureau of Statistics (ABS) Survey of Disability Ageing and Carers (SDAC). The additional sources used in the projections are:

- Epidemiological data, including information on incidence rates and mortality rates for different disabilities.
- Research on severity measures for different disabilities to assist with building a
  detailed profile of participants in the scheme, including costs across the lifespan.
- Scheme experience during trial including the profile of participants (age, disability, and whether they entered the scheme under the early intervention or disability requirements).
- **ABS population projections** to determine the number of new participants entering the scheme each year (based on the incidence rates).

## 3.1.3 Assumptions and methodology

At a high level, the assumptions and methodology for the projections are as follows:

- The Productivity Commission estimate of full scheme participant numbers (around 432,000 in 2015-16) is assumed to be the starting population.
- In order to project participant numbers, assumptions on exit rates and new entry rates
  are required. Each year, participants exit the scheme or remain in the scheme and age
  one year. In addition to this, new participants enter the scheme. This dynamic is
  modelled based on the participant profile determined and the underlying general
  population.
- Assumptions on participants exiting the scheme were based on epidemiological data, the ABS SDAC, and data from the Commonwealth aged care system. These assumptions are broken down by age, disability and severity. Participants exit the scheme due to mortality, no longer needing support or entering into residential aged care (in the case of participants aged over 65 years). More detail is included in Appendix B.
- Assumptions on participants entering the scheme (as a percentage of the general population) were based on scheme experience and epidemiological data. These assumptions are broken down by age, disability and severity. The general population was based on ABS projections of the Australian population. Further, it was assumed that the incidence of disability remained the same over time. More detail is included in Appendix B.
- Estimated annual costs are then applied to participants (broken down by age, disability and severity) for each year. These costs are informed by research on reference packages. Importantly this allows an estimate of the lifetime cost of participants who are currently in the scheme and estimates of lifetime costs for participants who enter the scheme. For each year, the annual cost across the whole scheme can also be determined based on the underlying profile of participants in the scheme for the year. More detail is included in Appendix B.
- Inflation is applied to participant costs considering wage rates (including the SACS award), and increases in CPI. Inflation of 4.3% per annum is assumed in the short-term reflecting current wage rates and the SACS award, with a long term assumption of 4% per annum. More detail is included in Appendix C.
- NDIA operating costs are based on a detailed activity-based costing of NDIA operations, and the prescribed efficiency parameter of 7%.
- The potential cost of the National Injury Insurance Scheme (NIIS) is removed from the total costs from the start of full scheme. Estimates of the NIIS include consideration of the incidence of injury across motor vehicles, the workplace, medical misadventure and general injury by year, and the costs of care and support.<sup>4</sup>

16

<sup>&</sup>lt;sup>4</sup> Estimates of the NIIS are based on Walsh et al, 2005: Long Term Care for Catastrophically Injured people, and the Productivity Commission, 2011: Inquiry into Disability Care and Support.

- The number of participants entering the scheme each year during the trial sites and transition years, is based on scheme experience for 2013-14, 2014-15 and 2015-16, information on phasing from the transition bilateral agreements and the actuarial estimates of the number of participants at full scheme.
- Lastly, the resulting costs are then compared with nominal GDP.

# 3.2 Baseline projection - 2015-16

Overall (Table 3.1):

- Package costs at full scheme in 2019-20 are estimated to be \$21.8 billion, including \$1.1 billion for people aged over 65 years.
- The effect of introducing the NIIS reduces the cost of the NDIS over time. Further, some people with serious injury are already covered under accident compensation scheme arrangements and hence do not require the support of the NDIS. The impact in 2019-20 reduces the total cost of the NDIS to \$21.1 billion.
- Including operating costs increases this to \$22.6 billion.
- Including an efficiency dividend (of 0.35% per annum) due to early investment reduces this number to \$22.3 billion.<sup>5</sup>

In 2044-45, over 65 year olds represent a much higher proportion of package costs – around 25% of costs compared with 4% in 2019-20. Further, the reduction due to the maturing of the NIIS is around 6% of package costs in 2044-45.

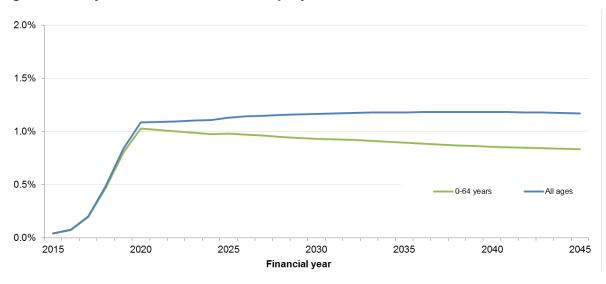
The estimates below are consistent with the Productivity Commission estimates of full scheme costs when considering inflation and population growth, and only considering participants under the age of 65 years – 0.8% of GDP in the long term (Figure 3.1). However, as participants age over 65 years in the scheme the cost of the scheme increases from 0.8% of GDP in 2019-20 to 1.2% in 2044-45, with the additional 0.4% of GDP contributing to the cost of the aged care system.

<sup>&</sup>lt;sup>5</sup> The Productivity Commission assumed early investment would result in reduced costs in the future. This reduction is approximately 0.35% per annum and this has been used in the baseline modelling.

Table 3.1 Baseline projection of the NDIS

Baseline	2014	2015	2016	2017	2018	2019	2020	2025	2030	2035	2040	2045
Total participants												
0-64 years	7,271	17,097	29,805	122,217	260,072	437,548	458,368	488,517	513,162	539,139	563,581	594,014
65+ years	45	206	476	1,736	4,078	9,793	15,285	43,524	69,698	88,772	106,098	114,080
Total	7,316	17,303	30,281	123,953	264,150	447,341	473,653	532,042	582,860	627,912	669,679	708,094
Uninflated total cost (\$m)												
0-64 years				\$2.659	\$6,930	\$12.811	\$17,461	\$18,543	\$19,477	\$20,591	\$21,591	\$22,842
65+ years				\$104	\$245	\$591	\$922	\$2,658	\$4,339	\$5.674	\$6.933	\$7,625
Total				\$2.763	\$7.175	\$13,402	\$18.382	\$21,200	\$23.817	\$26,265	\$28,524	\$30,466
Total				φ2,703	Ψ1,113	\$13,402	\$10,302	φ21,200	φ23,017	\$20,203	\$20,524	\$30,400
NIIS adjustment				\$0	\$0	-\$303	-\$593	-\$885	-\$1,186	-\$1,462	-\$1,715	-\$1,941
Total after NIIS adjustment				\$2,763	\$7,175	\$13,099	\$17,789	\$20,315	\$22,630	\$24,803	\$26,809	\$28,525
Inflate databases (flow)												
Inflated total cost (\$m)												
0-64 years	\$140	\$498	\$899	\$2,774	\$7,539	\$14,538	\$20,667	\$26,781	\$34,225	\$44,021	\$56,159	\$72,285
65+ years	\$1	\$7	\$17	\$108	\$267	\$671	\$1,091	\$3,839	\$7,625	\$12,131	\$18,034	\$24,129
Total	\$141	\$505	\$916	\$2,882	\$7,806	\$15,209	\$21,758	\$30,620	\$41,851	\$56,152	\$74,192	\$96,414
NIIS adjustment	\$0	\$0	\$0	\$0	\$0	-\$342	-\$698	-\$1,271	-\$2.073	-\$3.107	-\$4.434	-\$6.106
•		* * *		* * *	* * *	* * *			* *		* / -	* - /
Total after NIIS adjustment	\$141	\$505	\$916	\$2,882	\$7,806	\$14,866	\$21,060	\$29,348	\$39,778	\$53,045	\$69,758	\$90,308
Operating costs	\$123	\$170	\$343	\$690	\$1,160	\$1.592	\$1,498	\$2,054	\$2,784	\$3.713	\$4.883	\$6,322
Total after operating costs	\$264	\$675	\$1,259	\$3,572	\$8,966	\$16,458	\$22,558	\$31,403	\$42,563	\$56,758	\$74,641	\$96,629
Table 2000	Ψ_0¬	Ψ0.0	ψ.,200	Ψ0,0.2	ψ0,000	÷.0,.00	J,000	\$0.,.00	Ţ.L,000	J00,. 00	Ş, <b>.</b> .,	\$00,0 <u>E</u> 0
Total after efficiency dividend	\$264	\$675	\$1,259	\$3,560	\$8,905	\$16,294	\$22,260	\$30,555	\$40,915	\$53,936	\$70,175	\$89,783

Figure 3.1 Projected total cost as a % of projected GDP



# 4. Scheme experience

This section describes the experience of the NDIS after three years of operations (2013-14 to 2015-16).

Specifically this section includes analysis on:

- Participants participant numbers and trends.
- **Committed supports and actual payments** the amount of support committed in plans and actual payments to service providers/participants.
- Comparison of experience across sites the trends in prevalence of participants and the amount of committed support in plans is compared across sites. The prevalence of participants and the amount of committed support in plans is also compared with the Productivity Commission Report assumptions.
- Trends in plan costs over time analysis of cost of support in participant's plans over time.
- Analysis of entries and exits from trial sites this includes the number of people approaching the scheme each month in each trial site, and the number exiting.
- Analysis of reference packages and the first plan process this section compares
  the expected benchmark amount of support with actual packages, noting that this
  information is not available for all participants.
- An update on participant outcomes and the use of mainstream services.

# 4.1 Participants

## 4.1.1 Scheme participant summary

At 30 June 2016:

- 41,523 people had lodged an access request.
- 35,695 participants had been deemed eligible for the scheme.
- 2,326 people (or 5.6%) of people lodging an access request (who met the age or residency requirements) had been found ineligible.
- 30,281 participants have had an approved plan, of whom 29,847 were active and 434 were inactive (mainly because they had died or chosen to leave the scheme).
- 15,992 participants have received more than one plan.

More detail on the number of participants receiving an approved plan each month is included in Appendix D. Further additional detail on the key characteristics of participants, including age, gender, Indigenous status, CALD status, primary disability, and early intervention/disability status, is included in Appendix E.

# 4.2 Committed supports and actual payments

Committed support is the dollar amount of support that has been made available to participants in their statement of supports – referred to as the participant's package. Payments to service providers and self-managing participants is the actual amount of committed support used by participants.

## 4.2.1 Committed supports

At 30 June 2016, 30,281 participants have (or have had) approved plans, and \$2,404.3 million of support has been committed to these participants since the inception of the scheme.

Of this \$2,404.3 million, it is estimated that:

- \$141.0 million (6%) was scheduled to be provided in 2013-14
- \$505.3 million (21%) was scheduled to be provided in 2014-15
- \$915.7 million (35%) is scheduled to be provided in 2015-16
- \$842.3 million is scheduled to be provided in 2016-17 and beyond.

More detail on the amount committed compared with the bilateral agreements is included in Appendix F. Information on the distribution of supports and types of supports in plans is also included in Appendix F.

## 4.2.2 Actual payments

Actual payments to service providers and participants who are self-managing their plans as at 30 June 2016 was \$1,090.6 million, of which \$91.6 million relates to supports provided in 2013-14, \$375.7 million relates to supports provided in 2014-15, and \$623.2 million relates to supports provided in 2015-16.6

 Actual payments to date for supports provided in 2013-14 represent 65% of committed supports.

<sup>&</sup>lt;sup>6</sup> Includes adjustments for in-kind support provided but not invoiced through Siebel and capital.

- Actual payments to date for supports provided in 2014-15 represent 74% of committed supports.
- Actual payments to date for supports provided in 2015-16 represent 68% of committed supports.
- Actual payments to date represents 70% of committed supports.

Note: payments continue to be made for the 2013-14 and 2014-15 support years, so these utilisation factors may increase. Further, there is a lag between when support is provided and when it is paid which mainly affects the 2015-16 utilisation rate and the payments to date figure.

Analysis indicates that not all of the support in participant plans is being invoiced. Underutilisation can be a result of a number of factors including participants not implementing their plan, service providers not invoicing for supports, supports not being available in the market to purchase, and participants not needing all of the support in their plans. Utilisation in the early stages of the scheme will not be the same as utilisation in a mature NDIS, as many start-up factors are at play.

Table 4.1 compares actual payments to date with the estimated ultimate proportion of committed supports that will be used. There are differences between sites, with South Australia and Western Australia being lower than the other sites. Further, the utilisation in the sites that began in 2013 increased in 2014-15 from 2013-14. It is unclear what the ultimate utilisation rates for 2015-16 will be, but likely that they will be higher than 2014-15.

Table 4.1 Actual payments compared with committed support – payments as at 30 June 2016

		Estimated ultimate proportion of									
Support year	NSW (Hunter)	SA	TAS	VIC	ACT	NT	WA	NSW (NBM)	QLD	All sites	committed supports that will be used
2013-14	69%	44%	55%	58%	n/a	n/a	n/a	n/a	n/a	65%	66%
2014-15	76%	59%	71%	78%	75%	78%	52%	n/a	n/a	74%	77%
2015-16	70%	56%	70%	76%	75%	64%	63%	33%	4%	68%	TBD

## 4.2.3 End of Trial – scheme cost comparison

Comparison of the revenue received during the trial from both the Commonwealth and State/Territory governments (the "funding envelope") and the amount of support used by participants, results in a small surplus (about \$22 million or 1.5% of the funding envelope) over the three years. Although committed support in plans was about \$130 million (9%) more than the available funding envelope, not all committed support was used by participants.

# 4.3 Comparison of experience across trial sites

This section analyses the prevalence of participants (and potential participants<sup>7</sup>) in trial sites over the last four quarters, along with package costs. Comparisons to the Productivity Commission estimates are also made.

Prevalence refers to the proportion of the population that are participants. The charts below show both current prevalence (shaded sections) which includes current participants and potential prevalence (dotted lines) which includes people who are known to the Scheme and who may become participants.

Generally, the charts show that it is still not possible to reliably estimate ultimate prevalence rates, including in those trial sites that commenced on 1 July 2013. For this and other reasons (discussed in later sections), it remains difficult to project scheme costs with confidence.

<sup>&</sup>lt;sup>7</sup> Potential participants are those with an access request in progress, those identified in data from service providers under Section 55 of the NDIS legislation, or people who have approached the scheme to obtain access. The prevalence including potential participants is shown by the dotted line in each chart.

## 4.3.1 Prevalence of participants aged 0-6 years

Current prevalence rates for 0-6 year olds are highest in the South Australian trial site.

Including potential participants increases the prevalence rates to as high as 4.8% in South Australia and 4.5% in the Australian Capital Territory. It is also worth noting that the potential prevalence rate has tended to increase for all trial sites across the four quarters to 30 June 2016.8

Further, the Productivity Commission estimated that approximately 2.9% of children aged 0-14 years would be participants of the scheme, and the South Australian, Barwon and Australian Capital Territory trial sites all exceed this rate.

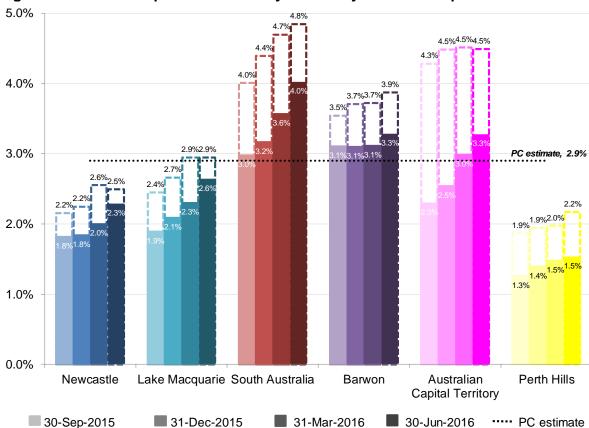


Figure 4.1 Cumulative prevalence of 0-6 year olds by site at each quarter end

<sup>&</sup>lt;sup>8</sup> There has been a slight decrease in the potential prevalence rate in the last quarter in the Newcastle and Lake Macquarie LGAs because the Hunter trial site undertook a significant review of the list of potential participants and removed people that were highly unlikely to enter the scheme.

## 4.3.2 Prevalence of participants aged 7-14 years

The potential prevalence of participants aged 7-14 years is higher in the Barwon trial site compared with the South Australian trial site and the Newcastle and Lake Macquarie LGAs. The potential prevalence is lowest in the Perth Hills trial site. Experience in the Australian Capital Territory trial site suggests that the prevalence could be much higher than the other trial sites.

As with 0-6 year olds, the potential prevalence of 7-14 year olds has increased each quarter, except in the last quarter in the Newcastle and Lake Macquarie LGAs and in South Australia.

In South Australia there has been an increase in the number of participants but a larger decrease in the number of potential participants in both Siebel and section 55 data. This has been the result of refreshed data provided by the South Australian government.

The Productivity Commission estimated that approximately 2.9% of children aged 0-14 years would be participants of the scheme, and the Newcastle, Lake Macquarie, Barwon and Australian Capital Territory trial sites all exceed this rate.

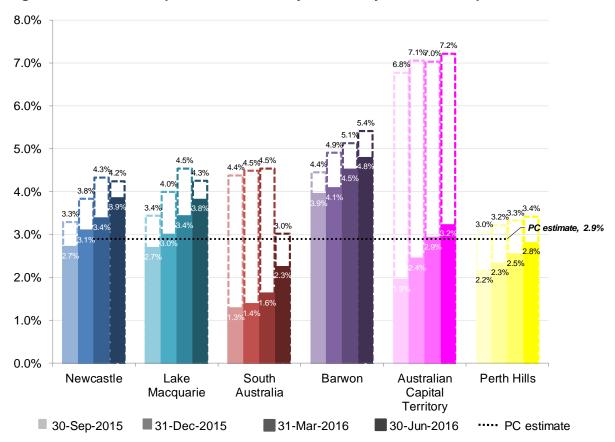


Figure 4.2 Cumulative prevalence of 7-14 year olds by site at each quarter end

## 4.3.3 Prevalence of participants aged 15-24 years

The prevalence of participants and potential participants aged 15-24 years is highest in the Barwon trial site and the Australian Capital Territory. The Newcastle, Lake Macquarie and Tasmanian trial sites have similar prevalence and potential prevalence rates, but the rate is lowest in the Perth Hills trial site. As with 0-6 and 7-14 year olds, the potential prevalence of 15-24 year olds has increased each quarter, except in the last quarter in the Newcastle and Lake Macquarie LGAs.

The Productivity Commission estimated that approximately 1.8% of the population aged 15-49 years would be participants of the scheme, and the Lake Macquarie and Barwon trial sites exceed this rate.

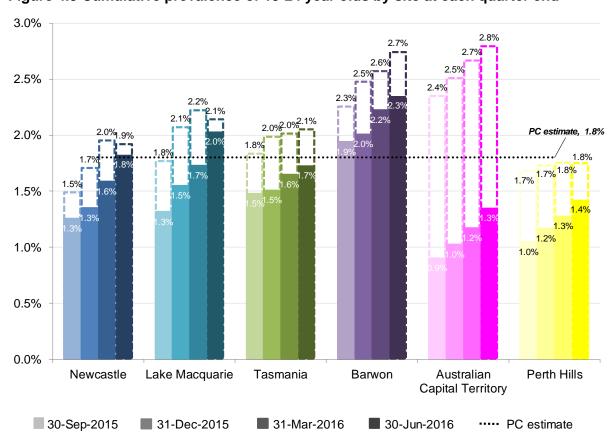


Figure 4.3 Cumulative prevalence of 15-24 year olds by site at each quarter end

## 4.3.4 Prevalence of participants aged 25-44 years

The prevalence of participants and potential participants aged 25-44 years is also highest in the Barwon trial site, followed by the Newcastle and Lake Macquarie LGAs which have similar prevalence rates. As in each of the other age groups, the potential prevalence of 25-44 year olds has increased each quarter, except in the last quarter in the Newcastle and Lake Macquarie LGAs.

Further, the Productivity Commission estimated that approximately 1.8% of the population aged 15-49 years would be participants of the scheme, and only the Barwon trial site is close to this rate, with the other sites having being lower.

2.0% PC estimate, 1.8% 1.8% 1.6% 1.5% 1.5% 1.5% 1 4% 1.4% 1.3%1.3%1.3% 1.2% <sup>1.3%</sup> 1.2% 1.2% 1.0% 0.8% 0.8% 0.6% 0.6% 0.5% 0.4% 0.2% 0.0% Lake Macquarie Australian Capital Perth Hills Newcastle Barwon **Territory** 30-Sep-2015 ■ 31-Dec-2015 31-Mar-2016 30-Jun-2016 ···· PC estimate

Figure 4.4 Cumulative prevalence of 25-44 year olds by site at each quarter end

## 4.3.5 Prevalence of participants aged 45-64 years

The prevalence of participants and potential participants aged 45-64 years is highest in the Newcastle LGA, followed by the Barwon trial site and lowest in the Lake Macquarie LGA. As in each of the other age groups, the potential prevalence of 45-64 year olds has increased each quarter, except in the last quarter in the Newcastle and Lake Macquarie LGAs.

Further, the Productivity Commission estimated that approximately 2.4% of the population aged 50-64 years would be participants of the scheme, and only the Newcastle LGA exceeds this rate.

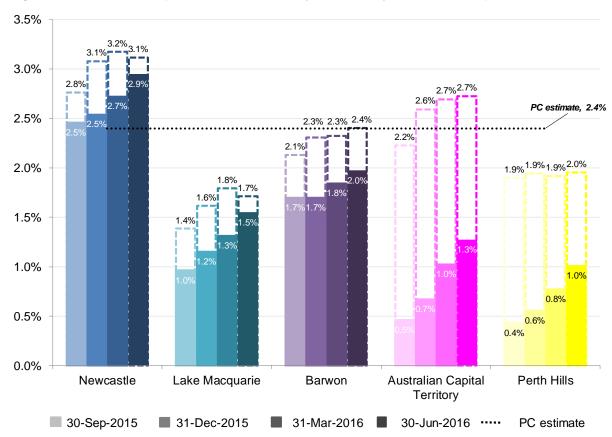


Figure 4.5 Cumulative prevalence of 45-64 year olds by site at each quarter end9

potential participants in Colanda across all ages. This has a large impact on the prevalence rates, particularly in the 45-64 year age group. Removing these participants from the analysis on 45-64 year olds decreases the prevalence rate in the last quarter to 2.3% in the Newcastle LGA and 1.9% in the Barwon trial site, and decreases the potential prevalence rates to 2.5% in the Newcastle LGA, 1.6% in the Lake Macquarie LGA and

2.3% in the Barwon trial site.

<sup>&</sup>lt;sup>9</sup> The prevalence and potential prevalence rates include participants in large residential centres. This includes Stockton in the Newcastle LGA, Kanangra in the Lake Macquarie LGA and Colanda in the Barwon trial site. At 30 June 2016 there were 304 potential participants in Stockton, 62 potential participants in Kanangra and 72

## 4.3.6 Package costs for 0-6 year olds

Package costs for 0-6 year olds at 30 June 2016 are higher in South Australia and Western Australia compared with New South Wales, Victoria and the Australian Capital Territory.

\$25,000 \$15,000 \$10,000 \$5,000 \$NSW\_HTR SA VIC ACT WA =30-Sep-2015 =31-Dec-2015 =31-Mar-2016 =30-Jun-2016

Figure 4.6 Average package costs at 30 September 2015, 31 December 2015, 31 March 2016 and 30 June 2016 of 0-6 year old participants

This is driven by the improved daily living skills support category - almost all participants receive this support and it has the highest average cost. This support category includes transdisciplinary packages.

Package costs have remained at relatively similar levels over the four quarters across most States/Territories, with the exception of Western Australia. There has been a slight average package cost increase over the last four quarters in New South Wales and Victoria.

Average package costs for 0-6 year olds in Western Australia have reduced over time, as the result of a general reduction in support need at plan review. A large number of participants have had their first plan reviews in the last quarter, and most of these reviews have resulted in lower cost plans. This is due to some of the supports provided in previous plans being removed, such as community participation and transport, as they are now considered the role of the participant's families for this young age group. Further, as the Western Australian trial site has a lower prevalence rate, it possible that children with relatively higher need are in the site and this is causing the higher package cost.

#### 4.3.7 Package costs for 7-14 year olds

The average package cost for participants aged 7-14 years is also higher in Western Australia, compared with the New South Wales and Victorian trial sites. The package costs have remained fairly steady each quarter in New South Wales. However, average package costs have dropped by over \$4,500 in Western Australia and dropped by nearly \$5,500 in the Australian Capital Territory over the last four quarters.

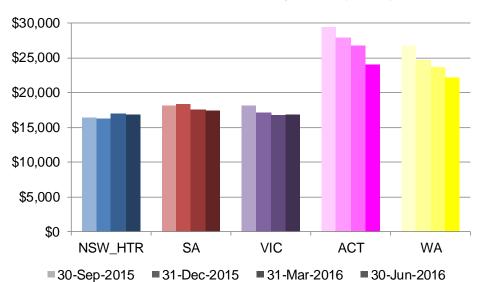


Figure 4.7 Average package costs at 30 September 2015, 31 December 2015, 31 March 2016 and 30 June 2016 of 7-14 year old participants

The higher packages in Western Australia are driven by the higher average cost of some supports in Western Australia compared with New South Wales. Specifically, improved daily living skills and assistance with daily life at home, in the community, education and at work at higher average costs than in New South Wales and Victoria. However, package costs are also reducing in Western Australia each quarter, due to a large number of participants having their first plan reviewed in the last quarter, and most of these reviews have resulted in lower costs. This is largely due to transdisciplinary supports in the previous plans of school children being converted to multi-disciplinary supports, which have a much lower support cost. There were also some supports provided in previous plans, such as community participation and transport, which are now considered the role of the participant's families for this age group. Lastly, as with 0-6 year olds, the lower prevalence rate may have resulted in relatively higher need are in the site and this is causing the higher package cost.

The higher packages in the Australian Capital Territory are driven by the use of assistance with daily life and transport to access daily activities at the highest average package costs, and participants receiving a greater number of supports in their plans on average than each of the other trial sites. However, package costs are also reducing in the Australian Capital Territory each quarter, which is driven by large cost reductions each quarter for these highest package cost support categories of assistance with daily life and transport to access daily activities.

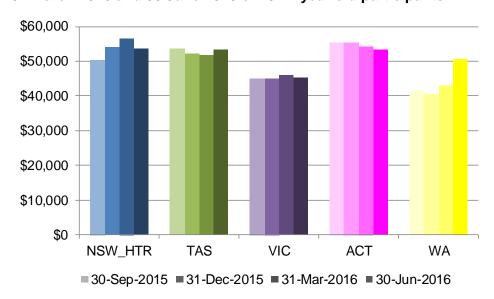
## 4.3.8 Package costs for 15-24 year olds

Comparing the trial sites that commenced in 2013-14, the average package cost is highest in the 15-24 year age group in New South Wales, followed by Tasmania and then Victoria.

There has been a decrease in the average package cost in New South Wales in the last quarter following large increases across previous quarters (12.5% increase between the September 2015 and March 2016 quarters and 5.5% decrease in the last quarter) due to new participants who have entered the scheme. These new participants entering the scheme have a lower average package cost on average.

There has been a particularly large increase in the average package cost in Western Australia in the last quarter (17.6% increase compared to a 6.3% increase in the previous two quarters). This large increase in the last quarter is largely driven by new participants entering who have a much higher average package cost then existing participants (driven by high cost community participants and participants in shared supported accommodation). Existing participants have had an increase in their average package cost in the last quarter, but at a much lower rate than these new participants. There has also been around 150 hours of support included for employment in review plans (around \$8,000 per plan) for around 270 participants aged 15 to 18 years old at school.

Figure 4.8 Average package costs at 30 September 2015, 31 December 2015, 31 March 2016 and 30 June 2016 of 15-24 year old participants



#### 4.3.9 Package costs for 25-44 year olds

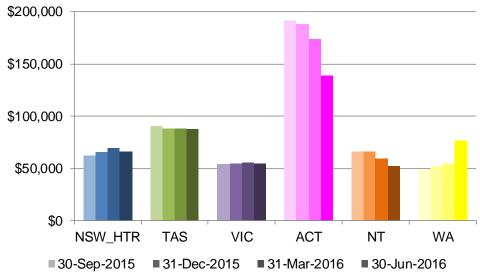
As seen for participants aged 15-24 years old, there has been a decrease in the average package cost in New South Wales for those aged 25-44 years in the last quarter following large increases across previous quarters (5.9% increase between the September 2015 and June 2016 quarters). Participants already in the scheme have consistently had average package cost increases in each quarter, compared to a large decrease in average package costs for new participants entering the NDIS in the last quarter.

There has also been a large increase in the average package in Western Australia across the last quarter, as seen for 15-24 year old participants. This is also driven by new participants entering the NDIS in the last quarter. Current participants have had more steady cost increases in their average package costs in each quarter, compared to new participants who have an average package cost in the last quarter of more than double the previous new participant's average package costs. These new participants also make up a much higher proportion of participants in the last quarter. There has been a large number of high cost participants and participants in shared supported accommodation entering the scheme in the last quarter, impacting these higher average package cost increases.

The Australian Capital Territory has a much higher average package cost than the New South Wales, Tasmanian, Victorian and Western Australian trial sites. Note: a high proportion of participants in group homes and a low proportion of participants living in the community have phased into the scheme. This is driving the substantially higher package cost for this age group in the Australian Capital Territory. However, package costs in the Australian Capital Territory have reduced significantly in the last quarter, with more of a focus on phasing people in the community into the scheme – a large proportion of the participants phasing into the scheme in the last quarter (86%) are based in the community and have a much lower average package cost than those in shared supported accommodation.

Figure 4.9 Average package costs at 30 September 2015, 31 December 2015, 31 March 2016 and 30 June 2016 of 25-44 year old participants

\$200,000



#### 4.3.10 Package costs for 45-64 year olds

There has been a decrease in the average package cost in New South Wales for those aged 45-64 years in the last quarter, more than offsetting the increases across the previous three quarters (overall there has been a decrease of around 1.6% between the September 2015 and June 2016 quarters).

The Western Australian trial site has had a particularly high increase in the average package cost in the last quarter. This is similar to the increase due to a higher average package cost for new participants for those aged 15-24 and 25-44 years, but is more extreme because of the very high proportion of participants in the last quarter who are new participants (47% compared to 15%-30% in the previous three quarters). Around 30% of these new participants entering the NDIS in the last quarter have package costs over \$200,000, compared to a much lower 5% of the existing participants in the last quarter.

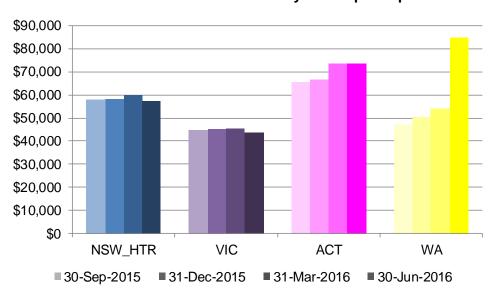


Figure 4.10 Average package costs at 30 September 2015, 31 December 2015, 31 March 2016 and 30 June 2016 of 45-64 year old participants<sup>10</sup>

## **4.3.11 Summary**

Analysis of scheme experience by age group compared with the Productivity Commission estimates indicates the following:

- The prevalence of children in the scheme (0-14 year olds) is much higher than expected.
- The prevalence of 15-24 year olds is also higher than expected when both participants and potential participants are considered. However, the magnitude of the difference is not as significant as for children.

<sup>10</sup> The participants in large residential centres across all ages make up around 25% of committed supports expected to be paid in the New South Wales (Hunter) trial site, and around 10% in the Victorian trial site.

- The prevalence of 25-64 year olds is largely in line with expectation.
- There are generally increasing trends in prevalence of participants over the four quarters to 30 June 2016.
- Package costs for children are in line with expectations (with the exception of South Australia, Western Australia and the Australian Capital Territory which are higher), but high when considering a higher number of children than expected have been found eligible for the scheme. It is not unreasonable to assume that if more children than expected come into the scheme then the package costs would be lower than the Productivity Commission estimate as children with lower support need have entered. However, this is not the case.
- Package costs for participants 15 years and over are largely in line with expectations with the exception of the Australian Capital Territory and Western Australia which are higher.

# 4.4 Trends in plan costs over time

In the above analysis, the cumulative average package cost presented each quarter includes a mix of participants who were in the scheme the previous quarter and the participants who entered in the quarter. This analysis considers the cost trajectory of participants to better understand trends in package costs.

At 30 June 2016, 54% of participants have had more than one plan, and the majority of these participants were in trial sites that commenced on 1 July 2013.

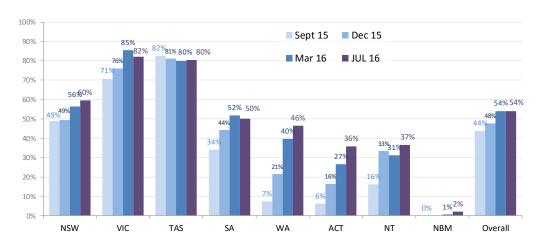


Figure 4.11 Percentage of participants with more than one plan by trial site – cumulative since scheme start

Additionally at 30 June 2016, 23% of participants have had three or more plans, and the majority of these participants were in trial sites that commenced on 1 July 2013.

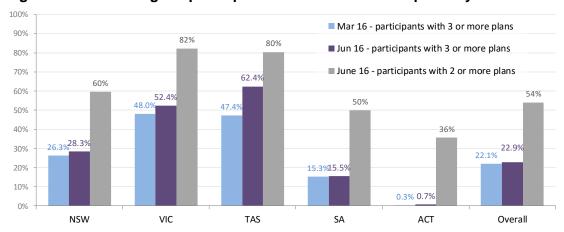


Figure 4.12 Percentage of participants with more than two plans by trial site

Participants' committed supports have tended to be revised regularly during their involvement with the scheme through plan amendments and also through formal plan reviews that occur between the end of one plan and the start of another. Figure 4.13 shows for each site how the value of committed supports has changed from the initial approval of participants' first plans to the latest amended value of their second plans. The overall change is attributed to either plan amendments or formal plan reviews.

Across all trial sites the overall change in committed supports between participants' initial approval and the latest amended version of their second plans is mainly attributable to plan amendments rather than formal plan reviews. Over 70% of the net change in participants' committed supports is attributable to plan amendments, and amendments made to participants' first plans were more significant than amendments to second plans.

In aggregate, the increasing trend in package costs for participants occurs across all trial sites. The increase differs across sites, but on the whole the increase is around 10-12% per annum, which exceeds the impacts of inflation and ageing by around 5-7%. Additional analysis was undertaken by age group and disability on cost trajectories. Cost increases were more common for participants with multiple sclerosis and cerebral palsy than participants with other disabilities, and cost increases were also more common for participants under 20 years compared with over 20 years. Nonetheless, the increases in cost were evident across all age groups and disabilities.

VIC Plan 1 Plan 1 Plan review Plan 2 Plan 2 Plan 1 Plan review Plan 2 TAS ACT SA WA 0.90% Plan 1 Plan 1 Plan 1 Plan 2 Plan 2 Plan 2 amende Plan 1 Plan 1 Plan 1 Plan 2 Plan 2

Figure 4.13 Change in committed supports between participants' first initial plan approval and their latest amended second plan for an average participant – by site

# 4.5 Analysis of entries and exits from the scheme

Section 4.3 highlighted the increasing prevalence of scheme participants aged 0-6 years and 7-14 years over the previous four quarters. This increase is due to both higher numbers of participants and also higher numbers of potential participants. Overall, there is a steady number of "new" potential participants approaching the scheme each month. "New" potential participants are people who have previously not received State/Territory or Commonwealth programs.

Table 4.2 below shows the approximate number of new people approaching the scheme each month. These numbers have remained steady over recent quarters. Numbers of new

people are as high as 300 – 600 per month in the New South Wales (Hunter) trial site<sup>11</sup> and 200 – 300 per month in the Australian Capital Territory. The numbers of new people in the South Australian trial site vary between 200 and 500 per month. In the Victorian trial site, between 100 and 200 new people still continue to approach the scheme each month.

In terms of phasing outlined in the bilateral agreements, the Victorian, Tasmanian and Northern Territory trial sites all completed phasing approximately 18 months ago, meaning very few participants previously receiving disability supports are likely to enter the scheme. This is different to other sites where phasing was still underway in 2015-16.

Hence, the continued number of potential participants approaching these sites (without tapering) is more significant.

Table 4.2 Number of people approaching the scheme each month

Site	Number of people approaching the NDIS per month	Number of participants in site at 30 June 2016				
ACT	200 – 300	5,229				
NSW (Hunter)	300 – 600	8,384				
NSW (NBM)	100 – 300	1,803				
NT (Barkly)	Up to 10	161				
SA	200 – 500	9,482				
TAS	10-15	1,358				
VIC	100 - 200	5,884				
WA	50 - 150	2,681				

Finally, analysis of participants who have exited the scheme has also been undertaken. This includes anyone previously found eligible who has chosen to leave the scheme, is deceased or has had their eligibility revoked. Analysis of exit rates indicate that approximately 1.2% of participants exit the scheme on average each year. This compares to an assumed exit rate of 2.1% per annum in the full scheme baseline actuarial model.

Further, exit rates by age group differ from expected with very low rates of children exiting the scheme. This is unexpected as a high proportion of children are expected to exit the scheme after receiving early intervention support.

-

<sup>11</sup> Note: as the Hunter trial site is still phasing, some of these participants are participants from existing programs.

Table 4.3 Exit rates by age group

Age group	Exit rate
0 to 6	0.7%
7 to 14	0.3%
15 to 24	0.8%
25 to 34	0.5%
35 to 44	0.9%
45 to 54	3.1%
55 to 64	5.2%
National	1.2%

## 4.6 Reference packages and the first plan process

To better understand scheme experience, benchmark levels of funding ("reference packages") are compared with actual package costs.

Specifically, reference packages aim to provide a benchmark level of funding support for participants with similar support needs and characteristics. They provide a link between resource allocation to individual participants and the overall funding envelope. Reference package amounts depend on the age, disability type, and level of function of the participant, as measured by the chosen assessment tools.

The Agency currently uses three categories of tools:

- Disability-specific assessments that must be completed by a medical professional (or equivalent) and cannot be administered by Agency staff. An example is the Diagnostic and Statistical Manual of Mental Disorders, Fifth edition (DSM-5) for intellectual disability and autism.
- Disability-specific assessments that can be administered by Agency staff if the score is not available. These include the Gross Motor Function Classification Scale for cerebral palsy, the Modified Rankin Scale for stroke, and Disease Steps for multiple sclerosis.
- Assessments that are not specific to a disability type and can be used where no
  disability-specific score is available or when there are no specific tools collected for a
  participant's disability type. Specifically, the PEDI-CAT can be used for children aged 020 years and the WHODAS 2.0 can be used for participants aged 15 years and over,
  across all disability types.

Note: work to determine the severity indicators to use for psychosocial disability is underway with particular focus on the Health of the Nation Outcome Scale (HoNOS) and the Life Skills Profile (LSP-16).

Information on level of function is now collected for new participants at access by the National Access Team. Where information is unable to be collected by the NAT for new participants, planners will collect and enter the data at the planning stage. In addition,

planners are also collecting data at the time of scheduled plan review for existing participants.

At 30 June 2016, data on severity had been collected on around 16,500 participants to allow these participants to be placed in a reference group and their plan compared with the reference package. This represents around 46% of participants in the scheme to date. However, it is worth noting that during trial reference packages were not being used to allocate plan resources, and that the majority of the data collection has occurred in the four months leading up until June 2016.

#### 4.6.1 Analysis of disability-specific scores

There were 5,520 participants with an approved plan in the scheme at 30 June 2016 who had a disability-specific severity score recorded. These participants were categorised by major disability group and their plan cost compared with the respective reference packages ("expected") based on level of function and age. The disability groups considered are included in Table 4.4:

Table 4.4 Major disability groups

Major disability group
Acquired brain injury
Autism
Hearing impairment
Cerebral palsy
Intellectual disability (including Down syndrome)
Multiple sclerosis
Spinal cord injury
Visual impairment
Stroke

For participants with a primary disability of autism, intellectual disability and cerebral palsy, there was a greater proportion of participants in the more severe levels than expected. Conversely, for participants with multiple sclerosis, hearing impairment and vision impairment, there were more participants in the low severity levels than expected.

Average annualised plan amounts differed significantly from expected across a number of reference groups. There appears to be a trend of higher plan costs than expected for participants with low severity and lower plan costs than expected for participants with high severity. This may reflect additional variables which impact actual support need, including

levels of informal support and early intervention/investment. For children, it is also likely to be driven by the early childhood guidelines on transdisciplinary support. Additional variables to estimate the benchmark level of support are discussed below in the first plan process.

#### 4.6.2 Analysis of the PEDI-CAT

The Paediatric Evaluation of Disability Inventory (PEDI) is a wide-ranging assessment used by physical and occupational therapists, including rehabilitation and educational professionals. The assessment is conducted through an interview with the child's caregiver and/or other significant individuals, such as a teacher.<sup>12</sup>

The PEDI-CAT is a new computer adaptive testing version of the PEDI. The PEDI-CAT software uses a computer algorithm that aims to minimise the number of questions required to estimate a child's abilities. All respondents begin with the same item in each domain in the middle of the range of difficulty or responsibility and the response to that item then dictates which item will appear next from the question bank (a harder or easier item), thus tailoring the items to the child and avoiding irrelevant items. The CAT program then displays the results instantly.

There are four key domains which are tested. The three functional domains (Daily Activities, Mobility and Social/Cognitive) can be used for children from birth through to 20 years of age. The Responsibility domain measures the extent to which the caregiver or child takes responsibility for managing complex, multi-step life tasks and is recommended for children three years of age and over. For each of the four domains normative standard scores are determined. Normative scores describe the child's performance in comparison to other children of the same age (in one year intervals). For T-scores, the mean for each age group is 50, with a standard deviation of 10. Typically, T-scores between 30 and 70 (i.e. mean  $\pm$  2 standard deviations) are considered within the expected range for age.

As at 30 June 2016, PEDI-CAT data had been collected for 4,142 participants ranging from 0 to 18 years of age. The sample consists of participants from the South Australian, Victorian, Australian Capital Territory, New South Wales (Hunter and Nepean Blue Mountains) and Western Australian sites.

The results of the PEDI-CAT were analysed across four domains: daily activities, mobility, social/cognitive and responsibility. The results differ by trial site, with the New South Wales sites (Hunter and Nepean Blue Mountains) having a higher proportion of participants with a score less than 10 ("significantly below average"), and the Australian Capital Territory trial site having a higher proportion of participants with a score over 50 ("above average"). These

<sup>13</sup> Haley S, Coster W. PEDI-CAT: Development, Standardization and Administration Manual. Boston, MA: CRECare, LLC; 2012.

<sup>&</sup>lt;sup>12</sup> Note: Neither the PEDI or the PEDI-CAT have been validated as a self-report measure for children to complete themselves.

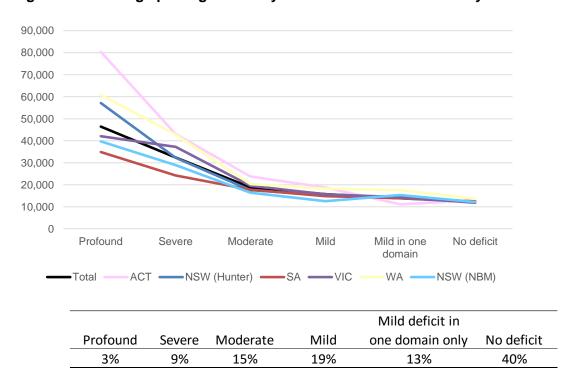
differences across sites assist in explaining the difference in prevalence for children seen in section 4.3.

When considering the results by age and cost band, there is a clear trend of increasing severity. The results also differ by disability group, with the cerebral palsy, neurological disorder and intellectual disability groups having a higher proportion of participants with scores less than 30 ("below average").

Based on the combination of PEDI-CAT scores across the four domains, participants were grouped into six severity groups: profound, severe, moderate, mild, mild in one domain, and no identified deficits. An analysis of the sample using these groupings revealed that results differ by site, disability type and age. Furthermore, there was a large proportion of participants with a mild deficit in one domain (12%) or no identified deficits (40%) compared to the normal range for their age group. Note: the normal range is considered to be within two standard deviations of the mean. Reducing the range to one and half standard deviations from the mean, results in 28% of participants with no deficit and 14% with a mild deficit in one domain. This finding assists in understanding the higher than expected prevalence of children in the scheme seen in section 4.3.

Average package costs were considered by severity group and site (Figure 4.14). There is large variation in average package costs across the sites in the profound severity group. As severity decreases, there is less differentiation in average package costs. Specifically, package costs are similar for children with no deficit, a mild deficit in one domain, mild severity, and moderate severity. This indicates a "minimum" level of funding for children entering the scheme, likely due to the current guidelines on transdisciplinary support for children.

Figure 4.14 Average package costs by trial site and level of severity



### 4.6.3 First plan process

The first plan process builds on the reference packages by asking additional questions to modify the reference package to determine a more refined benchmark cost. The questions correspond to eight domains and hence there are eight possible modifiers to the reference package.

Data on the first plan questionnaires was back-captured for around 20% of participants in order to compare benchmark costs with actual package costs. Findings from the analysis indicated that:

- The modifiers for informal supports and capacity building had the greatest impact for participants aged 15 years and over and 0-15 years respectively.
- The expected amounts based on the first plan questions was lower than participants'
  current plan amounts across most age groups and disabilities. The expected amount
  was generally lower than the plan amount for participants with high and medium levels of
  function and generally higher for participants with low level of function.
- There was a high amount of variation between actual packages and the benchmark derived from the first plan process. For adults, 35% of actual packages were within 50% of the benchmark cost and 65% were outside of this range. For children, 50% of actual packages were within 50% of the benchmark cost and 50% were outside of this range.

# 4.7 Participant outcomes and use of mainstream services

Participant outcomes are important in the context of the financial sustainability of the NDIS as participants' need to be satisfied they are getting sufficient funding to achieve outcomes under the NDIS. The NDIS Outcomes Framework monitors the progress of participants and their families/carers in key life domains. It assists with planning, benchmarking and identifying drivers of good outcomes, as well as Scheme monitoring.

Short Form and Long Form versions of the framework have been developed, and collection of both forms has commenced. The SFOF will be collected for all participants, and the LFOF for a sample of participants. Both forms will be collected longitudinally over time to enable tracking of progress.

As at 30 June 2016, 23,856 SFOF questionnaires had been completed: 13,290 for participants and 10,566 for their family/carers.

Analysis has commenced on this data and will be presented in future annual financial sustainability reports.

Participant outcomes are also impacted by the use of mainstream services. Monitoring the extent to which mainstream services are used by participants will assist in identifying any cost pressures to the scheme if mainstream service use decreases, and also any increases in social inclusion if participants use mainstream services more so over time.

Data is being linked with the income support system, and other links with administrative data sets are being pursued. This data will be useful in identifying and quantifying the use of mainstream services. This will be reported as information becomes available.

Lastly, an important aspect of the NDIS model is funding for information, linkages and capacity building (ILC). ILC supports people to access community and mainstream support. ILC was not funded during the trial phase of the NDIS – however, it will be progressively rolled out over transition, both through block grants to community organisations and through local area co-ordination. Monitoring the impact of ILC over transition will further assist in understanding outcomes and the use of mainstream services.

## 5. Current pressures

Scheme experience presented in section 4 indicates a number of pressures, including:

- Higher than expected numbers of children entering the scheme
- Increasing package costs over and above the impacts of inflation and ageing
- No slowing in the number of potential participants approaching the scheme
- Lower than expected participants exiting the scheme
- A mismatch between benchmark package costs and actual package costs in particular, higher plan costs than expected for participants with low severity and lower plan costs than expected for participants with high severity.

This section illustrates the trajectory of scheme cost, if the experience observed during the trials were to persist in the future. Strong management responses have been developed that will address these trends. However, their potential effect is presented here to underline the importance of these impacts.

The trial sites most suitable for this analysis are the Barwon and Hunter sites as they commenced in 1 July 2013 for participants under the age of 65 years. This section projects the current costs of these trial sites (if fully rolled-out in 2015-16) until 2020-21 based on the trends outlined above.

#### 5.1.1 Analysis of Barwon trial site

As at 30 June 2016, 5,284 participants with an approved plan were in the Barwon trial site and the annual amount committed to these participants was \$213.5 million (allowing for participants who live in permanent residential aged care).<sup>14</sup>

There are a further 600 participants in the site without an approved plan. Including these participants in the cost estimate using data on their characteristics results in an annual cost of \$225.8 million.

An additional 1,195 potential participants are currently recorded in the ICT system, 168 participants have exited the scheme, and 137 are identified as over the age of 65 years. Attributing costs to these groups of potential participants (in addition to the above participants) results in an annual cost in 2015-16 of \$243.2 million (Table 5.1).

<sup>&</sup>lt;sup>14</sup> Information on participants in residential aged care is based on data obtained from the Department of Social Services. Data is at 30 June 2016.

Table 5.1 Estimated cost of participants and potential participants - Barwon – 30 June 2016

Description		Number of people	Estimated total annualised cost	Estimated average cost
Approved plans, as recorded in Siebel	(1a)	5,284	\$205.3m	\$38,900
Additional cost of providing supported accommodation places to aged care participants	(1b)		\$8.1m	
Approved plans with allowance for aged care cost	(1c) = (1a) + (1b)	5,284	\$213.5m	\$40,400
Eligible but no approved plan to date	(2)	600	\$12.3m	\$20,500
Total participants	(3) = (1c) + (2)	5,884	\$225.8m	\$38,400
Number of people in Siebel who may become eligible in the future	(4)	749	\$14.6m	\$19,500
Total number of people in Siebel who may be eligible	(5) = (3) + (4)	6,633	\$240.4m	\$36,200
Number of people in section 55 data (not in Siebel) that may become eligible	(6)	202	\$4.9m	\$24,500
Estimated number of people in aged care	(7)	17	\$2.6m	\$153,000
Total potentially eligible	(8) = (5) + (6) + (7)	6,852	\$247.9m	\$36,200
Withdrawn	(9)	227	\$5.1m	\$22,600
Total participants and potential participants	(10) = (8) + (9)	7,079	\$253.0m	\$35,700
Participants who have left the scheme	(11)	-168	-\$4.9m	\$28,900
Total active participants and potential participants	(12) = (10) - (11)	6,911	\$248.2m	\$35,900
Number of eligible participants aged over 65	(13)	-137	-\$4.9m	\$36,100
Total active participants and potential participants aged under 65	(14) = (12) - (13)	6,774	\$243.2m	\$35,900

Note: in addition to the above, 381 people have been found ineligible for the scheme. A further 655 declined to phase-in to the scheme - work has been done at the trial site to review this group and confirm they do not wish to phase-in.

There is uncertainty in the number of current potential participants who will phase into the scheme. Table 5.2 shows how the total annual cost varies depending on the proportion of potential participants included in the estimate.

Table 5.2 Estimated cost of participants and potential participants (sensitivity analysis) - Barwon – 30 June 2016

Proportion of potential participants that enter the scheme*	Total participants	Total annualised cost	Estimated cost in the actuarial baseline model	Cost as a % of actuarial estimate
0%	5,579	\$216.0m	\$223.9m	96%
25%	5,878	\$222.8m	\$223.9m	100%
50%	6,177	\$229.6m	\$223.9m	103%
75%	6,475	\$236.4m	\$223.9m	106%
100%	6,774	\$243.2m	\$223.9m	109%

<sup>\*</sup> Potential participants include people in groups (4), (6), (7) and (9) in the previous table.

The results indicate that if 25% of potential participants are included, the number of participants is estimated at 5,878 and the total annual cost is estimated at \$222.8 million, or 100% of the cost in the baseline model. If 75% of potential participants are included, participant numbers are estimated at 6,475 and total annual cost at \$236.4 million, or 106% of the cost in the baseline model. These results reflect the high uncertainty in the number of participants that will enter the scheme and the resulting cost.

This estimate of the full cost of the Barwon trial site in 2015-16 has increased from between 85% and 95%<sup>16</sup> of the Productivity Commission estimate to between 100% and 110% of the Productivity Commission between 30 June 2015 and 30 June 2016. This has been driven by the high number of new potential participants approaching the scheme (100-200 per month) and increasing package costs for participants already in the scheme.

#### **5.1.2 Hunter**

The same methodology described above to estimate the cost of the Barwon trial was used to estimate the cost of the Hunter trial site.

As at 30 June 2016, 7,629 participants with an approved plan were in the Hunter trial site and the annual amount committed to these participants was \$416.0 million (allowing for participants who live in permanent residential aged care).<sup>17</sup>

There are a further 515 participants in the site without an approved plan. Including these participants in the cost estimate using data on their characteristics results in an annual cost of \$431.7 million.

An additional 1,094 potential participants are currently in the ICT system, 234 participants have exited the scheme, and 161 are identified as over the age of 65 years. Attributing costs to these groups of potential participants (in addition to the above participants) results in an annual cost in 2015-16 of \$443.2 million (Table 5.3).

<sup>16</sup> Note: the 2014-15 annual financial sustainability report included a figure of 90% to 100%. This figure did not take into account people who had exited and turned 65 years.

<sup>&</sup>lt;sup>15</sup> Note: user cost of capital is excluded from this amount and Colanda has been explicitly taken into account by increasing the total cost accordingly to allow for concentration of high cost participants.

<sup>&</sup>lt;sup>17</sup> Information on participants in residential aged care is based on data obtained from the Department of Social Services. Data is at 30 June 2016.

Table 5.3 Estimated cost of participants and potential participants - Hunter – 30 June 2016<sup>18</sup>

Description		Number of people	Total annualised cost	Average annualised cost
Approved plans, as recorded in Siebel	(1a)	7,629	\$402.2m	\$52,700
Additional cost of providing supported accommodation places to aged care participants	(1b)		\$13.7m	
Approved plans with allowance for aged care cost	(1c) = (1a) + (1b)	7,629	\$416.0m	\$54,500
Eligible but no approved plan to date	(2)	515	\$15.7m	\$30,600
Total participants	(3) = (1c) + (2)	8,144	\$431.7m	\$53,000
Number of people in Siebel who are yet to have their eligibility assessed	(4)	572	\$14.5m	\$25,300
Total number of people in Siebel who may be eligible	(5) = (3) + (4)	8,716	\$446.2m	\$51,200
Number of people in section 55 data (not in Siebel) that may become eligible	(6)	196	\$6.3m	\$32,300
Estimated number of people in aged care and psychosocial disability programs	(7)	36 - 127	\$6.7m - \$9.7m	\$76,400 - \$184,900
Total potentially eligible and new participants	(9) = (5) + (6) + (7) + (8)	8,948 - 9,039	\$459.2m - \$462.2m	\$51,100 - \$51,300
Withdrawn	(10)	244	\$6.3m	\$26,000
Total participants and potential participants	(11) = (9) + (10)	9,192 - 9,283	\$465.5m - \$468.6m	\$50,500 - \$50,600
Participants who have left the scheme	(12)	-234	-\$12.7m	\$54,500
Total active participants and potential participants	(13) = (11) - (12)	8,958 - 9,049	\$452.8m - \$455.8m	\$50,400 - \$50,500
Number of eligible participants aged over 65	(14)	-161	-\$11.1m	\$68,800
Total active participants and potential participants aged under 65	(15) = (13) - (14)	8,797 - 8,888	\$441.7m - \$444.7m	\$50,000 - \$50,200

There is uncertainty in the number of potential participants who will phase into the scheme. Table 5.4 shows how the total annual cost varies depending on the proportion of potential participants included in the estimate.

\_

<sup>&</sup>lt;sup>18</sup> In the table row (7) is presented as a range as it is based on advice from the trial site who had discussions with community mental health teams in the area, rather than a potential participant list.

Table 5.4 Estimated cost of participants and potential participants (sensitivity analysis) - Hunter – 30 June 2016

Proportion of potential participants that enter the scheme*	Total participants**	Total annualised cost**	Estimated cost in the actuarial baseline model	Cost as a % of actuarial estimate
0%	7,749	\$407.9m	\$439.6m	93%
25%	8,022	\$416.7m	\$439.6m	95%
50%	8,296	\$425.5m	\$439.6m	97%
75%	8,569	\$434.4m	\$439.6m	99%
100%	8,843	\$443.2m	\$439.6m	101%

<sup>\*</sup> Potential participants include people in groups (4), (6), (7), (8) and (10) in the previous table.

The results indicate that if 25% of potential participants are included, the number of participants is estimated at 8,022 and the total annual cost is estimated at \$416.7 million, or 95% of the cost in the baseline model. If 75% of potential participants are included, participant numbers are estimated at 8,569 and the total annual cost at \$434.1 million, or 99% of the cost in the actuarial model. These results reflect the high uncertainty in the number of participants that will be found eligible for the scheme (around 300 – 600 per month, noting that some of these participants are through phasing of existing programs).

This estimate of the cost of the Hunter trial site was not undertaken at 30 June 2015 due to the phasing schedule in this site. However, specific analysis of the Newcastle LGA was undertaken. The Newcastle LGA was estimated to within 85% to 95%<sup>20</sup> of the Productivity Commission estimate at 30 June 2015. This compares with the Hunter trial site as a whole at between 90% and 105% at 30 June 2016. As with the Barwon trial site, the higher upper range has been driven by the high number of new participants approaching the scheme and increasing package costs for participants in the already in the scheme. However, the Hunter trial site is less developed than the Barwon trial site due to the phasing schedule. That is, a higher number of participants phased into the scheme in 2015-16 compared with 2013-14 and 2014-15.

### **5.1.3 Summary**

The previous section found that both Hunter and Barwon appear to be tracking broadly in line with Productivity Commission estimates. However, the future cost trajectory for the sites was not considered. This section looks briefly at what could happen if some of the adverse trends which have emerged were allowed to persist without management response. The purpose is to highlight how even minor deterioration in experience can have a compounding cost impact if not addressed. Barwon is considered first.

<sup>\*\*</sup> These numbers assume that the number of potential participants is half way between the maximum and minimum value in the previous table.

<sup>&</sup>lt;sup>19</sup> Note: user cost of capital is excluded from this amount and Stockton and Kanangra have explicitly taken into account by increasing the total cost accordingly.

<sup>&</sup>lt;sup>20</sup> Note: the 2014-15 annual financial sustainability report included a figure of 90% to 100%. This figure did not take into account people who had exited and turned 65 years.

- The starting point of the hypothetical projection is 2015-16 and 50% of the potential participants are included resulting in a 2015-16 cost of \$229.6 million. This starting point is in line with the Productivity Commission estimate for 2015-16 (only 3% higher).
- The number of people approaching the scheme and going through the access request process remain the same as seen during the trial. This results in an additional 75<sup>21</sup> participants per month, compared with the baseline estimate of 20 participants per month.
- The number of participants exiting the scheme remains the same as seen during the trial. The exit rate seen during trial was 1.2% compared with the 2.1% in the baseline model.
- Packages costs increase over and above inflation by approximately 6% per annum ("super-imposed inflation") which was the rate observed during trial.

Projecting costs for the Barwon trial site using the trends observed during trial on people approaching the NDIS and undergoing the access request process, participants exiting the scheme, and the superimposed inflation in package costs, results in costs of 74% higher than expected in 2021-22.

The same projection using the Hunter trial site results in costs of 86% higher than expected in 2021-22.

The scenarios presented above arguably represent extreme cases. However, they are based on the actual experience observed during the trials in these two sites. Moreover, even apparently minor deterioration in experience can have adverse cost impacts if left unchecked, although this will take longer to emerge. For example, suppose that the rate at which new participants are admitted into the scheme reverts to expected levels after only one more year of poor experience and suppose superimposed inflation is reduced from 6% per annum to only 1% per annum (that is, if average packages increase annually at only \$10 per \$1,000 package rather than \$60 per \$1,000 package over and above the necessary increases due to wage inflation and ageing). In this circumstance costs would be 20%-30% higher than expected, although this would not happen for around 10 years.

This analysis highlights that:

 The ultimate costs of the scheme will be highly dependent on the number of entrants and on any superimposed inflation in package costs.

 If future scheme experience is in line with the experience observed during trial in the Barwon and Hunter sites, the costs of the scheme will not be sustainable.

Importantly these cost drivers have been identified at a time when costs are still within a reasonable range of the Productivity Commission estimate. Strong management responses

<sup>&</sup>lt;sup>21</sup> Approximately 150 people approach the site each month – however, additional analysis suggests that around 50% do not continue with the access request process.

have been developed to respond to these trends, and these responses are intended to bring experience back into line with what was estimated by the Productivity Commission. These responses and their impact are outlined in the next section of this report.

## 6. Managing financial sustainability

### 6.1 Management responses to experience

The above analysis indicates that scheme costs could exceed the Productivity Commission estimates if the recent trends in the experience persisted and if responses to the emerging experience were not implemented. However, as the data and evidence is available to understand what is driving these costs, operational responses are underway to address the drivers. Two specific initiatives are the Early Childhood Early Intervention (ECEI) approach and the reference package and first plan approach. These initiatives need to be fully implemented as quickly as possible, recognising the change management process required to move from existing practices to these new approaches.

In addition to these two initiatives, NDIA management has put in place a Sustainability and Liability Review Working Group led by the CEO to oversee the initiatives addressing the cost drivers identified above.

#### 6.1.1 Early Childhood Early Intervention (ECEI) approach

The ECEI approach commenced in Nepean Blue Mountains in October 2015 and is being progressively rolled out, with Far North Queensland and South Australia also having commenced.

The ECEI approach provides a gateway to the NDIS for children 0-6 years, which aims to ensure only children meeting the eligibly criteria for the NDIS enter as a participant. The gateway also provides support for children to access mainstream and community services when they do not meet the criteria, but need some support to access these services.

In order to address the cost drivers identified above, the ECEI approach needs to address the following:

- Access to scheme
- Package costs based on a distribution of support need determined by data collection
- Exit from the scheme including the length of time in the scheme under the early intervention criteria (section 25 of the NDIS Act).

#### **Access**

Analysis of PEDI-CAT data (section 4.6.2) indicated that 40% of children entering the scheme did not have a functional deficit within two standard deviations of the mean in any domain, and a further 12% had a mild functional deficit in only one domain. Using this tool as part of the eligibility criteria for the scheme would assist in reducing the prevalence of children in the scheme. Current prevalence rates of approximately 4.5% would be reduced to

around 3% if these children did not access the scheme.<sup>22</sup> These children could be supported within the ECEI gateway recognising that a criteria to be supported in the gateway is also required to reduce administrative burden. The gateway approach is in line with the Tier 2 approach outlined by the Productivity Commission.

Current prevalence rates for children in the scheme are driven in part by higher numbers of children with developmental delay than expected. The Early Childhood Early Intervention team at the NDIA has developed comprehensive training to support Early Childhood partners and delegates of the Scheme to understand and interpret the developmental delay criteria within the NDIS Act. The information and training developed assists in determining whether a delay has led to a substantial reduction in functional capacity and how delegates may be assisted by considering the result for the child in comparison to the result for other children of the same age. This will assist in ensuring that only children who meet these requirements progress through for a reasonable and necessary support plan.

Further, changes have been made to Operational Guideline on Access<sup>23</sup> to provide information to assist in determining whether a child has a developmental delay that meets the access criteria of NDIS Act, that is:

- Substantial reduced functional capacity relating to the child's daily routines and daily activities.
- Incorporates current best practice in early childhood intervention functional based
  assessments using developmental screening tools to evidence the degree of delay in a
  child's development (including the PEDI-CAT). Developmental screening identifies areas
  in which a child's development differs from same age norms and identifies children
  presenting with developmental delay.
- Includes reporting of comprehensive assessments that include clear evidence of the child's current level of functioning, and comparison to normative data on the domain of development, and
- Requires that there is evidence for the 'need for a combination and sequence of special interdisciplinary or generic care, treatment or other services that are of extended duration and are individually planned and coordinated'.

Lastly, work to remove lists of diagnostic conditions that result in automatic entrance to the scheme has commenced. These lists are likely being gamed so children can come into the NDIS (for example, a higher number of participants aged 7 years and older had a diagnosis of autism with a Level 2 rating using the DSM-5 than expected, which corresponds to the criteria required for automatic entry into the scheme).

-

<sup>&</sup>lt;sup>22</sup> Note: 3% is in line with expectations.

<sup>&</sup>lt;sup>23</sup> Currently in draft status.

#### Package costs

Current Operational Guidelines on Early Childhood packages recommend a transdisciplinary approach of which there are three levels - \$8,000, \$12,000 and \$16,000. Children can get additional supports (for example, respite and transport) on top of the transdisciplinary supports. This has resulted in packages being "clustered" around these benchmarks. In particular, the analysis of the PEDI-CAT data indicates no significant difference between packages for children with no functional deficit, a mild deficit in one domain, or mild and moderate levels.

The ECEI team at the NDIA is working to phase out the transdisciplinary support line item from the support catalogue and are supporting partners and staff to develop plans that are completely reflective of a child's reasonable and necessary support needs. The three levels of transdisciplinary packages will not be used for new participants entering the Scheme or plan reviews going forward. This means that funding to support the delivery of a transdisciplinary package or early childhood intervention support will not be aligned to one of three levels but will be an amount reflective of the individual child and their family's needs.

The analysis of the PEDI-CAT indicates that grouping of children based on their level of function is possible and that this could be used to determine benchmark funding levels (that is, reference packages). An expert group is working with the NDIA to "stress-test" these benchmark funding levels.

#### **Exit from the NDIS**

For children in the NDIS under the early intervention criteria, guidelines to assist in exiting children from the scheme are required. In the first instance the children with current PEDI-CAT scores with no functional deficit or a mild functional deficit will be reviewed at plan review with the aim of exiting these children from the scheme. Further, the PEDI-CAT can be used to measure functional improvement over time and assist with determining when participants exit the scheme from early intervention.

In addition to this, the ECEI team at the NDIA has developed training and information to assist with plan reviews. Children who have entered the Scheme under the early intervention requirements will be reassessed and where they continue to meet the developmental delay criteria, the delegate needs to be satisfied that the early intervention supports are continuing to reduce the need for future supports. This includes requesting information from providers that assists the delegate to make appropriate decisions and determination about any future supports required. Further, if the child does not require additional supports a transition plan to exit the child to mainstream/community supports should be developed.

#### 6.1.2 Reference packages and the first plan approach

The escalation in package costs evident throughout the trial is reflective of the "bottom-up" planning process, which results in individual lines items going into plans and being added/increased over time. The package amount was based on the judgment of the planner

using the Operational Guidelines without reference to a benchmark amount (the "reference package"). This process was not consistent with the insurance principles of the NDIS.

Reference packages were part of the original design of the NDIS outlined by the Productivity Commission – however, were not implemented at the commencement of the scheme due to the fast implementation. The reference packages were developed in conjunction with expert groups and have been incorporated into business processes and the new CRM.

The first plan process, also known as the guided planning process, builds on the reference package concept. It is a method for determining the indicative amount of funded supports for participants when they first enter the scheme. This planning approach first determines a base amount of funded supports for participants with similar characteristics depending on their age, disability and level of function (that is, the reference package). Each participant is assessed by a series of questions that measure the level of supports required in eight life domains. The modifiers mapped to these levels will determine the percentage change in base amount of funded supports for each individual participant. This amount is the expected amount of funded supports.

The expected amount provides a benchmark for planners when they construct the first plan with participants entering into the scheme from 1 July 2016. The questionnaires were drafted and reviewed by Agency staff. There are two sets of questionnaires, one for participants aged 0-15 years and one for participants aged 15 years and over. The questionnaires result in the following modifiers:

- Informal supports
- Social participation
- Home modifications
- Assistive technology
- Consumables
- Capacity building
- Coordination of supports
- Transport.

Whilst there is work to do to modify questions to allow better discrimination between levels of supports, and assist in better explaining the variation between first plan amount and current amount of funded supports, this overall approach to determining funding should result in a reduction in the escalation of package costs. The approach effectively results in a participant getting a "reasonable and necessary" budget from which to begin planning supports to meet their goals. Further, the approach is incorporated into business process and built into the new CRM making the data collection "on-system" and intuitive to follow. This process in the CRM also does not allow plans to be amended. The amounts in plans can only be adjusted through formal plan reviews, which should also reduce upward pressure on plans.

It is also important to note that benchmark values determined by the first plan process have been derived from the funding envelope. If the numbers of participants are in line with expected, and packages of support are in line with these benchmarks, then the scheme will be in line with the baseline projection.

As many current plans differ from the expected benchmark amount, the plan review process will need focus on understanding the differences between the current plan and the benchmark amount derived from the first plan process. Importantly, where package amounts do differ from the benchmark, where possible strategies to bring these packages more in line with expectations are required.

#### 6.1.3 Further Sustainability and Liability Review Initiatives

In addition to the two initiative discussed above. The following work is underway as part of the Sustainability and Liability review to address observed risks before they impact scheme costs:

- Analysis of reasonable and necessary costs across the lifespan with emphasis on levels
  of community participation and supports to live outside of the family home (including
  supported independent living). This analysis leverages work undertaken by the
  Independent Advisory Council (IAC) on reasonable and necessary support.
- Development of guidelines on reasonable levels of family support across the lifespan.
- Analysis of the possibility of a gateway for people with psychosocial disability to make sure that the right people with psychosocial disability enter the scheme and that people are supported to access mainstream and community services. Further, work on reference packages for people with psychosocial disability is also underway.
- Further guidance on chronic health conditions and the role of other support systems in supporting people with chronic health conditions.
- Investment in the School Leavers Employment Support initiative to assist school leavers into employment. This initiative also has the potential for wider economic benefits, such as reduced reliance on income support.

### **6.1.4 Change management**

The initiatives outlined above, in particular the ECEI approach and the reference package and first plan approach, are big shifts from the current approach. The current approach of levels of transdisciplinary packages with limited distinction between varying levels of functional support need, and deriving the plan from a number of support line items, has resulted in package cost escalation. Replacing this approach with a more robust analysis of function and need using the first plan process will result in participants receiving a budget from which to plan their supports to meet their goals. Specifically the change management process would need to include:

- Training for staff and ECEI partners in the new approaches, along with appropriate support.
- Communication to the sector on the approaches, along with working with the sector to achieve the intended outcomes of the NDIS.
- Project management to oversee the implementation of the initiatives.

#### 6.1.5 Monitoring and evaluation

The initiatives will require a monitoring and evaluation framework. A monitoring and evaluation framework for the ECEI approach has been developed and is being implemented in the sites. Results of this monitoring and evaluation will be reported to the Sustainability Committee. This framework focuses on outcomes for children, including diversion from the NDIS, and using mainstream and community services as appropriate.

Reference packages and the first plan approach has been implemented in the new CRM. This will allow continuous monitoring of actual package costs with benchmark costs. This comparison will also be reported to the Sustainability Committee. Further, this reporting will include performance metrics at the individual planner/local area coordinator level in order to make sure training and guidance is provided where needed.

# 6.2 Management of other risks to financial sustainability

Section 6.1 detailed the current management responses to address cost drivers. This section lists additional risks over the transition period that are still relevant to the roll-out of the NDIS.

- Sector capacity. The service provider sector will need to expand and change to meet the increased demand as the NDIS ramps up to full scheme. If demand increases at a rate that is faster than supply, then, at best, inflationary pressure will emerge. At worst, confidence in the scheme could be compromised. The market needs to expand at between 20% and 30% per annum over the three years (2016-17 to 2018-19) to meet the expected transition timetable. Work to understand the extent to which the market can grow at these rates has been undertaken but has been largely inconclusive due to the lack of data on the current market. Monitoring of market expansion will be required throughout transition.
- Mainstream services need to bolster their support to people with a disability and meet their requirements under the National Disability Strategy.

Appeals made to the Administrative Appeals Tribunal (AAT) provide some indication of possible mainstream service interface issues. Participants have appealed to the AAT for the NDIA to fund such things as medical equipment, which is traditionally provided by the

health system. Further, a person not found eligible for the scheme who presented with several health conditions (chronic back pain, obesity, diabetes, a heart condition, and depression), has appealed to the AAT to be found eligible, along with a child with Type I diabetes. Eligibility to the scheme is not based on condition - moreover, it is worth noting that the original scheme costings excluded people with these health-related conditions.

• The NDIA requires a sufficient operating budget to monitor and manage financial sustainability. The government has stipulated that the operating budget cannot be higher than 7% of package costs at full scheme. It is worth noting that a 10% increase in the operating budget may result in additional expenditure of approximately \$150 million at full scheme, however an increase in package costs of 10% could result in an additional \$2 billion at full scheme. It is worth investing in the resources required to make sure that package costs remain within expectations. Comparable schemes in the statutory insurance sector, with many years of experience, regard budget efficiency as higher than 7% of costs.<sup>24</sup>

A detailed activity-based costing was undertaken of the proposed Service Delivery Operating Model (SDOM), bearing in mind the operational budget. This costing remains within 7% of package costs.

 Participants in the scheme need support to be able to build their capacity and exercise choice and control.

During the three years of trial less than 100% of support in plans has been utilised. Work undertaken with Operations indicates that the main reason supports are not being utilised is due to participants not implementing their plans. Work to further support participants with plan implementation is underway, such as funding support co-ordination and holding plan implementation workshops.

 Information, Linkages and Capacity Building (ILC), along with local area co-ordination, needs to be adequately funded to divert people from the NDIS where appropriate, and reduce the need for funded supports (through the use of mainstream and community supports where possible).

The importance of the information, linkages, referral and capacity building function is recognised in the current proposal for full scheme roll-out and the work on the Service Delivery Operating Model. The bilateral agreements for full scheme roll-out in New South Wales and Victoria include bringing forward the local area coordination and information, linkages, referral and capacity building to six months in advance of participants entering the scheme.

In-kind supports cannot be included in full scheme.

During transition, several supports will be provided to participants by jurisdictions as an in kind contribution to the costs of the Scheme. In large part these in kind supports are

<sup>&</sup>lt;sup>24</sup> Accident compensation schemes typically have operating costs between 9-12% of expenditure.

supports that are difficult for the jurisdiction to cease funding or convert to cash. Examples include supported accommodation, other state-owned and operated disability supports (e.g. respite or therapy), and block-funded NGO-operated supports that covered a broader client base than just trial participants.

These in kind supports created several issues, namely:

- In many cases, they will be provided at a unit cost that was higher than the unit price of a corresponding support in the NDIA support catalogue.
- They limited choice and control for participants.
- Accounting for in kind supports in individual plans is administratively burdensome.

### **Appendix A Actuarial control cycle**

#### Introduction

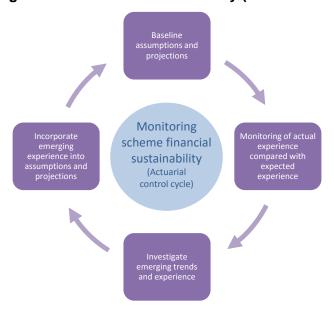
The actuarial control cycle is the methodology for monitoring scheme financial sustainability. This framework allows for continuous evaluation of the NDIS.

At a high level the key features of the actuarial control cycle are (Figure A.1):

- Setting of baseline assumptions and projections including estimates of aggregate
  participant numbers and costs, participant numbers broken down into reference groups,
  and estimates of the distribution of annual and lifetime costs associated with each
  reference group. These baseline assumptions are used to project scheme costs both on
  an aggregated and disaggregated basis.
- Monitoring of experience compared with expectations this requires monitoring
  participant outcomes and scheme costs based on a wide range of variables, both in
  aggregate and at the reference group level.
- Investigation of emerging trends and experience using the information obtained in the monitoring, detailed analysis of where and why actual experience has deviated from expected experience is undertaken.
- The **emerging experience** identified in the monitoring and investigation is **incorporated into assumptions and projections** going forward.

A key feature of the actuarial control cycle is the continuous and cyclical nature of the process – this allows continuous evaluation of performance, both participant outcomes and scheme financial sustainability. This cycle is described in more detail in the remainder of this section.

Figure A.1 Monitoring scheme financial sustainability (actuarial control cycle)



## **Baseline projections**

An aggregate estimate of the number of people likely to receive an individualised support package under the NDIS and the cost of these support packages was derived by the Productivity Commission – approximately 432,100 people and \$16.5 billion (in 2015-16 values). A key purpose of the cycle of actuarial valuations (including this financial sustainability report) is to test the reasonableness of these estimates and to refine them as appropriate.

Additional assumptions have been developed to assist in monitoring the cost of supporting participants over their lifetime. These assumptions enhance the Productivity Commission modelling by determining the trajectory of costs - however, the overall Productivity Commission modelling parameters remain the same.

These additional assumptions divide the aggregate participant numbers into reference groups. Reference groups are groups of participants with similar characteristics. For each reference group:

- An average estimated expected cost (both an annual expected cost and an expected lifetime cost) was determined.<sup>25</sup>
- Assumptions on new incidence, mortality, and rates of exiting the scheme were determined.

Key variables in the reference groups are:

- Age costs are assumed to increase with age.<sup>26</sup>
- Disability this assists with projecting the trajectory of costs over time. For example, participants with degenerative disabilities are likely to require more support over time more quickly than participants without degenerative conditions.
- Severity indicators providing information on function.
- Level of informal/community support available.

Further information on reference packages is included in section 0.

In addition to the assumptions discussed above, it is also important to establish baseline participant outcomes across the lifespan, including key life transition points (such as starting school, entering the workforce, and leaving home). A participant outcomes framework has been developed and focuses on a number of domains across the life span. Underpinning the

<sup>&</sup>lt;sup>25</sup> Note: when these average annual costs are multiplied by the number of participants in each cohort, the total cost of support

packages is \$16.5 billion. This average cost assigned to each cohort is the reference package.

26 The Productivity Commission assumed that for children aged 0-14 years, 30% of the average per person cost was assumed to be met by the NDIS.

outcomes framework are the principles of independence, self-management, social inclusion, and economic participation. The adult participant domains are:

- choice and control
- daily activities
- relationships
- home
- health and wellbeing
- lifelong learning
- work
- social, community and civic participation.

Family/carer outcomes are also collected.

#### Monitoring and investigation of actual experience

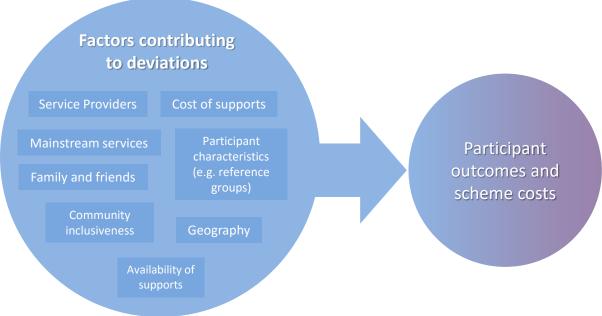
Actual experience is compared with expected experience and detailed analysis of deviations undertaken. The expected experience is derived from the baseline assumptions. Deviations include:

- higher or lower number of participants
- higher or lower scheme costs
- · better or worse participant outcomes.

Detailed actuarial analysis as to the reasons for these deviations between actual and expected experience is then possible. Possible drivers of deviations include (Figure A.2):

- specific participant characteristics (as determined using the reference group data)
- geography and community inclusiveness
- support from family and friends
- service providers
- availability of supports
- cost of supports both unit cost and intensity of utilisation
- local area coordination and planning
- use of mainstream services.

Figure A.2 Monitoring participant outcomes and costs



This new scheme experience is incorporated into scheme projections and forms the new baseline assumptions.

#### **Continuous improvement**

The actuarial control cycle is the methodology for monitoring financial sustainability and participant outcomes. This methodology allows for continuous evaluation, and provides NDIA management and the NDIA Board with the information required to make decisions to continue to manage financial sustainability and improve participant outcomes.

As the scheme experience emerges this methodology will allow:

- Identification of successful early investment which leads to good outcomes, including detailed benefit-cost analysis. Life trajectories can be measured and compared for participants with similar characteristics.
- Identification of models of support which lead to increased independence by monitoring life trajectories.
- Benchmarking of participant groups across a number of factors including geography.
- Measurement of the change over time with regards to participant outcomes related to personal goals.
- Measurement of the reduction in the gap between Australia and other OECD countries in including people with a disability in society.
- Measurement of the reduction in the gap between people with a disability and people without a disability in Australia.

Importantly this analysis happens continuously – hence, continuous evaluation of the scheme, and distinguishes the insurance model from "time-limited evaluation". This fundamental characteristic of the scheme reinforces the need for rigorous longitudinal data on scheme participants (discussed in section 2.1).

# **Appendix B Assumptions used in baseline projections**

This appendix details the assumptions used in the projections.

#### Breakdown of eligible participants at full scheme

Table B.1 Breakdown of eligible participants by age

Age group	%
0-4 years	6%
5-12 years	20%
13-18 years	9%
19-24 years	9%
25 - 34 years	14%
35 - 44 years	13%
45 - 54 years	14%
55 - 64 years	15%
Total	100%

Table B.2 Breakdown of eligible participants by disability

Disability	%
Acquired brain injury	3%
Autism	19%
Cerebral Palsy	5%
Deafness	3%
Down syndrome	5%
Intellectual disability	29%
Mental health	16%
Physical	4%
Sensory	1%
Paralysis	1%
Sight	2%
Stroke	1%
Multiple Sclerosis	2%
Other neurological	7%
Total	100%

Note: developmental delay and global developmental delay are included in intellectual disability.

## Exit rates by age and disability

Table B.3 Exit rate by age

Age group	2020	2025	2030	2035	2040
0-4 years	-0.3%	-0.2%	-0.2%	-0.2%	-0.2%
5-12 years	-3.1%	-3.1%	-3.3%	-3.2%	-3.2%
13-18 years	-9.1%	-10.1%	-10.6%	-10.4%	-10.4%
19-24 years	-1.8%	-2.2%	-1.8%	-2.2%	-2.1%
25 - 34 years	-0.9%	-0.8%	-0.9%	-0.8%	-0.9%
35 - 44 years	-0.4%	-0.5%	-0.5%	-0.5%	-0.5%
45 - 54 years	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%
55 - 64 years	-1.3%	-1.4%	-1.3%	-1.4%	-1.3%
65 + years		-3.0%	-3.6%	-4.5%	-5.4%
Total	-2.1%	-2.3%	-2.5%	-2.7%	-2.8%

Table B.4 Exit rate by disability

Disability	2020	2025	2030	2035	2040
Acquired brain injury	-0.5%	-0.6%	-0.8%	-1.0%	-1.3%
Autism	-7.2%	-7.7%	-8.0%	-8.3%	-8.2%
Cerebral Palsy	-0.4%	-0.5%	-0.7%	-0.8%	-1.0%
Deafness	-1.7%	-1.8%	-1.9%	-2.1%	-2.3%
Congenital malformations	-0.2%	-0.3%	-0.4%	-0.6%	-0.7%
Intellectual disability	-1.0%	-1.1%	-1.2%	-1.4%	-1.5%
Mental health	-0.4%	-0.6%	-0.8%	-1.1%	-1.4%
Physical	-0.5%	-0.7%	-1.1%	-1.6%	-2.1%
Sensory	-5.9%	-5.7%	-5.6%	-5.7%	-5.7%
Paralysis	-0.9%	-1.1%	-1.5%	-1.8%	-2.2%
Sight	-0.5%	-0.7%	-0.9%	-1.2%	-1.6%
Stroke	-3.8%	-5.7%	-6.9%	-7.1%	-7.2%
Multiple Sclerosis	-2.9%	-3.6%	-4.2%	-4.7%	-5.0%
Other neurological	-0.5%	-0.6%	-0.9%	-1.2%	-1.7%
Total	-2.1%	-2.3%	-2.5%	-2.7%	-2.8%

#### New incidence by age and disability

The table below shows the rate of incidence per 100,000 people in each age band.

Table B.5 Rate of incidence by age

Age group	2020	2025	2030	2035	2040
0-4 years	531	530	530	530	531
5-12 years	228	227	226	226	226
13-18 years	40	40	40	40	40
19-24 years	51	51	51	51	51
25 - 34 years	32	32	32	32	32
35 - 44 years	34	34	34	35	35
45 - 54 years	41	41	41	41	41
55 - 64 years	68	68	68	68	67
Total	87	85	83	81	80

The table below shows the rate of incidence per 100,000 people in the general population.

Table B.6 Rate of incidence by disability

Disability	2020	2025	2030	2035	2040
Acquired brain injury	1	2	2	2	2
Autism	32	34	36	37	38
Cerebral Palsy	2	2	2	2	2
Deafness	3	3	3	3	4
Down syndrome	2	2	2	2	2
Intellectual disability	16	17	17	18	19
Mental health	9	10	10	11	12
Physical	4	4	5	5	5
Sensory	2	2	2	2	2
Paralysis	1	1	1	2	2
Sight	1	1	1	2	2
Stroke	2	3	3	3	3
Multiple Sclerosis	3	3	4	4	4
Other neurological	7	7	8	8	8
Total	87	85	83	81	80

## Annual cost by age and disability

Table B.7 Annual cost by age

Age group	2020	2025	2030	2035	2040
0-4 years	\$23,213	\$26,978	\$32,776	\$39,940	\$48,665
5-12 years	\$19,889	\$24,672	\$29,890	\$36,351	\$44,270
13-18 years	\$35,490	\$43,094	\$52,279	\$63,148	\$76,359
19-24 years	\$44,610	\$57,275	\$70,770	\$85,379	\$105,421
25 - 34 years	\$51,311	\$60,425	\$74,162	\$93,894	\$113,807
35 - 44 years	\$55,291	\$66,846	\$80,135	\$94,434	\$115,967
45 - 54 years	\$64,006	\$77,961	\$95,493	\$115,162	\$137,700
55 - 64 years	\$64,191	\$78,163	\$94,838	\$115,332	\$141,270
65 + years		\$96,360	\$113,537	\$140,085	\$171,767
Total	\$46,046	\$57,771	\$72,210	\$90,039	\$111,466

Table B.8 Annual cost by disability

Disability	2020	2025	2030	2035	2040
Acquired brain injury	\$101,115	\$125,922	\$156,581	\$194,074	\$240,020
Autism	\$27,115	\$33,089	\$40,953	\$51,219	\$63,590
Cerebral Palsy	\$84,946	\$106,871	\$133,510	\$165,731	\$204,243
•					
Deafness	\$15,656	\$19,052	\$23,128	\$28,079	\$34,090
Down syndrome	\$53,247	\$68,181	\$86,555	\$109,394	\$136,630
Intellectual disability	\$51,851	\$66,072	\$83,501	\$105,426	\$131,716
Mental health	\$20,303	\$24,728	\$30,035	\$36,478	\$44,307
Physical	\$55,507	\$67,376	\$81,616	\$98,926	\$119,946
Sensory	\$19,237	\$23,431	\$28,463	\$34,586	\$42,057
Paralysis	\$156,626	\$196,542	\$246,231	\$307,213	\$383,400
Sight	\$19,454	\$23,631	\$28,640	\$34,745	\$42,155
Stroke	\$60,435	\$72,406	\$87,319	\$106,095	\$128,975
Multiple Sclerosis	\$60,099	\$73,476	\$89,670	\$108,626	\$132,395
Other neurological	\$69,615	\$84,545	\$102,438	\$124,210	\$150,602
Total	\$46,046	\$57,771	\$72,210	\$90,039	\$111,466

## **Appendix C Inflation assumptions**

The inflation assumptions used in the projections are presented in Table C.1. The impact of the SACS award considers the proportion of supports that are wage related and the proportion of wage-related supports on the SACS award.

**Table C.1 Inflation and SACS assumptions** 

Projected inflation rate	2016-17	2017-18	2018-19	2019-20	2020-21	Long-term
Economic inflation	3.0%	3.0%	3.0%	3.0%	3.0%	4.0%
Impact of SACS	1.3%	1.3%	1.3%	1.3%	1.3%	
Total	4.3%	4.3%	4.3%	4.3%	4.3%	4.0%

Long term projections of wage rates and CPI indicate that 4.0% is suitable.

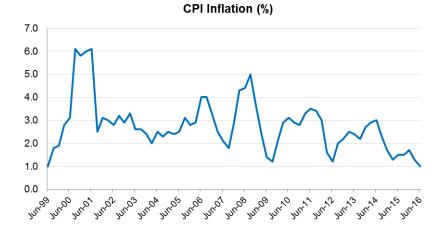
Figure C.1 Wage price index inflation (%) from June 1999 to June 2016

Wage Price Index Inflation (%)

5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0

yuru<sup>S</sup> y

Figure C.2 CPI inflation (%) from June 1999 to June 2016



# Appendix D Trends in participant numbers by month

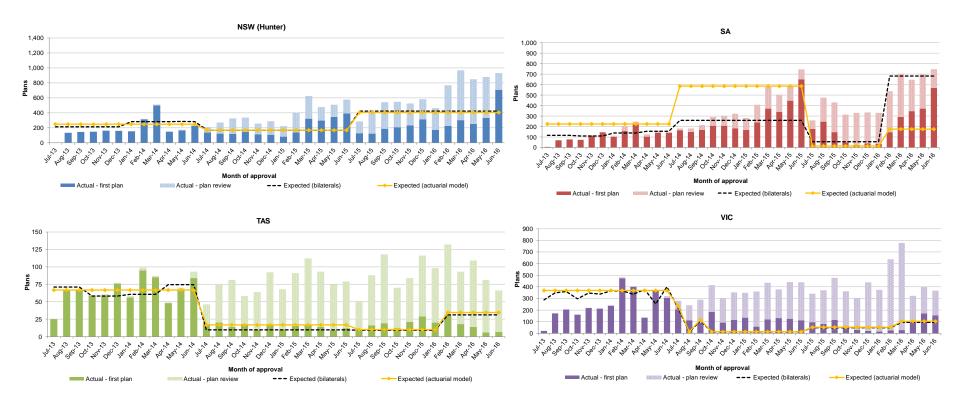
Looking at the number of participants who have entered the scheme each month (along with staffing numbers) assists with understanding the likely number of participants that will enter over the trial site period by month. Over the three year trial site period:

- Very few participants received a first approved plan in July 2013 reflecting the fact that
  potential participants were required to submit an access form, and have their eligibility
  assessed before they could receive an approved plan.
- The number of participants receiving their first approved plans then remained fairly constant from August 2013 to January 2014 across all trial sites.
- There was a significant increase in the number of participants receiving their first approved plan in February and March 2014 across all trial sites. Some of this increase is due to the operational reforms introduced in January which reduced the administration involved in finding people eligible for the scheme and undertaking the planning process. Further, initial plans were introduced in late February. Initial plans assist participants 'to transition into the NDIS as quickly as possible.
- Lower numbers of plans were approved in April 2014. April included a number of public holidays which is likely to have impacted the number of plans approved. In the Victorian trial site, the lower number of participants receiving an approved plan in April was followed by a significant increase in May 2014. This was due to the phasing-in of shared supported accommodation participants from April 2014. The complexity of setting up shared supported accommodation participant plans resulted in a lower number of participants receiving an approved plan in April 2014. The majority of these plans were approved on 1 May 2014.
- For the trial sites that commenced in 2013, 33% of plan approvals were plan reviews. This differed by trial site with 33% in New South Wales, 39% in Victoria, 45% in Tasmania, and 24% in South Australia.
- Plan approvals in South Australia and New South Wales increased in the second half of 2014-15 due to a concerted effort to meet bilateral targets.
- In the Australia Capital Territory and Western Australian trial sites the number of plan
  approvals increases throughout the first quarter. In the last quarter of 2014-15, Western
  Australia focused on plan implementation and hence plan approvals were lower. Plan
  approvals in the Northern Territory were highest in the first quarter of 2014-15 and
  increased again in the last quarter of 2014-15.
- In the first quarter of 2015-16 first plan approvals reduced for South Australia and New South Wales (Hunter). For the New South Wales (Hunter) trial site this was due to the

delayed agreement in the phasing schedule and in the South Australian trial site this was due to the bilateral target being reached on 31 August 2015.

- In the second half of 2015-16, South Australia and Victoria received revised bilateral targets, increasing from 5,085 to 8,500 and 5,102 to 5,289 respectively. Consequently leading to an increase in first plans approved within these states, with Victoria meeting their target and South Australia reaching 84% of their target as at 30 June 2016.
- By the end of 2015-16 Tasmania exceeded its bilateral target of 1,125 participants and 83% of plans approved in 2015-16 were plan reviews.
- For the first three quarters of 2015-16 there were a low number of plans approved in Western Australia due to staffing issues. An Action Plan is being implemented and this resulted in a significant increase in first plans from approved from March 2016 onwards, however still falling short of the 4,250 bilateral target.
- Transition to full scheme in New South Wales commenced on 1 July 2015 in Nepean Blue Mountains, with participants receiving plans from 1 September 2015. First plans approved remained relatively close to expected with the exception of June 2016, meeting 90% of the bilateral target by then end of 2015-16.
- Queensland's transition to full scheme commenced in Townsville and Charter Towers for 0-17 year olds and for under 65 year olds in Palm Island with plans being approved from 1 April 2016.

Figure D.1 Participants with first approved plans and plan reviews by month compared with the bilateral agreements and the actuarial model – NSW, SA, TAS and VIC trial sites<sup>27</sup>



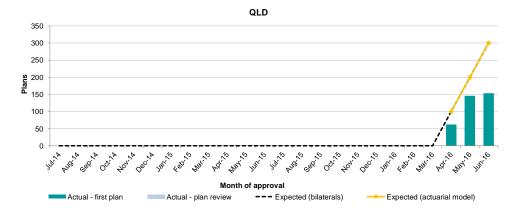
<sup>&</sup>lt;sup>27</sup> The estimate of the number of participants in the bilateral agreements differed from the analysis undertaken to develop the actuarial model. The actuarial model used the Productivity Commission estimate as a starting point and allocated a proportion of this estimate to each trial site using the 2011 Census variables on age and need for assistance with core activities of daily living. In reality, the trial sites are resourced in line with the bilateral agreement, so a higher actuarial estimate is very difficult to achieve with available resources.

Figure D.2 Participants with first approved plans and plan reviews by month compared with the bilateral agreements and the actuarial model – ACT, NT and WA trial sites<sup>28</sup>



<sup>&</sup>lt;sup>28</sup> The estimate of the number of participants in the bilateral agreements differed from the analysis undertaken to develop the actuarial model. The actuarial model used the Productivity Commission estimate as a starting point and allocated a proportion of this estimate to each trial site using the 2011 Census variables on age and need for assistance with core activities of daily living. In reality, the trial sites are resourced in line with the bilateral agreement, so a higher actuarial estimate is very difficult to achieve with available resources.

Figure D.3 Approved plans by month that the plan was first approved compared with the bilateral agreements and the actuarial model – QLD



# **Appendix E Key characteristics of participants at 30 June 2016**

This section describes participant characteristics (including age, gender, Indigenous status, CALD status, and primary disability) across trial sites. Comparisons with the Productivity Commission estimates is included where possible.

During the trial site period participants were being phased into the scheme based on a schedule of programs, service providers, ages and stages. Whilst phasing in sites has largely completed, participants continue to enter the scheme and hence there is likely to be some bias in the characteristics of participants who have entered the scheme to date.

Data from all nine sites is presented. It is worth noting that relatively limited actual experience is available in the New South Wales (Nepean Blue Mountains) and the Queensland site, and hence the results and comparisons should be treated with caution.

### Age

Comparison of participant ages with Productivity Commission estimates is most relevant for New South Wales (Hunter) and Victoria, as the Australian Capital Territory, the Northern Territory and Western Australia commenced in 2014 and so are more affected by the phasing schedule. To date, the Victorian, Australian Capital Territory and Western Australian trial sites have a younger population than the New South Wales (Hunter) trial site (excluding participants residing in large residential centers) and these trial sites have a higher proportion of children aged 0-14 years compared with expected. The New South Wales (Hunter) trial site is more in line with the Productivity Commission estimates - around 34% are aged 0-14 years and 17% aged over 55 years (Figure E.1).

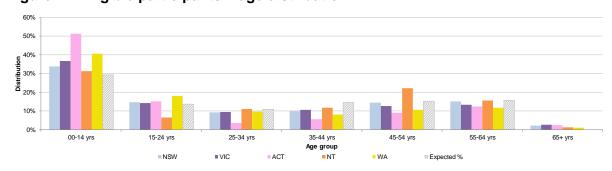


Figure E.1 Eligible participants – age distribution

#### Gender

The proportion of males and females is largely consistent with the actuarial baseline estimates for the trial sites that commenced in 2013.<sup>29</sup> The South Australian and Tasmanian

<sup>&</sup>lt;sup>29</sup> These estimates were derived using information from the ABS Survey of Disability, Ageing and Carers.

trial sites have relatively more males than females due to the specific age groups in these trial sites. In particular, the prevalence of autism is higher in males than females in these specific age groups. The trial sites that commenced in 2014 also have relatively more males than females due to the specific age groups currently in these trial sites. Similarly, the New South Wales (Nepean Blue Mountains) and Queensland sites have relatively more males than females.

NSW (Hunter) Actual Expected Male, 61% Male, 57% Male, 72% Male, 68% Actual Expected SA Male, 64% Male, 63% Actual Expected Actual Expected Male, 60% Male, 58% Male, 62% Male, 55% Female, 38% ACT Actual Expected Male, 60% Male, 48% 눋 Actual Expected Female, 34% Male, 66% Male, 57% Actual Female, 29% Male, 65% Male, 50% Actual Expected 0% 10% 20% 30% 50% 70% 80% 90% 100% Distribution

Figure E.2 Active participants with approved plans – gender distribution

### Indigenous status

Not all participants in the Scheme have Indigenous status recorded in the system. Specifically 8.8% of records are "not stated". The figure of 8.8% has improved since June 2015, when it was 16%, due to detailed exception reporting to make sure these data are collected.

The proportion of Indigenous participants in the trial sites that commenced in 2013 and 2014 is largely in line with expected, with the exception of the Northern Territory trial site. There is a higher proportion of Indigenous participants in Northern Territory than expected. The New South Wales (Nepean Blue Mountains) and the Queensland sites also have a higher proportion of Indigenous participants than expected.

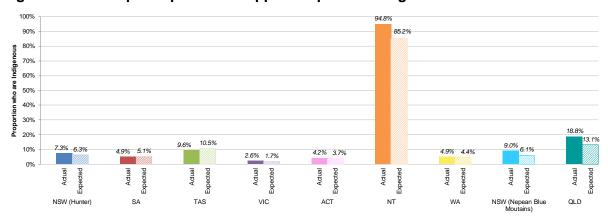


Figure E.3 Active participants with approved plans - Indigenous distribution

### **CALD** status

CALD status is well completed in the system, with the data field filled in for 98.5% of participants. Detailed exception reporting is underway to make sure these data are collected.

CALD is lower than expected in New South Wales (Hunter), South Australia, Tasmania and much lower than expected in Victoria.

CALD is also lower than expected in the trial sites that commenced on 1 July 2014 and the sites that commenced in 2015-16.

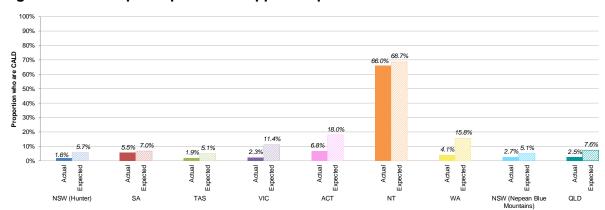


Figure E.4 Active participants with approved plans – CALD distribution

### Primary disability

Autism and related disorders, intellectual disability (including Down syndrome) and developmental delay are the largest primary disability groups across trial sites that commenced in 2013. There are some other variations between trial sites – there are higher proportions of participants with cerebral palsy in Tasmania and psychosocial disability in New South Wales (Hunter) and Victoria.

It has been noted by planners that nominating a primary disability can be difficult and it is possible that there is some inconsistency in recording practices – for example, some people with Down syndrome may be recorded as intellectual disability. Analysis of co-morbidities is required.

Figure E.5 Active participants with approved plans – primary disability distribution (NSW - Hunter, SA, TAS and VIC trial sites)

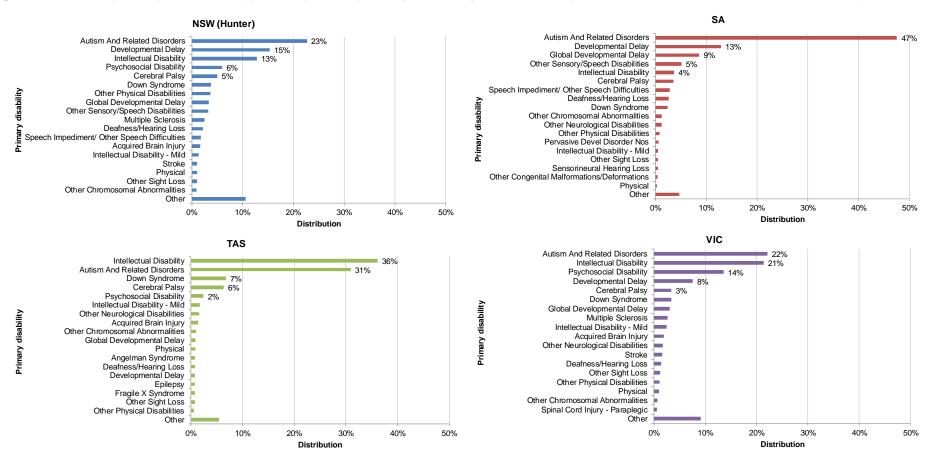


Figure E.6 Active participants with approved plans - primary disability distribution (ACT, NT, WA and NSW - NBM sites)

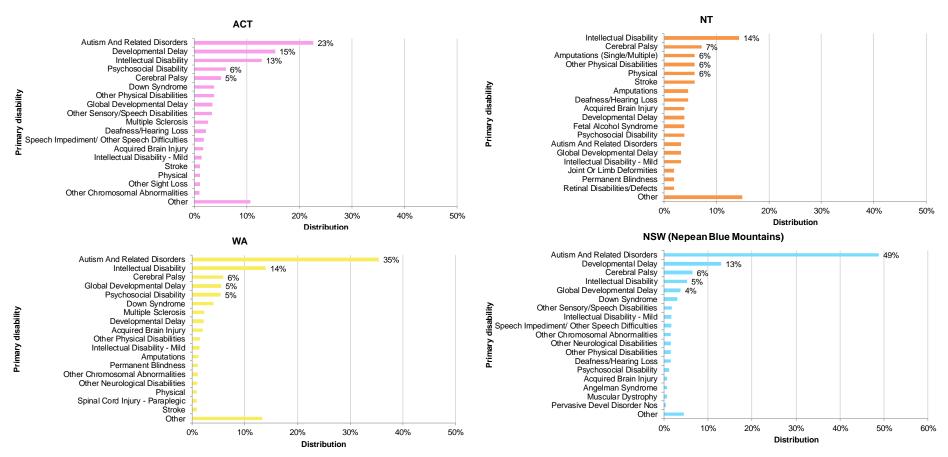
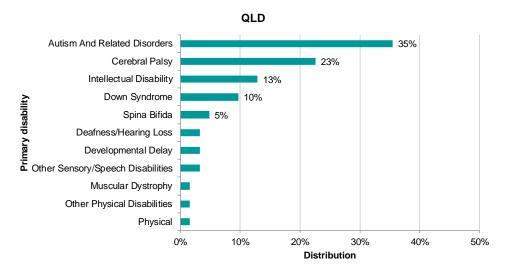


Figure E.7 Active participants with approved plans – primary disability distribution (QLD site)

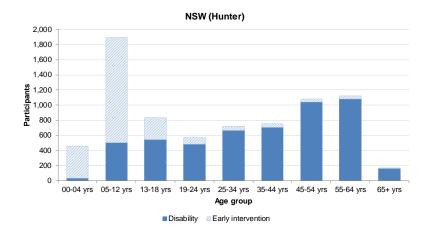


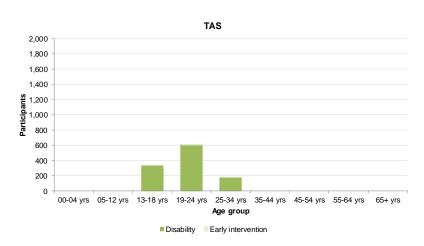
# Disability and early intervention

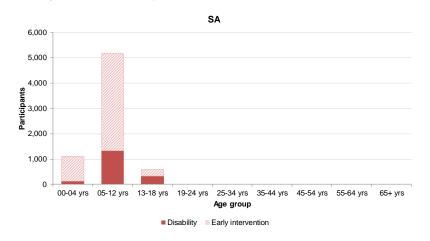
People can be found eligible for the scheme because they meet the disability requirements (section 24 of the NDIS Act), or because they meet the early invention requirements (section 25 of the NDIS Act).

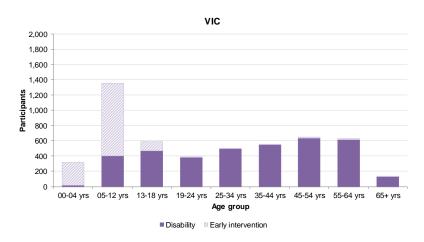
Participants in the younger age groups (particularly 0-12 year olds) often meet the early intervention requirements rather than the disability requirements. A small proportion of participants aged 13-18 have entered the scheme because they meet the early intervention requirements. From age 19 onwards almost all participants meet the disability requirements (Figure E.8, Figure E.9 and Figure E.10).

Figure E.8 Active participants with approved plans – disability and early intervention (NSW - Hunter, SA, TAS and VIC trial sites)<sup>30</sup>



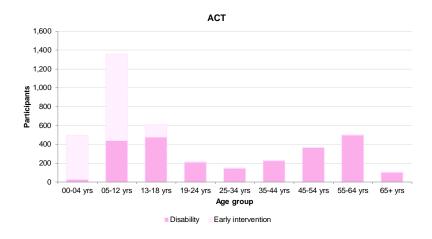


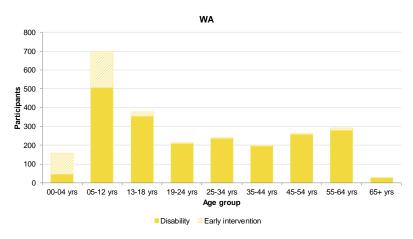


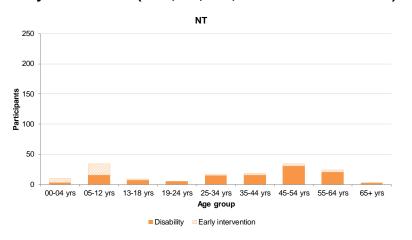


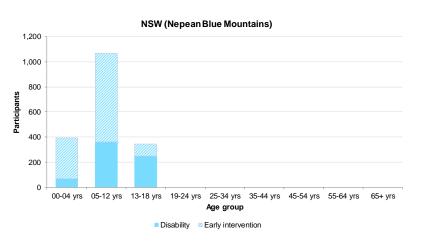
<sup>&</sup>lt;sup>30</sup> Note: the vertical axis is different for the South Australian trial site.

Figure E.9 Active participants with approved plans – disability and early intervention (ACT, NT, WA, and NSW – NBM sites)<sup>31</sup>



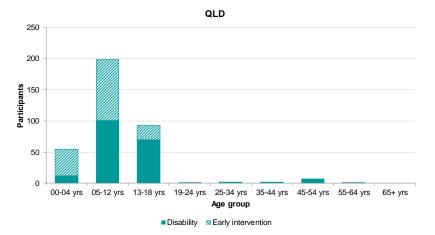






<sup>&</sup>lt;sup>31</sup> Note: the vertical axis is different for each site.

Figure E.10 Active participants with approved plans – disability and early intervention (QLD sites)



# **Appendix F Committed supports**

### Committed supports compared with bilateral agreements

As at 30 June 2016, 30,281 participants (active and inactive) have approved plans, and \$2,404.3 million of support has been committed to these participants.

### Of this \$2,404.3 million:

• It is estimated that \$141.0 million (6%) was provided in 2013-14 (including actual paid to date). The funding envelope based on the bilateral agreements for 2013-14 is \$148.8 million, including cash and in-kind. Hence, for participants who have entered the scheme in the first year, committed support for 2013-14 is around 95% of the funding envelope (Table F.1 and Figure F.1).

Note: that the amount of committed supports expected to be provided in 2013-14 has increased since the end of June 2014. The main reasons for this increase include: correction of errors in funded supports entered into Siebel, funded supports being added and quotes from providers being received and updated in plans.

- \$505.3 million (21%) is estimated to be provided in 2014-15. This compares with the funding envelope based on the bilateral agreements for 2014-15 of \$456.9 million, including both cash and in-kind. Therefore, for participants who have entered the scheme to date, committed support for 2014-15 is around 111% of the funding envelope for 2014-15 (Table F.1 and Figure F.2).
- \$915.7 million (38%) is estimated to be provided in 2015-16. The funding envelope based on the bilateral agreements for 2015-16 is \$873.1 million, including both cash and in-kind. Thus, for participants who have entered the scheme to date, committed support for 2015-16 is 105% of the funding envelope for 2015-16 (Table F.1 and Figure F.3).
- \$842.3 million (35%) is expected to be provided in 2016-17 and beyond.

Note: committed support exceeds the funding envelope in 2014-15 and 2015-16. However, as not all committed support is being utilised, an actual deficit will not arise. That is, the scheme will be within the budget for the three years of trial. Further, due to the phasing of participants into the scheme during the trial period comparing committed support with the bilateral agreement does not reflect full scheme costs.

Committed support compared with the funding envelope differs by trial site. For South Australia and Tasmania, the amount committed was above the funding allocation for 2013-14. Hence, on a committed basis, South Australia and Tasmania were higher than the funding envelope in 2013-14. For New South Wales (Hunter), the amount committed was

slightly higher than the 2013-14 funding envelope, and for Victoria the amount committed was below the 2013-14 funding envelope.

For the Tasmanian trial site the amount committed is over the funding allocation for 2014-15. This is because the number of participants that have entered the scheme is higher than was expected according to the bilateral agreement and the cost per participant is higher than expected according to the bilateral agreement.

For the South Australian and Australian Capital Territory trial sites the amount committed is over the funding allocation for 2014-15. This is because the cost per participant is higher than expected according to the bilateral agreement.

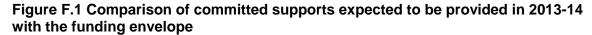
The New South Wales (Hunter) trial site has exceeded the funding envelope for 2014-15. This is due to the Stockton and Kanangra large residences. When the Stockton and Kanangra large residences are removed from the analysis, the New South Wales (Hunter) trial site is at 87% of the funding envelope for 2014-15.

Table F.1 Committed support to date and amount committed to be provided in 2013-14, 2014-15, 2015-16 and beyond<sup>32,33</sup>

	NSW (F	Hunter)	S	A	TA	ıs	VI	С	AC	ст	N	IT	w	Α	NSW	(NBM)	QI	LD	Total (inc reside cent	ential
Expected to be paid (\$m)																				
2013/14	\$54.1	6%	\$12.8	6%	\$18.2	11%	\$55.9	10%	\$0.0	n/a	\$0.0	n/a	\$0.0	n/a	\$0.0	n/a	\$0.0	n/a	\$141.0	6%
2014/15	\$186.2	19%	\$51.8	22%	\$51.7	32%	\$164.5	30%	\$28.1	10%	\$2.0	21%	\$21.0	12%	\$0.0	0%	\$0.0	0%	\$505.3	21%
2015/16	\$330.7	35%	\$102.2	44%	\$64.0	39%	\$196.8	35%	\$135.5	50%	\$5.3	56%	\$68.0	39%	\$12.3	35%	\$1.1	13%	\$915.7	38%
2016/17 and beyond	\$387.4	40%	\$64.4	28%	\$29.5	18%	\$138.9	25%	\$106.2	39%	\$2.2	23%	\$83.8	49%	\$22.6	65%	\$7.2	87%	\$842.3	35%
Total	\$958.4	100%	\$231.3	100%	\$163.4	100%	\$556.1	100%	\$269.7	100%	\$9.4	100%	\$172.8	100%	\$34.9	100%	\$8.2	100%	\$2,404.3	100%
Funding envelope for 2013/14 (\$m)	\$54.0		\$8.2		\$14.5		\$72.2		n/a		n/a		n/a		n/a		n/a		\$148.8	
Expected to be paid in 2013/14 as a proportion of 2013/14 funding envelope		100%		156%		126%		77%		n/a		n/a		n/a		n/a		n/a		95%
Funding envelope for 2014/15 (\$m)	\$153.1		\$50.7		\$32.2		\$164.3		\$25.9		\$5.2		\$25.6		n/a		n/a		\$456.9	
Expected to be paid in 2014/15 as a proportion of 2014/15 funding envelope		122%		102%		160%		100%		108%		38%		82%		n/a		n/a		111%
Funding envelope for 2015/16 (\$m)	\$306.6		\$91.3		\$37.3		\$197.7		\$110.0		\$6.4		\$108.1		\$14.6		\$1.2		\$873.1	
Expected to be paid in 2015/16 as a proportion of 2015/16 funding envelope		108%		112%		172%		100%		123%		82%		63%		85%		91%		105%

	Stockt	(excl. on and ngra)	VIC ( Cola		Total (excl. large residential centres)		
Expected to be paid (\$m)							
2013/14	\$46.7	7%	\$55.9	11%	\$133.6	6%	
2014/15	\$133.5	19%	\$148.4	29%	\$436.5	21%	
2015/16	\$249.8	35%	\$170.2	34%	\$808.3	38%	
2016/17 and beyond	\$276.4	39%	\$131.4	26%	\$723.7	34%	
Total	\$706.3	100%	\$505.9	100%	\$2,102.0	100%	
Funding envelope for 2013/14 (\$m)	\$54.0		\$72.2		\$148.8		
Expected to be paid in 2013/14 as a proportion of 2013/14		86%		77%		90%	
funding envelope							
Funding envelope for 2014/15 (\$m)	\$153.1		\$164.3		\$456.9		
Expected to be paid in 2014/15 as a proportion of 2014/15		87%		90%		96%	
funding envelope							
Funding envelope for 2015/16 (\$m)	\$306.6		\$197.7		\$873.1		
Expected to be paid in 2015/16 as a proportion of 2015/16		81%		86%		93%	
funding envelope							

<sup>&</sup>lt;sup>32</sup> Supported accommodation in 2013/14 has been excluded from the Tasmanian estimate as this is being paid for by the Tasmanian state government.
<sup>33</sup> State governments have not made all monthly payments.



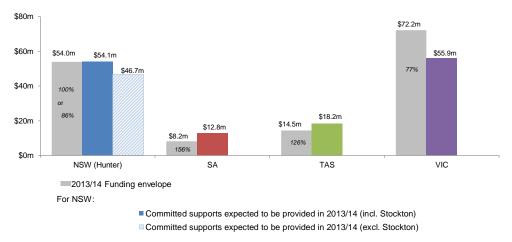
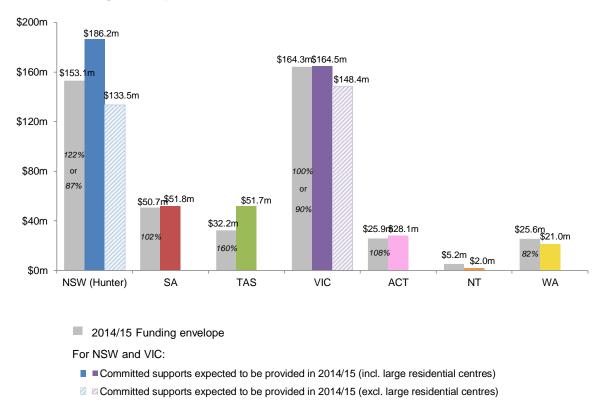
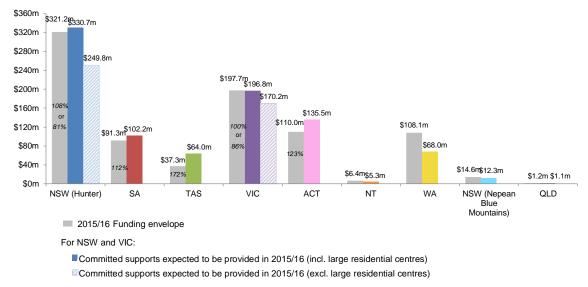


Figure F.2 Comparison of committed supports expected to be provided in 2014-15 with the funding envelope





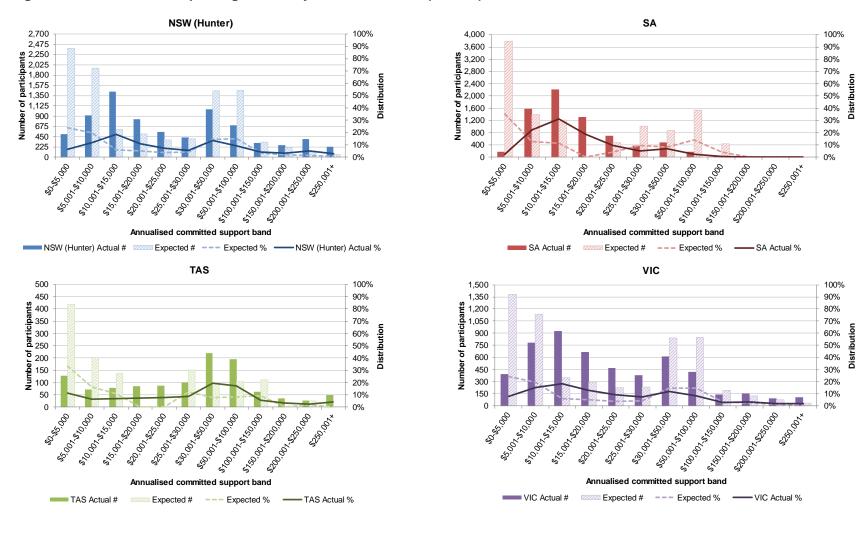


# Distribution of package costs

The annualised amount of a participant plan (support package) can vary from a few thousand dollars for a low cost participant to several hundred thousand dollars for a participant in shared supported accommodation or requiring 24 hour support.

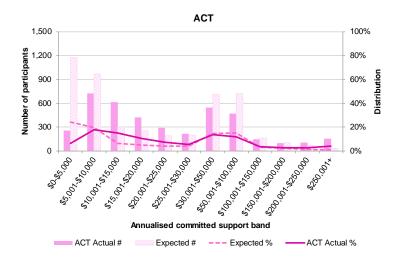
The distribution of support packages differs from expected across all trial sites (Figure F.4, Figure F.5 and Figure F.6). In particular, a higher proportion of low cost participants were expected compared with actual experience, and there are a higher proportion of participants receiving mid-range packages than expected. This is consistent across all trial sites.

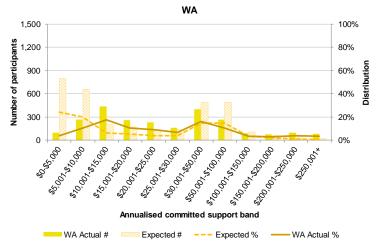
Figure F.4 Distribution of package costs by trial site – NSW (Hunter), SA, TAS and VIC trial sites<sup>34</sup>

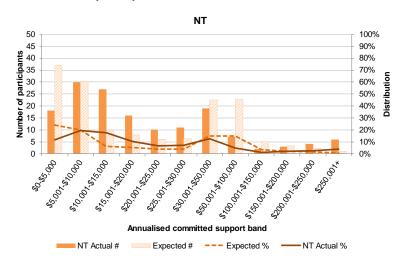


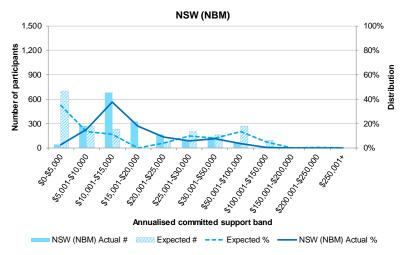
<sup>&</sup>lt;sup>34</sup> The vertical axis is different for each trial site.

Figure F.5 Distribution of package costs by trial site – ACT, NT, WA and NSW (NBM) sites<sup>35</sup>









<sup>&</sup>lt;sup>35</sup> The vertical axis is different for each site.

Annualised committed support band

--- Expected %

Expected #

Figure F.6 Distribution of package costs by trial site - QLD site

### Distribution of total cost

QLD Actual #

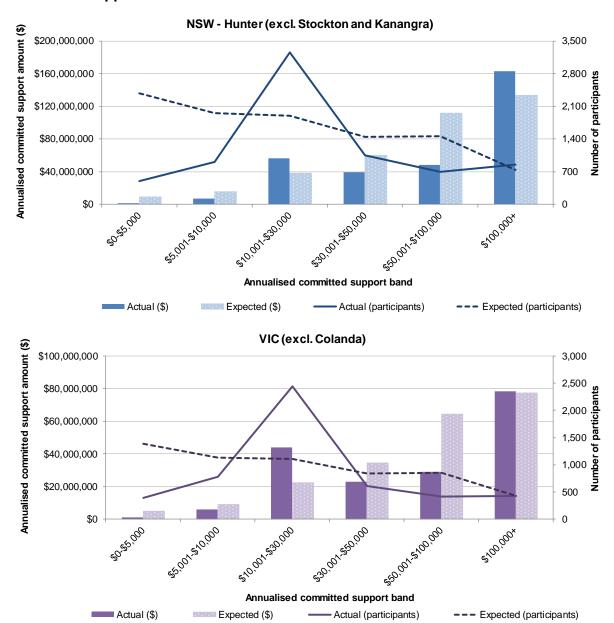
The distribution of cost is highly skewed toward a small number of participants with high cost packages in New South Wales (Hunter) and Victorian trial sites (Figure F.7). Of the 12,366 active participants with approved plans in the New South Wales (Hunter) and Victorian trial sites excluding the Stockton, Kanangra and Colanda large residences, 8,302 participants have an annualised package cost of less than \$30,000 (67%).

QLD Actual %

The total annualised package costs of the 8,302 participants with support packages of less than \$30,000 in New South Wales (Hunter) and Victorian trial sites is \$116.1 million which represents only 23% of total committed supports (Figure F.7). On the other hand, the total annualised package costs of the 1,282<sup>36</sup> participants with support packages of more than \$100,000 is \$241.3 million which represents 49% of total committed supports. Therefore, the total cost of the scheme will be driven by the relatively few participants with high cost plans.

<sup>&</sup>lt;sup>36</sup> Stockton and Kanangra are large residences in the Hunter trial site and Colanda is a large residence in the Barwon trial site. This is a high concentration of high cost people in one geographical area. For this reason Stockton, Kanangra and Colanda have been excluded from this analysis.

Figure F.7 Total package costs and number of participants by trial site and annualised committed support band



# Types of committed supports

The types and amount of supports committed (in dollar terms) (Figure F.8) are fairly consistent across New South Wales (Hunter) and Victoria, with improved daily living skills, improved life choices, and assistance with daily life at home, in the community, education and at work (includes supported independent living) being the most common support types (72% of committed supports in New South Wales (Hunter) excluding Stockton and Kanangra and 67% in Victoria excluding Colanda). Currently, when Stockton, Kanangra and Colanda are excluded from the analysis, New South Wales (Hunter) has a higher proportion of assistance with daily life at home, in the community, education and at work (includes supported independent living) compared with Victoria, this is driven by the higher proportion of participants residing in group homes.<sup>37</sup>

In Tasmania the most common support cluster in dollar terms is assistance with daily life at home, in the community, education and at work (includes supported independent living) (78% of committed support).

In South Australia the most common committed supports in dollar terms are improved daily living skills (70% of committed supports) followed by assistance with daily life at home, in the community, education and at work (includes supported independent living) (16% of committed supports).

The distribution of committed supports for the trial sites that commenced in July 2014 (Figure F.9) is affected by the phasing schedule of participants being brought into the scheme.

There is some anecdotal evidence of support being used in different ways from traditional support models. Some examples include:

- One participant has a trained dog which reminds her to take her medication and assist her to go out in public more easily.
- A young participant uses a tracking device via a phone application when catching the bus home from school. This means his parents know his whereabouts and can call him if needed.
- Participants are living together in a rental property. Each participant has chosen his or her own support providers and some supports are shared between the participants.
   Participants are exercising individual choice within their own household.
- A participant and her friend, who also has a NDIS package, attend a community based aqua-fitness program. They attend as friends and share their support worker.

-

<sup>&</sup>lt;sup>37</sup> The support catalogue was changed in August 2015

Over time it is expected that more innovative models of support will develop and participant packages will be used in more flexible ways compared with the existing disability system.

Figure F.8 Distribution of committed supports by trial sites – NSW (Hunter), SA, TAS and VIC trial sites

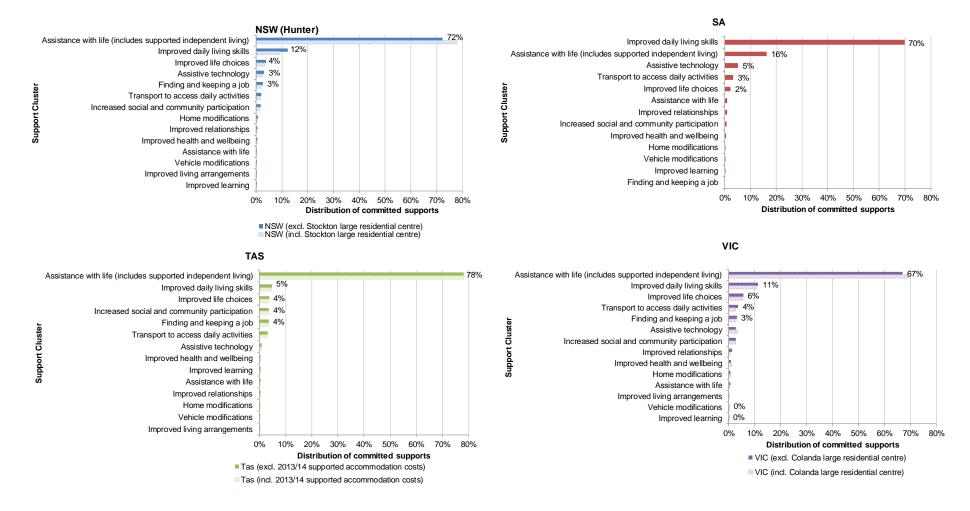
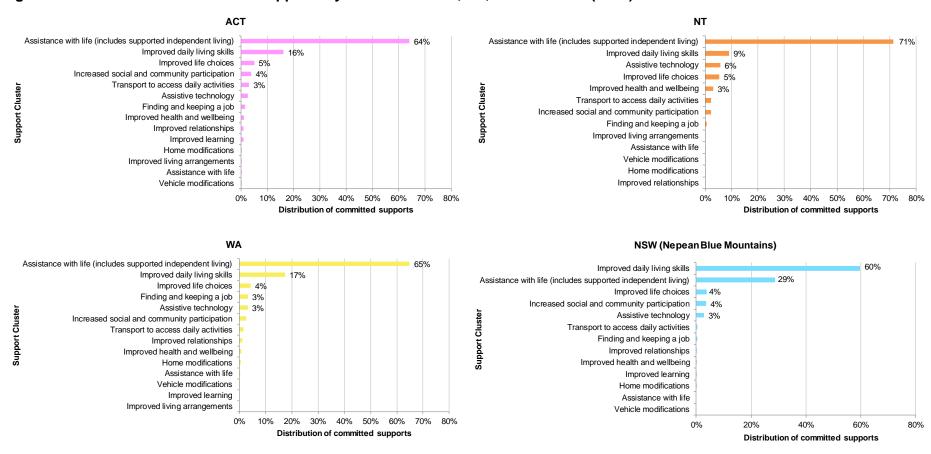


Figure F.9 Distribution of committed supports by trial sites – ACT, NT, WA and NSW (NBM) sites<sup>38</sup>



<sup>&</sup>lt;sup>38</sup> In the Northern Territory there were several participants in shared supported accommodation with high support needs who entered the scheme in November 2014.

Figure F.10 Distribution of committed supports by trial sites – QLD sites

