National Disability Insurance Scheme financial sustainability report

2016-17

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Overview

Introduction

This annual financial sustainability report is required to be prepared for the Board and CEO of the NDIA under section 180B of the NDIS Act. This report provides an assessment of the financial sustainability of the NDIS after the first year of transition to full Scheme, after a three year trial period.

Information and data

This actuarial report uses information from the Agency's case management system, finance system and data warehouse. A new ICT system commenced operation from 1 July 2016 that was built and is hosted by DHS. There were a number of significant issues in the transition to this new system, in particular around payments to providers and self-managing participants. Whilst payment issues were largely resolved by 31 August 2016, there are still a number of outstanding issues with the ICT system, as discussed throughout this report.

A data warehouse is used to store and catalog data extracted from the ICT system on a daily basis. The data used for this report is broad-reaching and covers information across each participant pathway step, from Scheme access and eligibility to participant plan approval and plan review. Key participant risk parameters are collected, such as a participant's level of function, primary disability type, age and gender. Plan package amounts are available as well as payments made to service providers and participants, both as cash and as in-kind payments. Participant outcome questionnaires and information from the States/Territories and Commonwealth are also collected.

A number of known and emerging issues in relation to data quality and data integrity raises questions about the adequacy of the current ICT system to provide timely, appropriate and quality actuarial Scheme data. It has also been relatively difficult and time consuming for changes to be implemented to rectify issues on the ICT system. Manual work-arounds have been developed to assist in mitigating these data integrity issues, however these processes are not considered to be appropriate or sufficiently robust in the medium to longer term. The longer these issues remain unresolved, the harder it will be to form views on trends in Scheme experience and for management to be able to respond accordingly.

It is recommended that data quality be a key priority for the Agency over the next 12 months to respond to these emerging data integrity issues. The ICT system would benefit from improvements that support planner decision making and to prevent data entry errors, where possible. Other ICT improvements should be made to assist in addressing identified data integrity inadequacies relating to committed supports, collection of a participant's level of function, payments (including in-kind amounts) and information on participants in the Early Childhood Early Intervention gateway. Each of these areas influences the quality and effectiveness of the analysis undertaken and the quality of the advice provided.

Scheme experience to 30 June 2017

The NDIS has nearly tripled in size in the year to 30 June 2017, with the number of participants with plans ever approved increasing from 30,281 to 90,638. Of these, 89,610 remained active participants as at 30 June 2017. There were a further 6,134 Early Childhood Early Intervention gateway referrals identified.

The Scheme participant population is equivalent to about a fifth of the expected full Scheme population at 30 June 2020 and about 83% of the bilateral estimate at 30 June 2017, including participants in the Early Childhood Early Intervention gateway.

The characteristics of participants entering the Scheme have been influenced by phasing patterns, especially as specific State/Territory programs and/or age groups are phased in. This has meant an inherent bias towards younger participants, those participants with a lower level of function and a higher proportion of participants with autism and intellectual disability (including developmental delay and global developmental delay).

After adjusting expectations for phase-in biases, the following scheme observations remain, noting that the first four of these observations have the potential to put significant upwards pressure on scheme costs if left unmanaged in the shorter to medium term[1]:

1. More children have been entering the Scheme, with significant variations by region and cohort, specifically noting higher than expected levels of children with developmental delay and autism. Further, there are some concerns that the eligibility criteria are not being assessed consistently and appropriately for these ages[2].
2. There have been higher than expected numbers of low level of function participants entering the Scheme, with some variation among regions, noting that the guided planning process uses level of function as a key input into the calculation of typical support packages for participants.
3. There continues to be entry of a higher than expected number of new participants into the Scheme for the more mature trial sites, meaning that it is difficult to form robust opinions on ultimate Scheme numbers in these sites.
4. Exit rates from younger participants have been lower than expected, noting that the Scheme has only been operating for four years and that early intervention exits may

[1] Management responses to these observations are included in the last section of this overview, with further detail incorporated in Section 6.2 of the main body of the report.

[2] For example, preliminary PEDI-CAT data indicates significant numbers of children entering the scheme without a functional deficit in any area within two standard deviations of the mean.

have a duration related component that may not be expected to emerge for a couple of years.

5. Adults entering the Scheme have been lower than expected in most areas, although noting that participants continue to approach the trial sites, making it difficult to form opinions on longer term experience.

As at 30 June 2017, $7.3 billion of support has been committed to participants since the inception of the Scheme, of which $1.5 billion relates to supports committed during the trial period, $3.2 billion relates to supports committed during 2016-17 and $2.6 billion relates to supports committed in 2017-18 and beyond.

At a more granular level, individual plan amounts have been increasing on renewal at levels over and above those expected from inflation and ageing. The measured superimposed inflation over the last year has been about 7-12%, which is higher than levels seen during the trial period. This experience is not financially sustainable in the shorter term.

There were 51,584 participants who had an approved plan via the guided planning process during 2016-17, and committed supports exceeded typical support package amounts and revenue, particularly for those with high levels of function and those in shared supported accommodation.

Not all committed support in plans is used by participants. The utilisation of committed supports has been around 64% for supports committed in 2013-14 and around 75% for supports committed from 2014-15 to 2016-17, with utilisation varying across States/Territories, and generally being lower for a participants' first plan.

Comparison between the revenue received during 2016-17 from both the Commonwealth and State/Territory governments (the "funding envelope") and the amount of support used by participants, results in a projected accounting surplus of about $248 million (approximately 11% of the funding envelope). The relatively low levels of utilisation to date has meant that the Scheme has operated well within the funding envelope. However, it is expected that the utilisation of committed supports within the Scheme will increase over time to longer term levels, perhaps between 80% and 95%, and that this should be considered in the context of continued financial sustainability.

Baseline data from the short-form outcomes framework (SFOF) questionnaires were collected during 2016-17, revealing that participants generally want more choice and control in their life, have low levels of employment and community participation and that families and carers would like to work more and see their family and friends more often. This information will be able to be used to assess changes in participant outcomes over time.

Data was also collected on trial participants who had received more than one plan. This information indicated that the NDIS was helping most in the domains of choice and control,

daily activities, and health and wellbeing. The NDIS was helping least in the domains of work and home.[3]

For families/carers of participants who had received more than one plan, the NDIS impacted most in supporting families/carers and assisting families/carers to access to services for participants. The NDIS impacted least in the domain of succession planning.[4]

Approximately 85% of participants reported that they were satisfied with the planning process during 2016-17, by rating the process as either good or very good. This result is relatively high, but is a reduction from the 95% reported during trial, indicating that improvements could be made to the current planning process.

Baseline projection

The overall costs of a well-functioning NDIS at full scheme in 2019-20 is estimated to be $21.9 billion, including $0.6 billion for people aged over 65 years. The estimate includes allowance for Western Australia and is relatively consistent with the previous review.

The key assumptions and results from the baseline projection as at 30 June 2020 include:

- Full scheme participant numbers of 1.8% of the total Australian population
- New incidence of 0.1% of the Australian population aged 0 to 64, with new incidence highest in children aged 0 to 6 years, at 0.5% of population aged 0 to 6
- Scheme exit rate of 2.2% per annum, with the expected exit rates of about 6% to 8% per annum from participants aged 7 to 18, through the impact of early intervention
- Scheme costs of 1.1% of gross domestic product
- Inflation of costs at 4.3% p.a. to 2019-20 and 4.0% p.a. in the longer term
- Long term operating expenses of 7% of participant costs
- National Injury Insurance Scheme offset of 4% of participant costs at 2020 increasing to 6% at 2040.

Benchmark assumptions continue to be used to model the baseline projection, as data integrity issues and the phasing pattern of new participants into the Scheme means that there are limitations in relying on Scheme experience to inform projections. However, a

[3] 73% of participants 25 years or over indicated that the NDIS had helped with choice and control, 71% with daily activities, 65% with health and wellbeing, 11% with work, and 21% with home.

[4] 77% of families/carers of participants over the age of 25 years indicated that the NDIS had helped with supporting families/carers, 66% with access to services, and 35% with succession planning.

number of alternative scenarios have been compared to the baseline projection, using observations within emerging Scheme experience. Key findings are:

- Committed support assumptions using current Scheme data, in total, give similar projection results to the baseline projection in aggregate if a 90% utilisation of supports is assumed, although results differ by age, level of function and disability cohort.
- A 10% per annum increase in plan costs over the next two years would increase Scheme costs by 21% above the baseline projection, meaning that current superimposed inflation experience is not sustainable in the shorter term.
- Increases in the number of children aged 0 to 18 in the Scheme by 15% above those assumed in the baseline projection would increase costs by about 5% at full Scheme which would slowly, but progressively, increase over time.
- If the number of early intervention exits were to halve from those assumed in the baseline projection then costs would progressively increase to be 10% above the baseline projection at 2040.
- Scheme costs are very sensitive to the level of function distribution of Scheme participants, with relatively minor variations having a leveraged impact on Scheme costs. This is becoming increasingly important due to the link between a participants' level of function and the results of the guided planning process.

Each of these scenarios illustrates the importance of early management responses to emerging Scheme trends, as each scenario is based on recent actual experience. It also highlights the leveraged impact of targeted operational spend on financial sustainability initiatives.

Shorter term projections covering 2016-17 to 2018-19 suggest that revenue will be sufficient to cover committed supports based on the average levels that have been committed in participant plans to date, the expected phasing patterns from the State/Territory bilateral agreements and using a cash utilisation rate of up to 80%. Importantly, this projection does not assume a continuation of plan inflation at the rates that have been seen in the Scheme to date. Monitoring of changes in utilisation will also be important for understanding whether the Scheme is likely to be in surplus or deficit over the transition period as a whole.

Risk management

The scheme has experienced a period of rapid growth since 1 July 2016, as well as significant changes to business processes and the implementation of a new ICT system. The policies and procedures that support the assessment and mitigation of risk within the Agency must keep pace during this transition.

Significant work has been done to identify and report on key risks during the transition period, consistent with the Agency's risk management framework. The key risks identified are currently above acceptable risk threshold levels and it is important that these risks will be

managed towards acceptable levels in the shorter to medium term, in the context of the Scheme's aggressive timetable to full Scheme rollout. The Agency must continue to establish an effective risk management culture throughout the Agency, across all levels of staff during this transition period.

The Agency has implemented recent quality assurance reviews that have been largely based on business process assurance. While this is useful as a starting point, it does not always help the Agency to understand whether the correct business decisions are being made. In addition, actuarial monitoring has indicated that there are areas of inconsistency in business decision making around access decisions and plan budget amounts compared to typical support package benchmarks, both of which impact on financial sustainability.

A recent review of Scheme access identified high levels of procedural non-compliance and deviations from established Agency work practices and legislative requirements. However, the review did not analyse whether the "right" access decisions had been made, or put another way, whether some people gained access to the Scheme who did not meet the eligibility criteria, or whether current implementation could be improved to better match the intention of the NDIS. Similar comments could also be made about reviews of initial plans and plan review decisions, whereby the assurance reviews should go further and seek to understand whether the guided planning process has resulted in appropriate levels of supports being calculated, and not just whether relevant procedures have been followed.

The Agency's Participant and Provider Pathway review is being developed to help improve the quality of the business decisions being made, and to help work with participants to focus on outcomes, while recognising the important role played by families/carers, providers and disability groups. Frontline staff and Agency partners must be supported to make eligibility and planning decisions consistent with the legislation and to understand the impact of those decisions on the Scheme's financial sustainability. Extensive training is required to put scheme sustainability at the core of the Agency's business processes, along with development of the ICT system to assist staff with making decisions.

Current pressures

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 four 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.

Whilst the Scheme has operated comfortably within the funding envelope over its first four years, the pressures identified in the scheme experience section above have required specific management responses. These pressures are very similar to those reported in last year's financial sustainability report, and the required management responses, are:

- **Higher than expected numbers of children entering the Scheme.**
  There is increasing evidence that the number of children entering the Scheme is above expectations, despite management responses over the last year in respect to the Early Childhood Early Intervention gateway. It is unclear whether the right children are gaining access to the Scheme to facilitate early intervention strategies, especially for children with autism and developmental delay disabilities. It is recommended that the eligibility criteria for children be a continued point of focus for the Scheme and that the PEDI-CAT assessment tool be used as a key focus point for the determination of eligibility to the Scheme for children. It is also recommended that automatic eligibility as scheme participants cease to be granted for children aged 0 to 14 from existing defined State/Territory programs.
- **Potential participants continuing to approach the Scheme.**
  There has been limited tapering of the number of people approaching the Scheme in sites where phasing was completed many months prior. It is therefore unclear what the long term prevalence for these regions are and reaffirms the need to get a better understanding of access decisions for these later entrants. Further, this risk reinforces the need for strong Information, Linkages, and Capacity Building, to support people in community and mainstream services where possible. The Participant and Provider Pathway review is being developed to help respond to this pressure.
- **Lower than expected participants exiting the Scheme.**
  The relatively low level of exits from younger participants in the Scheme means that the Agency should consider the implementation of a more formal periodic review of continued eligibility for participants who have entered the Scheme via the early intervention pathway, with the intention of identifying Scheme participants who no longer require formal Scheme supports. This formal review may occur after certain key milestones have been reached, for example, two years after entry into the Scheme or on attainment of certain ages.
- **Increasing package costs over and above the impacts of inflation and ageing ("super-imposed" inflation).**
  The development of the plan review strategy commenced in March 2017 with the aim that the plan review process best reflects the needs of participants as their confidence with the Scheme grows and as the Agency's evidence about plan effectiveness increases. One of the main strategies is to provide better alignment of a participant's plan to the Scheme's growing evidence of typical support packages.
- **A mismatch between benchmark package costs and actual package costs.**
  A number of areas have been identified, such as participants with high levels of function, where actual package costs are higher than benchmark package costs. The

Agency should implement a review of the assumptions underlying the typical support package process taking into account the emerging scheme experience. A key focus should be those areas where average committed supports differ from expected, with analysis of the potential reasons why the difference has emerged. Where appropriate, revisions should be made to typical support packages.

- **Higher costs of shared supported accommodation.**
  It appears that participants with a high level of function as well as those in shared supported accommodation have committed supports that may be too high in comparison to the guided planning typical support package benchmark. Conversely, participants with low levels of function have committed supports that are low in comparison to benchmark.

An end to end review of the participant and provider pathways is currently being undertaken with aspiration to provide a first-class participant experience. The review will enable the development of quality participant plans, refocus on participant outcomes and support the financial sustainability of the scheme. The review has involved workshops and discussions with people with disability, carers and providers to help understand the key issues. The key principles for designing the revised pathway and to address the identified issues includes:

- a stronger focus on the disability ecosystem, including mainstream services, disability organisations and community supports;
- NDIS communication which emphasises the objectives and role of the Scheme to support people with permanent and significant disability with a clear focus on outcomes and goals during discussion of planning or funded supports;
- information provided that is clear and consistent, and is available in accessible formats, such as braille and simple English;
- participants have a consistent point of contact, with an emphasis on helping participants to use all supports (not just funded) to achieve outcomes and where face-to-face engagement is the default, depending on individual preference;
- planning is done by a skilled planner who understands the participant's specific disability and who is supported by data and business intelligence; and
- design of easy to use portal and tools, with simplified processes for common tasks, for example making changes to plans which do not change value.

Overall, the full-scheme roll out target is challenging given the Scheme's significant data integrity issues, the significant levels of superimposed inflation in plan reviews, the prevalence of children above expectations within the Scheme, continuing pressures on scheme entry levels, and reducing participant satisfaction levels. This, combined with the need for significantly enhanced and more effective quality assurance controls, means that it is critical that the capacity and capability of the Agency be supported to meet the challenge.

Contents

List of abbreviations

AAT	Administrative Appeals Tribunal
ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
CALD	Culturally and Linguistically Diverse
CDRC	Council of Australian Governments Disability Reform Council
CPI	Consumer Price Index
CPS 220	Prudential Standard CPS 220 *Risk Management,* issued by the Australian Prudential Regulation Authority
CRM	Client Relationship Management
DHS	Department of Human Services (Australian Government)
DSS	Department of Social Services (Australian Government)
ECEI	Early Childhood Early Intervention
GDP	Gross Domestic Product
ICT	Information and Communications Technology
IDS	Integrated Data Store
LFOF	Long-form Outcomes Framework
ILC	Information, Linkages and Capacity Building
LAC	Local Area Coordinator
LGA	Local Government Area
NBM	Nepean Blue Mountains
NDIA	National Disability Insurance Agency ('Agency')
NDIS	National Disability Insurance Scheme ('Scheme')
NIIS	National Injury Insurance Scheme
NSW	New South Wales
NT	Northern Territory
PC	Productivity Commission
PSCD	Public Sector Collection and Disbursement
QLD	Queensland
SA	South Australia
SACS	Social and Community Services
SDAC	Survey of Disability Ageing and Carers
SFOF	Short-Form Outcomes Framework
SQL	Structured Query Language
SSA	Shared supported accommodation
TAS	Tasmania
TSP	Typical Support Package
VIC	Victoria
WA	Western Australia

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1. Introduction

1.1 This financial sustainability report

The requirements of this report are set out in the *National Disability Insurance Scheme Act 2013*, specifically section 180B(1) of the NDIS Act which states:

The Scheme Actuary must do all of the following each time an annual report is being prepared by the Board members under section 46 of the Public Governance, Performance and Accountability Act 2013:

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).*

In addition, Part 3 of the *National Disability Insurance Scheme – Rules for the Scheme Actuary 2013* provides further detail around the required content of the annual financial sustainability report. This includes, amongst other things:

- "*identification of key risks and issues impacting the financial sustainability of the NDIS*".
- "*recommendations designed to manage the risks or address the issues*".

In doing so, a discussion of recent Scheme experience is required as well as projections of the Scheme's future expenditure and a discussion of the Agency's administrative infrastructure, processes and risk management arrangements.

An Insurance Principles Manual has also been developed in the Agency 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 the Annual Financial Sustainability Report is included as a key component.

1.2 Sections of this report

The sections of this report are as follows:

- **Overview**
- **Introduction** including background and reliances and limitations (Section 1).
- **Information and data** including a description of the data available for actuarial analysis (Section 2).
- **Scheme experience** as at 30 June 2017 (Section 3).
- **Baseline projection** of Scheme costs, including scenario analysis (Section 4).
- **Risk management** framework and adequacy of controls and processes (Section 5).
- **Key risks and management responses** (Section 6).
- **Recommendations** (Section 7)

1.3 Previous reports

This report makes reference to a number of previous reports and other key documents. There are two reports where particular reference has been used:

- "*Annual financial sustainability report 2015-16*" which documents the previous year's review, referred to in this report as the "previous report" or "previous review".
- "*Quarterly actuarial report Full report 30 June 2017 (data to 31 May 2017)*" which is referred to in this report as the "30 June 2017 monitoring report", although noting that the 30 June 2017 monitoring report relies primarily on information and data as at 31 May 2017.

1.4 Background

The National Disability Insurance Scheme (NDIS) Act received Royal Assent on 28 March 2013, and the NDIS commenced operations on 1 July 2013. At the conclusion of trial (30 June 2016), the NDIS was operational in the nine trial sites shown in Table 1.1.

Table 1.1 Trial site locations

Trial site name	LGAs	Age groups	Commencement date
Hunter trial site - NSW	Newcastle, Lake Macquarie, Maitland	All	1 July 2013
Tasmania trial site	All	15-24 year olds	1 July 2013
Barwon trial site - Victoria	Greater Geelong, Surf Coast, Queenscliff, Colac-Otway	All	1 July 2013
South Australian trial site	All	0-14 year olds	1 July 2013
Australian Capital Territory	All	All	1 July 2014
Perth Hills trial site - WA	Swan, Kalamunda, Mundaring	All	1 July 2014
Barkly region - NT	All	All	1 July 2014
Nepean Blue Mountains site - NSW	Blue Mountains, Hawksbury, Lithgow, Penrith	0-17 year olds	1 July 2015
North Queensland site	Townsville, Charters Towers	0-17 year olds	1 April 2016
	Palm Island	0-64 year olds	

On 1 July 2016 the NDIS commenced transitioning to full scheme and at 30 June 2017, the NDIS was operational in the additional locations shown in Table 1.2.

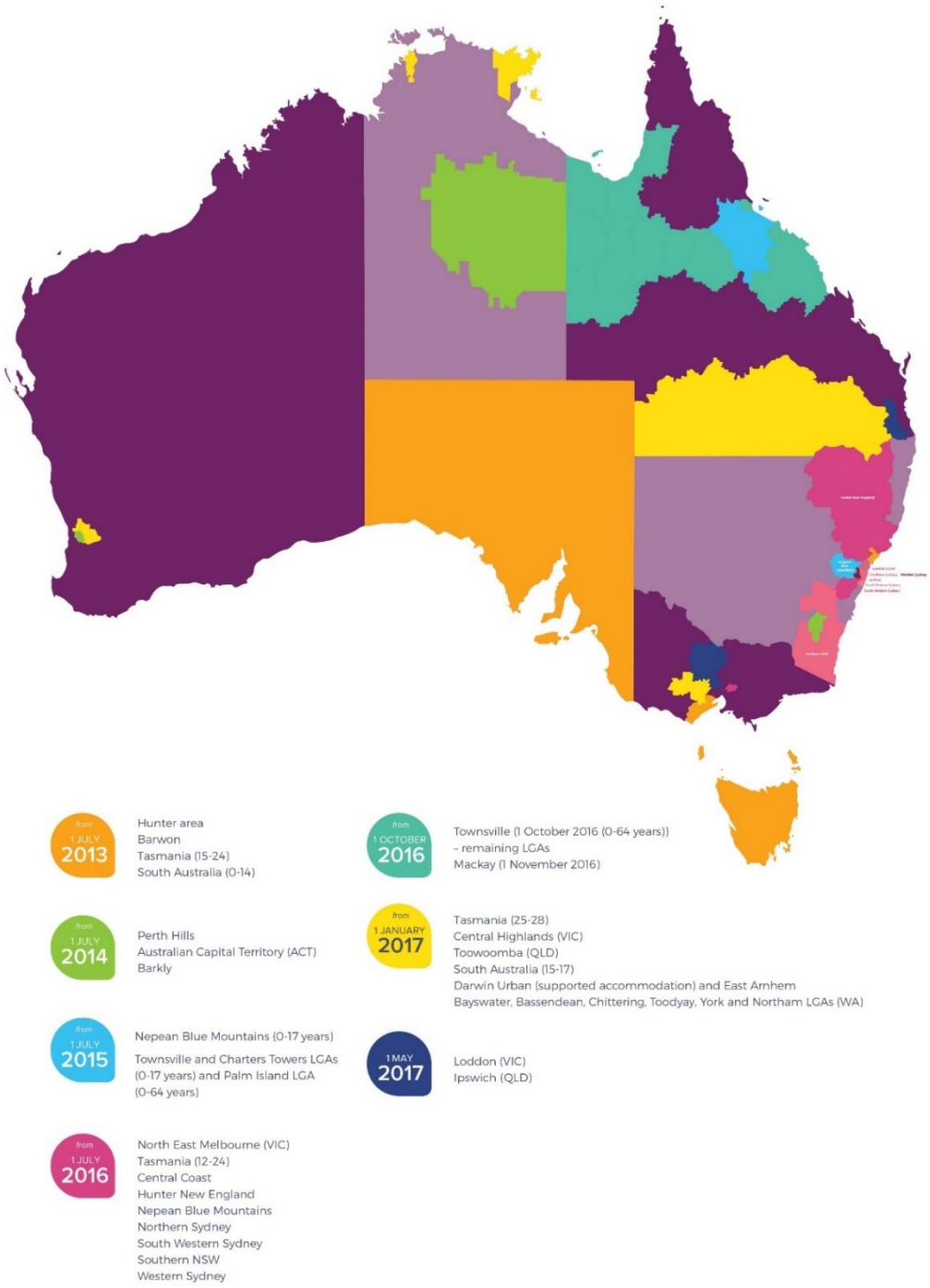
Table 1.2 Transition site additional locations in 2016-17

State	Regions[5]/LGAs	Start date
New South Wales	Central Coast, New England, Northern Sydney, South Western Sydney, Southern New South Wales, Western Sydney, and the remainder of the Hunter and Nepean-Blue Mountains regions	1 July 2016
Victoria	North East Melbourne region	1 July 2016
	Central Highlands	1 January 2017
	Loddon	1 May 2017
Queensland	Townsville region – all ages	1 October 2016
	Mackay region	1 November 2016
	Toowoomba region	1 January 2017
	Ipswich region	26 May 2017
Northern Territory	Darwin Urban (eligible clients in supported accommodation) and East Arnhem	1 January 2017
Tasmania	Expanded to include 12-14 year olds	1 July 2016
	Expanded to include 25-28 year olds	1 January 2017
South Australia	Expanded to include 15-17 year olds	1 January 2017
Western Australia	Bayswater, Bassendean, Chittering, Toodyay, York and Northam LGAs	1 January 2017

[5] The mapping from regions to LGAs is given in each State/Territory's Bilateral Agreement.

Figure 1.1 shows a graphical representation of the NDIS locations at 30 June 2017, with a colour-coded key showing the implementation dates of these locations and the cohort of the population impacted, where relevant.

Figure 1.1 NDIS locations – 30 June 2017



The future rollout plan of the Scheme is shown in Table 1.3, noting that Western Australia has been excluded on the basis of the uncertainty around its continued inclusion in the Scheme.

Table 1.3 Transition site future locations

State	Region/LGAs	Start date
New South Wales	South Eastern Sydney, Sydney, Far West District, Illawarra Shoalhaven, Mid North Coast, Murrumbidgee, Northern NSW, Western NSW	1 July 2017
Victoria	Inner Gippsland, Ovens Murray, Wimmera South West, Inner Eastern Melbourne, Outer Eastern Melbourne	October and November 2017
	Bayside Penninsula, Brimbank Melton, Hume Moreland, Southern Melbourne, Western Melbourne	In 2018
	Goulburn, Mallee, Outer Gippsland	In 2019
Queensland	Bundaberg	1 September 2017
	Rockhampton	1 November 2017
	Beenleigh, Cairns, Brisbane North, Brisbane South, Maryborough, Robin	1 July 2018
	Moreton Bay, Sunshine Coast, Noosa and Gympie LGAs	1 January 2019
Northern Territory	Darwin Remote, Katherine	1 July 2017
	Darwin Urban, Central Australia	1 July 2018
Tasmania	Expanded to include 4-11 year olds	1 July 2017
	Expanded to include 29-34 year olds	1 January 2018
	Expanded to include 0-3 and 35-49 year olds	1 July 2018
	Expanded to include 50-64 year olds	1 January 2019
South Australia	Expanded to include 18-64 year olds - Barossa, Light and Lower North, Northern Adelaide, Limestone Coast, Murray and Mallee	In 2017
	Expanded to include 18-64 year olds – Southern Adelaide, Eastern Adelaide, Southern Adelaide, Western Adelaide, Adelaide Hills, Fleurieu and Kangaroo Island, Eyre Western, Far North, Yorke and Mid North	In 2018

1.5 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 Agency 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 Agency 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 Code of Professional 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

This report uses information from the Agency's case management system, finance system and the data warehouse. During the three years of trial, the Department of Social Services (DSS) hosted the Agency's information systems. From 1 July 2016, the Department of Human Services (DHS) has been the Agency's ICT supplier.

2.1.1 Case management systems

Case management systems are used by front-line staff to enter information about participants and their plans. They are also used to capture information about service providers and the supports they are registered to provide under the Scheme. The case management systems are accessed by service providers to claim payments for supports provided to participants, and by participants who are self-managing to claim payments.

- **1 July 2013 – 30 June 2016:** Siebel was the system used for case management, hosted by DSS. The instance of Siebel used by the Agency was shared with other DSS programs, and was principally designed as a grants-management system. While Siebel was used for the Scheme's trial period, it was intended as an interim system to be replaced with a fit-for-purpose case management system.
- **1 July 2016 – Current:** SAP CRM (Client Relationship Management) is the Agency's current case management system. Hosted and built by DHS, the system went live with the core functionality required to manage participants, providers and claims for payments. SAP CRM is scheduled to undergo a number of enhancements to increase the system's capabilities.
    - The Siebel data was migrated to SAP CRM for the 1 July 2016 "go-live" date.
    - The transition to the new case management system caused a disruption to claims for payment. These issues were largely resolved by 31 August 2016.
    - Further, until future enhancements to (a) SAP CRM and/or (b) business processes are implemented, the transition has affected some aspects of data quality. The impact of these is discussed in Section 2.3.

The design of the CRM is largely unchanged since the deployment of the Minimum Viable Product (MVP) on 1 July 2016. The primary objective of this delivery was to enable critical operational activities, such as plan approvals and payments. The fundamental issue with this approach is that the design did not need to future-proof for known enhancements in order to

meet MVP requirements. An example of this in the current system is that it is possible to manage a participant plan for a participant with an individual budget, but without a major redesign, it is not possible to record the supports and referrals for a person with disability who is not a participant of the scheme, but could be supported in the ECEI gateway or by a local area coordinator. In 2016-17, the ICT program implemented a number of “change requests”, addressing specific deficits in the CRM design, however an enterprise review of the solution is recommended. In particular, the way a system review should consider how CRM (i) ensures a single person-centred record for people with disability moving between an individual budget and the gateway; (ii) builds and administers changes to participant plans, and; (iii) manages provider data and organisation structures. Further, there is currently an absence of business intelligence or data integrity validations in the system. Future system enhancements should consider these business intelligence requirements specifically.

2.1.2 Finance systems

SAP Finance is the Agency finance system. All payments to and from the Agency are made using SAP Finance.

In line with DHS practice, the Agency commenced the use of SAP PSCD as an intermediary between the case management system and SAP Finance from 1 July 2016.

2.1.3 Data warehouse

A data warehouse is used to store and catalogue data extracted from ICT systems, such as the case management system. The Agency receives daily extracts from its case management system to the data warehouse.

- **1 July 2013 – 30 September 2015:** Normalised Siebel data was landed daily on an SQL database by DSS. The actuarial team converted this information into usable metafiles. Note: this data warehouse did not have a longitudinal capability.
- **1 October 2015 – 30 June 2016:** Hosting of the data warehouse moved from DSS to DHS. As all information systems other than the warehouse continued to be hosted by DSS, daily text-file extracts of Siebel were transmitted by DSS and landed on the DHS Teradata database. All historical Siebel data was migrated to the DHS Teradata database. The Agency’s actuarial division continued to combine this daily data to provide longitudinal records for participants.
- **1 July 2016 – Current:** Raw SAP data tables are landed daily on a Teradata database. These are system tables and are not fit for reporting or analysis. The landed data are normalised in the Integrated Data Store (IDS), which has been progressively built since September 2016. The lack of readily consumable data has delayed the building of reporting and analysis required to monitor financial sustainability. In the interim, the Agency’s actuarial division have met core business

needs by transforming data directly from the raw SAP tables – this is a labour-intensive exercise. Although the first stage of the IDS is largely delivered, there remains a number of ongoing integrity and scope issues which prevent the IDS from being the primary reporting source. In lieu of this data, the Agency's actuarial division continue to expand the data available for reporting directly from raw SAP tables.

Improved databases and analytical tools would allow the actuarial team to monitor, analyse and provide operational support to the NDIA, and work more closely with Operations to understand experience, and also allow this monitoring to occur in a more timely way. A number of projects are underway to address these issues, and these should continue as a priority in 2017-18.

2.2 Data available for analysis

The detailed actuarial analysis for this report is primarily based on data at 30 June 2017. Table 2.1 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 requests to the NDIS	• Demographic information (age, gender, disability, indigenous status, CALD status) • Contact details • Access request date • Outcome of request (for example: eligible, ineligible)
NDIS participant plans	• Plan approval date • All supports included in the plan, including cost of the supports • 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) • Participant goals • Mainstream and informal supports • Reference package amount • Total committed support
Payments to service providers	• Service provider submitting the claim for payment • Participant for whom the support was provided • The support item provided • Quantity of support provided • Cost of support provided • Dates of when the support was provided
Payments to participants	• Participant submitting the claim for payment • The support category provided • Total cost spend on support category • Period of reimbursement
Data on level of function	• At 30 June 2017, 94% of participants have information recorded on their level of function using diagnostic/functional assessment tools. Those without level of function scores are generally trial participants. In some cases a default value has been assigned in CRM, although the extent of this is not currently identifiable.
Guided planning questionnaire	• The guided planning questionnaire collects data across eight domains: daily activities, social participation, consumables, transport, support co-ordination, assistive technology, home modifications, and capacity building.
Data on outcomes	• At 30 June 2016, 23,461 Short-Form Outcomes Framework (SFOF) questionnaires had been completed by trial participants: 13,082 for participants and 10,379 for their family/carers. For participants entering the Scheme from 1 July 2016, this information has been collected from about 98% of all participants.
Data provided by the State/Territory and Commonwealth governments	• List of clients receiving support from service providers in the existing disability system, including age and contact details. This data is loaded into the CRM for the National Access Team to contact potential participants. • Projected Scheme costs and numbers from the State, Territory and Commonwealth bilateral agreements.
ABS population projections	• 3222.0 Population Projections, Australia, 2012 (base) to 2101 (Series B).

Data	Description
Financial information	• Data from the SAP CRM system were reconciled with financial information in SAP. (This is shown in Appendix B.)
Epidemiological data	• Incidence, prevalence and relative risk mortality on a range of disabilities, from accident compensation schemes, and the Australian Institute of Health and Welfare Burden of Disease Study.[6]
Commonwealth aged care data	• Information on entry to residential aged care was used to inform projections of participants remaining in the Scheme past the age of 65 years.
Productivity Commission costings	• The PC original costings of the Scheme. This was based on the 2009 ABS Survey of Disability, Ageing and Carers, and the cost of supports from accident compensation schemes, and State/Territory disability systems.

2.3 Data integrity

2.3.1 Agency commitment to data management

The NDIS has a strong commitment to the delivery of high quality data, reporting and business intelligence capability. This is confirmed in the *NDIS Data Management Strategy 2017-2020* which states the importance of the NDIS having a high quality data asset, with strong governance. Further, the "*NDIS Business Intelligence Strategy 2017-2020*" outlines the strategy to deliver a foundational business intelligence capability within the scheme based on strong insurance principles using comprehensive and reliable data.

Business intelligence is an organisation's ability to analyse and use its raw data to inform decision-making and mitigate risks. It underpins the financial sustainability work that is performed within the Agency. As the Scheme continues a period of rapid growth, there are a number of projects underway which will increase the business intelligence capability of the Agency. This includes:

- establishment and refinement of governance processes for data management and assurance
- information availability and fit for purpose reporting for both operational and management requirements

[6] http://www.aihw.gov.au/burden-of-disease/

- improved gateway interfaces with business partners and channels
- participant analytics and assistance in participant pathway redesign
- provider league table development and analytics to help promote participant outcomes and accessibility and further development of supply and demand models
- analytics to help participants, families and carers to maximise opportunities at plan review, including the development of lifetime models

The data warehousing capability continues to be developed and relied upon to provide much of the data that is used in the financial sustainability work.

2.3.2 Data integrity issues

The Agency has a clear vision around the future direction of data management and business intelligence. However, there are a number of data integrity issues and limitations within the current ICT business system which have had a direct impact on assessing financial sustainability of the scheme for this review. These are expanded on below.

Impacting committed supports:

- In April 2017, samples of participant plans with large increases in committed supports at plan review were supplied to the Operations division of the Agency for examination to verify that the plans were built correctly and appropriately. On the whole, the reviews indicated a mix of plans that contained errors and those that did not. There were few systematic findings that could result in algorithms to fix plans. Work is ongoing with the regions to identify plans with errors and remediate where necessary. Issues identified impacting committed supports to date are further summarised below.
- Pro-rating issues where plan amounts are not adjusted to the plan duration. This primarily occurs when a plan is reviewed before its original end date and a new plan approved. Where the new plan has a disproportionate amount of funding compared with the plan length, this leads to large apparent increases on an annualised basis. Staff training and improved controls in the ICT system are possible responses as well as shorter term remedial actions and plans.
- A practice of ‘front loading’ where newly approved plans had additional funding included to accommodate payments due for supports under the previous plan. This may be due to issues in claiming against the previous plan e.g. the support was not included in the previous plan.
- A number of plans have been identified with increases that do not appear reasonable. The results of the review were mixed, but some plans contained errors. Issues with lack of justification for supports were also present, indicating inadequate quality assurance processes on plan review increases.

- Overall, participants who have entered the Scheme in recent months appear to have plan reviews more quickly than might be expected. As an example, 17% of transition participants already have more than one plan.[7] This excludes participants with plans that are less than 31 days in duration (assumed to be errors). If these plans are included, 25% of transition participants have had more than one plan. The initial sample review indicated that planner error was leading to more frequent reviews.

Impacting payments:

- Issues with payments which have implications for monitoring prices of supports and the quantities of supports purchased, and also potentially circumvents system controls on unit prices:
  - Payments where the unit price and quantity have been reversed (e.g. unit price entered as $1 and quantity set to the unit price).
  - Payments where the unit price is set to $1 (even though the quantity and price will have exceeded this) and a quantity set to the total payment amount (which can be large).
- Provider registrations are not checked with reference to the relevant State/Territory, meaning payments are approved for any State/Territory as long as they are registered in one.
- Around $350,000 to $400,000 of “double payments” to school aged children who receive in-kind state funding for special disability transport, receiving periodic transport payments as well as receiving the supports through State/Territory funding. This issue has now been rectified.
- In its 2015-16 audit of the Agency, the Australian National Audit Office (ANAO) identified the lack of compliance activities for payments made directly to self-managed participants and the limited assurance program for payments made to providers as a Category A finding (a significant business or financial management risk to the entity).

Impacting measurement of level of function:

- The functional assessment tool used to determine a participant’s level of function is required to be recorded in the CRM for all participants. Where a functional assessment tool is not available or has not been used to assess a participant’s level of function, a default value for level of function is recorded in the CRM. Data issues

[7] Transition participants are those that had their first plan approved after 1 July 2016.

(including missing tool information) make it difficult to identify which participants have a default value. This issue is with DHS for resolution.

- In addition, some transition participants have had plan reviews and their level of function has deteriorated in a short period of time. The review by the Operations division indicates that there may be issues in recording the level of function initially, leading to the apparent change in level of function when the information is captured later. This issue is important in the context that a participant's level of function may be linked to their plan amount through the guided planning process.

Impacting ECEI:

- A current implementation issue for the ECEI approach is the capture of key data on children within the ECEI gateway who are not participants in the Scheme, and particularly those who are unknown to the Scheme. The ICT business system does not enable the adequate capture of information on these children. As such, data on children being supported under the ECEI approach by ECEI Partners (and transition providers) is currently collected using an off-system data collection tool.
- Work to design and implement changes to the ICT business system, which will enable critical information on the ECEI gateway only group of children to be recorded in the ICT business system is required. Note that this is currently not progressing.

Impacting in-kind:

- The ICT business system is currently unable to adequately capture information on in-kind services. Data on in-kind programs is therefore often collected using off-system manual data collection tools.
- Estimation of the expected utilisation of programs and providers are based on a number of manual processes and different sources including:
    - Data matching of State/Territory in-kind support information and Scheme participant information
    - Off-system invoices received from service providers
    - In-kind support estimates from State/Territory and Commonwealth governments
- There are many examples of where there is a known difference between the NDIS benchmark price and the in-kind agreed draw down unit cost, requiring an adjustment to be made to the committed supports in a participant's plan. This results in higher plan costs than anticipated and in some cases is contributing to plan inflation, especially where continued negotiation on in-kind prices has led to upwards revision in the cost of these supports, sometimes retrospectively.
- There remain limitations to current in-kind processes. For example, in-kind supports are not always entered into participant plans and there can be limited information

from sites and service providers on which participants are receiving in-kind services, meaning that supports cannot be matched back to individual participants.

Recommendation

1. There are a number of emerging issues in relation to data quality and data integrity which questions the adequacy of the current ICT business system to provide timely, appropriate and quality Scheme data. It has also been relatively difficult and time consuming for changes to be implemented to rectify emerging data integrity issues. The longer that these issues remain unresolved, the harder it will be to form views on any adverse trends in Scheme experience and for management to be able to respond accordingly. It is recommended that data quality (through the Data Management Committee) be a key priority for the Agency over the next 12 months to help respond to emerging data integrity issues.

3. Scheme experience

Summary of key findings

- As at 30 June 2017 there were 90,638 participants that have had an approved plan in the Scheme, of which 89,610 remain active participants. The number of active participants is equivalent to about a fifth of the expected full-scheme population.
- The number of approved plans represents about 83% of the 2016-17 bilateral estimate, including participants in the ECEI gateway, meaning that there is increasing pressure on the ability of the Scheme to meet the bilateral rollout targets.
- The characteristics of current participants have been influenced by phasing patterns, especially as specific programs or specific age groups are phased in, meaning a bias towards younger participants, lower level of function participants and to those with autism and intellectual disability (including developmental delay).
- After adjusting expectations for phase-in biases, the following observations are noted:
  - more children and low level of function participants than expected
  - lower numbers of adults than expected
  - slower entry of new participants into the Scheme than expected
  - fewer exits from younger participants than expected
- At 30 June 2017, $7.3 billion of support has been committed to participants since the inception of the Scheme, of which $1.5 billion relates to supports committed during the trial period, $3.2 billion relates to supports committed during 2016-17 and $2.6 billion related to supports committed in 2017-18 and beyond.
- The distribution of committed supports indicates higher than expected average packages for participants with high level of function.
- 51,584 participants had an approved plan via the guided planning process during 2016-17, and committed supports exceed typical support packages and revenue, particularly those with high levels of function (as mentioned above) and those in shared supported accommodation.
- Plan costs have increased over and above inflation and ageing, with measured superimposed inflation of about 7-12%.
- Utilisation of committed supports is 64% for supports committed in 2013-14 and around 75% for supports committed from 2014-15 to 2016-17, although utilisation varies across State/Territories, and is generally lower for a participants' first plan.
- Baseline data from the short-form outcomes framework (SFOF) questionnaires were collected during 2016-17, revealing that participants generally want more choice and control in their life, have low levels of employment and community

participation and that families and carers would like to work more and see their family and friends more often.

- Data was also collected on trial participants who had received more than one plan. This information indicated that the NDIS was helping most in the domains of choice and control, daily activities, and health and wellbeing. The NDIS was helping least in the domains of work and home.
- For families/carers of participants who had received more than one plan, the NDIS impacted most in supporting families/carers and assisting families/carers to access to services for participants. The NDIS impacted least in the domain of succession planning.
- Lastly, data was collected on participant satisfaction with the planning process. Satisfaction fell in 2016-17 by approximately ten percentage points compare with trial (from approximately 95% of participants reporting that the planning process was either good or very good in trial, to approximately 85% in 2016-17).

3.1 Background

This section describes the experience of the Scheme after four years of operations (2013-14 to 2016-17). Scheme experience has been compared to expectations where possible, including to the original Productivity Commission costing estimates, the State/Territory bilateral agreements and the previous actuarial valuation model.

Specifically this section includes analysis on:

- **Participants** – participant numbers and trends, the prevalence of participants compared with Productivity Commission estimates and analysis of exits and entrants.
- **Committed supports and actual payments** – the amount of support committed in participant plans and actual payments to service providers/participants, comparison of committed support to typical support packages, superimposed inflation and analysis of utilisation.
- **Shared supported accommodation** – participant numbers and committed supports.
- **Participant outcomes** – an update on participant outcomes and satisfaction, and use of mainstream services.

Some of the key statistics for the Scheme as at 30 June 2017 are shown in Table 3.1.

Table 3.1 Key statistics of Scheme as at 30 June 2017[8] [9] [10]

Number of participants	Total	NSW	VIC	QLD	WA	SA	TAS	ACT	NT
Ever access met	122,065	62,069	22,514	8,936	4,115	14,848	2,535	6,554	487
Active access met	120,457	61,383	22,161	8,864	4,030	14,723	2,491	6,327	471
Ever with an approved plan	90,638	43,936	15,434	7,188	3,782	11,634	2,229	6,047	388
Active with an approved plan	89,610	43,525	15,188	7,161	3,729	11,552	2,200	5,878	377
Active ECEI confirmed	6,134	4,330	1,050	254	0	482	18	0	0

Committed Supports	2013-14	2014-15	2015-16	2016-17	Beyond	Total
Committed Supports ($m)	132.7	495.6	920.1	3,152.9	2,629.5	7,330.9
Payments to date ($m)	85.3	370.1	699.6	1,869.1	0.0	3,024.2
Utilisation	64%	75%	76%	59%		

Annualised committed supports	Total	NSW	VIC	QLD	WA	SA	TAS	ACT	NT
Annualised in current plans ($m)	4,694.8	2,516.2	786.5	475.9	199.6	234.0	125.2	303.5	53.9
Average annualised ($)	52,392	57,810	51,783	66,462	53,525	20,259	56,908	51,633	142,980

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. As at 30 June 2017 there were 90,638 participants that have ever had an approved plan. Including 6,134 people in the ECEI gateway, this was 83% of the bilateral agreements, indicating that the roll-out of transition is behind schedule[11].

There were 89,610 active participants with an approved plan at 30 June 2017. These participants have average annualised committed supports of around $52,400. Total committed supports to the end of 2016-17 was around $4.7 billion, however not all of these committed supports have been paid to participants, with utilisation rates emerging between 64% and 76% of committed supports since Scheme inception.

[8] There have been a low number of high cost Northern Territory participants who have entered the scheme to date, dominated by those with shared supported accommodation arrangements in Darwin.

[9] The utilisation rate for 2016-17 is 59%. This is likely to increase over time as there is a lag between when supports are provided and when payments are made. This impacts the 2016-17 support year especially as many provider invoices may not have been prepared, processed or paid as yet.

[10] There are seven participants that have a status of 'access met' but have a missing jurisdiction. These participants have been excluded from the table.

[11] The number of participants is below expectations and this is likely due to a number of reasons: the states/territories information on existing clients may not always have been accurate in regard to potential clients; participants may not have been able to be contacted (or did not want to be phased into the scheme); or participants weren't able have actual plans approved despite eligibility having been determined.

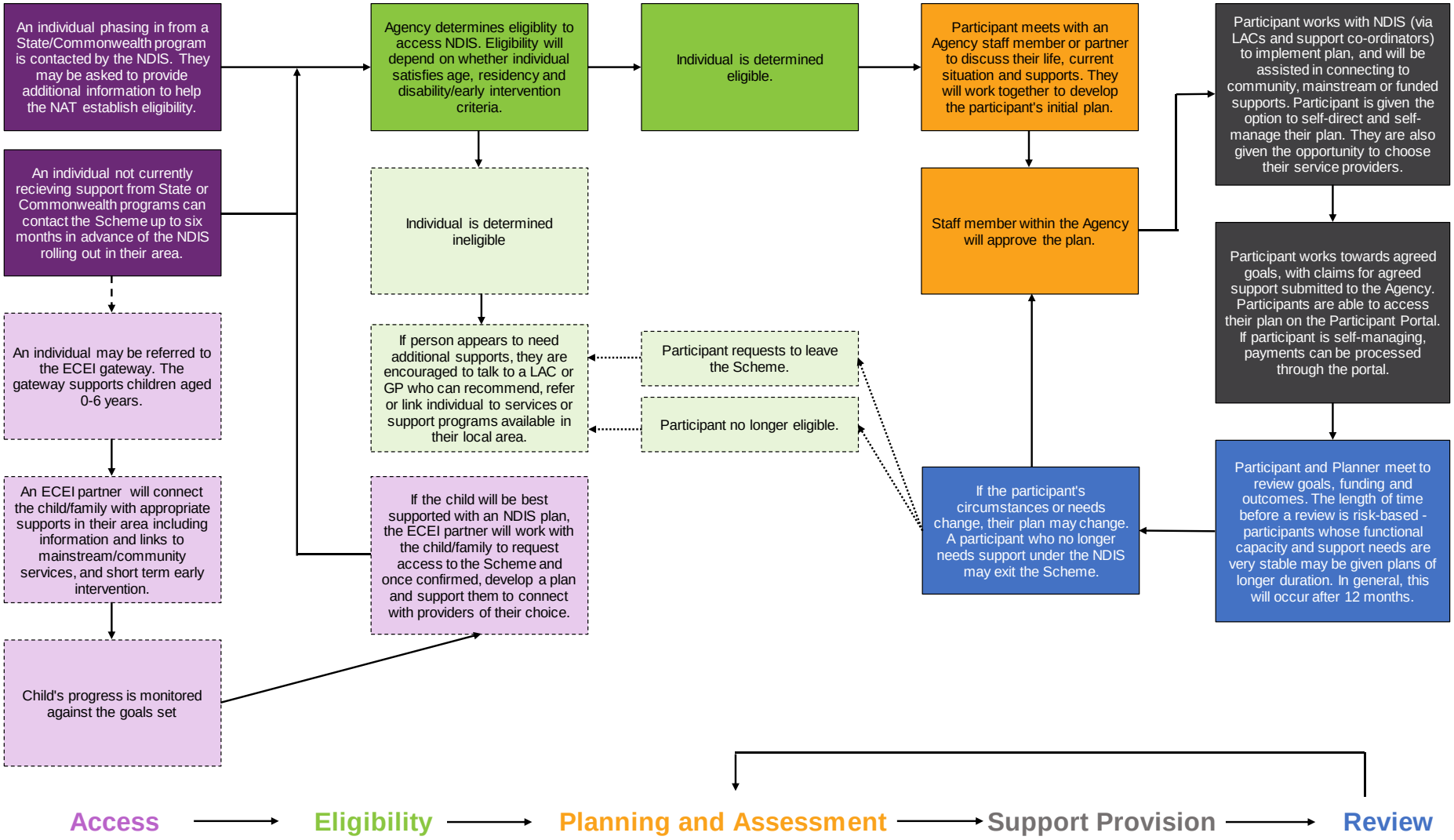
3.2 Participants

The steps in the participant journey are outlined in Figure 3.1. This reflects the participant journey as at the time of writing this report. Significant work is being undertaken to refresh this participant journey, based on feedback from participants and other stakeholders, and progress on this initiative is discussed in further detail in Section 6.3.

In summary the steps in the process are:

- Access: individuals submit an access request form in order for their eligibility to be assessed.
- Eligibility: eligibility is assessed against the eligibility criteria specified in the NDIS Act (sections 24 and 25).
- Planning and assessment: Participants develop a plan with the Agency Planner, which includes a statement of goals, a statement of needs, and a statement of supports.
- Support provision: participants engage supports in line with agreed plans.
- Review: plans are reviewed at the conclusion of each plan.

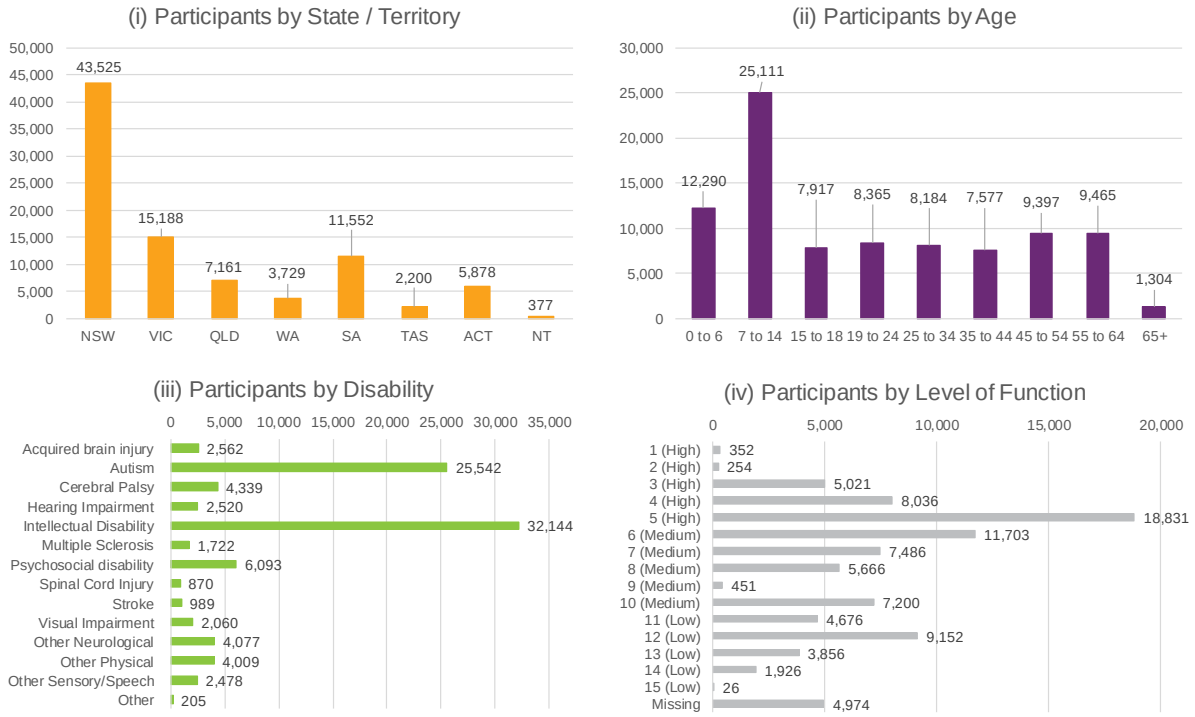
Figure 3.1 NDIS participant journey



3.2.1 Participant numbers and their characteristics

There were 89,610 active participants in the Scheme as at 30 June 2017. Figure 3.2 shows the distribution of participants in the Scheme by a number of different characteristics including State/Territory, age band, disability type and level of function.

Figure 3.2 Scheme participant characteristics as at 30 June 2017



Key observations from this experience are:

- The majority of participants are from New South Wales (49%), followed by Victoria (17%), South Australia (13%), Queensland (8%) and the Australian Capital Territory (7%).
- The distribution of participants by age band is skewed towards children under the age of 14. While part of this relates to the phasing schedule of the State/Territory bilateral agreements (where regions such as South Australia, Nepean Blue Mountains and Townsville have phased in children earlier), part of this appears to be genuine experience in that there have been more children assessed as eligible for the Scheme than expected. Section 3.2.3 considers this experience further.
- The distribution by disability type has seen high levels of children with autism and intellectual disability (including developmental delay) in the Scheme. Some of this has been influenced by the high numbers of children entering the Scheme.

- The distribution of participants by level of function is varied and primarily reflects the results of the specific disability assessment tools and the mapping of the results to the fifteen level of function categories.[12]

3.2.2 Comparison of participant characteristics against expectations

Given that the phasing of Scheme entrants has varied by age, level of function and region, most of the comparisons against expected have been limited to the more mature sites (for example, the Hunter trial site, Barwon and the Australian Capital Territory), to obtain an indication of participant experience compared with expected. In these sites, the majority of participants are expected to have transitioned into the Scheme, although Section 3.2.5 also highlights continued significant numbers of new entrants in these areas meaning that even the most established trial sites are not fully mature.

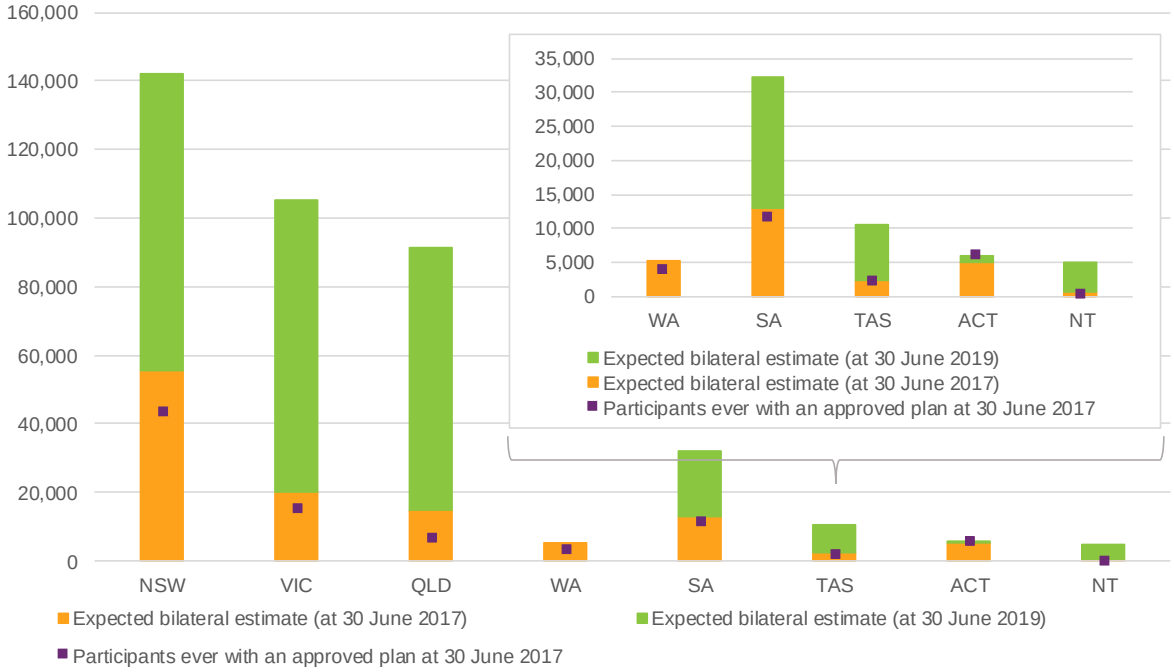
Phasing

The Scheme is expected to be fully rolled out by 30 June 2019, with the phasing schedule varying by State/Territory and region. Figure 3.3 shows the number of active participants with an approved plan compared with the 2016-17 and 2018-19 bilateral estimates. Overall, the number of approved plans represents 83% of the 2016-17 bilateral estimate, after including 6,134 participants in the Early Childhood Early Intervention gateway, however this percentage varies by State/Territory.

Queensland has been phasing in much slower than expected, whilst the Australian Capital Territory is above their bilateral estimate at 30 June 2017. Separate monitoring has shown that the number of "eligible" participants is tracking closer to what is expected within the bilateral agreements, suggesting that there have been delays in the approval of plans.

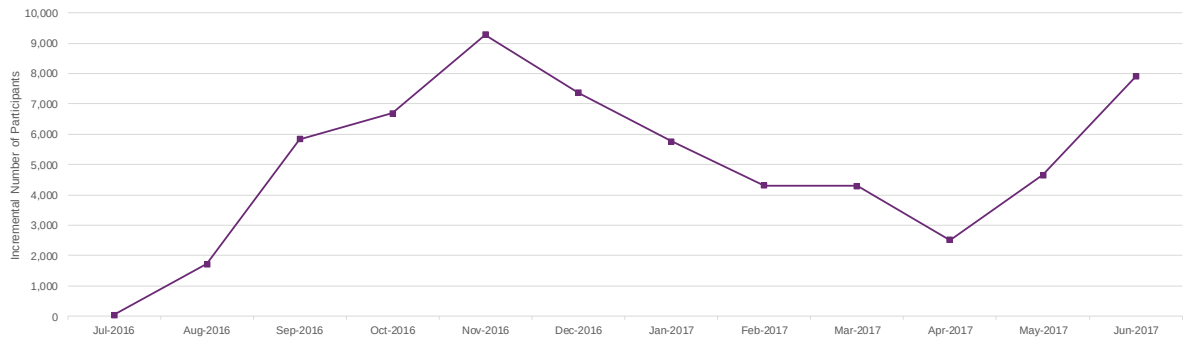
[12] For example, the disability assessment tool commonly used for intellectual disability is the DSM-5. This results in four different levels of function which correspond to levels 5, 7, 11 and 13 on the 15 point scale. Furthermore, almost 50% of participants are using the WHODAS 2.0, which accounts for the large number of participants with a level of function of 3, 6, 8, 10 or 12.

Figure 3.3 Scheme participants compared to phasing schedule



In the weeks just preceding 30 June 2017, there was a focus on reaching the bilateral targets, with close to 70% more plans being approved in June 2017 compared with May 2017 (Figure 3.4), and significant numbers of plans being finalised in the last two weeks of June 2017. There is a risk to the Scheme that a focus on meeting bilateral targets for Scheme participants may be at the expense of a deterioration in plan quality and inhibit the ability of the Scheme to implement management responses to emerging issues. This topic is discussed further in various other sections of this report.

Figure 3.4 Number of plan approvals each month

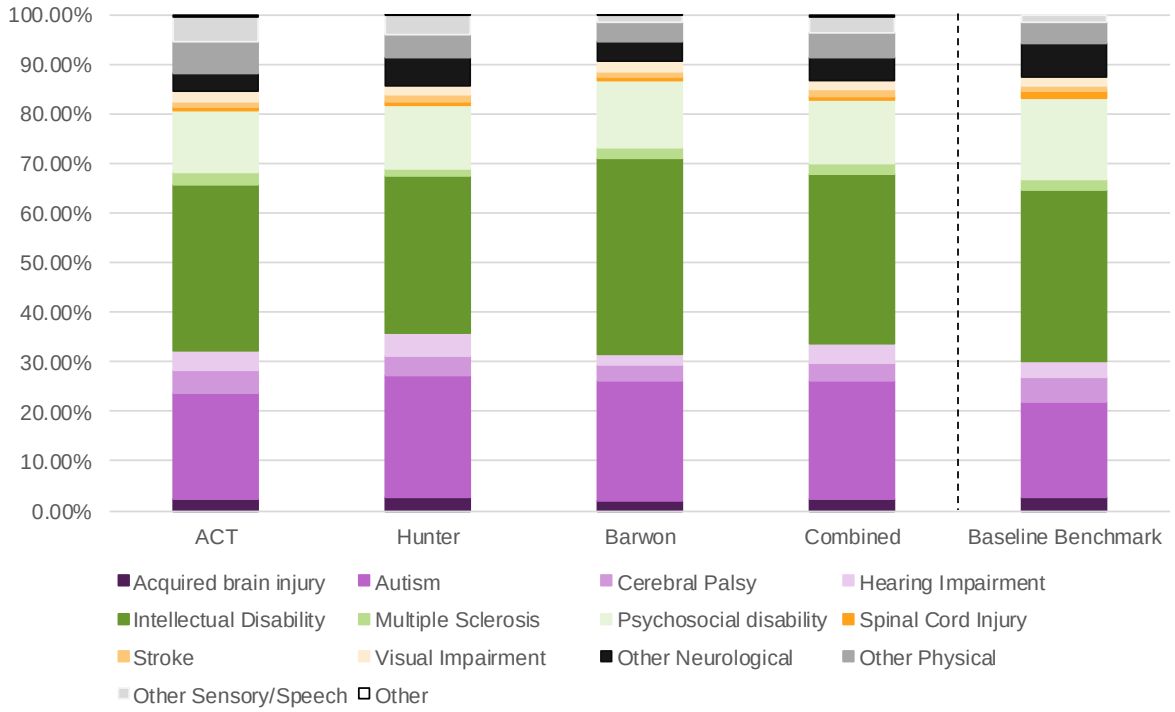


Distribution of participants by disability type

Figure 3.5 shows the distribution by disability type for participants in the most fully developed regions of ACT, Hunter and Barwon compared with long term Scheme expectations from

benchmark projections[13]. The distribution of disability is relatively similar across all sites, with autism, intellectual disability and psychosocial disability being the most common disability types. The types of disability are closely linked to the age distribution within the site.

Figure 3.5 Distribution of participants by disability type versus expected (0-64 years)



There is a greater proportion of participants with autism and intellectual disability than expected when compared against the Scheme baseline benchmark. This experience correlates closely with the higher numbers of children entering the Scheme, and is discussed further in Section 3.2.3.

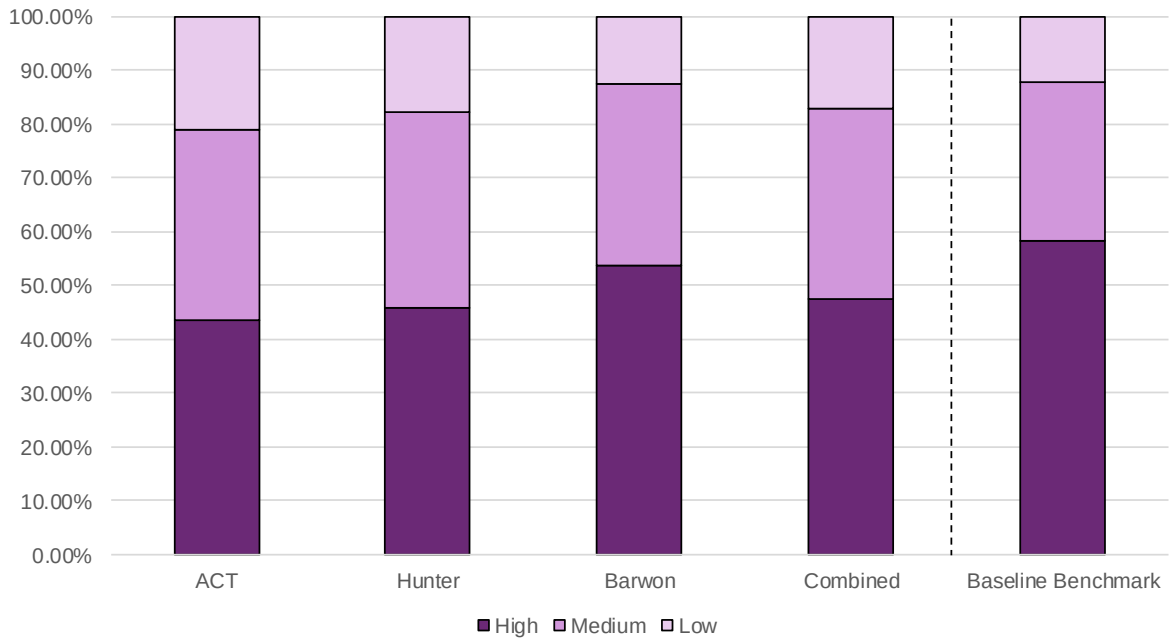
Across other regions, the proportion of children with autism and intellectual disability is higher due to the phasing schedule of participants into the Scheme, with greater proportions of children entering the Scheme to date in regions such as South Australia and Queensland. Further, the proportion of participants with psychosocial disability and neurological disability are lower, due to the phasing schedule, in other regions.

[13] The “Baseline Benchmark” referred to here, and in other parts of this report, refers to the underlying assumptions of the Baseline Projections from the previous Financial Sustainability Report.

Distribution of participants by level of function

The graph below shows the distribution of participants aged 0 to 64 years by level of function in the ACT, Hunter and Barwon. Across all sites, there is a lower proportion of participants with high level of function compared with the Scheme benchmark.

Figure 3.6 Distribution of participants by level of function versus expected (0-64 years)



The ACT and Hunter have a similar distribution by level of function, and both of these sites have a higher proportion of participants with low level of function compared with the Scheme benchmark. In Hunter, this is partly driven by the higher number of participants in shared supported accommodation. There is therefore some evidence that the distribution by level of function is emerging different to expectations. However, there are still material numbers of new participants entering these regions as shown later in Section 3.2.5. The new incidence is generally for participants with higher levels of function. Therefore, over time it may be expected that the distributions by level of function may drift closer to the baseline benchmark.

Note that there is a significant number of participants where data on level of function has not been recorded, particularly for participants who had their plans approved in the trial period. Therefore the distribution of level of function in the Scheme and across the sites may not be reflective of the long term distribution. In addition, there is an increasing usage of the

generalised disability assessment tool WHODAS[14] (for adults), even though disability-specific assessment tools have been developed and would provide more appropriate level of function information.

Recommendation

2. Due to the large number of participants with a 'missing' level of function or where the general disability tool WHODAS have been used in lieu of arguably more disability-specific function assessment tools, it is recommended that there is a focus from the Scheme on collecting level of function information from more disability-specific tools.

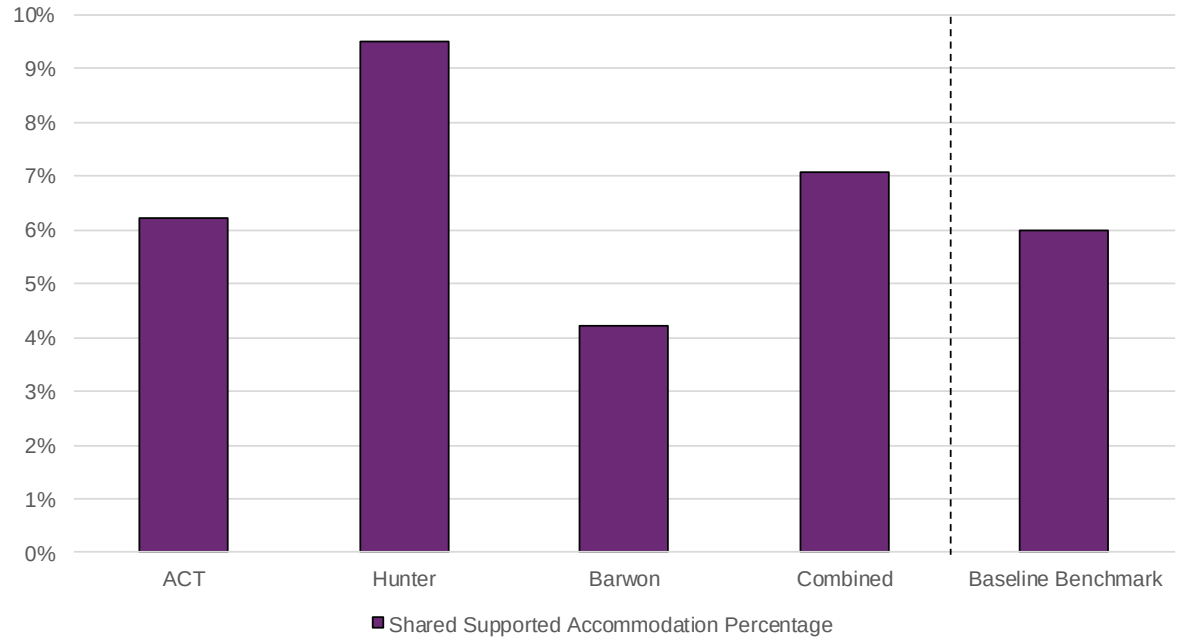
Shared supported accommodation

Participants with Shared Supported Accommodation (SSA) arrangements are expected to account for about a third of the total expected participant support costs in the Scheme and only about 6-7% of the participant population.

Figure 3.7 shows the split of participants by shared supported accommodation (SSA) and non-SSA in the three most mature trial sites compared with the Scheme benchmark.

[14] The WHODAS 2.0 generates a score of 1 to 100 based on 12 questions which cover six domains of functioning. The raw WHODAS scores map to five levels on the 15 point scale and there has been a noticeable concentration of scores in these levels. Furthermore, with only 12 questions, the WHODAS is not a comprehensive assessment of level of function.

Figure 3.7 Proportion of participants with SSA versus expected (0-64 years)

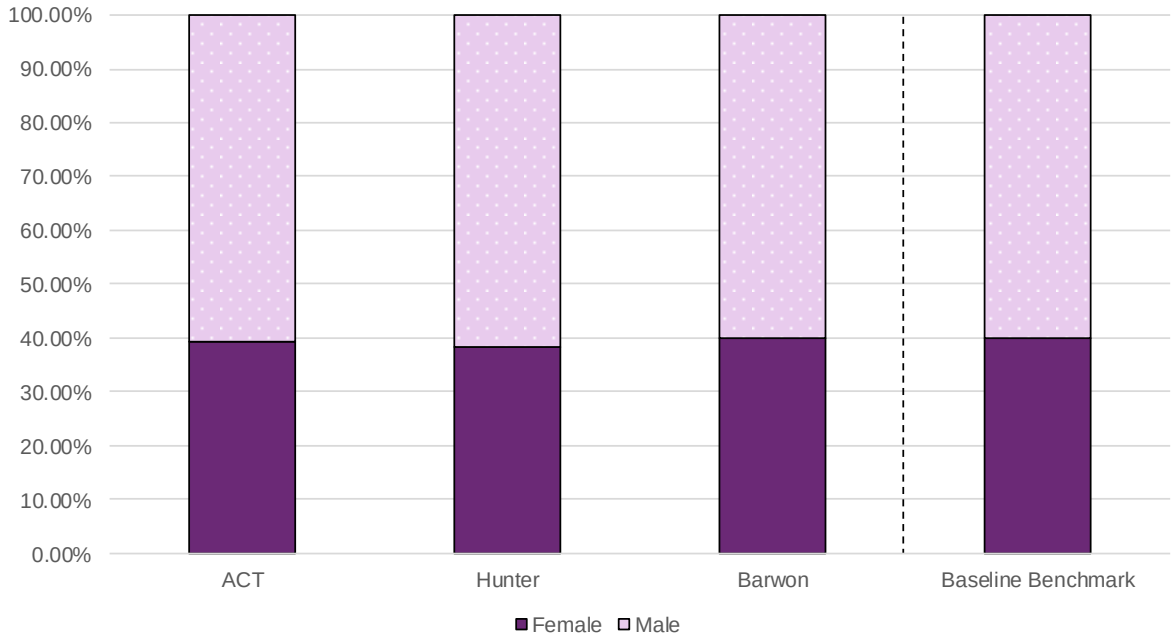


Hunter has a higher proportion of participants in SSA arrangements compared with the Scheme baseline benchmark, whilst Barwon has a lower proportion of participants in SSA. The distribution of SSA/non-SSA participants in the ACT is similar to the Scheme baseline benchmark. While this combined experience suggests slightly higher levels of SSA arrangements than the Scheme baseline benchmark, the Hunter region has some large residential accommodation centres contributing to its experience. Given the relatively small amount of experience, there is not enough evidence to suggest the baseline benchmark assumption is inappropriate.

Gender

The graph below shows the distribution of participants by gender in the three sites compared with the Scheme benchmark. It can be seen that the distribution across all sites is similar to the baseline benchmark distribution, with approximately 40% of participants being female and 60% of participants being male.

Figure 3.8 Distribution of participants by gender compared with expected (0-64 years)



3.2.3 Prevalence

A detailed comparison of prevalence by age band has been conducted on data as at 30 June 2017. The key findings from this analysis were:

- The actual prevalence exceeds the expected national prevalence for several sites within the 0-6 years, 7-14 years and 15-18 years age bands.
  - Trial sites commencing in 2013-14 are higher than expected by 37% (0-6 years), 27% (7-14 years) and 29% (15-18 years).
  - Trial sites commencing in 2014-15 are mixed at 27% above (0-6 years), 5% below (7-14 years) and 9% above (15-18 years).
  - The current prevalence for 2014-15 is similar to the prevalence of 2013-14 sites as at 30 June 2016, suggesting that the differential could be a lack of development rather than improvement[15].
  - For ages 0-6 years the higher prevalence is being driven by participants with developmental delay, ages 7-14 is being driven by participants with autism while ages 15+ is being driven by a mixture of participants with autism and intellectual disability.
- Conversely, the 25-34 years old, 35-44 years old, 45-54 years old and 55-64 years old age bands are below the national prevalence expectation for most sites.
  - Trial sites commencing in 2013-14 range from 3% below expectation (25-34 years) to 19% below expectation (35-44 years).
  - Trial sites commencing in 2014-15 are at least 35% below expectation. Unlike the younger ages, the trial sites in 2014-15 appear quite different to earlier trial sites in terms of the emerging prevalence.
- The prevalence continues to increase in trial sites (consistent with the observations of the entrants analysis), particularly for the 7-14, 15-18 and 19-24 years age bands. However, the 0-6 years and 25+ age bands have begun to stabilise in the last quarter.

While analysis of trial sites has been used to provide indications of how full scheme might vary from expectations, monitoring of regions commencing from 1 July 2016 is also

[15] Analysis by region suggests that some of the variance could also be due to regional differences in the prevalence of disability, as measured using the 2011 Census Need for Assistance variable. That is, regional variations in the prevalence of disability is a major factor when comparing to a scheme benchmark.

undertaken, noting that the commencement date of these transition sites also varies. Key observations include:

- Some of the transition sites which started on 1 July 2016 are already approaching the expected national prevalence for 0-6 year olds, including Central Coast and Southern NSW (in New South Wales) and North East Melbourne (Victoria)[16].
- Similarly, for the 15-18 year olds, Central Coast (NSW) is close to expected prevalence and still increasing. Furthermore, South Australia commenced transition for 15-17 year olds from 1 January 2017, and several regions are already approaching (or exceeding) expected national prevalence[17].

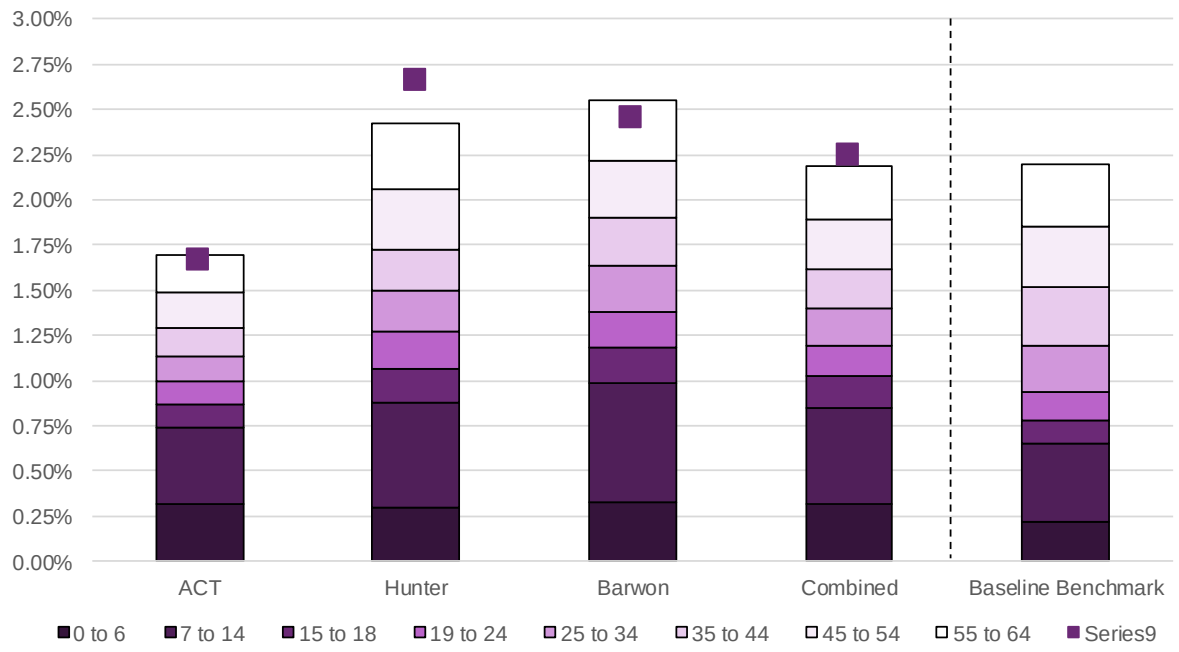
Figure 3.9 shows a combined view of the overall prevalence for participants aged 0-64 in the Australian Capital Territory, Hunter and Barwon. The chart also shows the expected prevalence based on the 2011 Census Need for Assistance variable which is perhaps more indicative of the expected prevalence by region as it allows for demographic differences in the prevalence of disabilities within regions.

Prevalence is higher than the long term Scheme expectation in Hunter and Barwon, and lower in the Australian Capital Territory, however Hunter has a lower prevalence compared with the 'Need for Assistance' adjusted expectation, while Barwon and the ACT have a slightly higher prevalence. Across all three sites, prevalence is higher for children aged 0 to 18 and generally lower for the older age groups. Note that there are still a number of new participants approaching the Scheme and hence the results will not reflect fully developed prevalence within the Scheme.

[16] Regional-specific factors may account for some of this experience.

[17] If regional-specific factors are accounted for, the main region that appears to exceed expectation is Adelaide Hills in South Australia.

Figure 3.9 Actual prevalence compared with expected (0-64 years)



Recommendation

3. There is increasing evidence that the number of children entering the Scheme is above expectations, despite management responses over the last year in respect to the Early Childhood Early Intervention gateway. It is unclear whether the right children are gaining access to the Scheme to facilitate early intervention strategies, especially for children with autism and developmental delay disabilities. It is recommended that the eligibility criteria for children be a continued point of focus for the Scheme and that the PEDI-CAT assessment tool be used as a key indicator in the determination of eligibility to the Scheme for children. Further, it is recommended that List A (conditions which are likely to meet the disability requirements in Section 24 of the NDIS Act) and List C (defined programs) in the operational guideline "Access to the NDIS" be reviewed and automatic eligibility for children aged 0-14 years via these lists be removed.

3.2.4 Exits

Analysis of participants who have exited the Scheme has been undertaken. This is intended to include 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 exited the Scheme on average each year during trial. During the first year of transition, this annual rate has increased to 1.3%. This compares to an assumed exit rate of 2.1% per annum in the full scheme baseline actuarial model (Figure 3.10).

Figure 3.10 Monthly exit rate

Table 3.2 shows a comparison of the trial period exit experience relative to the transition period experience, as well as expected exit rates and the proportion of exits due to mortality.

Table 3.2 Annual exit rates by age group

Age group	Average exit rate (p.a.)						
	Mar-15 to Jun-16	Jul-16 to Jun-17			Overall average	Proportion of exits due to mortality	Expected exit rate
		Trial Participants	Transition Participants	All Participants			
0 to 6	0.7%	2.1%	0.5%	0.9%	1.0%	13.8%	0.5%
7 to 14	0.3%	0.7%	0.5%	0.7%	0.5%	12.8%	5.5%
15 to 24	0.8%	0.5%	0.6%	0.6%	0.7%	29.8%	4.1%
25 to 34	0.5%	1.0%	0.9%	0.9%	0.8%	43.3%	0.9%
35 to 44	0.9%	1.3%	1.3%	1.3%	1.1%	61.1%	0.4%
45 to 54	3.1%	2.7%	2.2%	2.4%	2.9%	76.6%	0.6%
55 to 64	5.2%	4.8%	3.5%	4.1%	5.0%	77.8%	1.3%
Total	1.2%	1.9%	1.2%	1.3%	1.3%	54.5%	2.1%

Exit rate experience in 2016-17 for participants aged 44 years and below have generally increased when compared to the experience from March 2015 to June 2016. This indicates that exit rates may be partly duration-based, where duration is measured from the entry date of a participant to the Scheme.

Exits for participants aged 45 and over are dominated by exits due to death. This is expected, noting that the both baseline projection assumptions do not anticipate any exits from sources other than mortality for ages 45-64. Further work needs to be undertaken to understand the reasons for exit by means other than mortality for this age group.

Exits for participants aged under 35 are primarily due to reasons other than death. The exit rate experience for participants in the age group 0 to 6 are higher than expected and this may be attributable to the effectiveness of the ECEI gateway. However, this experience should be treated with some caution. The expected scheme exit rates have been developed in aggregate to target a steady disability prevalence rate. To achieve this steady state, a high exit rate has been assumed for participants aged 7 to 24, as benefits from early intervention and provision of capacity building supports emerge. Exit rates continue to be significantly lower than expected for children aged 7 to 24.

Business processes and system limitations post 1 July 2016 have limited the ability of Agency staff to revoke a participant's access. Per s30 of the NDIS Act, a delegate may decide to revoke a person's status as a participant when they are satisfied that the person no longer meets:

- the residence requirements, or
- at least one of either the disability requirements or the early intervention requirements.

The ICT system and current processes have made revoking access difficult until very recently (June 2017). Hence, the data on exits has limitations.

At this stage it is too early to form a view about whether the lower level of exits relative to previous expectations for younger ages are a cause for concern, particularly given the limitations around revoking access during transition. Furthermore, the assumptions are effectively longer term assumptions and do not take into account the expectation that there may also be a duration-based component for exit rates. It may take some years of capacity building supports (say 2+ years) to achieve early intervention exits from the Scheme, especially for children. In addition, it may take time for participants to be able to rely more heavily on mainstream supports and thus exit the Scheme.

The relatively low exits rates from the Scheme will need close monitoring and if these levels do not show increases in the medium term then it will become a cause for concern, especially if there are continued barriers to participants exiting the Scheme. By way of example, Figure 3.11 shows the age distribution of participants with autism, intellectual disability, developmental delay and global developmental delay in the Scheme for the more mature trial sites of Hunter, Barwon and ACT.

Figure 3.11 Distribution of participants with autism in Hunter, Barwon and ACT

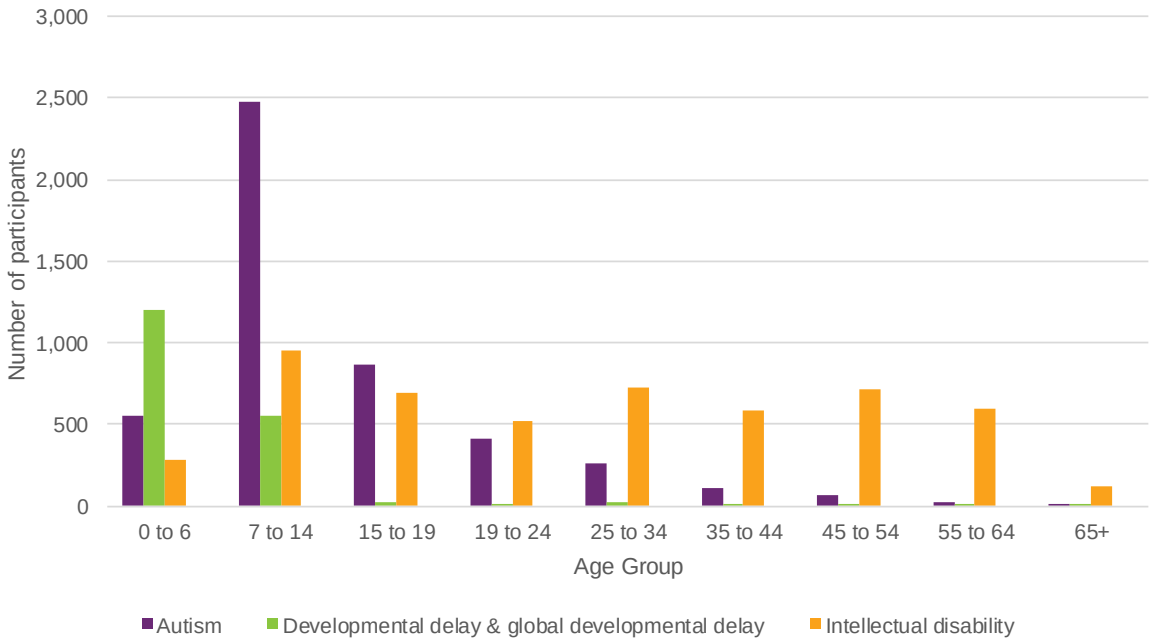


Figure 3.11 shows the relatively low number of participants with autism in the Scheme at older ages (after age 25). The exit rate assumptions of the baseline model assumes that the cohort of participants with autism at younger ages will predominantly exit the Scheme, such that the projected number of participants at older ages will be similar to the currently low levels at older ages. This means that, of the 2,500 people currently in the age group 7 to 14, we would expect about 2,250 exits by the time that cohort reaches the 25 to 34 age group. This requires significant levels of exit from the Scheme at younger ages, and to the extent that these exit rates are not achieved in the Scheme, then this has the potential to have a large impact on the Scheme's financial sustainability. Similar, although smaller, exit rate assumptions apply to participants with intellectual disability, which includes a large component of participants with developmental delay and global developmental delay.

Comparable schemes, such as the NSW Lifetime Care and Support Scheme, allows interim scheme eligibility to participants for a period of two years (or longer for children) after injury. This allows the implementation of important early intervention supports to participants immediately after injury, but recognises that lifetime eligibility to the scheme may change over time. A "lifetime assessment" for scheme eligibility is therefore made two years after entry to the scheme (or longer for children) and is an important control to ensure that those with the real needs for ongoing lifetime supports are the ones receiving supports. A similar mechanism may be considered for the NDIS, especially those entering the Scheme through the early intervention pathway.

Recommendation

4. The Agency should consider the implementation of a more formal periodic review of continued eligibility for participants who have entered the Scheme via the early intervention pathway, with the intention of identifying participants from the Scheme who no longer require formal Scheme supports. This formal review may occur after certain key milestones have been reached, for example, two years after entry into the Scheme or on attainment of certain ages.

3.2.5 New entrants

During the trial phase, the number of "new" people approaching the Scheme each month remained consistent over time. This was the case in both sites where phasing was largely completed in the first 18 months of Scheme commencement, as well as sites where phasing continued throughout 2015-16. The numbers ultimately approaching the Scheme became higher than expected, which can impact Scheme sustainability if continuing in the medium term.

Monthly analysis from July 2016 on these trial sites indicates that this trend continues in some sites – particularly Barwon in Victoria, Tasmania, South Australia and Perth Hills in Western Australia. The sites in New South Wales and the Australian Capital Territory have seen reduced numbers approach the Scheme in the last year.

Table 3.3 provides a summary of the experience observed.

Table 3.3 Number of people approaching the Scheme each month – trial sites only[18]

Site	Number of people approaching the NDIS per month (30 June 2016)	Number of people approaching the NDIS per month (1 July 2016 to 30 June 2017)	Number of participants (active and inactive) in site at 30 June 2017	Number of active participants in site at 30 June 2017
ACT	200 – 300	150 – 250	6,384	6,157
NSW (Hunter)	300 – 600	200 – 300	9,787	9,413
NSW (NBM)	100 – 300	75 – 150	2,698	2,678
NT (Barkly)	Up to 10	Up to 10	152	141
SA	200 – 500	200 – 500	11,320	11,215
TAS	10 – 15	10 – 50	1,382	1,353
VIC (Barwon)	100 – 200	100 – 200	6,526	6,278
WA (Perth Hills)	50 – 150	50 – 100	3,177	3,107

Comparing the number of new entrants per month in aggregate across the trial sites, the year to June 2017 has had slightly less new entrants per month than the trial period. While there is some early evidence that the number of entrants may be tapering off in some regions, the trend is not statistically significant at this stage.

Key trends by site include:

- In the ACT, numbers of new entrants increased in the months leading up to the end of trial, with some reduction in the transition period.
- For the Hunter trial site, there has been a clear reduction in the new entrants approaching the Scheme from July 2016, with a degree of volatility from month to month. However, the numbers are still in excess of the expected long term levels of new entrants for this region.
- The NBM trial site is still relatively new, with new entrants increasing to the end of the trial period since early transition commenced for this site. In the year since July 2016, new entrants have slightly reduced.
- The overall numbers of entrants for the Barkly trial site are small.
- The Tasmanian trial site has had volatility in the number of new people approaching the Scheme.

[18] Note: during trial, participants were counted in the trial site in which they first entered the scheme, even if they no longer met the age and/or geographic criteria for that site. With the commencement of full scheme transition, people who no longer meet the trial criteria are not counted in trial (as they are now considered part of a transition area or age group). This is the reason for the decrease in participant numbers in the Tasmanian and NT trial sites since 30 June 2016.

- The Barwon trial site continues to have similar levels of new entrants compared with the trial experience, with a degree of volatility from month to month.

Appendix C shows the age distribution of new entrants into Hunter and Barwon by month in 2016-17. In both sites, there is a significant proportion of people aged under 25 entering, however this proportion has begun to decrease, particularly in recent months. This will impact the validity of the longer term age distribution assumptions, which assumes a higher proportion of participants aged 25 and over.

3.3 Committed supports, payments and utilisation

Committed support is the dollar amount of support that has been made available to participants in their statement of plan supports, also referred to as their package amount or budget amount. Payments to both service providers and self-managing participants represent the amount of committed supports that have been used by participants. In this context, payments includes amounts paid as cash and provided as in-kind. The ratio of payments to committed support is referred to as the utilisation rate of committed supports and represents the proportion of committed supports that have been used over the term of the plan.

At 30 June 2017, 90,638 participants have (or have had) approved plans, and $7,330.9 million of support has been committed to these participants since the inception of the Scheme.

Table 3.4 shows the split of these committed supports by support year. It is assumed that committed supports are provided evenly over the term of a participant's plan.

Table 3.4 Supports committed by support year as at 30 June 2017[19]

Support Year	Committed Supports ($M)
2013-14	132.7
2014-15	495.6
2015-16	920.1
2016-17	3,152.9
2017-18 and beyond	2,629.5
Total	7,330.9

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

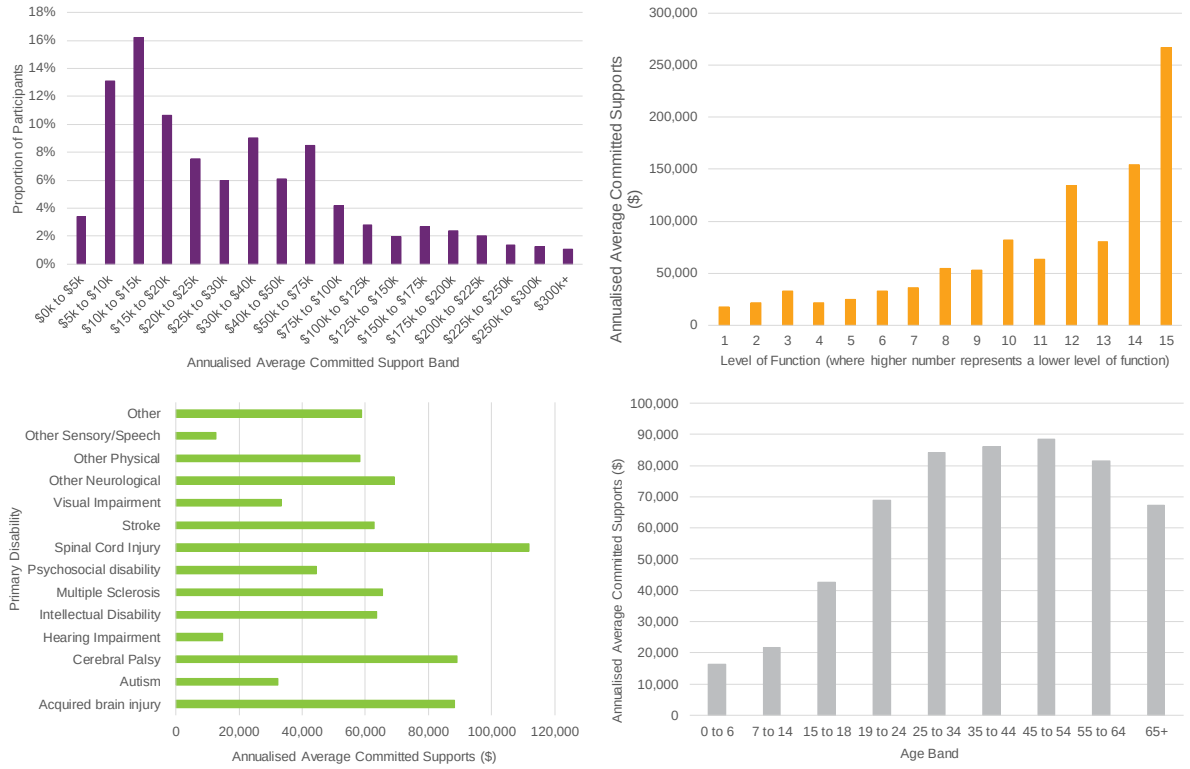
3.3.1 Committed supports

Distribution of committed supports by cost band

The following graph shows the distribution of committed supports by annualised cost band for participants with an active plan at 30 June 2017.

[19] In the previous year's report capital supports were assumed to be made in the first month of a plan's approval. For the current report, capital supports are assumed to be provided throughout the participant plan period. This means that committed support numbers for 2013-14 to 2015-16 reflect the change in the payment pattern for capital supports. For example, in the previous year's report, Table F.1 shows committed supports for 2013-14 to 2015-16 was $141m, $505m and $916m respectively. This means that the impact of spreading capital supports is about -$8m, -$10m and +$4m for 2013-14 to 2015-16 respectively. Similar adjustments have been made to the allocation of payments where utilisation on committed supports has been calculated.

Figure 3.12 Distribution of active participants by committed support band, and average annualised supports by level of function, disability group and age band



Key observations include:

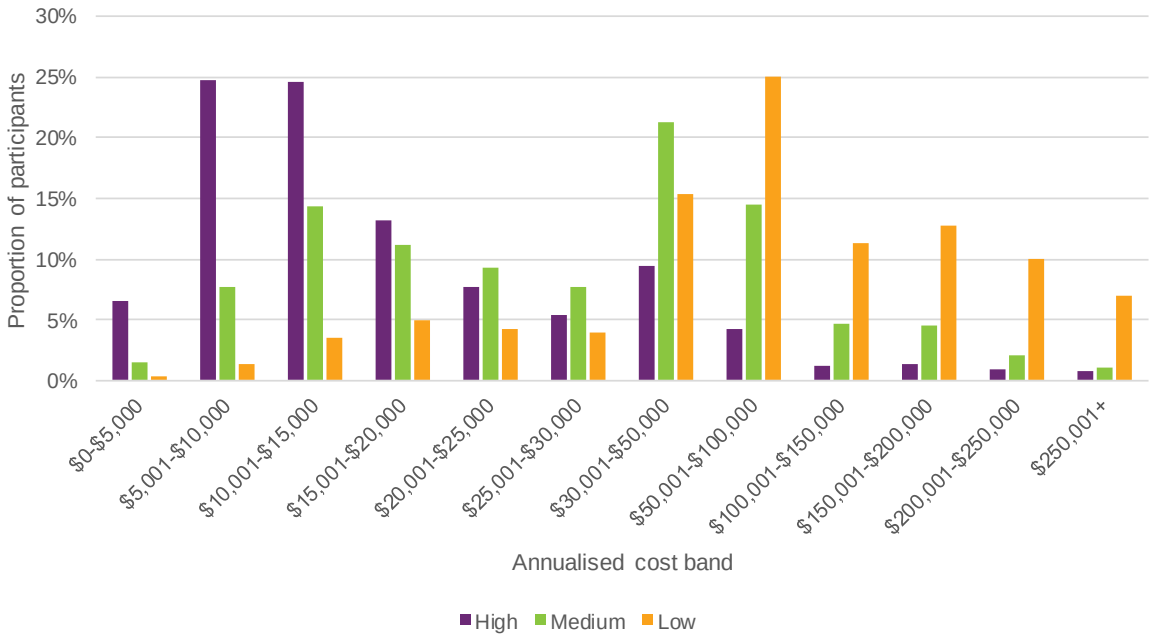
- There is a high proportion of participants clustered in the low and middle cost bands, but only a small proportion in the below $5,000 band.
- Committed supports are inversely proportional to level of function, with participants with high level of function having lower average committed supports and vice versa.
- Average committed supports vary by disability group. Notably, participants with spinal cord injury, cerebral palsy and acquired brain injury have higher committed support amounts on average. Part of this is driven by the age distribution of these disability groups.
- Committed supports are seen to increase by age for the younger age groups, before stabilising between ages 25 to 54, and then decreasing from ages 55 and above. The reductions in average committed supports from age 54 is contrary to experience seen in many injury support schemes providing lifetime care and support.

Distribution of committed supports by cost band compared with expected

The baseline model does not contain explicit assumptions around distribution by cost band. However, the 2011 Productivity Commission costing ("2011 PC costings") provide some expectation around this. Although direct comparison with the 2011 PC costings is not possible (given their method of cost derivation), the distribution of committed supports by cost band appears to be different to what was assumed in the original 2011 PC costings, which assumed a higher proportionate number of participants in the lower annualised committed cost support buckets than shown in Figure 3.13.

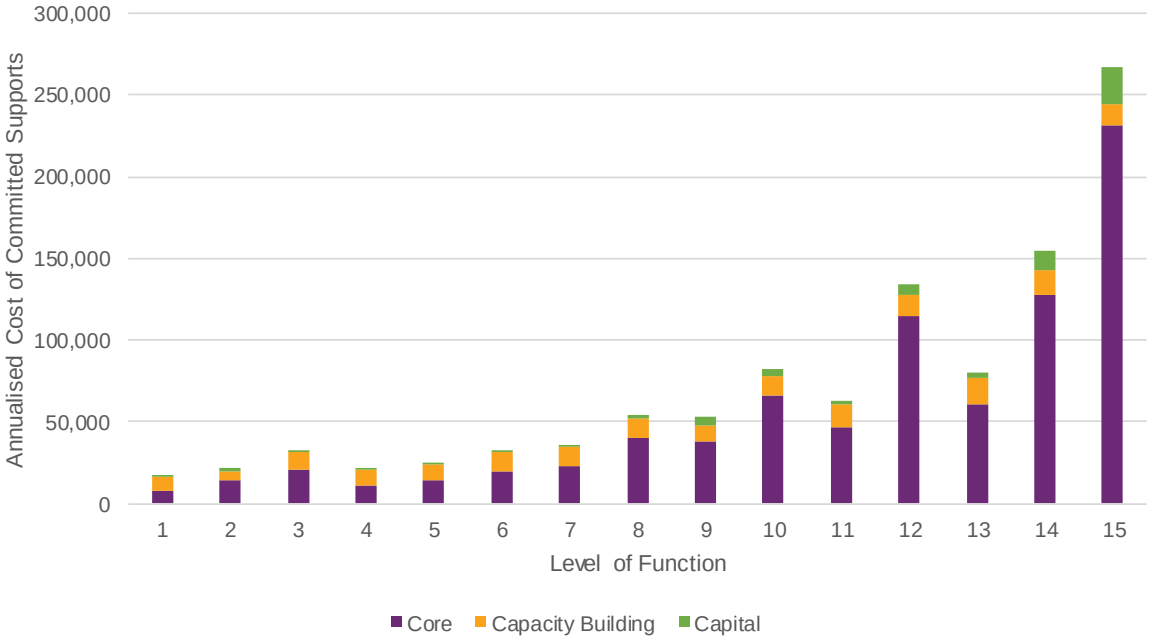
In particular, for participants with high levels of function, there is a significantly higher number of participants with high committed support amounts in comparison with expectations. As seen in Figure 3.13, about 70% of the participants with a level of function of one to five have annualised committed supports over $10,000. Just over 90% of participants with a medium level of function (6 to 10) have committed supports over $10,000, and nearly all low functioning participants (11 to 15) have committed supports over $10,000.

Figure 3.13 Distribution of committed supports by cost band and level of function



The PC estimate of costs did not explicitly present committed supports using the concept of core, capital and capacity building supports. However, as seen below (Figure 3.14), a significant proportion of participants in the Scheme are receiving capacity building supports in their plan and this amount does not appear to differ significantly by level of function. This is consistent with the expectation that there may be higher capacity building supports early on in a participant's plan, particularly for children and those that entered the Scheme under the early intervention criteria. In the long term, it is expected that the amount of these supports will decrease as a participant builds capacity.

Figure 3.14 Distribution of average annualised supports by type and level of function



Further analysis on the distribution of core, capacity building and capital supports by age and disability can be found in Appendix D.

Reference packages

Reference packages may be used to monitor the experience of committed supports over time.

Participants can be grouped based on similar characteristics, including their age, primary disability type and level of function. These are known as reference groups. Reference packages were developed for each reference group; a benchmark package of supports for participants with similar support needs and characteristics. They provide a link between resource allocation to individual participants and the overall funding envelope. Actual committed supports for participants can be compared to the reference packages to assist in the monitoring of Scheme performance and identification of cost drivers.

Level of function is measured using a range of widely accepted and validated tools. The tools were selected based on expert advice from professionals with specialist disability knowledge, including disability organisations, clinicians and researchers. Functional assessment tools have been agreed for the main disabilities of participants currently in the Scheme – namely, intellectual disability (including Down syndrome), autism, developmental delay, global developmental delay, cerebral palsy, multiple sclerosis, stroke, hearing and vision loss. Experts were also used to develop baseline reference packages.

Typical support packages

The guided planning process was introduced from 1 July 2016. The approach starts with a typical support package (TSP) based on a participant's reference group (disability type, age and level of function). The typical support package includes funding across eight domains: daily activities, social participation, consumables, transport, support co-ordination, assistive technology, home modifications, and capacity building.

The guided planning questionnaire then seeks information directly from the participant about each of the domains, including (but not limited to) what supports they already have in place and whether these are sufficient and sustainable. The typical support package is adjusted[20] based on the level of sustainable informal, community or mainstream supports available to assist the participant.

Note: Reference groups and the guided planning process are dynamic tools, built over a period of 18 months. This process included the back-capture of information from trial participants to build and validate the tools. The tools are designed to be updated regularly to reflect trends in experience over time and to ensure that the Scheme continues to be financially sustainable.

Between 1 July 2016 and 30 June 2017, 51,584 participants had an approved plan via the guided planning process. This represents 86% of the 60,127 active participants who had an approved plan at 30 June 2017.[21]

The figures below compare the total typical support package amount to the amount of committed support in a participant's plan, as at 30 June 2017. In order for the scheme to remain financially sustainable the average amount of committed support must not exceed the average of typical support packages. The revenue received from States/Territories and the Commonwealth governments based on a participant's phasing cohort is also included in the analysis, noting that monitoring of revenue to committed support is relevant for short-term sustainability. Key trends are shown across age, disability and level of function.

The distribution of differences between actual committed supports and typical support amounts by broad groups of function is also shown.

[20] These adjustments may go both up and down depending on supports currently in place, or not.

[21] This excludes participants from trial who had an approved plan at 30 June 2016.

Age

Figure 3.15 shows the average TSPs compared with committed supports and revenue received by age group:

- For participants in shared supported accommodation, average committed supports are much higher than average revenue and are also higher than TSPs.
- The average TSP is generally in line with committed supports but higher than revenue received for participants aged 25-44 years.
- For participants aged 45 years and above, the average TSP is higher than committed support, and committed support is higher than revenue received.
- For participants aged 0-14 years, average committed supports and TSPs are in line and both of these are lower than average revenue. Average TSPs, committed supports and revenue received are in line for participants aged 15-24 years.
- Overall average TSPs are in line with revenue received and both of these are lower than average committed supports (Table 3.5). When participants in shared supported accommodation are excluded, average committed supports are slightly lower than TSPs and average revenue is below committed supports. Committed support exceeding revenue puts short-term pressure on the sustainability of the scheme – however, as utilisation is less than 100%, the Scheme is within budget for the year (see section 4). Committed support exceeding typical support packages puts pressure on longer-term sustainability of the scheme. The main risk (when committed support and typical support packages are considered in aggregate rather than at the individual level) is shared supported accommodation. This risk was identified by the Productivity Commission, and additional expenditure factored into the original estimate.[22] See Appendix D for more detail.

[22] Extrapolating committed support by age group, disability and level of function to full scheme results in a higher annual cost of between 7% and 15%. Adjusting for participants with moderate intellectual disability in shared supported accommodation results in the annual cost estimate being in line with expected. This is consistent with results in previous months.

Figure 3.15 Summary of average TSP, committed support and revenue by age

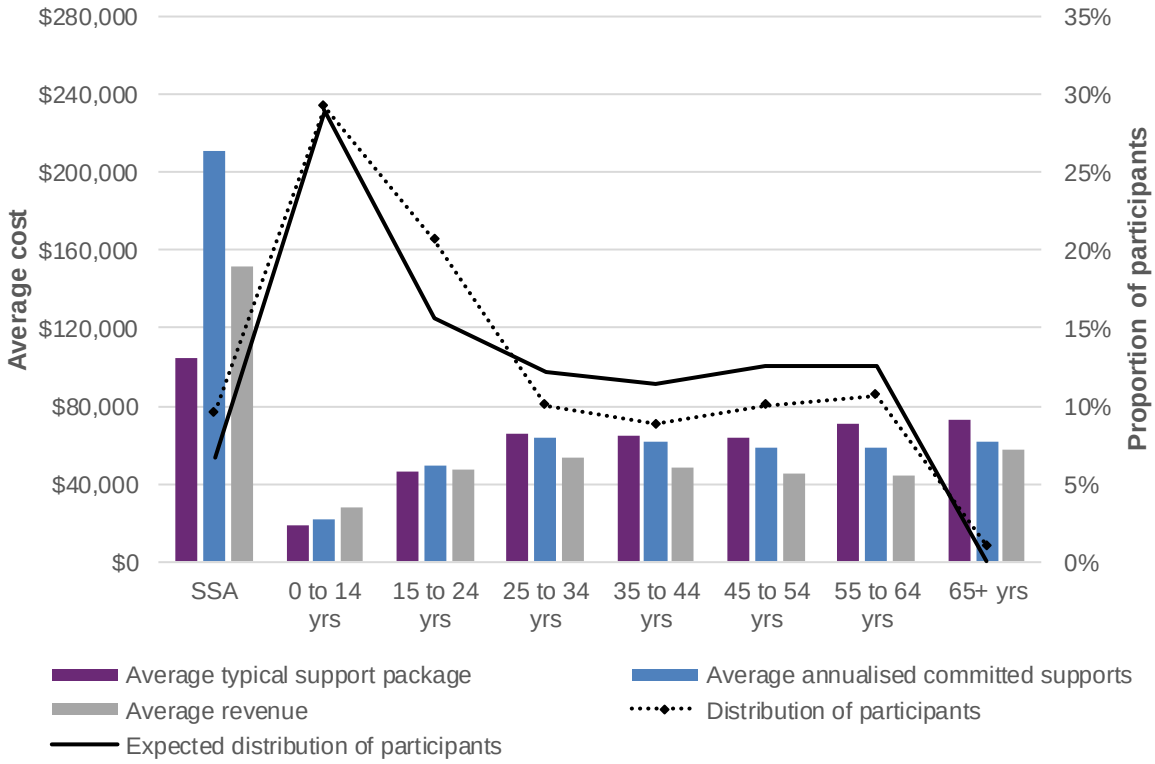


Table 3.5 Comparison of overall average TSP, committed supports and revenue

Cohort	Average ($)		
	Typical support package	Committed supports	Revenue
All participants	$51,710	$61,254	$51,747
Non-SSA participants	$46,165	$45,419	$41,230
SSA participants	$104,162	$211,033	$151,232

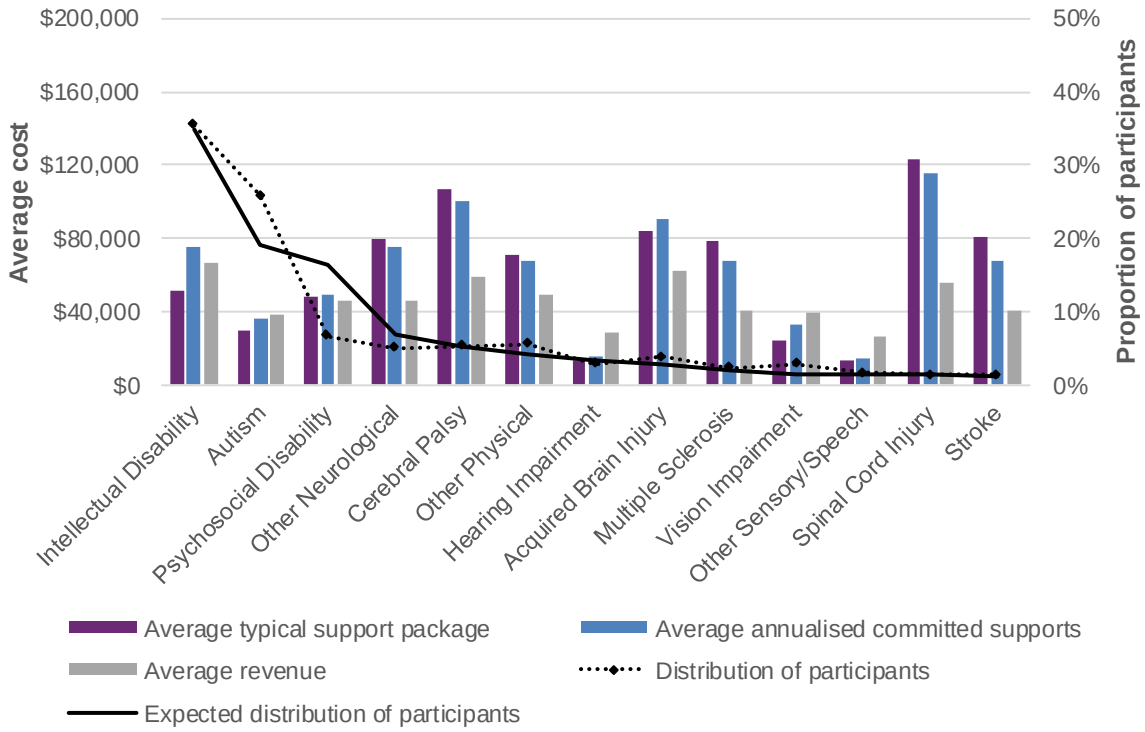
Disability

Figure 3.16 shows the TSP, actual committed support and revenue amounts of participants by disability:

- The average TSP is lower than the average committed supports and revenue received for participants with an intellectual disability and autism. This is driven by a relatively high proportion of these participants being in shared supported accommodation.
- The average TSP, committed supports and revenue are in line for participants with psychosocial disability.

- The average TSP for participants with cerebral palsy, and the other physical and neurological groups is roughly in line with average committed supports but higher than the average revenue received.
- The average TSP and committed supports are higher than the revenue received for participants with an acquired brain injury, multiple sclerosis, spinal cord injury and stroke, although there are a relatively small number of participants in these disability groups.

Figure 3.16 Summary of average TSP, committed support and revenue by disability



Level of function

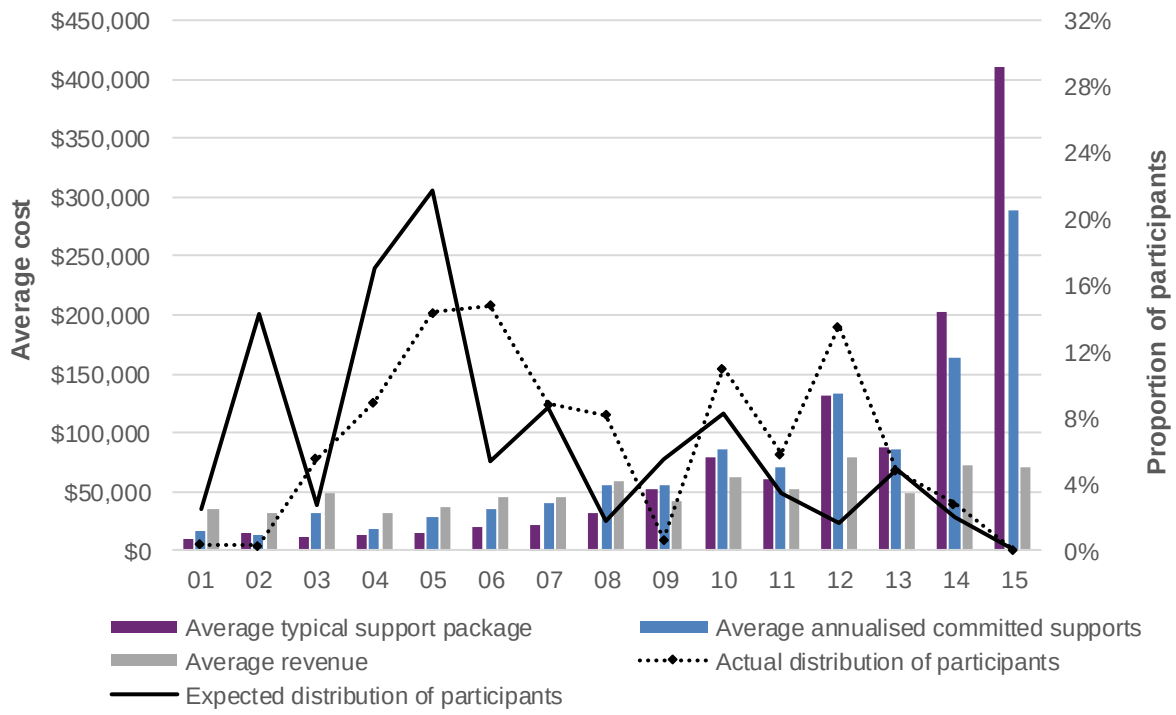
The average TSP compared to committed supports and revenue by level of function is shown in Figure 3.17:

- For groups ‘01’ to ‘08’ the average TSP is lower than average committed supports, indicating that participants with medium to high level of function are receiving more funding in their plans compared with expected.
- In the ‘09’ to ‘13’ groups, the average TSP is more in line with committed supports and from group ‘14’ and onwards, the average TSP is higher than average committed supports.
- Average revenue is not differentiated by level of function (or age or disability) and thus participants with high to medium levels of function (‘01’ to ‘08’) have average committed supports and TSPs lower than revenue received whilst participants with

medium to low levels of function ('09' to '15') have average committed supports and TSPs higher than revenue received.

- The proportion of participants assessed as having medium to low level of function is higher than expected.

Figure 3.17 Summary of average TSP, committed support and revenue by level of function

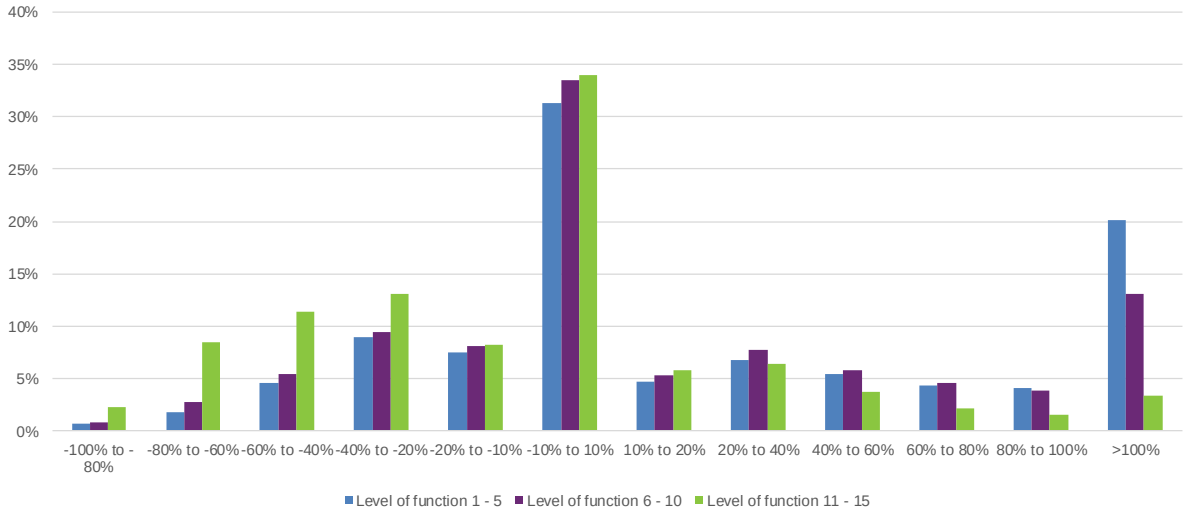


Distribution of differences between TSPs and actual committed supports

Figure 3.18 shows the distribution of the difference between the actual committed supports and the TSP by broad groups of function - '01' to '05' (high), '06' to '10' (medium), and '11' to '15' (low). Notable trends include:

- Across all groups, approximately one third of participants have committed supports within 10% of the TSP.
- The distribution of differences is similar for the '1-5' and '6-10' groups, with a large proportion of participants in these groups having actual committed/TSP differences exceeding 100%. By contrast, in the '11-15' group, there is a higher proportion of participants whose committed supports are lower than the TSPs (by 20% to 80%).

Figure 3.18 Distribution of differences between actual committed and TSPs excluding participants in shared supported accommodation



Recommendation

5. Overall, it appears that participants with high level of function as well as those in shared supported accommodation have committed supports that may be too high in comparison to the TSP benchmark. Conversely, participants with low levels of function have committed supports that are low in comparison to benchmark. A review of level of function and committed supports should be conducted for these participants to understand why their supports are so high/low respectively.

3.3.2 Superimposed inflation

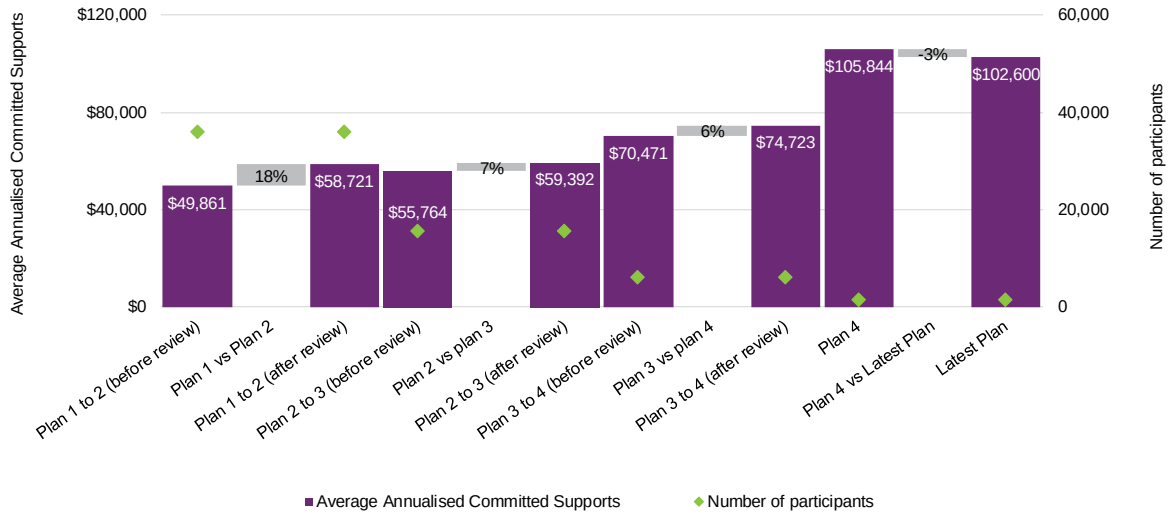
As at 30 June 2017, 40% of participants (36,023) had received more than one plan. There are 17% of participants who entered the Scheme post 1 July 2016 who had received more than one plan, and 85% of participants who received their first plan during the trial period had received more than one plan.[23]

Across all sites, plan costs have increased over and above inflation and ageing, with a large change between the first and second plans (18%), and smaller increases of 7% and 6% for second to third and third to fourth plans respectively. However this month, for fourth to latest plans, there has been a decrease in cost of 3% (Figure 3.19). The superimposed inflation component of this increase is approximately 7-12%, noting that this analysis is for all plans

[23] This excludes participants with plans less than 31 days in duration. If these plans are included, 25% of transition participants, and 91% of trial participants have received more than one plan.

from 1 July 2013 (that is, trial and transition), and also noting that observed superimposed inflation has been higher in the transition period compared to the trial period. Whilst a number of plans have been reviewed post 1 July 2016, a number of plans were also automatically extended.[24] Hence, this analysis is impacted by the plans automatically extended that may have resulted in lower/higher plan increases.

Figure 3.19 Change in plan values between plans[25,26]



Investigation and segmentation of the change shows that common causes include participants moving into more expensive accommodation arrangements, transition participants having a change in level of function after only a short time in the Scheme, data issues relating to remediation reviews, changes in plan duration and relatively high payments made relative to duration.

After accounting for those causes of plan inflation that are identifiable, for the remaining reviews where a reason has not been identified, it has been observed that participants with in kind supports, and participants where the new plan is of less than six months duration are associated with high levels of inflation at the first plan review.

[24] Approximately 33,600 participants had a plan review, and approximately 9,800 had a plan extension.

[25] Plans shorter than 31 days have been excluded from cost trajectory analyses as these plans may not be representative. Additionally, a further 646 plans (238 participants) have been excluded from cost trajectory analyses as they have had at least one zero dollar plan.

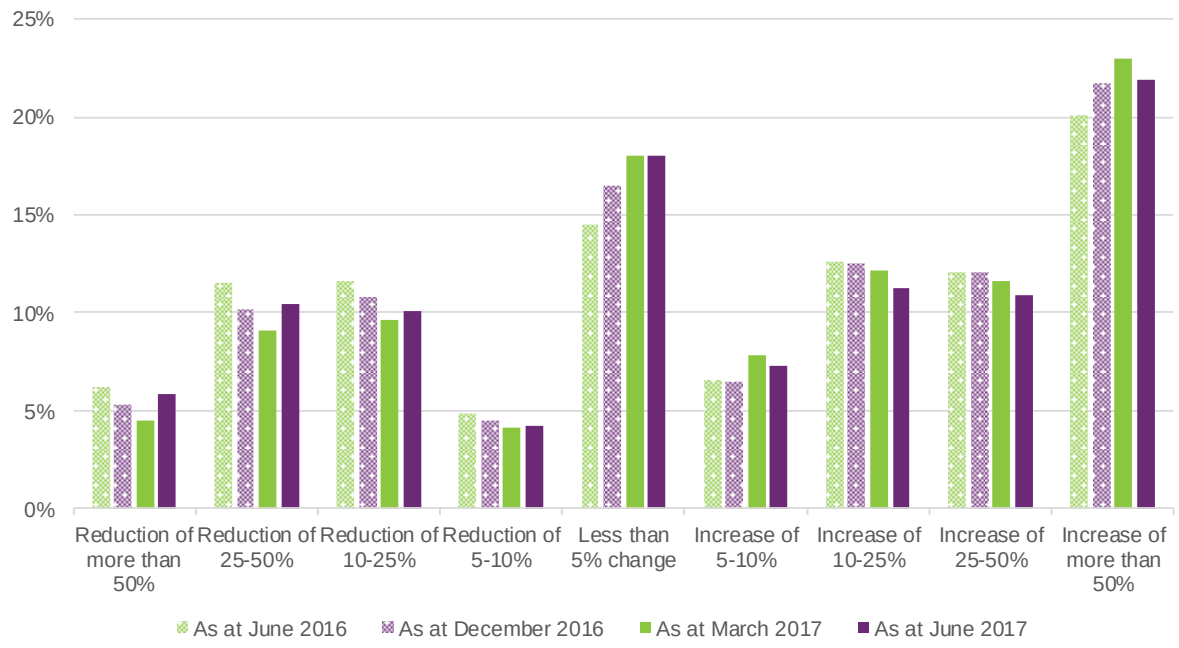
[26] Results are not significantly different when capital is removed.

Drawing on the above observations regarding data issues and short duration plans, an ongoing project to understand the contribution of data integrity issues to observed inflation is a current priority. Preliminary findings indicated that about a quarter of the observed superimposed inflation could be attributable to data errors. Further findings are described in Section 2.3.

Analysis of individual movements

At 30 June 2017, on an individual plan level, approximately 18% of plan reviews to date have had new plans within 5% of the previous value, with approximately 22% of plan reviews leading to an increase in annualised committed supports by more than 50%[27] as shown in Figure 3.20. The trend in the past year has been relatively stable, although there has been an increasing proportion of plans with less than 5% change and a decreasing proportion of plans with increases of 10% to 50%. Further, there has been an increasing proportion of higher decreases in committed support at review.

Figure 3.20 Percentage change in individual plans (all reviews to date)[28]



[27] Plans can increase by more than 50% because of participants moving into shared supported accommodation, particularly for participants who are over 18 years of age.

[28] Plans shorter than 31 days have been excluded from cost trajectory analyses as these plans may not be representative. Additionally, a further 646 plans (238 participants) have been excluded from cost trajectory analyses as they have had at least one zero dollar plan.

The plan review analysis has been further conducted across a number of characteristics including State/Territory, age group, disability, level of function and the split by core, capacity building and capital supports. In terms of providing further explanation for the deteriorating cost escalation, the analysis shows that increases in inflation are occurring across most groupings. While some groups contribute more than others to the increases observed, this is typically consistent with the larger materiality of those groups. Key observations include:

- Core supports are a large contributor to inflation which is consistent with its dominant contribution to the overall supports in plans. However, capacity building is also contributing to the inflation plan reviews one to two, two to three and three to four, and to a lesser extent this is also true of capital supports.
- Although results differ by State/Territory, a similar pattern of increase to the national result is present in most States/Territories – that is, higher inflation from first to second plan, and lower increases at later review points. Tasmania has a very high increase for first plan to second plan and a large increase for third plan to fourth plan. New South Wales is the key driver of the overall first to second plan inflation.
- Larger increases are observed for 19 to 24 year olds, consistent with the life transition stage of leaving school. Inflation by age band is broadly similar for first to second plan and second to third plan reviews.
- Results differ by disability, with neurological conditions (such as multiple sclerosis) and psychosocial disabilities resulting in larger increases. This is expected for neurological disabilities as they are often degenerative. However, the same pattern is not necessarily expected for psychosocial disabilities. Increases in intellectual disability are slightly lower than the national average.
- All levels of function show high levels of inflation broadly consistent with the national results. However, participants with high level of function have had higher inflation for the first plan to second plan reviews and participants with medium level of function have higher inflation for third plan to fourth plan reviews.

3.3.3 Payments and utilisation

This section compares the expected payments related to supports that have been committed to 30 June 2017. This would include payments made to date plus estimates of outstanding payments relating to supports that have already been committed. The participant plan provision within the financial accounts represents the estimated value of support provided prior to the balance date, but not included in payments made to date. The provision is

estimated using information on committed supports contained within participant plans, the payments emerging over time relating back to these committed supports and the expected ultimate utilisation of those committed supports.

Utilisation of committed supports

Each participant plan will have a description of the levels of supports committed to them over their plan period. However, based on experience, it is expected that less than 100% of these committed supports will be used. The proportion of committed supports used within a participant's plan is referred to as the utilisation of committed supports and reflects the actual amount paid.

The following table shows a summary of the participant plan provision at 30 June 2017 in the Annual Financial Statements, committed supports and payments by support year. The participant plan provision is required as not all support provided at 30 June 2017 has been paid for by the Agency.

Table 3.6 Payments compared with committed support – as at 30 June 2017[29]

Support Year	Committed Supports ($M)	Payments ($M)	Participant plan provision ($M)	Utilisation
2013-14	132.70	86.05	0.21	65.0%
2014-15	495.63	367.57	4.16	75.0%
2015-16	920.13	698.86	5.04	76.5%
2016-17	3,152.88	1,879.38	485.83	75.0%
Total	4,701.35	3,031.86	495.24	75.0%

The utilisation for 2014-15 to 2016-17 is projected to be around 75%. This suggests that not all committed supports are utilised. There can be many reasons for underutilisation of supports, including:

- participants may take time to learn to navigate Scheme processes;
- the participant may take time to build the capacity to implement the plan;
- some participant circumstances will inevitably change throughout their plan period meaning changes in the level of supports required;

[29] Note the amount adopted in the participant plan provision includes an allowance for current uncertainties in the payment process. Using standard actuarial methods results in an ultimate utilisation of around 70% for 2016-17. This is shown in Figure 3.21.

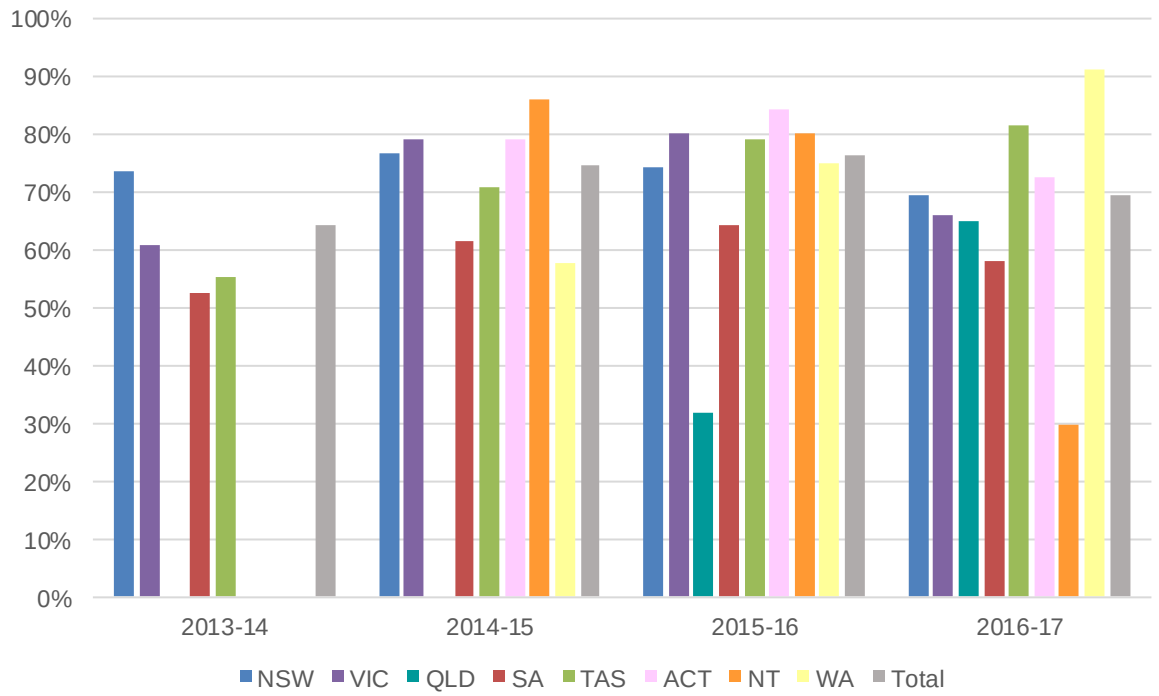
- participants may not be able to access information as to how much of their supports are available;
- there is some degree of information asymmetry to allow full access to committed supports;
- planners may be allocating supports to participants above what is needed;
- service providers may have not claimed for the support provided (possibly because of existing block grants from State/Territories); and/or
- there may be insufficient market capacity as disability support markets expand.

Some of these reasons will predominantly be attributable, or accentuated, within the transition phase of the Scheme. However, there will always likely be an element of underutilisation, with experience from other more mature injury support schemes supporting this view.

As part of the calculation of the participant plan provision for input into the Scheme's financial accounts, Scheme utilisation is estimated by the year in which the support is expected to be provided by State/Territory.

The following chart shows the estimated ultimate utilisation by financial year and State/Territory since the Scheme inception. This includes payments to date plus projected amounts using a standard chain ladder paid actuarial method. Utilisation has typically varied between 50% and 80%, with some relatively large variations by support year and State/Territory. This variation reflects, in part, the phasing schedule of participants into the Scheme.

Figure 3.21 Summary of estimated ultimate utilisation by State/Territory[30]



Utilisation trends are also monitored over time and across participant characteristics (such as age, disability type, region, level of function, and gender), and across support categories. Findings from this monitoring are summarised below:

- There is a lower utilisation of supports in a participant's first plan compared to their subsequent plans. This may reflect the time taken for participants and/or service providers to become familiar with the Scheme's systems and processes. Thus, cohorts of participants which are currently being phased into the Scheme are generally seen to have lower levels of utilisation of supports.
- The utilisation of capacity building supports is lower than for core supports. This is not surprising given the rapid growth of the Scheme and the potential focus on core supports in a participant's first plan. This may also be contributing to the lower than expected year to date utilisation rate for the 2016-17 support year.
- Participants aged 7-18 years have lower levels of utilisation in 2016-17 relative to other participants, suggesting that committed supports may be too high for younger

[30] This chart shows estimated ultimate utilisation using a standard actuarial chain ladder methodology on payments. The actual adopted utilisation shown in Table 3.6 includes an additional component to allow for uncertainty in respect to the ability of some providers to invoice for participant supports as at 30 June 2017. This additional utilisation is not shown in this chart.

participants. This may be related to historical reasons such as a bias towards higher transdisciplinary packages than what is actually required based on a child's level of function, especially for those with a high or moderate level of function. Alternatively, children within these ages may be receiving a higher proportion of support from parents than anticipated and this may be being used in lieu of the plan supports or they may be receiving more mainstream supports (such as education) than anticipated.

While it is too early to consider what an appropriate long term utilisation may be within the Scheme, it is reasonable to assume that it will be above the current levels (influenced by transition to full scheme), but below 100%. Anecdotal evidence has suggested a longer term utilisation rate of between 80% and 95% may be appropriate, and this appears to be supported by the above discussion. Section 4.5.1 considers the impact on the Scheme financial sustainability under different utilisation scenarios.

Figure 3.22 shows the rate of claims for plans that have been active for more than 90 days by State/Territory, noting that the plans themselves may not have reached their plan end date, and hence we estimate the proportion of the plans supports that is expected to have been utilised.

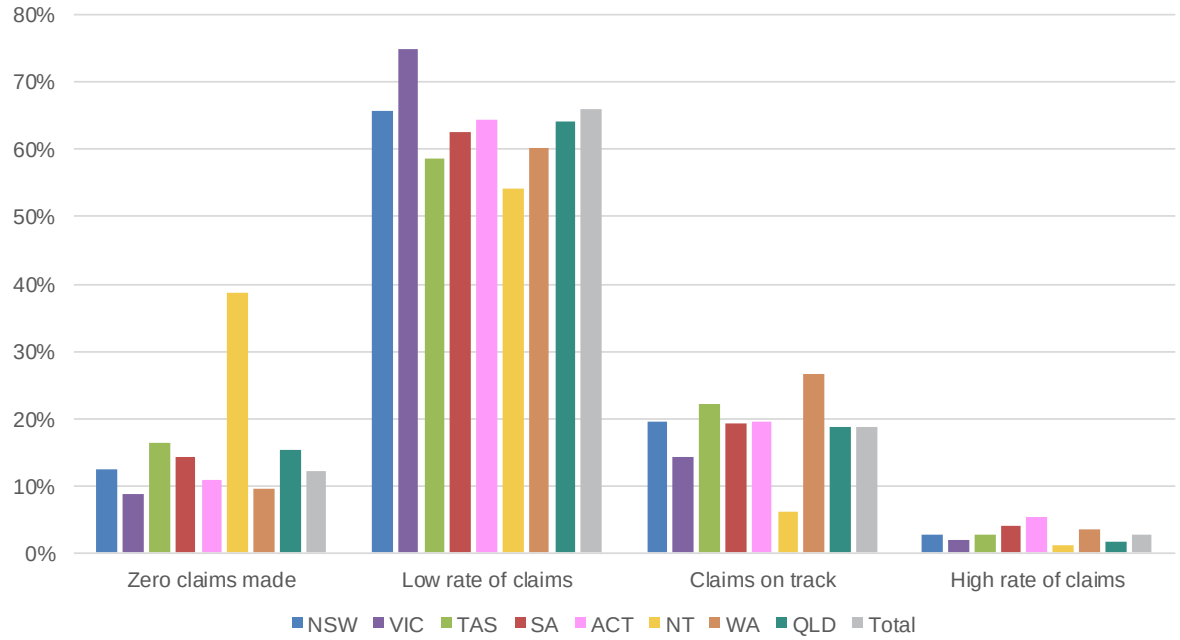
The definitions for each category are:

- Zero claims made – no claims of supports have been made
- Low – less than 60% utilisation of supports expected to have been committed to date
- On track – 60% to 100% utilisation of supports expected to have been committed to date
- High – over 100% utilisation of supports expected to have been committed to date

Across most State/Territories there has been a low rate of claims and a significant proportion of plans in the Northern Territory have had no claims made. However, around 3% of participants have claimed above the amount expected to have been committed to date.[31]

[31] Note: plans in this analysis are not complete, so in some instances the amount utilised exceeds the amount expected to have been used based on how long the plan has been in place.

Figure 3.22 Rate of claims by State/Territory



3.4 Shared supported accommodation

Some participants will require specialist disability accommodation because the physical, cognitive or psychosocial features of their disability require housing with specific design, specialist features or amenity to enable them to live safely. In addition, there may be those that, because of complexity of their disability and limitations in their informal support network, mean that their housing needs cannot be currently met in the community or the costs of providing support for them to live independently in the community are prohibitive. The housing needs of this group of participants are not currently met by the housing market.

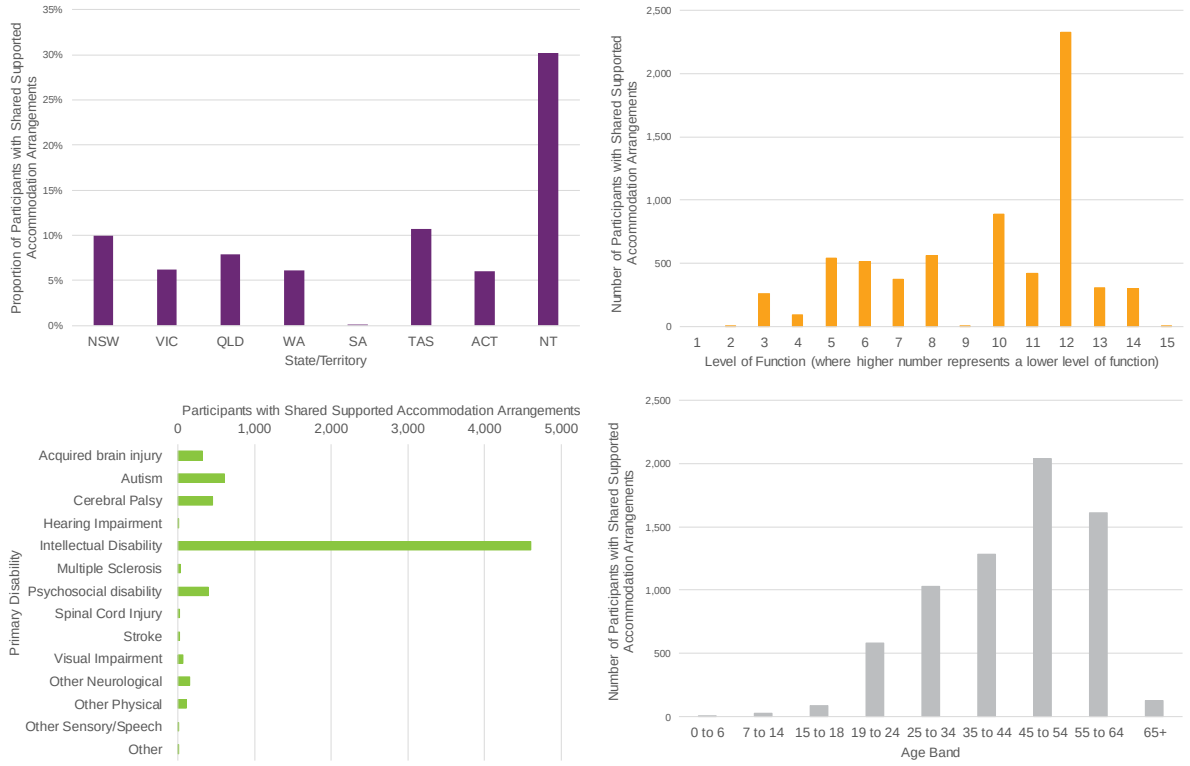
While participants with Shared Supported Accommodation (SSA) arrangements are expected to account for only 6-7% of the participant population, they are expected to account for about a third of the total expected participant support costs in the Scheme. Ensuring that the number of participants in SSA arrangements are targeted at the right cohort through the reasonable and necessary support criteria therefore remains an important part of maintaining the financial sustainability of the Scheme.

This section provides a discussion of some of the emerging pressures on SSA arrangements and Section 4.5.6 provides sensitivity analysis on the financial impact of these pressures.

3.4.1 Shared supported accommodation numbers

The number and proportion of participants in SSA arrangements varies by state/territory, age, disability type, and level of function. The following charts give an indication of the number and proportion of total Scheme participants with SSA arrangements.

Figure 3.23 Profile of participants in SSA arrangements



General comments based on this experience are:

- There is considerable variation by state and territory, with some of this variation relating to the phasing schedule of participants into the Scheme.
- Participants with an intellectual disability account for the majority of participants in SSA arrangements, with significant numbers also from participants with autism, psychosocial disability and cerebral palsy.
- Participants with a lower level of function are more likely to be in SSA arrangements, as expected, although there are material numbers of participants in SSA arrangements who have a higher level of function.
- The majority of participants are aged 25 and above, as expected.

One of the key observations arising from the above charts is the relatively large number of participants with a high to medium level of function that are in SSA arrangements. This is predominantly a legacy issue from the existing disability system. This means that there is an

opportunity over the medium to longer term for the Scheme to assist in building up the capacity of these participants to live independently, if provided with the right supports.

3.4.2 Shared supported accommodation costs

The average annualised costs of supports for participants in supported accommodation arrangements is over $215,000 and this level is reasonably consistent across age and disability type. There is some variation by level of function, although participants with high levels of function in SSA arrangements still have average costs above $180,000.

There have been ongoing pressures leading to increasing average costs over time. An analysis of NSW SSA costs to 31 December 2016, which accounts for over half of those participants identified as having SSA arrangements, showed the following emerging cost pressures:

- A higher level of non-accommodation supports are being provided to participants in SSA arrangements over time.
- Costs have increased over time corresponding to a change in the mix of participants towards higher cost participants, in particular higher proportions in 2 or 3 person homes, rather than larger accommodations.
- There have been increases in cost for in-kind trial participants indicating that the accommodation cost of some in-kind arrangements were understated.
- A greater proportion of transition participants require “complex” (and more costly) supports, rather than “standard” supports.

Around 30% of SSA arrangements at 30 June 2017 are provided through “in-kind” agreements between the States/Territories and the NDIS. The accommodation price in these in-kind agreements are generally above the agreed NDIS price for such arrangements. Analysis suggests that in-kind prices could be 20% to 80% higher than equivalent NDIS prices, depending on the jurisdiction.

3.4.3 Specialist disability accommodation payments

In their 2011 inquiry report into Disability Care and Support, the Productivity Commission acknowledged that the Scheme would need to supply capital funding for Specialist Disability Accommodation not normally provided by social housing, and hence referred to this funding as the user cost of capital. This was notionally included in packages for people with very high supports needs (around 28,000 people or 6% of participants at full scheme) and estimated to be 12% of their annual support package.

There are specific rules within the NDIS legislation for the inclusion of SDA supports in a participants plan[32]. These rules require participants to have an "extreme functional impairment or very high support needs". There is also a requirement to have regard to "the need to ensure the financial sustainability of the NDIS".

Since 1 July 2016, support for Specialist Disability Accommodation has been included, where appropriate, in participant plans. This allows for ongoing monitoring of this support, both in terms of the number of participants accessing this support and also the average cost of providing this support.

At 30 June 2017, there were 4,191 active participants with SDA supports in their plans (4.7% of all active participants in the Scheme at 30 June 2017), and a total of $33.03 million has been committed to SDA supports in these plans. At full scheme there are expected to be over 30,000 people with an SDA component to their plan (6.4% of participants with an approved plan at full scheme).

3.4.4 Young people in residential aged care

Some younger people have been identified as residing in Residential Aged Care. The cost for these participants accommodation is currently being met through the aged care system. At 30 June 2017 there were about 680 young people identified as participants in Residential Aged Care. About two-thirds of these participants were aged 55 to 64. Department of Health data indicates that there are about 6,300 people aged under 65 in Residential Aged Care, of whom about 85% are aged 55 to 64. This issue was specifically identified in the Productivity Costings of 2011.

For those participants currently in the Scheme, the accommodation (and associated care cost) is not currently being captured within individual participant plans. It is expected that there will be a transition of this cost through to the Scheme over the next couple of years. It is expected that over time, some of these participant's arrangements may be transitioned to shared supported accommodation arrangements in situations other than Residential Aged Care facilities. The average cost of alternative arrangements are likely to be higher than the cost within Residential Aged Care facilities, predominantly because the care costs within Residential Aged Care is spread over a much larger number of people.

This puts upwards pressure on Scheme costs likely to be associated with shared supported accommodation over time. Ultimately, the provision of shared supported accommodation will

[32] "National Disability Insurance Scheme (Specialist Disability Accommodation) Rules 2016"

be closely linked to the availability of appropriate homes with disability-specific accommodation.

3.5 Participant outcomes and use of mainstream services

Participant outcomes are important in the context of the financial sustainability of the Scheme as participants need to be satisfied they are getting sufficient support to achieve outcomes under the Scheme. The NDIS Outcomes Framework collects information from participants and families/carers on how they are progressing in different areas (domains) of their lives. It assists with planning, benchmarking and identifying drivers of good outcomes, as well as Scheme monitoring.

Building on research undertaken by the Independent Advisory Council, the outcomes framework adopts a lifespan approach to measuring outcomes, recognising that different outcomes will be important at different stages of life. Questionnaires have been developed for four different participant age groups. There are also three different family/carer questionnaires, depending on the age of the participant.

Short Form and Long Form versions of the framework have been developed, and collection of both forms has commenced over the last year. 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 2017, 83,888 SFOF questionnaires had been completed: 58,720 for participants and 25,168 for their family/carers.

Results from the short-form outcomes framework (SFOF) questionnaires collected during 2016-17 are shown below, for active participants with a first plan approved during the period 1 July 2016 to 30 June 2017. At this stage only a cross-sectional (baseline) analysis is possible since no longitudinal history has been built up yet. As this history accumulates, it will be possible to measure and report on within-individual change over time.

3.5.1 Baseline data

Table 3.7 Number of questionnaires completed by SFOF version

Version	Number of questionnaires collected Q1	Number of questionnaires collected Q2	Number of questionnaires collected Q3	Number of questionnaires collected Q4	Number of questionnaires
Participant 0 to school	894	2,720	1,803	2,805	8,222
Participant school to 14	1,209	6,562	3,313	3,467	14,551
Participant 15 to 24	931	4,421	2,569	1,887	9,808
Participant 25 and over	4,359	9,052	6,343	6,385	26,139
Total Participant	**7,393**	**22,755**	**14,028**	**14,544**	**58,720**
Family 0 to 14	2,014	8,801	4,765	5,965	21,545
Family 15 to 24	276	1,197	511	809	2,793
Family 25 and over	51	196	158	425	830
Total Family	**2,341**	**10,194**	**5,434**	**7,199**	**25,168**
Total	**9,734**	**32,949**	**19,462**	**21,743**	**83,888**

Tables summarising results for the key indicators, for each of the seven SFOF versions can be found in Appendix E. Aggregate results for all active participants with a first plan approved in the period 1 July 2016 to 30 June 2017 are shown in these tables.

On the whole, participants want more choice and control in their life, have low levels of employment and have low levels of community participation. Participation rates for mainstream education, training and skill development were also low. Most participants were happy with their current home.

Baseline outcomes were also collected on families and carers. Many reported that they would like to work more than they do and also see family and friends more often.

Data was also collected on trial participants (and their families/carers) who had received more than one plan from the scheme. Participants and families/carers reported that the NDIS was helping in a number of domains, and also indicated domains where the NDIS could assist more.

Specifically, for participants from birth to starting school, the percentage of positive responses is highest for the two domain 1 questions: “Has the NDIS improved your child’s development?” (89%) and “Has the NDIS improved your child’s access to specialist services?” (88%). This is followed by domain 2 (“Has the NDIS helped increase your child’s ability to communicate what they want?”, 78%), domain 3 (“Has the NDIS improved how your child fits into family life?”, 71%) and lastly domain 4 (“Has the NDIS improved how your child fits into community life?”, 58%).

For participants from starting school to age 14, the percentage of positive responses is highest for domain 1 (“Has the NDIS helped your child to become more independent?”, 79%), followed by domain 3 (“Has the NDIS improved your child’s relationships with family and friends?”, 63%), domain 4 (“Has the NDIS improved your child’s social and recreational

life?", 60%), and lastly domain 2 ("Has the NDIS improved your child's access to education?", 50%).

For participants aged 15 to 24, the percentage of positive responses is highest for domain 1 (choice and control, 73%), followed by domain 2 (daily living, 64%). The lowest percentages were for domain 7 (work, 15%) and domain 4 (home, 16%). Similar trends were observed for participants age 25 and over.

For families/carers of participants aged 0 to 14, the percentage of positive responses is highest for domain 4 ("Has the NDIS improved your ability/capacity to help your child develop and learn?"), at 82%. This is followed by domain 2 ("Has the NDIS improved the level of support for your family?"), at 79%, domain 3 ("Has the NDIS improved your access to services, programs and activities in the community?", 73%) and domain 1 ("Has the NDIS improved your capacity to advocate (stand up) for your child?", 62%). The lowest percentage of positive responses was for domain 5 ("Has the NDIS improved your health and wellbeing?", 48%).

Similar trends were observed for families/carers of participants aged 15 to 24, except that domain 2 (73%) had a slightly higher percentage of positive responses than domain 4 (70%). There was a tendency for the percentages of positive responses to be slightly lower across all domains in the older age group, however.

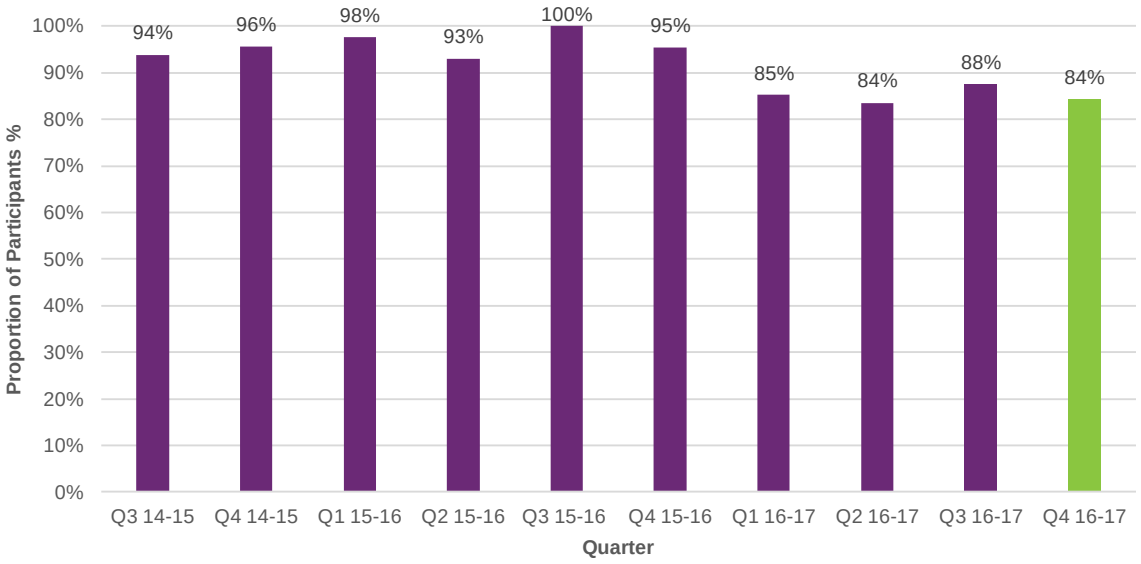
For families/carers of participants aged 25 and over, domain 2 also had the highest percentage of positive responses (77%), followed by domain 3 (66%). Domain 4 asks about succession plans (not asked for younger participants), and the question "Has the NDIS helped you with preparing for the future support of your family member?" had the lowest percentage of positive responses (35%).

3.6 Participant satisfaction

The overall satisfaction rating is calculated as an average of the satisfaction ratings of each participant surveyed. Participants are contacted by a member of the engagement team, after their plan is agreed with their planner. Note, not all participants choose to complete and submit their survey, and the participant responses remain anonymous to the Agency.

Participant satisfaction continues to be high, but has dropped during transition by about 10 percentage points, compared with the experience during trial.

Figure 3.24 Proportion of participants describing satisfaction with the Agency as good or very good – by quarter



3.7 Interaction with mainstream services

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 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.

3.7.1 Information, Linkages and Capacity Building

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 and first year of transition of the Scheme – however, it will be progressively rolled out over transition, firstly in the ACT, 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. ILC, along with local area coordination, needs to be adequately funded to divert people from the Scheme where appropriate, and reduce the need for funded supports (through the use of mainstream and community supports where possible).

The role of ILC partners will be complemented by the implementation of the ILC policy agreed by all governments. This policy can be summarised as a commitment to connect people with disability, their families and carers to the wider community by:

1. *Capacity Building* - Making sure people with disability have the skills, confidence and information they need to get involved in the community
2. *Community Inclusion* - Building the capacity of the community to include people with disability.

Consistent with the ILC Policy, the focus of effort in ILC will be to ensure that people with disability:

- Have the information they need to make decisions and choices
- Are connected to appropriate disability, community and mainstream supports
- Have the skills and confidence to participate and contribute to the community and protect their rights
- Use and benefit from the same mainstream services as everyone else
- Use and benefit from the same community activities as everyone else.

Only small amounts of ILC funding have been granted to date and there is a need for an outcomes framework to be developed covering ILC initiatives. Further, the ICT system will need to be significantly improved to support data collections and operations.

3.7.2 Administrative Appeals Tribunal (AAT)

Recent AAT cases can often give insights into emerging cost pressures from the interaction between mainstream services and the Scheme. These cases may be in relation to whether a person meets the access criteria to become a participant of the Scheme, the supports being provided under the Scheme or the registration of providers of support. Over the last year there have been 186 AAT cases, of which 42 (23%) relate to access decisions, 130 (70%) relate to supports funded under NDIS plans and 14 (8%) relate to a decision not to conduct a plan review.

Decisions related to supports funded under NDIS plans

A robust planning process with well documented analysis of informal, community and mainstream supports, and a clear articulation of participant goals developed in conjunction with a participant's specific disability, should result in the development of quality participant plans. Quality plans reduce the risk of AAT cases emerging related to supports funded under their NDIS plan and also provides a good evidence base on decisions where AAT cases do emerge.

A recent high profile AAT case involved the funding of the full costs of transport to attend work and participate in disability training and social group. The AAT decided to affirm the decision of the Agency to fund 75% of the applicant's transport costs. While the NDIS was set up to be able to contribute to some of a participant's transportation costs, the NDIS Act specifically requires the NDIA to fund reasonable and necessary supports that "take into account what is reasonable to expect families, carers, informal networks and the community to provide." The risk to sustainability from this case, is that over time, funded support replaces support from informal networks and the community.

Other themes in funding decision cases have been in relation to therapeutic supports, transportation, home modifications, plan self-management, 1:1 support for day programs, short term accommodation, domestic cleaning assistance and whether supports are more appropriately funded through other general systems of supports.

These are all examples where the boundaries of what is reasonable and necessary supports is being tested.

Access and eligibility decision

The YPRM case (*YPRM and National Disability Insurance Agency [2016] AATA 1023 (14 December 2016))* is an example of Scheme access*,* this one regarding whether an applicant's Type 1 diabetes meets access requirements of the National Disability Insurance Scheme Act 2013 (Cth). The AAT decided to affirm the decision from the Agency to decline access.

For access and scheme eligibility, common themes are in relation to whether the disability is permanent, whether the participant has substantially reduced functional capacity or whether the applicant meets residency requirements.

3.8 Providers

To provide paid supports to NDIS participants, a service provider is required to register and be approved by the NDIA. 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.

As at 30 June 2107 there were 8,698 registered providers, of which about 40% are individuals or sole traders and noting that 54% of providers are not yet active. Therapeutic supports has the highest number of registered service providers. The top 25% of active providers account for approximately 80-90% of the value of payments made by the NDIA for participant supports. This means that there is some concentration risk associated with the largest providers within the scheme, especially if considered at a regional level where there may be a limited number of providers. Further, there is a risk of these large providers

working together, which may result in less choice for the market, and difficulties in new providers entering.

The market needs to expand at between 20% and 30% per annum over the two years (2017-18 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, along with emerging innovative support options (such as increased use of assistive technology and applications that “match” participants to support workers), and importantly the outcomes of participants receiving support.

4. Baseline projection

Summary of key findings

- The overall costs of a well-functioning NDIS at full scheme in 2019-20 is estimated to be $21.9 billion, including $0.6 billion for people aged over 65 years. The estimate includes estimates for Western Australia and is relatively consistent with our previous review.
- An annual projection methodology has been applied to separate cohorts of the Scheme's population, projecting Scheme population and costs separately. The population cohorts vary by primary disability, level of function, gender and age. A scheme view is formed by summing up these individual cohorts of participants.
- Key assumptions and results of the baseline projection as at 30 June 2020 include:
  - Long term participants of 1.8% of the total Australian population
  - New incidence per annum of 0.1% of the Australian population aged 0 to 64
  - Scheme exit rate of 2.2% per annum
  - Scheme costs per annum of 1.1% of gross domestic product
  - Inflation of costs at 4.3% p.a. to 2019-20 and 4.0% p.a. in the longer term
  - Long term operating expenses of 7% of participant costs
  - NIIS offset of 4% of participant costs at 2020 increasing to 6% at 2040
- Benchmark assumptions continue to be used to model the baseline projection, as data integrity issues and the phasing pattern of new participants into the Scheme means that there are limitations in using Scheme experience to inform projections.
- However, a number of plausible alternative scenarios have been compared to the baseline projection, based on emerging trends in Scheme experience. Key findings are:
  - Committed support assumptions using current Scheme data (and 90% utilisation), in total, give similar projection results to reference package assumptions, although individual results differ by age, level of function and disability type.
  - Superimposed inflation needs to be better understood and managed as even a 1% per annum level would increase Scheme costs by 25% at 2040.
  - Ensuring exits from the Scheme by younger participants are appropriately managed, especially from those entering through the early intervention pathway.
  - Scheme costs are very sensitive to the level of function distribution of Scheme participants, with relatively minor variations having a leveraged impact on Scheme costs. This is increasingly important due to the link between a participants' level of function and the results of the guided planning process.

This section presents a baseline projection of Scheme costs. The baseline projection can be considered as the best estimate, on the evidence available to date, of the cost trajectory for a well-functioning NDIS when it reaches maturity. Hence, it is a target projection from which to monitor the actual Scheme experience.

We firstly consider the data, key assumptions and methodology underlying the baseline projection. We then present a summary of the results and finally show a number of scenarios based on plausible variations in the baseline projection results based on emerging Scheme trends.

4.1 Data used

The baseline projection is based primarily on benchmark assumptions.

The 2011 Productivity Commission report provided some initial costings of the Scheme and the assumptions underlying these projections have been used to help inform our estimates. The Productivity Commission estimate was based on the Australian Bureau of Statistics (ABS) Survey of Disability Ageing and Carers (SDAC).

Additional data has been used to obtain a more detailed breakdown of the Productivity Commission estimate and to allow monitoring of actual experience against expected experience.

The additional sources used in the projections are:

- **Epidemiological data,** including information on incidence rates, prevalence rates and mortality rates for different disabilities.
- **Research on level of function measures for different disabilities** to assist with building a detailed profile of participants in the Scheme, including costs across the lifespan and the expected distribution of level of function within a disability.
- **Scheme experience during trial and early transition** including the current profile of participants. The profile of participants by age, primary disability, level of function, gender, whether they entered the Scheme under the early intervention or disability requirements and whether they were in shared supported accommodation arrangements have all been considered. This data is described more fully in Section 2.2.
- **ABS population projections** to determine the number of new participants entering the Scheme each year (based on the incidence rates).

4.2 Methodology

An annual projection methodology has been applied to separate cohorts of the Scheme's population, looking firstly at the projected Scheme population and then at the projected Scheme costs.

The population of the Scheme is subdivided into a number of similar cohorts, with separate projections for participants of different primary disability, level of function, gender and age. The model has 57 separate disability/level of function cohorts. A scheme view of participant numbers and costs is formed by summing up these individual cohorts of participants.

The main change from last year's model is that a participants' disability is now subdivided into level of function sub-groups. This enables a more detailed view of the projections with which to monitor experience against, especially as Scheme costs will depend on the number of low function participants. This model has been parameterised using reference package information.

The impact of the efficiency dividend has been removed from the model this year. The efficiency dividend is a very subjective assumption and would be hard to measure and manage in practice. The revised approach allows any efficiency dividends to emerge over time as reductions in average participant package costs.

4.2.1 Participant population methodology

A separate methodology is used for the transition period compared to the full scheme projection period. Table 4.1 gives an example using the population projection for male participants who have a profound level of autism, noting that the actual projections are performed by nearest age, with the table summarising the results into broad age bands.

Table 4.1 Projection Methodology - male participants with profound autism

Age Band	30/06/2017	30/06/2018	30/06/2019	30/06/2020	30/06/2021	30/06/2022	30/06/2023	30/06/2024	30/06/2025
0 to 6	249	1,294	2,389	2,573	2,520	2,373	2,246	2,159	2,104
7 to 14	608	2,369	4,213	4,522	4,955	5,540	6,047	6,415	6,668
15 to 18	248	741	1,258	1,344	1,177	967	831	812	884
19 to 24	179	509	855	913	964	1,035	1,079	1,065	996
25 to 34	98	375	664	713	727	731	721	719	728
35 to 44	47	141	239	255	246	241	250	255	266
45 to 54	14	93	176	190	202	214	219	227	229
55 to 64	6	54	105	113	115	119	119	117	115
65+	2	2	7	15	25	31	39	51	65
Total	1,451	5,579	9,904	10,638	10,931	11,250	11,553	11,821	12,056

The green shaded cells represents the current Scheme population using Scheme data as at 30 June 2017. The purple cells represent the transition period of the Scheme for participants aged 0 to 64. The rightmost purple column has been calibrated, in total, to the long term estimate of full scheme participant numbers for each cohort. The other purple columns have

been estimated by blending the current Scheme population to the long term estimates using the transition phasing schedule of the Scheme.

The areas shaded in orange use an explicit projection methodology, which is applied to participants during full scheme and for all projections of participants aged over 65. 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 uses deterministic assumptions and is modelled based on the participant profile determined and the underlying general population.

4.2.2 Projection of Scheme costs

The main components of the projection of Scheme costs are:

- Annual participant costs are applied to participants in each cohort, with separate cost assumptions by age, primary disability and level of function.
- Inflation is applied to participant costs considering wage rates (including the SACS award), increases in CPI and any additionally identified inflationary factors.
- The participant cost across the Scheme is the sum of all cohorts based on the underlying profile of participants in the Scheme for each year.
- Agency operating costs are added as a percentage of participant costs, noting that this loading includes Tier 2 funding costs related to Local Area Coordinators and Early Childhood Early Intervention partners.
- The cost of any potential participants who are already having their support needs met by the National Injury Insurance Scheme is removed from the total Scheme cost.
- The resulting costs are then compared with GDP.

4.3 Summary of key assumptions

4.3.1 Long term population[33]

The Productivity Commission estimate of full scheme participant numbers aged 0 to 64 was around 432,000 in 2016-17. The transition to full scheme is not scheduled to be completed

[33] Note that this includes the population of Western Australia, with scenario analysis provided in Section 4.5.9 to show the impact of excluding WA from the scheme.

until 30 June 2019, and the model assumes a population of around 469,000 participants at the end of 30 June 2020 after the first year of full new incidence, of which about 458,000 are assumed to be aged 0 to 64. This is relatively consistent with the Productivity Commission estimate updated with expected Australia population growth.

A summary of the participant projections up to 30 June 2025 and split by age band is shown in Table 4.2. This shows that the Scheme has 89,610 active participants as at 30 June 2017, including 1,230 over the age of 64. This also shows the expected phase in pattern of the Scheme that has been assumed, with full scheme assumed at 30 June 2020. The age group 65+ is expected to represent a higher proportion of the Scheme participant population over time as participants will remain. This is because only people under age 65 are initially eligible for the Scheme, but they will remain in the Scheme once they reach the age of 65, unless they move to a residential aged care facility.

Table 4.2 Scheme Participant Population Projection Summary

Age Band	30/06/2017	30/06/2018	30/06/2019	30/06/2020	30/06/2021	30/06/2022	30/06/2023	30/06/2024	30/06/2025
0 to 6	11,693	30,295	49,766	53,032	51,573	50,758	50,030	49,932	50,215
7 to 14	23,429	48,612	74,970	79,391	84,924	90,126	95,080	98,515	100,987
15 to 18	8,003	17,933	28,327	30,070	27,478	25,464	23,937	23,501	24,114
19 to 24	8,638	22,544	37,099	39,541	40,924	41,644	41,897	41,283	39,617
25 to 34	8,634	33,418	59,360	63,711	64,124	64,648	65,305	66,196	67,328
35 to 44	8,070	31,930	56,903	61,092	62,216	63,276	64,208	65,276	66,491
45 to 54	9,932	34,626	60,474	64,809	65,047	65,289	65,697	66,101	66,457
55 to 64	9,982	35,515	62,240	66,722	68,745	70,467	71,794	73,014	74,142
65+	1,230	2,116	5,251	10,690	16,393	22,346	28,495	34,672	40,837
Total	89,610	256,991	434,390	469,058	481,425	494,018	506,444	518,489	530,186
Total 0-64	88,380	254,875	429,139	458,368	465,033	471,671	477,949	483,817	489,350

Table 4.3 shows the assumed distribution of the Scheme population as at 30 June 2020 for participants aged 0 to 64 and split by disability type.

Table 4.3 Scheme Population as at 30 June 2020 by Age Band and Primary Disability[34]

Disability Type	0 to 6	7 to 14	15 to 18	19 to 24	25 to 34	35 to 44	45 to 54	55 to 64	Total
Acquired Brain Injury	40	429	637	1,083	2,766	2,849	2,477	2,164	12,445
Autism	21,438	37,683	11,203	7,605	5,940	2,129	1,581	944	88,521
Cerebral Palsy	3,422	3,823	1,750	2,531	3,770	3,276	2,735	2,320	23,625
Hearing Impairment	2,187	1,471	309	431	983	2,164	3,586	3,652	14,784
Intellectual Disability	20,342	30,511	12,139	15,966	24,911	21,488	18,830	14,756	158,943
Multiple Sclerosis	0	0	0	4	265	1,442	2,806	4,749	9,266
Other Neurological	1,689	2,037	1,090	1,926	3,937	4,641	6,310	10,544	32,175
Other Physical	834	1,241	593	957	1,890	2,281	4,670	6,594	19,059
Other SensorySpeech	2,526	1,660	223	270	262	274	649	674	6,538
Psychosocial disability	0	0	1,941	8,238	17,080	16,986	15,919	13,542	73,708
Spinal Cord Injury	15	29	55	259	791	1,199	1,987	2,067	6,403
Stroke	0	0	0	0	62	893	1,778	3,230	5,963
Visual Impairment	539	506	130	271	1,054	1,470	1,480	1,487	6,938
Total	53,032	79,391	30,070	39,541	63,711	61,092	64,809	66,722	458,368

This shows that over a third of participants are expected to have an intellectual disability (which includes developmental delay and global developmental delay for children), with a further 19% having autism and 16% having a psychosocial disability. Remaining disabilities make up about 30% of the Scheme population. The majority of early intervention participants are concentrated around children aged 0 to 14, particularly those with autism, developmental delay, global developmental delay, an intellectual disability or an “other sensory/speech” disability.

4.3.2 New Incidence

Assumptions on participants entering the Scheme (as a percentage of the general population) are based on Scheme experience and epidemiological data. These assumptions are broken down by age, gender, primary disability and level of function. New incidence is only considered for participants under the age of 65.

The general population assumptions are based on ABS projections of the Australian population. Further, it’s assumed that the incidence of disability, as a percentage of the general population, remains the same over time. Table 4.4 gives a summary of the new incidence assumptions used, per 100,000 people, split by primary disability group and age band.

[34] These scheme numbers assume that there is no National Injury Insurance Scheme (NIIS). There is an explicit adjustment later in the process to allow for any participants covered by a NIIS.

Table 4.4 New Incidence by disability and age (per 100,000 people)[35]

Disability Type	0 to 6	7 to 14	15 to 18	19 to 24	25 to 34	35 to 44	45 to 54	55 to 64	Total (0-64)
Acquired Brain Injury	1	2	9	5	1	1	1	1	2
Autism	204	136	0	0	0	0	0	0	38
Cerebral Palsy	23	0	0	0	0	0	0	0	2
Hearing Impairment	15	0	0	0	1	6	5	0	3
Intellectual Disability	198	0	0	0	0	0	0	0	21
Multiple Sclerosis	0	0	0	0	2	5	7	10	4
Other	0	0	0	0	0	0	0	0	0
Other Neurological	13	0	1	5	6	4	6	26	8
Other Physical	6	2	1	1	1	4	8	12	5
Other SensorySpeech	20	0	0	0	0	0	2	0	2
Psychosocial disability	0	0	42	39	17	8	3	1	11
Spinal Cord Injury	0	0	4	0	1	2	3	2	2
Stroke	0	0	0	0	0	4	5	11	3
Visual Impairment	4	0	0	0	3	0	0	4	2
Total	482	139	57	51	32	34	41	68	103

The annual new incidence assumed as at 30 June 2020 is nearly 23,000 people as shown in Table 4.5. For future years, this is increased with projected Australian population growth.

Table 4.5 Scheme Participant New Incidence Summary as at 30 June 2020

Disability Type	0 to 6	7 to 14	15 to 18	19 to 24	25 to 34	35 to 44	45 to 54	55 to 64	Total
Acquired Brain Injury	12	49	115	93	49	30	20	24	393
Autism	4,873	3,573	0	0	0	0	0	0	8,447
Cerebral Palsy	546	0	0	0	0	0	0	0	546
Hearing Impairment	362	0	3	9	30	207	162	0	773
Intellectual Disability	4,727	0	0	0	0	0	0	0	4,727
Multiple Sclerosis	0	0	0	0	71	197	238	308	814
Other	0	0	0	0	0	0	0	0	0
Other Neurological	310	8	16	104	216	154	191	787	1,787
Other Physical	142	40	17	23	46	143	277	378	1,066
Other SensorySpeech	475	0	0	0	0	0	63	0	537
Psychosocial disability	0	0	517	788	652	300	114	37	2,409
Spinal Cord Injury	0	2	46	6	40	78	107	56	335
Stroke	0	0	0	0	0	145	179	331	655
Visual Impairment	85	0	0	0	119	4	13	135	356
Total	11,533	3,672	714	1,023	1,224	1,259	1,363	2,056	22,845

About half of the new incidence is attributable to participants aged 0 to 6 and a further 16% for participants aged 7 to 14, with the bulk of these participants being born with their primary disability. This means that about a third of new incidence is attributable to participants who acquire their disability throughout their life, some of which will be covered under a National Injury Insurance Scheme.

Autism makes up about 37% of all new incidence and intellectual disability (which includes developmental delay and global developmental delay) makes up a further 21%.

[35] The “total” column shows the new incidence by primary disability group across total population aged 0 to 64 per 100,000 people, while the age bands express new incidence across population in that age category only.

Psychosocial disability makes up about 11% of new incidence, with some supports for this disability provided on an episodic basis, with new incidence generally arising as an adult.

The number of participants entering the Scheme each year during the transition years is not modelled explicitly in the valuation method. Rather it is implicit in the projections and informed based on Scheme experience to 30 June 2017, phasing information from the transition bilateral agreements and estimates of the number of participants at full scheme.

4.3.3 Exit rates

Participants are assumed to exit the Scheme due to mortality, no longer needing support, or by entering into residential aged care (in the case of participants aged over 65 years).

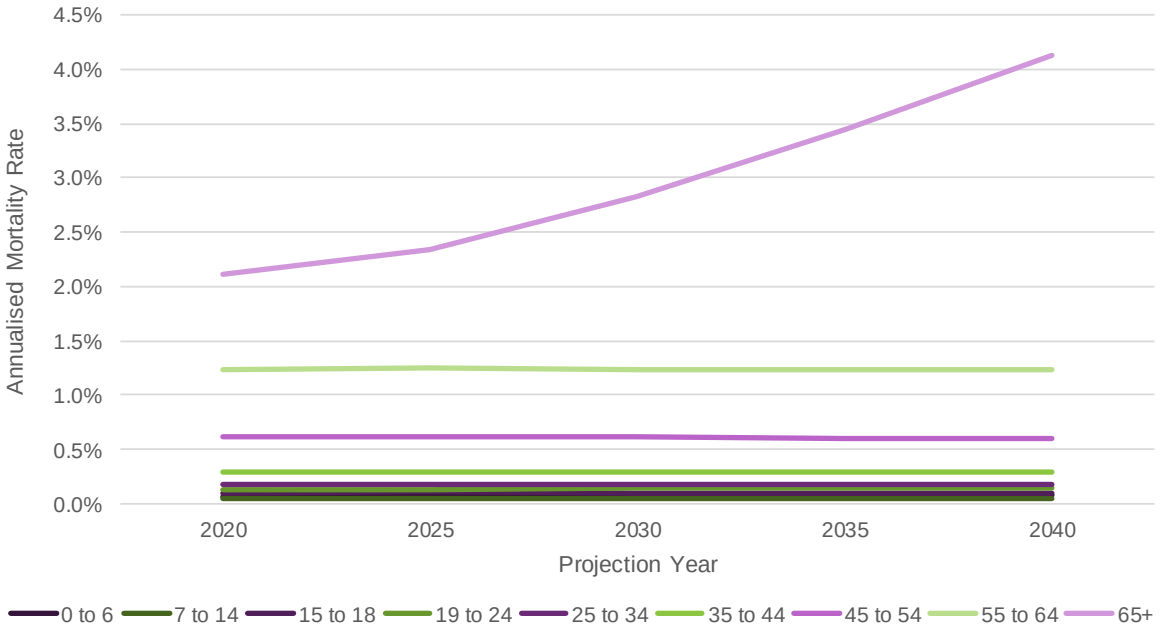
Assumptions on participants exiting the Scheme were based on epidemiological data, the ABS SDAC and data from the Commonwealth aged care system. These assumptions are broken down by gender, age, disability and level of function.

Mortality rates

Mortality rate assumptions have been based on a multiple of the standard Australian mortality rate according to the Australian Life Tables 2010-12. Separate mortality multiplier assumptions are used for gender, primary disability, level of function and age. Multipliers are generally higher at younger ages, where disability is a larger contributor to the mortality rate. Multipliers are also generally higher for lower levels of function. Appendix F contains a summary of these mortality multipliers.

Combining these assumptions together, the overall rate of exit through mortality can be summarised in the following chart:

Figure 4.1 Mortality rate by projection year

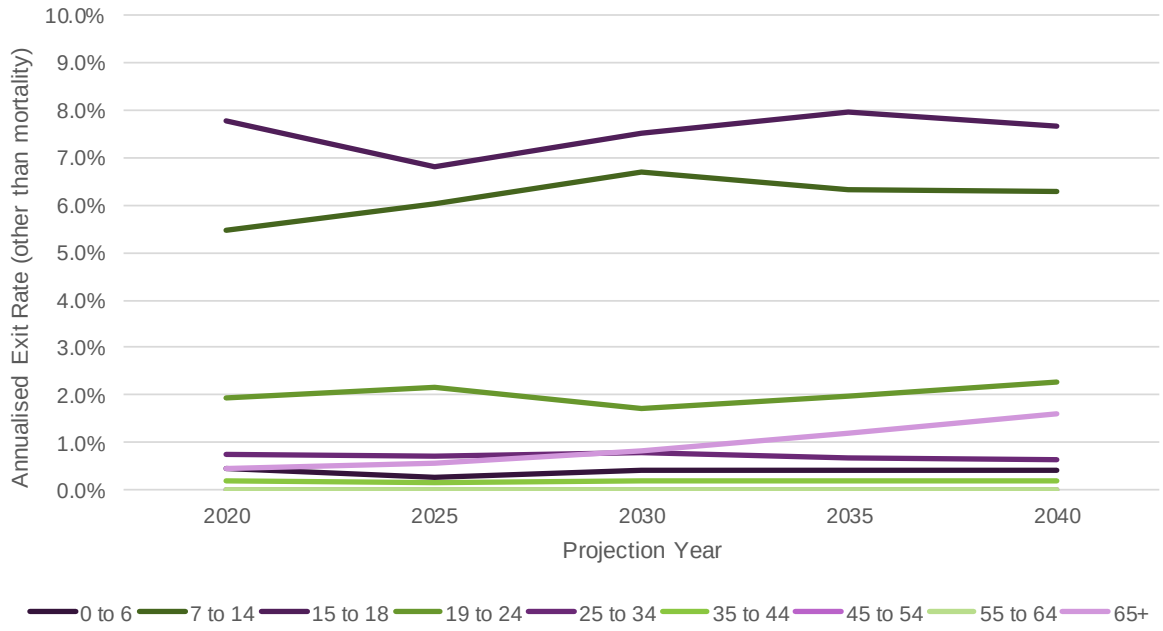


The mortality rate by year is relatively stable within each age group, with the exception of the 65+ age group, which increases from 2% per annum in 2020 to over 4% per annum in 2040, because the average age for this age group increases over time. Relatively few deaths are expected up to the age of about 45, at which point the mortality rate increases above 0.5%.

Other exits

Exits from the Scheme for reasons other than death, whether this be from exit through successful early intervention or from older participants moving into residential aged care facilities, exhibit a very different pattern compared to exits from mortality. Explicit exit assumptions are adopted for younger participants with autism, developmental delay or a sensory disability. These exit rate assumptions vary by age, generally being higher for ages 7 to 18, as shown in Figure 4.2.

Figure 4.2 Non-mortality Rate by Projection Year



The exit rate from the Scheme through causes other than mortality is highest for ages 7 to 24. For other ages the exit rate is generally less than 1% per annum. The ECEI gateway is designed to provide a more robust process to control scheme eligibility for children aged 0 to 6 years. The baseline model assumes that these exits are deferred to ages 7+ and this is an area where further work will be required in future reviews. The exit rate for the 65+ age group increases over time as the average age of this group increases over time. This reflects the increased probability of a participant moving into the aged care system at older ages.

The exit rates for participants aged 7 to 18 lie between 5% and 8% per annum. These exits are anticipated to arise primarily from those participants accessing the Scheme through the early intervention pathway, typically having a primary disability of autism, intellectual disability (mainly developmental delay) and the sensory disabilities. While many of these early intervention exits may be expected to arise on a duration basis, where duration is measured from when capacity building supports are first provided, it is worth highlighting the recommendation that the Scheme establish a mechanism to ensure the review of continued eligibility in the Scheme after certain milestones have been reached, perhaps two years after entry to the Scheme or at certain milestone ages.

Combined exit rates

Table 4.6 shows the combined exit rates for the scheme by age band and projection year. The projected average exit rate begins at 2.2% in 2020 and increases to 2.9% in 2040, largely driven by increases in deaths for participants over the age of 65.

Table 4.6 Projected exit rate projections by age band

	Total Exits				
Age Band	2020	2025	2030	2035	2040
0 to 6	0.5%	0.4%	0.5%	0.5%	0.5%
7 to 14	5.5%	6.1%	6.7%	6.4%	6.3%
15 to 18	7.9%	6.9%	7.6%	8.1%	7.8%
19 to 24	2.1%	2.3%	1.9%	2.1%	2.4%
25 to 34	0.9%	0.9%	0.9%	0.8%	0.8%
35 to 44	0.5%	0.5%	0.5%	0.5%	0.5%
45 to 54	0.6%	0.6%	0.6%	0.6%	0.6%
55 to 64	1.2%	1.2%	1.2%	1.2%	1.2%
65+	2.6%	2.9%	3.6%	4.5%	5.5%
Total	2.2%	2.3%	2.6%	2.7%	2.9%

4.3.4 Cost assumptions

Annual cost assumptions are applied to participants, with separate assumptions by age, disability and level of function for each projection year. The cost assumptions are informed by research on reference packages[36] and emerging Scheme experience. These assumptions also allow an estimate of the calculation of lifetime cost of participants who are currently in the Scheme, or enter the Scheme. Figure 4.3 summarises some of the average cost assumptions for the main disability types.

[36] These have been developed for each reference group (age, disability and level of function sub-groups) using a ground-up approach and evidence collected from many sources to detail individual supports that a person with the characteristics of that group would normally need.

Figure 4.3 Average annualised cost assumptions for main disability types

Some of the key aspects of Figure 4.3 include:

- Cost assumptions are highest for those participants with the lowest level of function (the darker lines) across all disability types, noting that smaller number of participants are in these low functioning groups.
- Cost assumptions for children are generally lower than for adults, reflecting the relatively high level of informal care and support that is provided by parents, and that some support need increases with age.
- Cost assumptions vary significantly by disability type, level of function and age.
    - Cost assumptions for autism, intellectual disability and cerebral palsy increase steeply with age and have a large difference between the highest level of function and the lowest level of function. There is a high proportion of informal supports provided at younger ages, typically by parents, meaning that these cost assumptions are lower.
    - Cost assumptions for acquired brain injury increase moderately with increasing age and have the largest percentage differential between the highest level of function and the lowest level of function, a reflection, in part,

to the Care and Needs Score level of function assessment tool that is used, which relates level of function back to the need for attendant care support.

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 F.

The expected average annual cost assumptions (in current dollars) at full scheme, split by disability and age band is shown in Table 4.7.

Table 4.7 Average cost assumptions by age band and disability (current dollars)

Disability Type	*0 to 6*	*7 to 14*	*15 to 18*	*19 to 24*	*25 to 34*	*35 to 44*	*45 to 54*	*55 to 64*	*65+*	*Total*
Acquired Brain Injury	85,300	95,000	107,600	107,600	124,300	124,300	124,300	124,300	149,200	121,400
Autism	19,000	23,800	38,100	47,600	57,100	66,600	95,100	95,100	114,200	31,800
Cerebral Palsy	29,100	36,200	57,400	71,200	85,100	98,900	140,400	140,400	168,500	81,000
Hearing Impairment	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200
Intellectual Disability	15,900	19,900	31,800	39,800	47,700	55,700	79,600	79,600	95,500	45,000
Multiple Sclerosis					41,900	41,900	41,000	53,800	53,800	48,300
Other										
Other Neurological	30,200	30,200	49,700	52,400	52,400	52,400	52,400	52,400	52,400	49,900
Other Physical	28,500	28,500	37,800	51,000	51,000	51,000	51,000	51,000	51,000	48,300
Other SensorySpeech	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800
Psychosocial disability			17,700	17,700	17,700	17,700	17,700	17,700	17,700	17,700
Spinal Cord Injury		120,000	133,900	133,900	152,300	152,300	152,300	152,300	182,700	152,900
Stroke						48,700	48,700	48,700	48,700	48,700
Visual Impairment	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800
Total	18,700	23,200	37,100	40,700	46,400	49,000	58,500	57,000	63,500	42,200

The above averages are a combination of the assumptions by age, level of function and primary disability, weighted by the distribution of level of function within each disability and age group. The disability types with the largest average cost are acquired brain injury, spinal cord injury and cerebral palsy. The lowest average cost disabilities are hearing impairment, psychosocial disability, visual impairment and other sensory / speech impairments.

A more complete set of committed support assumptions by disability type, level of function and age is shown in Appendix F.

4.3.5 Economic assumptions

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 rate inflation in the attendant care industry and the SACS award. A long term assumption of 4.0% per annum is assumed to apply from 1 July 2020. More detail is included in Appendix F.

The recently released price guide for 2017-18 financial year contained the maximum prices that providers can charge for supports under the NDIS. The maximum prices will increase according to the type of support. The annual price increase for personal care and community

supports (attendant care) was 4.5%, noting that these supports represent around 75% of the total NDIS expenditure on funded supports. Maximum prices for other types of support increased at a lower level. While the combined impact of price increases for 2017-18 is slightly below the 4.3% assumed in the shorter term, we continue to retain the short term assumptions from the previous report, noting that the price increases relate only to the maximum prices that providers can charge for supports, rather than the actual price that is charged.

Costs for participants aged 65+ are assumed to increase at the rate of 1% per annum above the normal wage inflation rate for participants with primary disabilities of acquired brain injury, spinal cord injury, autism, intellectual disability and cerebral palsy and up to a maximum loading of 25%. These primary disabilities have cost assumptions that generally increase with age. The average age for the 65+ age group will increase gradually over time as the Scheme matures. Hence, average costs for this cohort should increase above normal inflation over time until a more mature and steady state is reached.

4.3.6 Operating expenses

Shorter term Agency operating costs have been based on a detailed activity-based costing of Agency operations. Operating expenses as a percentage of participant costs is higher in the shorter term, reflecting the higher costs of the Scheme associated with bringing new participants into the scheme. A longer term view on expenses uses the prescribed efficiency parameter of 7% of participant costs. This expense rate is at the lower end of the range of expense rates seen in comparable injury support schemes around Australia, even allowing for the greater scale of the Scheme.

The longer term operating expense assumption implicitly assumes that the scheme has a well-functioning ICT system. The current ICT system has a number of limitations and there are a number of work-arounds which means that, in its current form, it would likely result in operating expenses that are higher than anticipated. For example:

- The current ICT system does not allow participant plans to be amended without forcing a full plan review. While there are many sound reasons why there should be stringent controls around the ability of staff to make plan amendments, there are also some circumstances where it would make sense to allow minor plan amendments, within limits, without triggering a full plan review. For example, where a quoted amount for a support in a plan is slightly below the actual cost of a support, the plan currently may need a full plan review in order for the person to access that support[37].

[37] The principle of fungibility does help in some cases, although there are limits to its effectiveness.

- There is also a need to build some important business intelligence rules into the ICT system. For example, the plan budget amounts allocated to a participant do not have rigorous enough checks and balances to allow staff to determine whether the annualised level of supports are reasonable in regards to previous plans. This is especially the case when unscheduled plan reviews are undertaken and the unused portion of the plan is automatically rolled over into the new plan, without consideration given to the duration of the new plan.

In both of the above examples, additional costs would be expected from additional plan reviews and additional manual work to remediate a large number of user errors.

4.3.7 NIIS assumptions

The cost of the National Injury Insurance Scheme (NIIS) is removed from the projected Scheme costs. This is because the model estimates costs for all people with a disability in Australia that could meet the NDIS eligibility criteria. Some people with serious injury are already covered under injury support scheme arrangements and hence do not require the support of the Scheme. This cost is therefore offset from the model.

The estimate of the NIIS offset includes consideration of the incidence of injury across motor vehicle accidents, workplace accidents, medical misadventure and general injury, and the costs of care and support.[38] An allowance is made for both the historic and future incidence of injuries based on the history of each State/Territory in providing NIIS-equivalent benefits from their respective injury support schemes.

From 30 June 2016 the NIIS has been established in all state/territories in respect to motor vehicle and workplace accidents. However, there is uncertainty around whether the NIIS will be introduced in respect to accidents arising from medical misadventure and general injuries. This report therefore provides a scenario in Section 4.5.10 which assumes that NIIS is not introduced for injuries arising from medical misadventure and general injuries.

[38] 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. These estimates have been updated in respect of general injuries, specifically incorporating unit record data sourced from the New Zealand Accident Compensation Corporation. This analysis indicated that the 2005 estimates for general injury were too low, with more up to date data suggesting that a higher incidence should be projected.

4.4 Baseline projection

The baseline projection results in a Scheme cost as at 30 June 2020 of about $22 billion, as shown in Table 4.8.

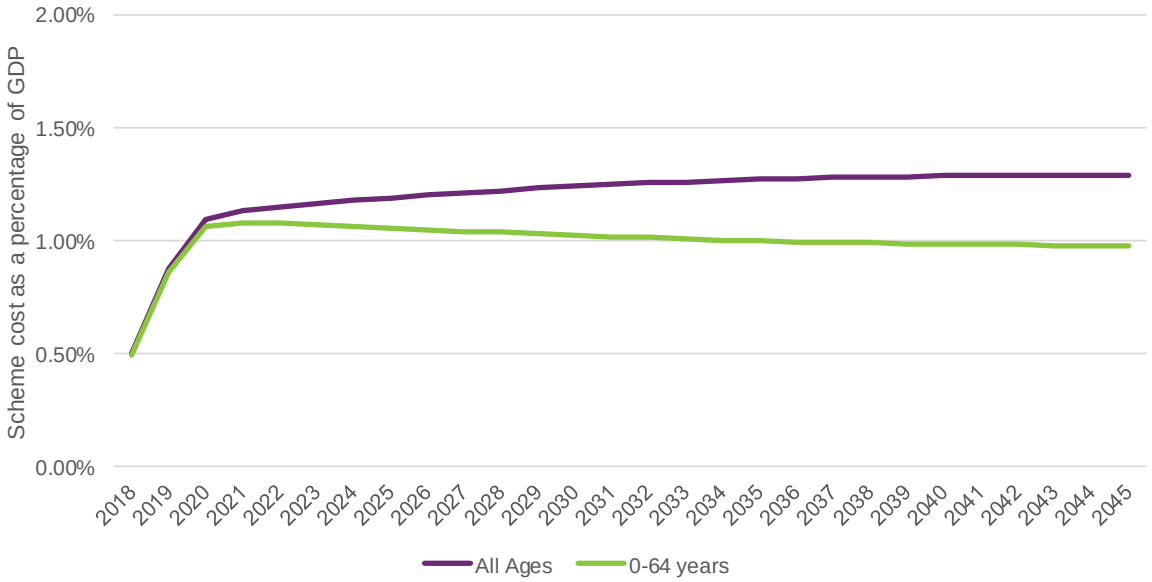
Table 4.8 Baseline projection of the Scheme

	2017	*2018*	*2019*	*2020*	*2021*	*2022*	*2023*	*2024*	*2025*	*2035*	*2045*
Number of participants:											
0-64 years	88,380	254,875	429,139	458,368	465,033	471,671	477,949	483,817	489,350	539,166	598,256
65+ years	1,230	2,116	5,251	10,690	16,393	22,346	28,495	34,672	40,837	94,125	118,544
Total	89,610	256,991	434,390	469,058	481,425	494,018	506,444	518,489	530,186	633,291	716,800
Scheme Cost ($m):											
0-64 years		8,189	15,589	20,619	22,248	23,439	24,666	25,935	27,251	44,503	73,468
65+ years		155	313	622	1,035	1,503	2,032	2,613	3,240	11,441	21,570
		8,343	15,902	21,240	23,283	24,943	26,698	28,548	30,492	55,944	95,039
NIIS adjustment		-322	-698	-789	-884	-985	-1,097	-1,215	-1,340	-3,015	-5,716
		8,022	15,204	20,451	22,399	23,957	25,602	27,333	29,151	52,929	89,323
Operating costs		1,104	1,444	1,487	1,630	1,746	1,869	1,998	2,134	3,916	6,653
Total		9,126	16,648	21,938	24,029	25,703	27,471	29,331	31,286	56,845	95,976
Cost as % of GDP		0.50%	0.88%	1.10%	1.14%	1.15%	1.17%	1.18%	1.19%	1.27%	1.29%
Cost as % of GDP (<65)		0.49%	0.86%	1.06%	1.08%	1.08%	1.07%	1.07%	1.06%	1.00%	0.98%

Some observations from the baseline projection include:

- The Scheme is projected to increase in size rapidly over the three years to 30 June 2020.
- Participant costs at full scheme in 2019-20 are estimated to be $21.2 billion, including $0.6 billion for people aged over 65 years of age. The effect of introducing the NIIS reduces this cost to $20.5 billion, while the inclusion of operating costs increases this to $21.9 billion.
- The proportion of costs attributable to participants over the age of 65 increases gradually over time, making up 3% of participant costs in 2019-20 and increasing to 29% of participant costs in 2044-45.
- Operating costs are assumed to be 13% and 9% of participant costs in 2017-18 and 2018-19 respectively, reducing to 7% of participant costs thereafter.
- Figure 4.4 below shows that total costs of a well-functioning Scheme are assumed to be about 1.1% of GDP at full scheme in 2020 and are projected to increase to 1.3% of GDP by 2045, the increase primarily a result of an increasing number of participants aged over 65 years.
- Scheme costs for participants aged 0 to 64 are expected to be about 1.0% to 1.1% of GDP at full scheme over the period 2020 to 2045.
- These estimates are relatively consistent with the Productivity Commission estimates of full scheme costs when considering inflation, population growth and the inclusion of participants over the age of 65 years.

Figure 4.4 Total Scheme costs as a percentage of GDP



Appendix F includes a split of Scheme costs by age and disability, and we also present some lifetime cost estimates for participants.

4.4.1 Comparison with previous assumptions

The main changes in the model from the previous year is the inclusion of the current population as the starting point for the projections, the removal of the efficiency dividend and the introduction of level of function cohorts within the methodology. These changes result in projections of Scheme costs which are relatively unchanged from the previous review.

The baseline projection can also be compared against the 2011 Productivity Commission estimate of full scheme costs, suitably updated for changes since 2011. The Productivity Commission estimated that the annual cost of the Scheme was $13.6 billion in 2011, which included approximately $12.6 billion in individual supports.

Table 4.9 Productivity Commission costings updated to 2020[39]

Original PC Gross Cost Individual Supports (2011)		$12.6bn
add:	*Inflation to 2020*	$5.9bn
	Population increase to 2020	$2.1bn
	Participants over age 65	$0.6bn
	Operating expenses	$1.5bn
less:	*NIIS*	-$0.8bn
Total		$21.9bn

Table 4.9 shows that inflating the individual supports to 2019-20 values and allowing for population increases, an additional cost for participants over the age of 65, an allowance for operating expenses and a NIIS offset, results in an annual cost of the Scheme of about $22 billion. The projected baseline cost of the Scheme remains broadly in line with the Productivity Commission estimate.

4.4.2 Lifetime cost estimates

The assumptions underlying the baseline projections also allow an estimate of the average lifetime cost of participants to be determined. These lifetime costs have been prepared using the assumptions outlined earlier, exclude operating expenses, and are discounted into a present value as at 30 June 2017 assuming a discount rate assumption of 6% p.a.

[39] In addition, the Productivity Commission costings did not include explicit allowance for children with developmental delay and for school transport, noting that these two items could account for an additional $400 million to $700 million per annum at full Scheme.

Table 4.10 Lifetime cost estimates by age and disability for current scheme participants[40]

Disability Type	*0 to 6*	*7 to 14*	*15 to 18*	*19 to 24*	*25 to 34*	*35 to 44*	*45 to 54*	*55 to 64*	*65+*	*Total*
Acquired Brain Injury		$2.6m	$3.8m	$4.1m	$4.8m	$4.4m	$3.9m	$3.3m	$2.4m	$3.8m
Autism	$0.2m	$0.2m	$0.6m	$0.8m	$1.7m	$3.5m	$3.9m	$3.6m		$0.4m
Cerebral Palsy	$1.6m	$2.9m	$4.2m	$5.6m	$6.5m	$6.5m	$7.2m	$6.0m		$4.6m
Hearing Impairment	$0.2m	$0.3m	$0.4m	$0.5m	$0.4m	$0.4m	$0.3m	$0.3m	$0.2m	$0.3m
Intellectual Disability	$0.8m	$1.7m	$2.9m	$3.2m	$3.8m	$4.1m	$4.3m	$4.1m	$3.4m	$2.7m
Multiple Sclerosis					$1.0m	$1.3m	$1.5m	$1.5m	$1.1m	$1.4m
Other	$0.9m	$1.1m	$1.3m	$1.3m	$1.3m	$1.3m	$1.2m	$0.9m		$1.1m
Other Neurological	$1.0m	$1.3m	$1.6m	$1.6m	$1.6m	$1.3m	$1.2m	$1.1m	$0.8m	$1.3m
Other Physical	$0.8m	$1.2m	$1.4m	$1.5m	$1.5m	$1.3m	$1.1m	$0.9m	$0.7m	$1.2m
Other SensorySpeech	$0.1m	$0.2m	$0.4m	$0.5m	$0.5m	$0.4m	$0.4m	$0.3m		$0.2m
Psychosocial disability	$0.5m	$0.7m	$1.1m	$1.2m	$1.3m	$1.3m	$1.2m	$1.1m	$0.8m	$1.1m
Spinal Cord Injury		$4.0m	$5.2m	$4.3m	$3.7m	$3.7m	$3.0m	$3.0m	$2.0m	$3.3m
Stroke		$1.0m		$1.1m	$1.1m	$1.0m	$1.0m	$0.9m	$0.8m	$0.9m
Visual Impairment	$0.5m	$0.4m	$0.5m	$0.6m	$0.6m	$0.5m	$0.4m	$0.3m	$0.3m	$0.5m
Total	$0.6m	$0.8m	$1.8m	$2.2m	$2.6m	$2.5m	$2.3m	$1.8m	$1.3m	$1.6m

Table 4.10 shows that the estimated lifetime cost varies significantly by disability and age, and it is also worth noting that within each disability, the lifetime cost also varies significantly by level of function and gender. A few key points are:

- The estimated average lifetime cost for participants is large and shows a significant level of variation across age and disability type.
- The highest average cost disabilities are cerebral palsy, acquired brain injury, intellectual disability and spinal cord injury which all have average lifetime costs of over $2 million.
- Sensory disabilities, such as visual and hearing impairment, have lower lifetime costs.
- Autism has a lower average cost at younger ages, which is driven by the expectation of significant numbers of exits from the scheme arising from early intervention and capacity building supports for children who are higher-functioning on the autism-spectrum. Similar comments apply to those participants with intellectual disability, as this includes people with developmental delay who we would also expect to exit from the Scheme through the impact of early intervention supports.

The expected lifetime cost for an individual participant will depend on their specific circumstances and in particular on their level of functional impairment and any longer term

[40] The average lifetime cost will depend on other characteristics of individual participants within the Scheme, particularly their gender and level of function. Average lifetime cost has only been included in this table where there are more than 20 participants within the scheme, and left blank otherwise.

informal support networks. Table 4.13 shows a split of costs by level of function for intellectual disability, which also includes participants with developmental delay and global developmental delay.

Table 4.11 Future lifetime cost estimates by age and level of function for intellectual disability

Disability Type	*0 to 6*	*7 to 14*	*15 to 18*	*19 to 24*	*25 to 34*	*35 to 44*	*45 to 54*	*55 to 64*	*65+*	*Total*
Intellectual Disability - Mild	$0.5m	$0.6m	$0.9m	$1.0m	$1.0m	$1.0m	$1.0m	$0.8m	$0.7m	$0.7m
Intellectual Disability - Moderate	$0.7m	$0.8m	$1.2m	$1.3m	$1.4m	$1.4m	$1.3m	$1.2m	$1.0m	$1.2m
Intellectual Disability - Substantial	$3.1m	$3.7m	$5.3m	$5.9m	$6.2m	$6.4m	$6.0m	$5.2m	$4.4m	$5.2m
Intellectual Disability - Pervasive	$4.3m	$5.2m	$7.5m	$8.4m	$9.0m	$9.5m	$9.2m	$8.1m	$6.8m	$8.0m

The results here indicate the wide variation in participant lifetime costs, noting that these costs are still averages, based on a participants specific circumstances. It also highlights the benefits that can be obtained if the investment of appropriate capital building supports in the shorter term results in lower ongoing needs for certain other supports in the longer term.

More detailed lifetime costs have been prepared in respect to participants with other disabilities by different levels of function, included as an Appendix F.

4.5 Scenario analysis

The baseline projection uses benchmark assumptions because Scheme experience continues to be unsuitable to reliably estimate future Scheme experience. In particular, data integrity issues and the phasing pattern of new participants into the Scheme means that it is problematic to rely on the Scheme experience to inform projections. There are also concerns over the quality of the committed supports data in the ICT system, with a recent assurance review suggesting a relatively high number of errors in the recorded committed supports, especially for early end dated plans.

This section therefore presents the impact of a number of alternative “scenarios” if aspects of the current Scheme experience were to emerge, all other benchmark assumptions kept the same. These scenarios have relied heavily on the insights gained from Section 3 of this report where comparisons of Scheme experience to benchmark assumptions were made.

Ten alternative scenarios have been presented and compared with the baseline projection. These alternative projections do not represent the full range of possible outcomes that may eventuate over time, but rather may be considered as alternatives to the baseline projection. These alternatives are:

- Scenario 1: Using actual annualised committed supports in participant plans as at 30 June 2017, and a range of different utilisation rates.
- Scenario 2: Inflation of Scheme costs above normal wage inflation.
- Scenario 3: Higher numbers of children in the Scheme and lower numbers of adults in the Scheme.

- Scenario 4: Lower exit rates for children, higher exit rates for adults and changes in the assumed participant mortality rate.
- Scenario 5: Lower average level of function for Scheme participants.
- Scenario 6: Higher costs for participants in Shared Supported Accommodation.
- Scenario 7: Cost pressures on participants over 65 years old.
- Scenario 8: Variations in longer term expenses rates.
- Scenario 9: Phasing of new entrants and the treatment of WA.
- Scenario 10: The removal of NIIS offsets in regards to injuries arising from medical malpractice and general injuries.

4.5.1 Scenario 1: Using actual committed supports experience

This scenario models committed supports in line with current annualised amounts in participant plans, along with an assumed utilisation rate. This scenario assumes:

- Committed supports have been calculated separately for core, capital and capacity building supports using actual scheme data at 30 June 2017.
- Separate cost assumptions are calculated for each disability type, level of function group and age band.
- Participant payments are modelled by multiplying committed supports with an assumed utilisation rate.
- Participants with Shared Supported Accommodation (SSA) arrangements are modelled separately, given that these participants represent a significant scheme cost.

Committed support assumptions

The amount of annualised committed supports contained within participant plans at 30 June 2017 generally follow coherent trends, notwithstanding the data integrity issues discussed in Section 2.3, with a level of consistency across the dimensions of age, disability type, level of function and support type. The distribution of supports within current participant plans should be fairly representative of the distribution of committed supports for future years if the plan review and approval process remain relatively unchanged.

By way of example, Figure 4.5 shows average annualised committed supports for participants with an intellectual disability. Assumptions have been split by age, level of function (where a higher suffix denotes a lower level of function) and support type. Separate charts have been presented for core, capacity building and capital supports, and also for those with shared supported accommodation arrangements, noting that the scale on each of the charts is different.

Figure 4.5 Average intellectual disability package costs by level of function, age and support type

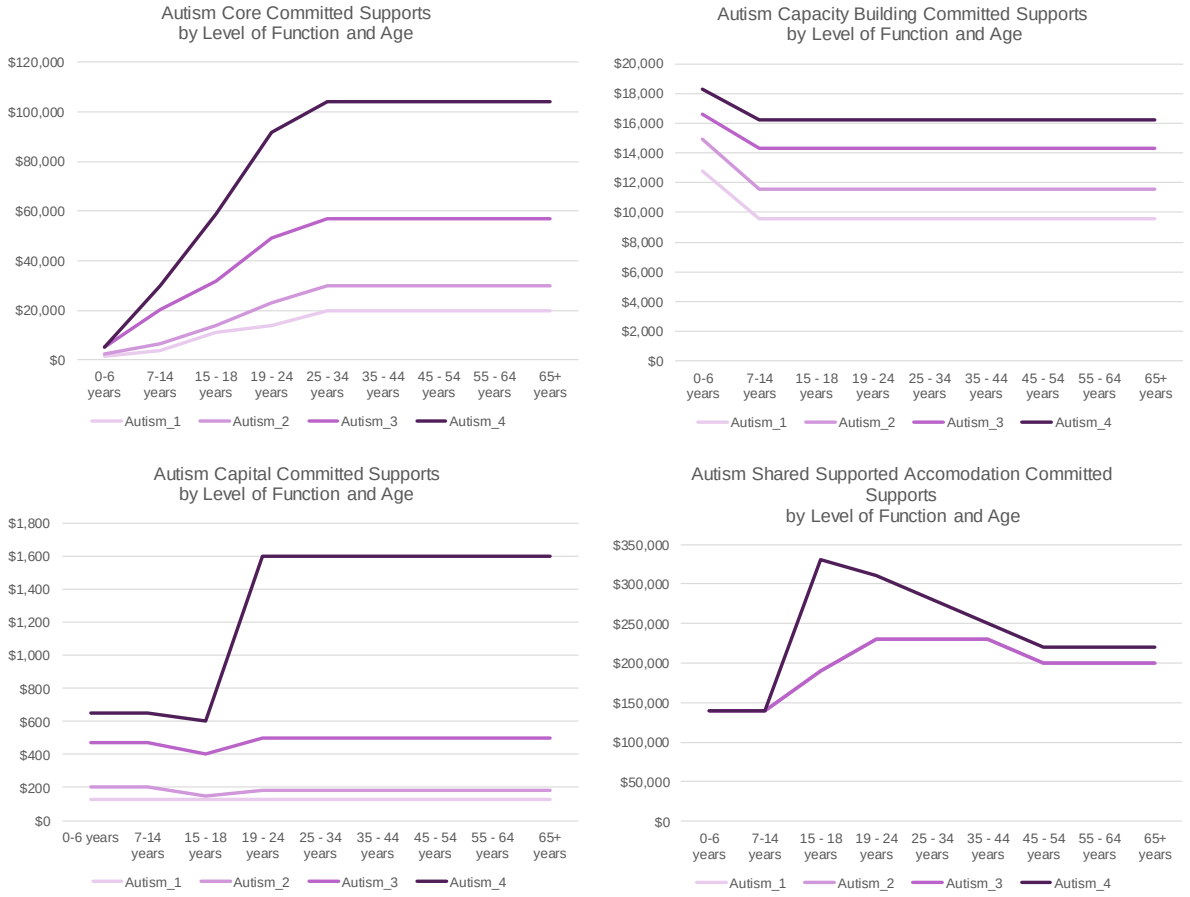
Some of the key aspects of Figure 4.5 include:

- Committed supports are highest for those participants with the lowest level of function (the darker lines) across all support types.
- Core supports (top left chart) makes up the majority of committed supports for adults, with annualised core support packages averaging about $100,000 for those participants with the lowest levels of function.
- Capacity building supports (top right chart) are highest for ages 0 to 6 and gradually reduce over the older ages, with assumptions averaging between $10,000 and $20,000. There is also a hump at ages 19-24 which is relatively consistent across levels of function. This is likely to be related to the funding for School Leaver Employment Supports, a reasonably common support for participants with a mild to moderate intellectual disability.
- Capital makes up a relatively small proportion of total package for participants with an intellectual disability (bottom left chart).
- The overall support package size generally increases in size up to the age of 25 and then remains relatively stable for older ages.

- Participants in shared supported accommodation arrangements (bottom right hand chart) have the highest levels of assumed committed supports, averaging from $150,000 to $250,000.

Autism is the disability group that has the second largest number of participants in the Scheme and Figure 4.6 shows assumptions for this disability group.

Figure 4.6 Average autism package costs by level of function, age and support type



Assumptions for participants with autism are relatively similar to those for participants with an intellectual disability. Each disability type has its own unique committed supports profile. However, many of the observations made in respect to participants with an intellectual disability also apply to these other disability types to some degree. A more complete set of committed support assumptions by disability type and support type is shown in Appendix G.

It is useful to compare these assumptions with the assumptions adopted in the baseline projection. High functioning participants are, in general, receiving committed support packages significantly larger than anticipated under the baseline projection. This may suggest that a minimum level of supports is being provided to participants who achieve the eligibility criteria for the Scheme. This has the potential to create a tension between those people with a disability who are not eligible for the Scheme, and those whose who have a plan with the highest levels of function.

From one perspective, this “minimum” package may not be a major concern if, over time, the use of capacity building supports leads to an increase in a participants functional capacity and eventually leads to a scheme exit, such that they can be adequately supported through mainstream services. Indeed, one of the principles of the Scheme is to provide early capacity building supports to participants as an investment to help build up a participants capacity and thus would require an investment of more than token amounts to be useful.

However, to the extent that exits do not emerge over time, then there is a risk that a longer term reliance on the Scheme would increase the number of participants to the Scheme over the longer term, thus having large financial ramifications for the financial sustainability of the Scheme. Section 4.5.4 explores the implications of this scenario further.

This discussion also reinforces the need for adequate information, linkages and capacity building support for people with more moderate levels of disability. Funding for information, linkages and capacity building (ILC) is minimal at present and at full scheme the budget for this spending is remains reasonably low. Local Area Coordinators (LAC) are expected to spend about 20% of their effort in supporting people with a disability who do not need an individual support package in delivering information and linking people to disability services, although it is unclear of their ability to do this in the shorter term due to the ambitious scheme roll-out targets.

Recommendation

6. The relatively high package amounts (compared to expectations) of the highest functioning participants in the scheme has the ability to create tensions in eligibility thresholds, already being seen for younger participants in the scheme. The Agency should review the budgeted funding and resources directed to the support people with low to moderate levels of disability who do not require an individual support package.

The baseline projection also suggests that the level of supports increases with age, particularly for those over the age of 65. This is not currently supported by the emerging experience, with older participants having similar, or lower, levels of support (particularly for participants over 65 years of age), although noting there is relatively little experience to form adequate conclusions.

Utilisation

The amount of committed supports included in participant plans are emerging above expectations across most areas. If the full value of these committed supports were used then the scheme expenditure would be above both current scheme revenue and also above the long term funding envelope of the 2011 Productivity Commission costings. Therefore, one of the key long term uncertainties within the scheme is the degree to which committed supports are utilised within a participant’s plan.

Section 3.3.3 explores some of the reasons why not all of a participant’s committed supports may be used during any plan period. Current utilisation rates by support year and

state/territory vary significantly, from 30% to 90%, with an average of about 70% since Scheme inception across all support years and states/territories.

This section therefore provides some different scenarios assuming that the long term utilisation of participant committed supports varies from 85% to 100%.

Scenario Results

The following table compares the results of this scenario to the baseline projection.

Table 4.12 Projection results using Scheme committed support experience

	2018	2019	2020	2025	2030	2035	2040
Baseline FSR Model	$9.1b	$16.6b	$21.9b	$31.3b	$42.6b	$56.8b	$74.4b
Scenario results							
Scenario 1a. => Committed supports + utilisation of 85%	$8.4b	$15.9b	$21.1b	$29.6b	$39.5b	$52.1b	$67.1b
Scenario 1b. => Committed supports + utilisation of 90%	$8.9b	$16.8b	$22.4b	$31.4b	$42.0b	$55.3b	$71.3b
Scenario 1c. => Committed supports + utilisation of 100%	$9.8b	$18.6b	$24.9b	$35.1b	$46.9b	$61.8b	$79.6b
Dollar difference from baseline							
Scenario 1a. => Committed supports + utilisation of 85%	-$0.7b	-$0.7b	-$0.8b	-$1.7b	-$3.1b	-$4.8b	-$7.4b
Scenario 1b. => Committed supports + utilisation of 90%	-$0.2b	$0.2b	$0.4b	$0.2b	-$0.7b	-$1.5b	-$3.2b
Scenario 1c. => Committed supports + utilisation of 100%	$0.7b	$1.9b	$3.0b	$3.8b	$4.2b	$5.0b	$5.2b
Percentage difference from baseline							
Scenario 1a. => Committed supports + utilisation of 85%	-7.5%	-4.4%	-3.7%	-5.3%	-7.3%	-8.4%	-9.9%
Scenario 1b. => Committed supports + utilisation of 90%	-2.5%	1.0%	1.9%	0.5%	-1.6%	-2.7%	-4.3%
Scenario 1c. => Committed supports + utilisation of 100%	7.4%	11.7%	13.7%	12.2%	9.9%	8.7%	7.0%

Conclusion

Under this scenario, a long term utilisation rate of 90% would be sustainable, all other things being equal, under the current funding envelope, using the actual distribution of committed supports as at 30 June 2017. However, this does not allow for a continuation of the levels of inflation that has been seen in participant plans over the last four years. This inflation is considered in the next scenario.

4.5.2 Scenario 2: Inflation of Scheme costs above expected

A common feature of Australian injury support schemes has been superimposed inflation in respect to benefit support levels. This may manifest itself in a number of ways but could include a gradual relaxation of what is deemed as “reasonable and necessary” supports, the impact of landmark legislative cases, additional categories of supports being added to plans or inflation of costs emerging higher than expected as demand for disability services exceeds supply over the medium to longer term.

Section 3.3.2 investigates the historic inflation rate within participant plans, and shows significant increases in plan costs over time, particularly from first to second and second to third plans. The baseline projection does not treat this inflation as a longer term feature of the Scheme, on the basis that many of the contributors to this experience are likely to be once off, and it is unclear how much of this inflation is likely to be longer term.

Nevertheless, inflation of Scheme costs above normal inflationary levels remains a key risk to the financial sustainability of the scheme, especially in the shorter term. Table 4.13 sensitivity tests scenarios with different levels of superimposed inflation (i.e. above normal wage inflation).

Table 4.13 Projection results using alternative superimposed inflation rates

	2018	2019	2020	2025	2030	2035	2040
Baseline FSR Model	$9.1b	$16.6b	$21.9b	$31.3b	$42.6b	$56.8b	$74.4b
Scenario results							
Scenario 2a. => 1% p.a. superimposed inflation	$9.2b	$16.9b	$22.5b	$33.7b	$48.3b	$67.8b	$93.3b
Scenario 2b. => 2% p.a. superimposed inflation	$9.2b	$17.1b	$23.0b	$36.3b	$54.7b	$80.5b	$116.5b
Scenario 2c. => 10% p.a. superimposed inflation for 2 years	$9.5b	$19.0b	$26.5b	$37.8b	$51.6b	$68.9b	$90.2b
Scenario 2d. => 5% p.a. superimposed inflation for 5 years	$9.3b	$17.8b	$24.8b	$39.9b	$54.5b	$72.7b	$95.2b
Dollar difference from baseline							
Scenario 2a. => 1% p.a. superimposed inflation	$0.0b	$0.2b	$0.6b	$2.4b	$5.7b	$10.9b	$18.9b
Scenario 2b. => 2% p.a. superimposed inflation	$0.1b	$0.5b	$1.1b	$5.0b	$12.0b	$23.7b	$42.1b
Scenario 2c. => 10% p.a. superimposed inflation for 2 years	$0.4b	$2.4b	$4.6b	$6.6b	$9.0b	$12.0b	$15.8b
Scenario 2d. => 5% p.a. superimposed inflation for 5 years	$0.2b	$1.2b	$2.8b	$8.6b	$11.8b	$15.8b	$20.8b
Percentage difference from baseline							
Scenario 2a. => 1% p.a. superimposed inflation	0.4%	1.4%	2.5%	7.8%	13.3%	19.2%	25.4%
Scenario 2b. => 2% p.a. superimposed inflation	0.9%	2.8%	5.1%	16.0%	28.2%	41.7%	56.6%
Scenario 2c. => 10% p.a. superimposed inflation for 2 years	4.5%	14.3%	20.8%	21.0%	21.1%	21.2%	21.2%
Scenario 2d. => 5% p.a. superimposed inflation for 5 years	2.2%	7.0%	13.0%	27.6%	27.7%	27.8%	27.9%

The impact of above wage inflation is clearly material in the medium and longer term, with significant increases in scheme costs arising if left unchecked into future years. Even relatively small levels of inflation above general wage inflation of 1% per annum would result in costs of about 25% above the baseline projection levels in 2040.

If the current levels of plan inflation were to continue for future plan reviews, then the scheme would exceed its funding envelope and be unsustainable in the medium term. In just five years, a 5% per annum superimposed inflation assumption would increase scheme costs by around 28%.

4.5.3 Scenario 3: Higher numbers of children

There have been increasing numbers of children entering the scheme, above those anticipated in the baseline projection assumptions. Part of this relates to phasing children into the scheme earlier than adults in some regions. However, the same trend is seen in more mature sites such as Hunter, Barwon, South Australia and the ACT. In particular, higher numbers of children with autism and developmental delay disabilities are entering the scheme.

Conversely, the scheme has seen lower numbers of adults in the scheme than anticipated. This experience is also relatively consistent across regions. However, for more mature sites, new participants continue to approach the scheme in numbers above that anticipated from new incidence alone, suggesting that the numbers of adults may not have reached full maturity.

Table 4.14 below considers three separate scenarios, each of which assumes that the exit rate assumptions remain unchanged from the baseline scenario:

a) Starting population of children 15% higher than baseline combined with new incidence of children 15% higher than in the baseline projection (exit rates retained)
b) Starting population of adults 5% lower than baseline combined with new incidence of adults 5% lower than in the baseline projection (exit rates retained)
c) A combination of (a) and (b)

Table 4.14 Projection results using alternative population assumptions

	2018	2019	2020	2025	2030	2035	2040
Baseline FSR Model	$9.1b	$16.6b	$21.9b	$31.3b	$42.6b	$56.8b	$74.4b
Scenario results							
Scenario 3a. => Increase incidence 0 to 18 by 15%	$9.4b	$17.4b	$23.1b	$33.1b	$45.3b	$60.5b	$79.5b
Scenario 3b. => Reduce incidence 25+ by 5%	$9.0b	$16.3b	$21.3b	$30.4b	$41.5b	$55.3b	$72.5b
Scenario 3c. => Combination of 3a. and 3b.	$9.2b	$17.0b	$22.5b	$32.2b	$44.1b	$59.0b	$77.5b
Dollar difference from baseline							
Scenario 3a. => Increase incidence 0 to 18 by 15%	$0.2b	$0.7b	$1.2b	$1.8b	$2.6b	$3.7b	$5.0b
Scenario 3b. => Reduce incidence 25+ by 5%	-$0.1b	-$0.4b	-$0.6b	-$0.9b	-$1.2b	-$1.5b	-$2.0b
Scenario 3c. => Combination of 3a. and 3b.	$0.1b	$0.4b	$0.6b	$1.0b	$1.5b	$2.2b	$3.1b
Percentage difference from baseline							
Scenario 3a. => Increase incidence 0 to 18 by 15%	2.6%	4.5%	5.4%	5.8%	6.2%	6.5%	6.8%
Scenario 3b. => Reduce incidence 25+ by 5%	-1.3%	-2.4%	-2.7%	-2.8%	-2.7%	-2.7%	-2.6%
Scenario 3c. => Combination of 3a. and 3b.	1.2%	2.1%	2.6%	3.1%	3.5%	3.8%	4.2%

The impact of more children in the scheme compounds over time, because not all of the new incidence is assumed to exit. Hence a 15% increase in children leads to a 5% higher scheme cost by 2020 and increases to about 7% by 2040. A 5% reduction in adults in the scheme results in a 3% reduction in scheme costs by 2040. Combining these two scenarios would lead to a 4% increase in scheme costs by 2040.

4.5.4 Scenario 4: Exit rates from the scheme

The early intervention pathway for scheme eligibility assumes that a proportion of entrants will exit from the scheme in the short to medium term as capacity building skills are developed. Non-mortality exit rates within the scheme have been significantly below expectations for younger ages since scheme inception, especially for participants with autism and developmental delay. This is perhaps not surprising, as these exits may be partly duration based, increasing with duration in the scheme. It may take time for early intervention and capacity building supports to become effective. The baseline projection assumes exit rates based on age regardless of duration.

The current non-mortality exit rate assumptions for participants with autism are high, as shown in Section 4.3. If exits do not occur at these high levels, then there would be higher numbers of participants in the scheme in the longer term.

Scenario 4a assumes that exit rates for participants under the age of 65 are only half of that assumed in the baseline projection. Likewise, scenario 4b assumes that the non-mortality

exit rate for those participants above age 65 are double of that assumed in the baseline projection.

Scenario 4c and 4d considers the impact of increasing and reducing the mortality rate, given that these assumptions have largely been based on benchmark information which may not be directly comparable to the experience of the scheme.

Table 4.15 Projection results using alternative exit rate assumptions

	2018	2019	2020	2025	2030	2035	2040
Baseline FSR Model	$9.1b	$16.6b	$21.9b	$31.3b	$42.6b	$56.8b	$74.4b
Scenario results							
Scenario 4a. => Halve non-mortaltiy exits ages 0 to 64	$9.1b	$16.6b	$21.9b	$32.2b	$45.1b	$61.5b	$82.2b
Scenario 4b. => Double non-mortality exits for ages 65+	$9.1b	$16.6b	$21.9b	$31.2b	$42.4b	$56.1b	$73.1b
Scenario 4c. => Increase excess mortality by 50%	$9.1b	$16.6b	$21.9b	$30.8b	$41.4b	$54.4b	$70.6b
Scenario 4d. => Reduce excess mortality by 50%	$9.1b	$16.7b	$22.0b	$31.7b	$43.9b	$59.5b	$79.0b
Dollar difference from baseline							
Scenario 4a. => Halve non-mortaltiy exits ages 0 to 64	$0.0b	$0.0b	$0.0b	$0.9b	$2.4b	$4.6b	$7.7b
Scenario 4b. => Double non-mortality exits for ages 65+	$0.0b	$0.0b	$0.0b	-$0.1b	-$0.3b	-$0.7b	-$1.4b
Scenario 4c. => Increase excess mortality by 50%	$0.0b	$0.0b	-$0.1b	-$0.5b	-$1.3b	-$2.4b	-$3.8b
Scenario 4d. => Reduce excess mortality by 50%	$0.0b	$0.0b	$0.0b	$0.4b	$1.3b	$2.7b	$4.5b
Percentage difference from baseline							
Scenario 4a. => Halve non-mortaltiy exits ages 0 to 64	0.0%	0.0%	0.0%	2.8%	5.7%	8.2%	10.4%
Scenario 4b. => Double non-mortality exits for ages 65+	0.0%	0.0%	0.0%	-0.2%	-0.6%	-1.3%	-1.9%
Scenario 4c. => Increase excess mortality by 50%	0.1%	-0.2%	-0.4%	-1.6%	-3.0%	-4.3%	-5.1%
Scenario 4d. => Reduce excess mortality by 50%	0.0%	0.0%	0.1%	1.4%	3.0%	4.7%	6.1%

Over the shorter term (to 2020), the baseline projection does not have specific exit rate assumptions and hence the impact of assumption changes is nil, as it is assumed that the scheme population ramps up to the long term assumed prevalence over time.

The impact of changes in exit rates gradually builds up over time, with relatively smaller impacts in the shorter term. Nevertheless, the impact of halving the non-mortality exit rates for participants aged 0 to 64 is material in the longer term and would increase overall scheme costs by over 10% by 2040.

4.5.5 Scenario 5: Lower level of function of scheme participants

Emerging experience within the scheme has shown that more participants have entered with a lower level of function than expected. Part of this can be attributable to the phasing schedule of the scheme, in that participants with a lower level of function have generally been transitioned into the scheme earlier than other participants. Nevertheless, for the more mature sites, emerging experience still suggests participants have lower levels of function than assumed in the baseline projection.

Scenario 5a increases in the number of new incidence participants at the lowest level of function by 5 percentage points, with a corresponding reduction in high level of function participants. Scenario 5b is similar but adjusts the starting population. Scenario 5c combines these two scenarios.

Table 4.16 Projection results with more "lower level of function" participants

	2018	2019	2020	2025	2030	2035	2040
Baseline FSR Model	$9.1b	$16.6b	$21.9b	$31.3b	$42.6b	$56.8b	$74.4b
Scenario results							
Scenario 5a. => 5% of new incidence to highest LoF	$9.1b	$16.6b	$21.9b	$32.0b	$44.5b	$60.2b	$79.8b
Scenario 5b. => 5% of starting population to highest LoF	$10.0b	$19.3b	$26.2b	$36.6b	$48.8b	$64.0b	$82.5b
Scenario 5c. => Combination of 5a. and 5b.	$10.0b	$19.3b	$26.2b	$37.3b	$50.7b	$67.3b	$87.9b
Dollar difference from baseline							
Scenario 5a. => 5% of new incidence to highest LoF	$0.0b	$0.0b	$0.0b	$0.7b	$1.8b	$3.3b	$5.4b
Scenario 5b. => 5% of starting population to highest LoF	$0.8b	$2.7b	$4.3b	$5.3b	$6.2b	$7.1b	$8.0b
Scenario 5c. => Combination of 5a. and 5b.	$0.8b	$2.7b	$4.3b	$6.0b	$8.0b	$10.5b	$13.4b
Percentage difference from baseline							
Scenario 5a. => 5% of new incidence to highest LoF	0.0%	0.0%	0.0%	2.3%	4.3%	5.8%	7.3%
Scenario 5b. => 5% of starting population to highest LoF	9.2%	16.2%	19.4%	17.0%	14.5%	12.6%	10.8%
Scenario 5c. => Combination of 5a. and 5b.	9.2%	16.2%	19.4%	19.2%	18.8%	18.4%	18.0%

The results are very sensitive to these assumptions and this highlights the importance of having a robust level of function assessment methodology. It also highlights the importance of using disability-specific assessment methodology instead of the default WHODAS assessment methodologies, as further discussed in Recommendation 2.

4.5.6 Scenario 6: Higher costs of participants with shared supported accommodation arrangements

Section 3.4 discusses some of the emerging cost pressures within participants in shared supported accommodation arrangements. This scenario investigates the sensitivity of results to both the number of people utilising shared supported accommodation arrangements and the average cost of these arrangements.

Scenario 1 developed separate cost and usage assumptions for participants with shared supported accommodation arrangements using actual experience. This scenario has been used, rather than the baseline projection, to compare the sensitivity of results.

There are some emerging upwards pressures around the number of participants expected to access shared supported accommodation over time. An alternative assumption is a 10% increase in SSA numbers.

The average cost of shared supported accommodation arrangements also has a number of pressures. For example, there is a reducing average number of people within each shared supported accommodation dwelling (thereby increasing average cost), reductions in the reported level of function for participants accessing these arrangements, increasing pressures on in-kind prices for these arrangements and higher costs in respect to Supported Disability Accommodation payments. An alternative assumption is increasing average shared supported accommodation costs by 20%.

A combination of the above two sensitivities are also considered.

Table 4.17 Projection results using different SSA assumptions[41]

	2018	2019	2020	2025	2030	2035	2040
Scenario 1a. => Committed supports + utilisation of 85%	$8.4b	$15.9b	$21.1b	$29.6b	$39.5b	$52.1b	$67.1b
Scenario results							
Scenario 6a. => Increase SSA Numbers by 10%	$8.6b	$16.3b	$21.7b	$30.4b	$40.5b	$53.4b	$68.7b
Scenario 6b. => Increase SSA average cost by 25%	$9.0b	$16.9b	$22.6b	$31.8b	$42.4b	$56.0b	$72.2b
Scenario 6c. => Combination of 6a. and 6b.	$9.2b	$17.4b	$23.3b	$32.8b	$43.7b	$57.7b	$74.4b
Dollar difference from Scenario 1a.							
Scenario 6a. => Increase SSA Numbers by 10%	$0.2b	$0.4b	$0.5b	$0.8b	$1.0b	$1.3b	$1.6b
Scenario 6b. => Increase SSA average cost by 25%	$0.5b	$1.0b	$1.4b	$2.1b	$2.9b	$3.9b	$5.2b
Scenario 6c. => Combination of 6a. and 6b.	$0.8b	$1.5b	$2.2b	$3.1b	$4.2b	$5.7b	$7.3b
Percentage difference from Scenario 1a.							
Scenario 6a. => Increase SSA Numbers by 10%	2.3%	2.5%	2.5%	2.7%	2.6%	2.5%	2.4%
Scenario 6b. => Increase SSA average cost by 25%	6.2%	6.5%	6.8%	7.2%	7.3%	7.6%	7.7%
Scenario 6c. => Combination of 6a. and 6b.	9.2%	9.6%	10.2%	10.6%	10.7%	10.9%	10.9%

Projection results are sensitive to the assumed number and average size of participants accessing shared supported accommodation arrangements, when it is considered that only about 6% of participants would typically access these arrangements. Increasing numbers and average size of these participants by 10% and 25% respectively would increase scheme projected costs by about 10%.

4.5.7 Scenario 7: Cost pressures for over 65 year olds

There will be incentives for people to enter the Scheme before they turn age 65, as NDIS packages appear likely to be more generous and provide more benefits than current aged care system arrangements. There may also be additional cost pressures on the scheme as the age of participants increase over time, with external benchmarks indicating generally higher support costs associated with participants as they age.

The average cost assumption for participants over the age of 65 have been assumed to increase by 20% above that for participants aged 55 to 64 on full scheme rollout, and thereafter are assumed to increase by 1% per annum up to a maximum additional amount of 25%, to allow for the aging of that cohort.

The actual experience, albeit based on small numbers of participants, suggests that the average costs of over 65 are actually lower than for those aged 55 to 64. This experience is relatively consistent across different disabilities, while noting that other benchmark schemes have not necessarily seen similar experience.

This scenario removes the loadings for over age 65 participants and assumes that costs remain at the same levels as for those aged 55 to 64.

[41] This scenario is compared with Scenario 1, as the model is more detailed for SSA.

Table 4.18 Projection results using alternative age 65+ assumptions

	2018	2019	2020	2025	2030	2035	2040
Baseline FSR Model	$9.1b	$16.6b	$21.9b	$31.3b	$42.6b	$56.8b	$74.4b
Scenario results							
Scenario 7a. => Remove age based loadings for 65+	$9.1b	$16.6b	$21.9b	$30.8b	$41.5b	$54.7b	$71.0b
Dollar difference from baseline							
Scenario 7a. => Remove age based loadings for 65+	$0.0b	$0.0b	-$0.1b	-$0.5b	-$1.1b	-$2.2b	-$3.5b
Percentage difference from baseline							
Scenario 7a. => Remove age based loadings for 65+	-0.2%	-0.2%	-0.3%	-1.5%	-2.6%	-3.8%	-4.7%
Proportion of scheme participants aged 65+	0.8%	1.2%	2.3%	7.7%	12.0%	14.9%	16.1%

The impact of changes in costs for participants aged 65+ increases gradually over time, with relatively smaller impacts in the shorter term. The impact of reducing costs for participants aged 65+ to similar levels to that of participants aged 55 to 64 would reduce scheme costs by about 4% by 2040. At this time there are projected to be about 16% of participants aged 65+.

4.5.8 Scenario 8: Expenses

The short term expense rate has been based on a detailed assessment of the Scheme's service delivery operating model. The operating model relates expenses to the expected phasing in of participants into the scheme. The long term expense rate for the scheme is currently assumed to be 7% of participant costs.

The long term expense rate is below what a similar benchmark insurer or injury support scheme may spend. Other schemes would typically have expense rates of about 10% or higher. A lower longer term expense rate compared to other benchmarks could be justified on the basis that there should be economies of scale arising with a scheme of this size.

Table 4.19 shows that there is a relatively low impact on scheme costs if the expense rate were to be increased or decreased by 1% in nominal terms, and assuming that package costs remain the same as a result of changes in operational expenses. Certainly, there are other factors that can have a much greater multiplicative impact on the financial sustainability of the scheme.

Table 4.19 Projection results using alternative expense assumptions

	2018	2019	2020	2025	2030	2035	2040
Baseline FSR Model	$9.1b	$16.6b	$21.9b	$31.3b	$42.6b	$56.8b	$74.4b
Scenario results							
Scenario 8a. => Long term expense rate of 8%	$9.2b	$16.8b	$22.2b	$31.6b	$43.1b	$57.4b	$75.2b
Scenario 8b. => Long term expense rate of 6%	$9.0b	$16.5b	$21.7b	$31.0b	$42.2b	$56.3b	$73.7b
Dollar difference from baseline							
Scenario 8a. => Long term expense rate of 8%	$0.1b	$0.2b	$0.2b	$0.3b	$0.4b	$0.6b	$0.7b
Scenario 8b. => Long term expense rate of 6%	-$0.1b	-$0.2b	-$0.2b	-$0.3b	-$0.4b	-$0.6b	-$0.7b
Percentage difference from baseline							
Scenario 8a. => Long term expense rate of 8%	0.9%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Scenario 8b. => Long term expense rate of 6%	-0.9%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%

The Agency 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 increase the likelihood that package costs remain within expectations. Of course, this spend would have to be targeted in the right areas and with the appropriate resourcing and associated skillset. Comparable schemes in the statutory insurance sector, with many years of experience, regard budget efficiency as higher than 7% of costs.

4.5.9 Scenario 9: Phasing of new entrants and Western Australia

The scheme currently has about 20% lower participant numbers than the bilateral estimates at 30 June 2017. This, combined with some emerging concerns around the participant planning process, puts some doubt on the ability of the scheme to meet the future bilateral estimates. Scenario 9a therefore assumes that the scheme is rolled out more slowly, specifically evenly over the next four years rather than three years.

There is continued uncertainty around whether Western Australia (WA) will be included in the full rollout of the Scheme. Scenario 9b considers the financial impact on scheme costs if WA were excluded from our calculations.

Table 4.20 Projection results using different phasing and excluding WA

	2018	2019	2020	2025	2030	2035	2040
Baseline FSR Model	$9.1b	$16.6b	$21.9b	$31.3b	$42.6b	$56.8b	$74.4b
Scenario results							
Scenario 9a. => Phase in evenly to 30/6/2021	$7.7b	$11.9b	$18.4b	$31.1b	$42.4b	$56.7b	$74.4b
Scenario 9b. => Exclude Western Australia	$8.1b	$14.9b	$19.6b	$27.9b	$38.0b	$50.7b	$66.4b
Dollar difference from baseline							
Scenario 9a. => Phase in evenly to 30/6/2021	-$1.5b	-$4.8b	-$3.5b	-$0.2b	-$0.2b	-$0.2b	-$0.1b
Scenario 9b. => Exclude Western Australia	-$1.0b	-$1.8b	-$2.4b	-$3.4b	-$4.6b	-$6.1b	-$8.0b
Percentage difference from baseline							
Scenario 9a. => Phase in evenly to 30/6/2021	-16.1%	-28.7%	-15.9%	-0.7%	-0.5%	-0.3%	-0.1%
Scenario 9b. => Exclude Western Australia	-10.8%	-10.8%	-10.8%	-10.8%	-10.8%	-10.8%	-10.8%

The impact of changed phasing patterns is minimal in the longer term, but has a large impact on the projections in the shorter term. The main longer term differences arise in respect to the number of over 65 participants in the scheme.

The scheme cost would reduce by about 11% if WA were excluded.

4.5.10 Scenario 10: NIIS medical and general injuries

The National Injury Insurance Scheme (NIIS) has been assumed to roll out over the next couple of years. People who are catastrophically injured are assumed to have their care and support costs covered by the respective NIIS, depending on the jurisdiction and source of the injury. The baseline projection assumes that the relevant NIIS schemes are established from 1 July 2018.

However, there is uncertainty around the NIIS rollout in respect to injuries arising from medical misadventure and general injuries (GI/MM). Scenario 10 shows the financial impact if it is assumed that NIIS schemes for medical misadventure and general injuries are not established. Hence, the care and support cost of the injuries arising from medical misadventure and general injuries would need to be covered by the Scheme for those participants that meet the NDIS eligibility criteria. It has been assumed that about 400 to 450 NIIS injuries occur each year in respect to medical misadventure and general injuries that are not otherwise covered by existing insurance arrangements such as public liability insurance and medical indemnity insurance.

The following table estimates the additional cost at full scheme, and projected out for the following 10 years, both in dollar terms and as a percentage of total projected participant costs.

Table 4.21 Projection results using alternative NIIS assumptions

	2018	2019	2020	2025	2030	2035	2040
Baseline FSR Model	$9.1b	$16.6b	$21.9b	$31.3b	$42.6b	$56.8b	$74.4b
Scenario results							
Scenario 10a. => Exclude GI/MM from NIIS	$9.1b	$16.7b	$22.0b	$31.5b	$43.1b	$57.6b	$75.6b
Dollar difference from baseline							
Scenario 10a. => Exclude GI/MM from NIIS	$0.0b	$0.0b	$0.1b	$0.2b	$0.4b	$0.7b	$1.1b
Percentage difference from baseline							
Scenario 10a. => Exclude GI/MM from NIIS	0.0%	0.2%	0.2%	0.7%	1.0%	1.3%	1.5%

The impact to the Scheme increases over time, as it is only the injuries that were expected to occur from the intended NIIS implementation date (1 July 2018) that would impact on the Scheme cost. Scheme costs are expected to increase from 0.2% of scheme costs at full implementation to 1.5% of scheme costs in in 2040.

4.5.11 Summary and observations from scenarios

The ten scenarios described and costed in Sections 4.5.1 to 4.5.10 have been based on alternative plausible assumptions based on emerging scheme experience or equally credible external benchmarks.

The majority of these scenarios represent considerable downside risks for the scheme's financial sustainability based on the schemes emerging experience. The current experience of high inflation, low exit rates, higher numbers of children and the potential impact of higher scheme utilisation represent very real threats to the scheme's medium to longer term financial sustainability if not adequately addressed. Strong management responses are required to better understand the causes of this adverse experience and these responses are discussed in Section 6.2.

Conversely, the lower number of adults presenting to the scheme represents favorable experience, although this needs to be considered in sympathy with the continuing number of new participants approaching the scheme. The lower average package costs for participants

aged 65 and above is also another area of favorable experience which would be beneficial in the longer term, if continued, as more participants age within the scheme.

Finally, Scenario 4.5.8 reaffirms the opportunity of the scheme to invest in appropriate management responses to unfavorable emerging scheme experience. The relatively lower cost of operational expense initiatives can have multiplicatively favorable impacts on the financial sustainability of the scheme.

4.6 Trajectory of scheme cost in trial areas

The 30 June 2017 quarterly actuarial monitoring report illustrates the trajectory of scheme cost in Barwon, Hunter and the ACT, if the experience observed during the trials were to persist into the future. Management responses have been developed in response to these trends, however their potential effect is presented to underline the importance of these responses being effective.

4.6.1 Analysis of Barwon trial site

As at 31 May 2017, there were 6,066 participants with an approved plan in the Barwon trial site and the annual amount committed to these participants was $271 million (allowing for the anticipated additional cost for participants who currently live in permanent residential aged care).[42] There are a further 418 participants eligible for the scheme 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 $282 million. An additional 231 potential participants are currently recorded in the ICT system, 241 participants have exited the scheme and 219 active participants are 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 2016-17 of $273 million.

There is uncertainty in the number of current potential participants who will phase into the scheme. Table 4.22 shows how the total annual cost varies depending on the proportion of potential participants included in the estimate, noting that only potential participants that the NDIA is aware of are included in the analysis. That is, the people who are likely to continue to approach the scheme are not included.

[42] Information on participants in residential aged care is based on data obtained from the Department of Social Services. Data is at 12 April 2017.

Table 4.22 Estimated participant and potential participants costs - Barwon – 31 May 2017

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%	6,024	$264.3m	$229.1m	**115%**
25%	6,082	$266.4m	$229.1m	**116%**
50%	6,140	$268.4m	$229.1m	**117%**
75%	6,197	$270.4m	$229.1m	**118%**
100%	6,255	$272.5m	$229.1m	**119%**

*Potential participants include people in SAP who are yet to have their eligibility assessed.

This means that the latest estimate of the full cost of the Barwon site in 2016-17 ranges from 115% to 119% of the cost in the baseline model, noting that this analysis assumes full utilisation of committed support amounts in participant plans, whereas current utilisation rates are projected to be around 75%. Disturbingly, these estimates have been increasing over time and this has been driven by new participants approaching the scheme, along with plan reviews leading to increases in cost for current participants.

4.6.2 Analysis of Hunter trial site and ACT

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

The latest estimate of the full cost of the Hunter site in 2016-17 ranges from 113% to 117% of the cost in the baseline model, assuming full utilisation of committed supports. Similar to the Barwon trial site, this estimate has been increasing over time and is driven by new participants approaching the scheme, along with plan reviews leading to increases in cost for current participants.

The latest estimate of the full cost of the ACT site in 2016-17 ranges from 143% to 152% of the cost in the baseline model, assuming full utilisation of committed supports.

4.6.3 Longer term projections of Barwon, Hunter and ACT

Future cost trajectory projections have been prepared assuming that 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. The key experience and assumptions used are the number of people approaching the scheme, the exit rate of participants from the scheme and inflation of package costs at levels observed during trial.

Assuming that historic experience continues into the future, the projection results in Barwon committed supports equal to 203%/162% of the baseline in five years assuming a

100%/75% utilisation rate respectively. The equivalent result in the Hunter trial site is 206%/154% of the baseline in five years for the Hunter trial site, and 280%/210% of the baseline for the ACT. Attribution of sensitivity to the key risks indicates that superimposed inflation and potential participants entering the scheme has the largest impact.

These projection results, while arguably extreme, are alarming and highlight the importance of robust management responses to emerging experience, remembering that these assumptions are based on actual experience observed to date in these three sites over a period of more than 12 months. Moreover, even apparently minor deterioration in experience can have adverse cost impacts if left unchecked, although this will take longer to emerge.

The analysis highlights that the ultimate costs of the scheme will be highly dependent on the number of entrants, the number of exits, superimposed inflation in package costs and the utilisation of committed supports. If future scheme experience is in line with the experience observed to date in Barwon, Hunter and ACT, the costs of the scheme will not be sustainable. Management responses 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.

4.7 Short term projections

Section 4.1 to 4.4 of the 30 June 2017 quarterly actuarial monitoring report sets out the underlying assumptions and results of projecting the agreed funding mechanism for transition over the 2016-17 to 2018-19 years (i.e. all of transition)[43]. The projection combines revenue amounts per participant, as set out in the bilateral agreements, with phasing of participants (drawn from those same bilateral agreements, and also actual data) and the experience of committed supports.

These projections are different to the baseline projections in Section 4.4 in that they provide a more granular short term view of both revenue and costs under a number of different assumptions, with a focus on understanding accounting surplus/deficits and cash surplus/deficits during the transition period. The appendices of the 30 June 2017 quarterly actuarial report also contains a detailed breakdown by State/Territory as Appendix H.

[43] The uncertainty within the projection increases with each year, as experience for different participant cohorts is likely to continue to change. For the 2017-18 and 2018-19 projections, Western Australia has been excluded.

An accounting surplus of $248.1 million (11%) is projected for 2016-17, assuming a cash utilisation rate of 70%. The cash position results in a higher surplus than the accrual position due to the delay in making payments to providers, a surplus of $389.9 million (27%), assuming the same cash utilisation rate of 70%. Appendix H contains more details, including projections for 2017-18 and 2018-19.

It must be kept in mind that it is still early in the transition roll-out and experience is still very immature. Assumptions about the payment pattern, assumed average committed support (including superimposed inflation) and utilisation will continue to be refined as experience evolves, and may lead to changes in the projected surplus/deficit for 2017-18 and 2018-19.

In particular, monitoring of changes in utilisation will be important for understanding whether the Scheme is likely to be in surplus or deficit over the transition period as a whole.

5. Risk management

Summary of key findings

- The risk management framework uses principles consistent with APRA Prudential Standard CPS 220, using the "three lines of defence" approach and managing risks in four categories: strategic, operational, project and targeted risks.
- The key risks identified within the risk management framework are currently above acceptable risk threshold levels and it is unclear whether these risks will be managed into acceptable levels in the shorter to medium term, once the scheme's aggressive timetable to full scheme roll out is considered.
- There are areas of inconsistency in business decision making which have an impact on financial sustainability, such as eligibility access decisions and plan amounts relative to benchmark amounts and it is recommended that the reasons for this inconsistency is better understood and managed.
- Targeted reviews have identified some inadequacies around existing processes and procedures within the Agency, including around eligibility assessments and individual plan reviews targeted at high plan inflation, and these will require further management responses to assist in effective risk mitigation.

The NDIS Rules for the Scheme Actuary (section 11a) require the annual financial sustainability report to include a discussion on the Agency's risk management arrangements. This section provides an assessment of the suitability and adequacy of the Agency risk management framework and governance arrangements, including commentary on the material risks that could adversely affect the financial sustainability of the scheme.

The scheme has experienced a period of rapid growth since 1 July 2016, as well as significant change to business processes and implementation of a new ICT business system. The policies and procedures that support the assessment and mitigation of risk within the Agency must keep pace during this transition. While significant work has been done to identify and report on key risks during the transition period, the Agency must focus on implementing effective strategies to minimise or contain this risk. Further, it must continue to establish a risk management culture throughout the Agency, across all levels of staff.

5.1 The risk management framework

In accordance with section 8 of the NDIS Risk Management Rules 2013, the Agency must maintain a risk management framework that includes a written risk management strategy.

The Agency's current risk management framework was agreed in September 2015.[44] It describes the responsibility of the Board to formulate the risk management strategy, consistent with Prudential Standard CPS 220 Risk Management and the NDIS Risk Management Rules. This strategy is approved by the COAG Disability Reform Council (CDRC).

The Board develops the NDIS Strategic Plan (with a three year time horizon), identifies key risks to achieving the objectives of the Strategic Plan (the Strategic Risks), and then articulates its attitude towards the management of them through the Risk Tolerance Statement.

The Agency identifies, monitors and reviews risks across four main categories; strategic, operational, project and targeted risks. These categories are defined in Table 5.1 below.

Table 5.1 NDIS categories of risk

Type of risk	Definition	Identification and review
Strategic	Risks to delivery of strategic plans	• Identified and assessed by the Board annually • Reviewed by the Agency's Executive Management Group and the Board's Risk Committee quarterly (and Audit and Risk Committee prior to 31 December 2016).
Operational	Risks to delivery of day to day operations (e.g. fraud and business continuity)	• Reviewed annually as part of the business planning cycle • Reviewed bi-monthly by General Managers and more recently through the Enterprise Risk Committee • High risks reported to Risk Committee
Project	Risks to delivery of individual projects	• Monitored monthly through project governance arrangements
Targeted	Specialist risks like compliance, business continuity, workplace health and safety, fraud	• In accordance with legislative requirements

[44] The Agency's risk management strategy is currently being refreshed and will be provided to the Board's Risk Committee for approval in August 2017.

Risk management needs to ensure a balance between choice and control and reasonable and necessary supports to ensure equitability and sustainability of the scheme. Some competing priorities also need to be balanced – for example, the pressure to meet bilateral targets must be balanced with the objective of high quality plans.

5.2 Governance structure

The Agency undertakes assurance activities to assess the efficacy of the controls established to mitigate the Agency's risks. The assurance activities are designed to assist the Agency to determine whether its controls are (a) in place; (b) consistently applied; and (c) acting as intended.

In February 2017, the Agency adopted an "integrated assurance model". The model provides the Agency with a practical approach to assess the design and effectiveness of the controls established within the Agency's core business processes. The adoption of an integrated assurance model ensures an effective, efficient, Agency-wide approach and provides for easy identification of potential gaps. The approach aligns assurance activities under a single umbrella within the enterprise risk management framework.

The model is underpinned by the Agency's insurance principles and prudential governance framework and serves to both streamline and optimise the Agency's monitoring of critical controls. The model also provides for an appropriate governance structure to oversee the Agency's assurance activities, aligned to Australian Prudential Regulation Authority (APRA) guidelines.

Roles and accountabilities in the integrated assurance model

The model introduces clear roles and accountabilities for assurance across a 'three lines of defence' approach. The model distributes accountability for assurance activities across:

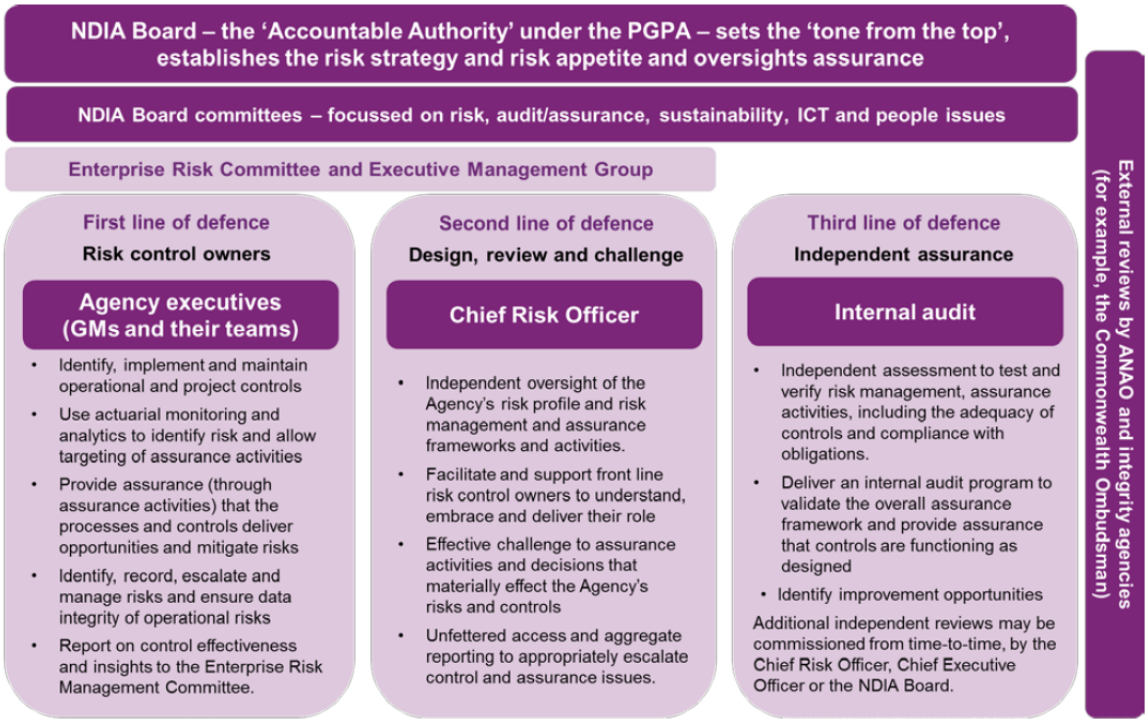
- The first line of defence being Agency business units that identify and control risks;
- The second line being monitoring by the Chief Risk Officer (CRO); and
- The third line being an independent internal audit function to test and verify controls.

These are outlined in Figure 5.1 below which also denotes external review by the Australian National Audit Office (ANAO) and other integrity agencies (e.g., the Commonwealth Ombudsman, the Australian Information Privacy Commission, and the Human Rights Commission).

Figure 5.1 also includes the integrated assurance governance arrangements, aligned to the risk governance model. The charter for the Audit Committee describes its overall responsibility for monitoring the design and effectiveness of controls. The senior executive level enterprise risk management committee maintains oversight of integrated assurance

activities at an operational level, elevating material issues to the Agency's Executive Management Group and to the Audit Committee as appropriate.

Figure 5.1 NDIA three lines of defence approach



Instilling a risk management culture

The Agency's strategy to instill an appropriate culture in relation to risk comprises five key elements:

1) Defining and communicating the target culture and expected behaviours;
2) The senior leaders setting the tone and creating the right environment;
3) Building awareness, capability and ownership;
4) Recognition and reinforcement mechanisms; and
5) Ongoing monitoring of the risk culture to inform continuous improvements.

Recommendation

7. Instilling a risk management culture across all levels of staff throughout the Agency is integral to the long term financial sustainability of the Scheme. Frontline staff and Agency partners must be supported to make eligibility and planning decisions consistent with the legislation and to understand the impact of those decisions. Extensive training is required to put Scheme sustainability at the core of the Agency's business processes.

5.3 Key risks identified

The following section summarises the current material risks that could adversely affect the financial sustainability of the scheme as identified within the risk management framework.

5.3.1 Strategic risks

Strategic risks are defined as the risks that can prevent an organisation from achieving its corporate strategy and objectives. These risks have a longer term impact on operational performance, than individual operational risks, and therefore require a greater level of foresight and planning. Strategic risks also have more enterprise-wide interdependencies and therefore can affect the performance of the whole organisation.

The NDIA Board has endorsed 7 strategic risks for the Agency for FY17-18. These strategic risks are outlined below:

1) Failure to meet stakeholder expectations for consistent and quality plans and reviews for people with disability, their families and carers.
2) Failure to deliver high-quality plans and reviews, at the rate required to achieve bi-lateral estimates, due to an inability to manage and resource effectively.
3) Plan costs, scope or eligibility significantly deviate from Productivity Commission modelling leading to material Scheme costs blowouts.
4) The Scheme fails to deliver expected social and economic outcomes for both people with disability and the community.
5) Failure to put in place systems and processes to prevent, detect and respond to fraud and sharp practice.
6) Failure to facilitate provider market growth resulting in a critical gap in service delivery to participants.
7) Failure to deliver to expectations leads to a loss of participant, political, disability sector and other stakeholder confidence.

Each risk is assigned to an accountable General Manager for management. Monthly reporting includes the current risk rating, the movement in the risk rating, as well as actions for risk mitigation and minimisation. Risk ratings are based on the likelihood and consequence matrix.

The key strategic risks are strongly aligned with the Agency's vision. These risks will grow in importance as the Scheme rolls out, particularly around building market capacity and delivering improved social and economic outcomes for participants. In addition, as more data becomes available, the Agency's ability to assess these risks will improve.

The Board aims to take measures to reduce risks to no higher than a Moderate impact ratings while noting that many of these risks are currently rated at higher levels, although risk management plans and management responses have been developed with the intention of reducing the rating to Moderate over the medium term.

5.3.2 Operational risks

Operational risks are those risks to “business as usual” deliverables that contribute to the achievement of strategic objectives. They generally require a short term focus.

Current operational risks can be grouped across the following key areas:

1) Scheme roll-out and delivery: these include inaccurate or unrealistic assumptions underpinning bilateral targets, poor planning by the Agency, and infrastructure or service delivery failure due to capacity or funds.
2) Scheme sustainability: risks include, but are not limited to, errors in plan values due to absence of decision controls and limited assurance, insufficient workforce capacity and capability and not applying a long-term focus due to immediacy of targets.
3) Participant outcomes: examples include insufficient support for participants, compromised plan quality due to short-term enrolment focus and failure to monitor participant progress.
4) Market and provider outcomes: insufficient Agency resources and expertise to support market development, and payment and registration systems do not improve, nor compliance with them.
5) People: lack of timely recruitment, gaps in capability of staff.
6) Technology enablement: delays in the delivery of prioritised NDIS Business System Changes and eMarket capability, data warehouse delays or design issues.
7) Reputation and stakeholder confidence: poor community awareness, eroded confidence in the implementation of the Scheme.
8) Governance: lack of clarity around strategic intent, absence of comprehensive enterprise plan to guide rollout.

Investigation into key operational risks have largely been compliance focused, for example, whether steps have been followed in access decisions and planning. Work to date has not provided assurance that the decisions reviewed correctly apply the eligibility and reasonable and necessary decision making criteria. While compliance with Agency processes is an important step in auditing decisions, it is not on its own sufficient.

Internal assessment of operational risks show that they are currently at levels higher than acceptable to the business.

5.4 Mitigation of key risks

The key risks identified in Section 5.3 will require strong management responses to help mitigate potential consequences of the risks. Risk management plans and management responses have been developed with the intention of reducing the rating of risks to within acceptable levels. Section 6.2 gives a more detailed overview of some of these management responses.

The effective mitigation of risks involves:

- Participants exercising choice and control
- Innovation of participant supports
- Development of a robust outcomes framework (and evaluation method)
- Regular reporting on access, planning and review processes to enable early identification of cost pressures
- Analysis of community and mainstream services
- Fit for purpose ICT system to support operations, data analysis and reporting
- Inclusion and integration with community
- Insurance principles on early intervention
- Quality assurance arrangements to ensure the “right” people receive individual plan budgets, and to promote “better practice” supports in plans
- Agency learning and development and work culture assessment
- Workforce planning
- Sound procurement and ongoing management of providers

5.5 Adequacy of tools, processes and procedures

Staff have access to a significant number of resources discussing the participant pathway on the Agency’s intranet. The resources include guidance documents, work practices, task cards and quick reference guides. These resources are updated frequently and it is the responsibility of staff to monitor these changes. Discussions with regions have revealed that, despite the volume of resources available, local guidance is still being developed on some topics. Considering trends in participant numbers and superimposed inflation, it appears that existing documentation is not effective in addressing key concerns and risks.

Recommendation

8. The existing participant pathway resources should be streamlined to reduce the volume of supporting documentation and to ensure consistency in decision making across different regions. Resources should be reviewed to ensure they highlight key risks to scheme sustainability and align with management responses.

5.5.1 Consistency of decision making

A recent review has been conducted on the consistency of staff member decisions relating to participant access and the approval of plans that are more than 10% and 50% above benchmark.

Access decisions

One of the key responses to address key risks to the financial sustainability of the scheme at the previous review was the number of children accessing the scheme. The consistency of decision making in relation to participant access can be measured using the distribution of ineligible decisions by each staff member.

As at 30 June 2017, approximately 135,000 access requests have been submitted, of which around 10% were determined to be ineligible. The 135,000 access requests can be further broken down into:

- Access requests from participants that have phased in through State/Territory programs (34%). A proportion of these access requests are for participants in defined programs who are automatically made eligible (after age and residency requirements are checked).
- Access requests from participants during the trial period (28%). Approximately 7% of these participants are determined to be ineligible.
- Access requests from new and Commonwealth program participants during the transition period (38%). Around 20% of these requests are made ineligible.

Note that a large proportion of participants phasing in from State/Territory programs and those who made a request during the trial period do not have staff members assigned to their access decision in the CRM and have therefore been excluded from the analysis below.

Considering access decisions in relation to new and Commonwealth program participants in the transition period, there appears to be a degree of inconsistency across staff members. Figure 5.2 shows the distribution of the cumulative percentage of staff whose access ineligibility rates are above a certain threshold.

Figure 5.2 Distribution of staff member ineligibility rates[45]

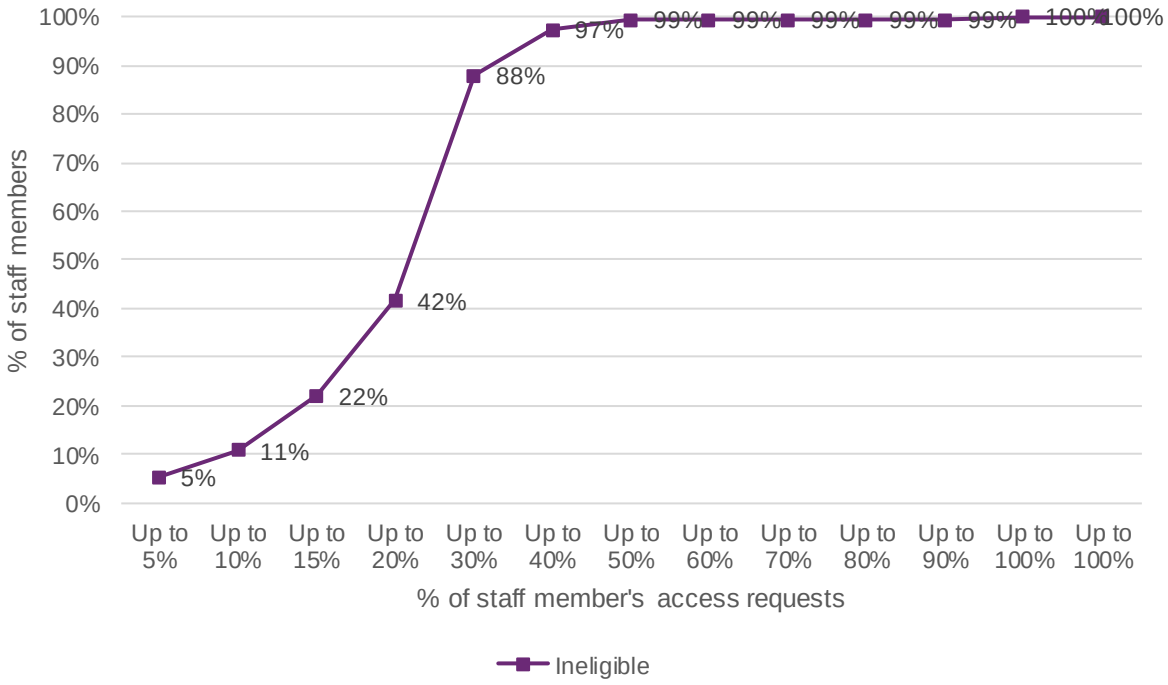


Figure 5.2 shows that about two thirds of staff members have ineligibility rates between 15% and 30%. However, about 11% of staff have an ineligibility rate of 10% or lower indicating that some staff are allowing more participants into the scheme than others. Furthermore, 12% of staff have an ineligibility rate of more than 30%, indicating that some staff are letting less participants into the scheme.

Further analysis of access decisions by age and disability group (found in Appendix I) reveals that:

- In the younger participant age groups, there is a higher proportion of access requests that have been made eligible and vice versa in the older age groups. This is consistent with the higher than expected numbers of children that have entered the scheme.
- Participants with intellectual disability and autism have a higher rate of eligibility compared to the scheme overall whilst participants with psychosocial disability have a higher rate of ineligibility.

[45] This excludes staff members that have made less than 25 access decisions.

Plans above benchmark

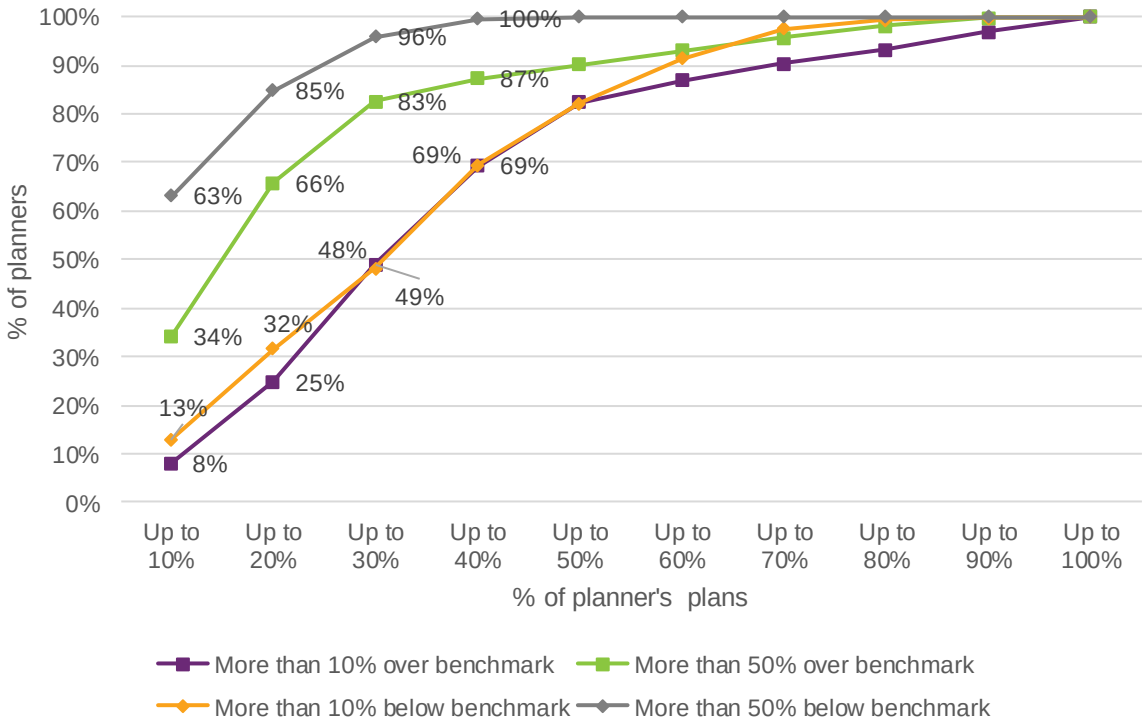
One of the responses to address key risks to the financial sustainability of the scheme at the previous review was the introduction of reference packages and the guided planning process, an outcome of which is a benchmark cost for each participant plan. This benchmark cost can be considered a starting point in the determination of reasonable and necessary supports and can be compared to the actual amount in a participant's plan. It is expected that some participants will require more than this benchmark, while others will require less.

A way to measure the consistency of decision making is to look at the distribution of participant packages compared to benchmark cost for each staff member. Each plan will have a staff member that develops the plan and a staff member who approves the plan[46]. The analysis looks separately at staff members who are "approving" plans and staff members who are "developing" plans.

Figure 5.3 shows the distribution of staff members (who approve participant plans), by the proportion of plans they have approved that differ from the benchmark by more than 10% and proportion of plans approved that differ from the benchmark by more than 50%.

[46] Note that the staff member that approves the plan may be the same as the staff member that develops the plan in certain circumstances.

Figure 5.3 **Staff member approvals of plans that differ from benchmark**[47]



This graph shows that a large number of staff members have approved a significant proportion of their plans that differ from benchmark[48]. For example:

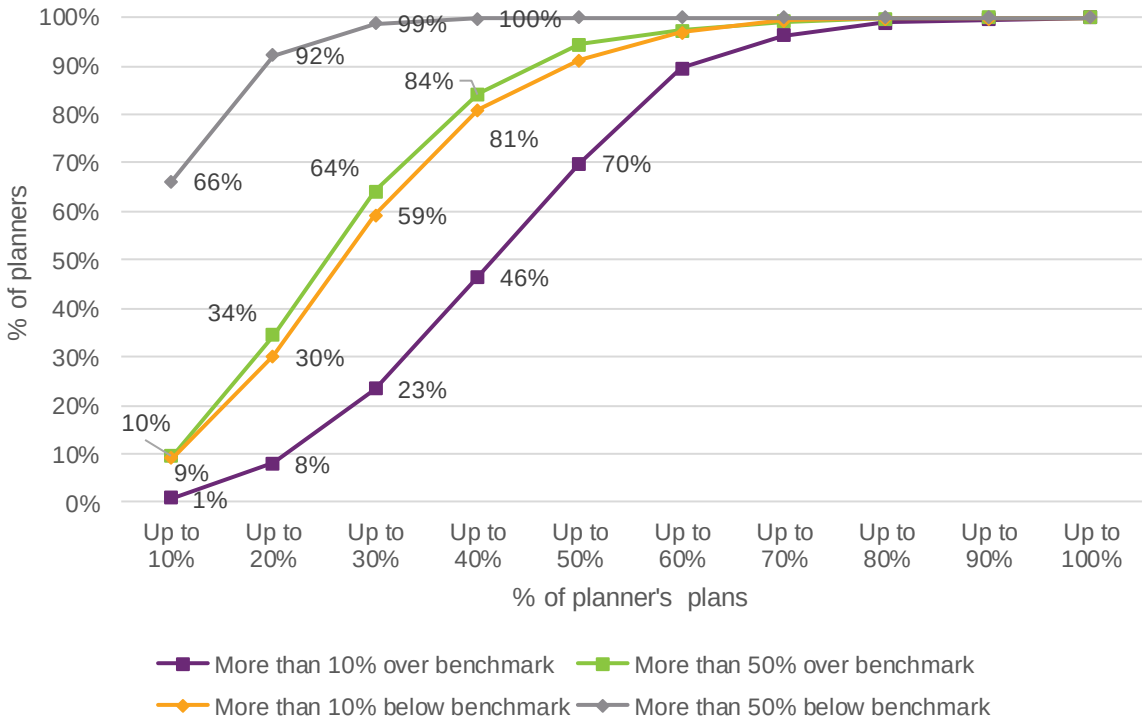
- About 17% of staff members (who approve participant plans) have over 30% of their plan approvals which are more than 50% over benchmark cost.
- About 51% of staff members (who approve participant plans) have over 30% of their plan approvals more than 10% over benchmark.
- Approximately 4% of staff members (who approve participant plans) have over 30% of their plan approvals more than 50% below benchmark.
- Around 52% of staff members (who approve participant plans) have over 30% of their plan approvals more than 10% below benchmark.

[47] This excludes staff members that have approved less than 25 plans.

[48] It should be noted that controls in the system require high cost plans to be approved by certain staff members. These staff members will therefore tend to have a higher proportion of plans above benchmark.

Figure 5.4 shows the distribution of staff members (who have developed participant plans) by the proportion of plans they have developed that differ from the benchmark by more than 10% and the proportion of plans developed that differ from the benchmark by more than 50%.

Figure 5.4 Staff member development of plans that differ from benchmark[49]



The graph shows that in general, there is a higher proportion of planners that have developed plans above benchmark, and a lower proportion of planners that have developed plans below benchmark. For example:

- About 36% of planners (who developed plans) have created more than 30% of their plans over benchmark by more 50%.
- About 77% of planners (who developed plans) have created more than 30% of their plans over benchmark by more than 10%.
- Around 1% of planners (who developed plans) have created more than 30% of their plans below benchmark by more than 50%.

[49] This excludes staff members that have approved less than 25 plans.

- Around 41% of planners (who developed plans) have created more than 30% of their plans below benchmark by more than 10%.

Further analysis on staff member decisions has been conducted by participant age group, disability and level of function (Appendix I). In the younger participant age groups, planners have approved a higher proportion of their plans above benchmark, and vice versa for the older age groups. For planners approving plans for high functioning participants, there is a higher proportion of plans approved above benchmark, and vice versa for the plans of low functioning participants.

The analysis indicates that there may be a level of inconsistency in decision making in respect to plan support levels, and it is recommended a review of individual staff members with high proportions of plans over benchmark be conducted.

Recommendation

9. Following the observation that a large number of staff have approved/developed a high proportion of their plans that are above benchmark, it is recommended that a review be conducted of individual Agency staff members with high proportions of their plans over benchmark to better understand what may be driving the large differences. Further, it is recommended that staff with a high proportion of their plans under benchmark should also be reviewed.

Recommendation

10. It is recommended that a review by conducted of individual staff members with low and high proportions of access ineligibility rates.

5.5.2 Quality assurance around decision making

Many of the emerging issues within the Scheme appear to be manifesting around quality controls and assurance processes in the business decisions that are being made. Current assurance processes focus on compliance, that is, whether adequate documentation was provided and whether the decision meets legislative requirements.[50] This work does not drill into what sources of information are being used and the appropriateness of some of this

[50] Note: assurance compliance activities in 2016-17 were limited, with the majority of activities happening in the latter part of 2016-17. The activities undertaken were a mix of random and risk-based samples.

evidence (e.g. diagnosis from medical practitioners compared with functional assessments, or what participant characteristics resulted in differences between the actual budget and the expected budget). Hence, it is difficult to determine the extent to which experience is differing from expectations due to implementation issues, or whether there is a permanent difference in experience compared with what was originally projected. Further, the current direction of the quality assurance program focuses on random samples and staff proficiency, rather than being a risk-based approach which would see the more "risky" decisions followed-up. A number of factors should be used to determine risk, including pressures to sustainability.

Some key areas where this risk-based approach would add value to the Agency would include the eligibility assessment process for children, the high levels of superimposed inflation seen in the plan review process and those plans where the TSP is very different to the support package within a participant's plan.

Eligibility assessment process for children

Section 3.2.3 highlighted the high numbers of children entering the scheme, with emerging numbers in trial sites suggesting actual prevalence rates 25-35% higher than expected in the earliest beginning trial sites. Management has responded to this experience over the last eighteen months with the introduction of the ECEI gateway, which has shown limited ability to stem this trend in any meaningful way under its current form, as discussed in further detail later in this paper in Section 6.2.1.

One of the key findings of a recent review of the ECEI program has been the inability to keep participant numbers in line with expectations, with preliminary PEDI-CAT data indicating significant numbers of children entering the scheme without a functional deficit in any area within two standard deviations of the mean. This indicates that a high number of children may be gaining access to the scheme who may be just as well serviced by the access to mainstream services (if the ECEI gateway was assisting with accessing these services as intended). The quality assurance processes around scheme eligibility for children therefore does not seem to be working as anticipated.

Currently functional assessment tools, including the PEDI-CAT, are just one piece of evidence used by Agency staff and partners to assess eligibility for the scheme. An improvement to the decision making process around scheme eligibility may include more rigorous screening of the functional deficit for children, with greater reliance on either the PEDI-CAT assessment tool for younger children or through other appropriate disability-specific assessment tools for older children. Guidance needs to be developed for Agency staff and partners on interpreting results of functional assessment tools in the context of eligibility.

Superimposed inflation in plan reviews

Section 3.3.2 highlighted the significant superimposed inflation present in movements in annualised committed supports from first plan to second plan, second plan to third plan and third plan to fourth plan. It has been hard to explain the reasons for these large increases in committed supports within individual plans, especially when it is considered that about 22% of plan reviews led to an increase in committed supports of more than 50%.

Discussion with the business and analysis of some of the key movements has suggested that a proportion of this inflation is driven by poor practices in regards to early end dated plans. In some cases, all unused supports are transferred into the new plan, regardless of the prior plan utilisation. In other cases the committed supports in the plan do not reflect the intended annualised amounts by virtue of incorrect data entry.

There are few qualitative controls in the ICT business system around the plan review processes, and this could be contributing to these large increases. The introduction of a quality assurance controls around the plan review process should be a priority for the Agency to ensure that the right people are getting the right supports.

In some circumstances there will be a need to increase a participant's committed supports by a significant amount, for example where the participant's circumstances change such as moving into shared supported accommodation arrangements. However, this should be tested in circumstances where the recommended annualised committed support amounts increases by a certain threshold, say 25% above the previous amount and where the package amount is greater than $20,000, although the exact details of these thresholds should be based on further analysis so that the right plan reviews can be targeted.

Recommendation

This lack of adequate controls around quality decision making is presenting a very real risk to the financial sustainability of the scheme if left unchecked. Improvement in the quality assurance around important eligibility and plan review processes leads to a key recommendation of this review.

Recommendation

11. The Agency should implement more effective risk-based quality assurance around key business processes to ensure better decision making, focusing on areas that are threatening the financial sustainability of the scheme. This would include the eligibility process for new children entering the scheme, particularly children aged 0 to 6 with developmental delay and children diagnosed with autism. It would also include the controls around approval of plan reviews with annualised increases in committed supports of above 25% and large differences in initial plans against benchmark, with a specific focus on level of function

5.6 Suitability and adequacy of risk management framework

While the NDIA is not APRA regulated, the Agency uses prudential standard *CPS 220 Risk Management* as the best practice standard to emulate. There are some significant differences between APRA-regulated commercial entities, who may deliberately take on risk to make a profit, compared with the NDIA, which does not generally seek to take on that risk. Hence, much of the discussion in the Agency's risk management framework is around "risk tolerance" rather than "risk appetite" when providing guidance to Management. This is appropriate.

A large part of the risk management framework is focused on the non-financial objectives of the scheme. This includes the provision of reasonable and necessary supports, in a way that participants are in control and have choices. This also includes having a diverse provider network that operates innovatively, supporting (and not replacing) existing community and mainstream supports and building up the capacity of people with a disability to enable greater independence. This is appropriate.

However, there exists obvious tensions between some of the schemes non-financial objectives and the financial sustainability objectives of the scheme, and thus a need to balance the two. There are also some synergies, such as the ability to build individual capacity in the shorter term, reducing the need for support in the longer term. The scheme is relatively immature and this highlights the need to continually evolve its risk management framework and underpinning components to respond to these tensions.

Many of the risks are currently assessed at levels above those considered acceptable. Most of the high and significant risks are fundamental to the financial and non-financial success of the scheme. The April 2017 executive summary highlights that "the risk profile exceeds the acceptable risk threshold stated in the Agency's risk management framework and requires executive oversight." These are significant risks that underpin the objectives of the scheme. In particular, it is unclear how the Agency will manage these strategic and operational risks to acceptable levels over the shorter to medium term, especially when considered in the context of the aggressive bilateral targets to full scheme.

Recommendation

12. The full-scheme roll out target is challenging given the Scheme's significant data integrity issues (Section 2.3), the significant levels of superimposed inflation in plan reviews (Section 3.3.2), the prevalence of children above expectations within the Scheme (Section 3.2.3), continuing pressures on Scheme entry levels (Section 3.2.5), and reducing participant satisfaction levels (Section 3.6). This, combined with the need for significantly enhanced and more effective quality assurance controls (Section 5.5), mean it is critical that the capacity and capability of the agency be supported to meet the challenge.

6. Key risks, management responses and recommendations

This section contains a summary of the key risks identified to the financial sustainability of the Scheme and summarises the recommendations contained throughout this report.

6.1 Recommendations from previous review

The 2015-16 annual financial sustainability report identified the following pressures to scheme sustainability:

- **Higher than expected numbers of children entering the scheme** - regional monitoring continues to show prevalence pressure emerging for 0-14 year olds across many regional sites. Prevalence pressure is now emerging in several sites for 15-18 year olds and 19-24 year olds.
- **Increasing package costs over and above the impacts of inflation and ageing ("super-imposed" inflation)** - emergence of superimposed inflation has been at higher levels during the transition months than during trial, and this issue has been most evident for trial participants, with some improvements in recent months.
- **Higher than expected numbers of potential participants continuing to approach the scheme** - the pace of potential participants approaching the scheme remains above expected long term levels, exacerbating the ongoing numbers pressure in the younger age bands, particularly for ages 7-24.
- **Lower than expected participants exiting the scheme** - participants under the age of 15 are not exiting the scheme at expected levels meaning that overall participant numbers will be much higher than expected if these anticipated exits do not occur.
- **A mismatch between benchmark package costs and actual package costs** - analysis of committed supports against the TSPs as a benchmark has shown improvement since June 2016 after a renewed focus on relativities to TSPs, however further risk-based quality assurance should be completed to further understand this trend.

In addition to the pressures identified in the 2015-16 annual financial sustainability report, early experience in transition for participants in shared supported accommodation showed that committed support is higher than the TSP and higher than revenue received.

Table 6.1 provides a summary on the progress against the existing pressures at a more granular level.

Table 6.1 Progress on key risks – 30 June 2017 compared with 30 June 2016

Key pressure	30 June 2016	30 June 2017	Commentary	Trend
Higher number of children than expected	• For 0-6 year olds: above expectations in almost all trial sites, especially Hunter, Barwon, South Australia and the Australian Capital Territory (between 34% and 65% above) , and below expectations in Townsville (44% below) and Perth Hills (27% below). • For 7-14 year olds: above expectations in Hunter (4% above) and Barwon (25% above), and below in other sites including South Australia (11% below).	• For 0-6 year olds: above expectations in almost all trial sites, especially Hunter, Barwon, South Australia, Nepean Blue Mountains and the Australian Capital Territory (between 34% and 56% above). • Regional monitoring shows prevalence pressure emerging for 0-6 year olds in several transition regions including Central Coast, Southern NSW, North East Melbourne Townsville and various South Australian regions. • For 7-14 year olds: above expectations in Hunter (35% above), Barwon (50% above) and South Australia (21% above).	• For 0-6 year olds: the prevalence rates remained similar or decreased between the two time periods. • For 7-14 year olds: the prevalence rates have increased between the two time periods. • Prevalence pressure is now occurring in several sites for 15-18 year olds and 19-24 year olds.	For 0-6 year olds: ⇔ For 7-14 year olds: ↓

Key
Indicator comparing experience between 30 June 2016 and 30 June 2017: ↑ = Improving ⇔ = No change ↓ = Deteriorating No “Indicator” has been provided for these risks. They should all be considered red (●) hence the inclusion in this table.

Key pressure	30 June 2016	30 June 2017	Commentary	Trend
Superimposed inflation	• Approximately 5-7% over the trial period.	• Approximately 7-12% over the trial and transition period combined.[51] • The June 2017 plan inflation/increase has improved compared with prior months, particularly for second to third, and later plan reviews.	• Escalation in plan reviews in the past year is due to participants moving into more costly living arrangements, changes in level of function, and potentially operational practices and data issues. The last may be reducing as evidenced by a lesser contribution from "remediation" plan reviews and plan cost reductions arising from plans of less than six months duration for plan reviews.	↓
Potential participants continuing to approach the scheme	• No tapering of the number of people approaching the scheme in sites, including sites where phasing was completed 18 months ago.	• Some tapering evident in NSW and ACT compared with trial. However, numbers continue to be similar in VIC, SA, TAS and WA.	• A demographic breakdown completed in April 2017 shows that a mix of participants by age and disability continue to approach the Scheme. • The lack of a significant decline across the transition period indicates that this indicator is deteriorating against baseline expectations.	↓

Key

Indicator comparing experience between 30 June 2016 and 30 June 2017:

↑ = Improving
↔ = No change
↓ = Deterioring

No "Indicator" has been provided for these risks. They should all be considered red (●) hence the inclusion in this table.

[51] Plan reviews conducted from 1 July 2016 appear to follow a different (higher) trajectory from plan reviews conducted during the trial site period. This finding is currently undergoing further investigation.

Key pressure	30 June 2016	30 June 2017	Commentary	Trend
Lower than expected exits	• 1.2% over trial compared with an expected rate of 2.1%	• 1.3% exit rate between 1 July 2016 and 30 June 2017 (for both trial and transition participants)	• Exit rates have improved slightly over the past year. • Exit data will continue to be validated and investigated further.	↑
Differences between benchmark package costs and actual package costs	• 11% of actual participant plans were within 10% of the TSP.[52] • 51% of actual participant plans were not within 50% of the TSP.	• 33% of actual participant plans were within 10% of the TSP. • 30% of actual participant plans were not within 50% of the TSP. • Although improved since 30 June 2017, these measures have been relatively stable in recent months. • There is not an equivalent revenue measure available as at 30 June 2016, however the gap between committed supports and revenue has widened across 2016-17.	• Data was back-captured on trial participants, whereas the guided planning process has been built into the new CRM and was undertaken on 86% of participants entering the scheme from 1 July 2016. • There has been improvement in plans approved in recent months due to a focus on this pressure within in the NDIA regions. However, it should be noted that although the gap between committed supports and benchmark package costs has reduced, this may be partly due to an increase in benchmark amounts.	Relative to TSPs: ↑ Relative to revenue: ↓

Key
Indicator comparing experience between 30 June 2016 and 30 June 2017: ↑ = Improving ↔ = No change ↓ = Deteriorating No "Indicator" has been provided for these risks. They should all be considered red (●) hence the inclusion in this table.

[52] The guided planning calculation starts with a typical support package based on a participant's reference group (disability type, age and level of function). The typical support package includes funding across eight domains: daily activities, social participation, consumables, transport, support co-ordination, assistive technology, home modifications and capacity building. The guided planning questionnaire then seeks information directly from the participant about each of the domains, including (but not limited to) what supports they already have in place and whether these are sufficient and sustainable. The typical support package is adjusted based on the level of sustainable informal, community or mainstream supports available to assist the participant, and other factors to derive the TSP. Hence, the TSP is the expected amount from which actual committed support is compared.

Key pressure	30 June 2016	30 June 2017	Commentary	Trend
Higher costs of shared supported accommodation	• Not evident in trial	• Actual costs of participants in shared supported accommodation approximately double the TSP and 30% higher than revenue received.	• This is predominantly a legacy issue from the existing disability system – however, is likely to be present for several years.[53]	N/A

Key

[53] Adjusting for participants with moderate intellectual disability, results in costs more in line with expected (all else equal), noting that this adjustment was also part of the Productivity Commission report.

6.2 Management responses to experience

Management have continued to respond to emerging scheme experience through the development of a number of specific initiatives. The main initiatives and management responses are outlined in Table 6.2. In addition, a comprehensive Participant and Provider Pathway review is being conducted as an initiative of the new Board (Section 6.3).

Table 6.2 Management responses to scheme experience

Initiative	Background	Reference
The Early Childhood Early Intervention (ECEI) approach,	Developed in response to the high number of children entering the scheme.	Section 6.2.1
Reference package and guided planning approach	Developed to help guide planners in determining a suitable level of reasonable and necessary support package in response to significant plan inflation.	Section 6.2.2
Plan review strategy	Set up in March-June 2017 to train agency staff and partners and provide good guidance at plan review, assess eligibility and to help put plans more in line with Typical support package benchmarks.	Section 6.2.3
Targeted plan review	Targeted reviews of individual plans to better understand eligibility decisions and superimposed inflation.	Section 6.2.4
Sustainability and quality team	Team within Operations established with a dedicated focus on sustainability and quality issues within the Agency.	Section 6.2.5
Foundation (re-baseline) training	A refresher training course to increase staff capability and confidence in core Agency concepts, like guided planning, reasonable and necessary supports and insurance principles.	Section 6.2.6

The first two rows in Table 6.2 were specific initiatives outlined in the 2015-16 annual financial sustainability report, and we provide an update on these initiatives in Sections 6.2.1 to 6.2.2. In addition, the sustainability liability working group was established to oversee the initiatives addressing the cost of adverse experience trends emerging at the previous review and that group has continued overseeing a number of initiatives over the year.

This year has seen a number of further initiatives aimed at responding to emerging financial sustainability issues and these are discussed in Sections 6.2.3 to 6.2.6. In addition, Section 2.3.1 gives some background around the Agency's commitment to a high quality business intelligence strategy.

6.2.1 Early Childhood Early Intervention (ECEI) approach[54]

The aims of the ECEI approach are to deliver better long term outcomes for children and their families, contribute to greater scheme sustainability, reduce lifetime costs, and build the capacity of the mainstream system.

The ECEI approach provides a gateway to the Scheme for children aged 0-6 years, which aims to ensure only children meeting the eligibly criteria for the Scheme enter as participants. The gateway also provides support for children to access mainstream and community services when they do not meet the eligibility criteria, but need some support to access these services. The ECEI approach commenced in Nepean Blue Mountains in October 2015 and is being progressively rolled out to other regions over time.

Key Challenges of ECEI approach

There is some evidence that the more mature ECEI Partners (for example those in the Nepean Blue Mountains region) are better able to manage access to the scheme than many of the more recent ECEI Partners. However, there remain some key challenges which is preventing the ECEI approach from delivering its full potential:

- There has been a high proportion of children who have bypassed the ECEI gateway, with recent analysis showing that about 72% of ECEI participants who are now participants of the scheme were found eligible for the scheme before they were identified as having accessed the ECEI gateway.
- Data collection for monitoring and evaluating the ECEI approach continues to pose challenges, predominantly due to the need to collect this information “off-system”. As noted in Section 2.3 the data processes associated with ECEI are very labour-intensive and meaningful analysis requires linking into the ICT business system.
- Recent analysis of preliminary PEDI-CAT data indicated that 55% of children entering the scheme did not have a functional deficit within two standard deviations of the mean in any domain, and a further 13% had a mild functional deficit in only one domain. This is concerning and supports the need to consider using the PEDI-CAT tool as part of the eligibility criteria for the scheme to assist in reducing the prevalence of children in the scheme.

[54] This section contains a summary of analysis and information from the report ”*Update on the Early Childhood Early Intervention (ECEI) approach Version 1, May 2017*”

- Strong views held by families, the community and professionals in the health sector on the need to 'secure' a funded plan or that a child could miss out on needed support and funding.
- The list of diagnostic conditions that result in automatic entrance to the scheme are likely being gamed so children can come into the Scheme. For example, a higher than expected number of participants aged 7 years and older had a diagnosis of autism with a Level 2 rating using the DSM-5, which corresponds to the criteria required for automatic entry into the scheme.

Management responses

Processes are being put in place to realign implementation of ECEI with what was originally envisaged. This includes ECEI Partners becoming active in the communities for the six months prior to phasing commencing for an area. It also includes further focus on shifting expectations from viewing a funded plan or Scheme access as the end goal, to one where goals and outcomes are considered first and the most appropriate support model is identified for the child and family.

A key transition point in the ECEI approach is when a child turns 7 years of age, at which point they should transition from ECEI – either into the scheme or into the mainstream/community support. For children in the Scheme 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 should be reviewed at plan review with the aim of developing a transition plan to help the child to access mainstream/community supports. 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. Where participants continue to meet the developmental delay criteria, the planner needs to be satisfied that the early intervention supports are continuing to reduce the need for future supports.

6.2.2 Reference packages and the guided planning approach

The escalation in package costs evident throughout the trial was reflective of the "bottom-up" planning process, which results in individual line items going into plans and being added or 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 Scheme and led to inconsistency in support provided.

Reference packages were part of the original design of the Scheme outlined by the Productivity Commission – however, were not implemented at the commencement of the Scheme. Reference packages were incorporated into business processes and the new CRM from 1 July 2016 via the guided planning process (Section 3.3.1). The process provides each participant with an expected amount of funding supports, which serves as a benchmark

for planners when they construct the TSP with participants. This overall approach to determining funding should result in a reduction in the escalation of package costs.

A review of the guided planning process occurred in late 2016. The focus of the review was to streamline the pre-planning process by:

- Removing repetition in questions between question sets (including the guided planning questionnaire, the short-form outcomes framework and the risk assessment)
- Reducing ambiguity in questions in the guided planning questionnaire
- Ensuring that questions that modify funding elicit sufficient differentiation between funding groups.

The review methodology comprised several activities to identify issues with the current process and opportunities for improvement. These included:

- Collection and consideration of feedback from across the network
- Internal review of the CRM questionnaires
- External review of the guided planning question sets by an independent consultant, including:
    - Feedback on collector experiences administering the questions and feedback from participants
    - A review of the guided planning questionnaire, in the context of the short-form outcomes framework (SFOF)
    - An environmental scan and assessment of existing tools used to measure support needs
    - Proposed changes to the guided planning process questions
- Consultation and testing of the proposed changes
    - Focus group sessions were held with Staff Participant Network representatives to discuss the overall guided planning process and the proposed structure and question changes.

The guided planning questionnaire was restructured and revised based on the outcomes of the review. SFOF responses were used to pre-populate questions in the guided planning process to avoid duplication. In addition, some responses in the SFOF were used to provide reference information for a planner.

Improvements include clearer questions (e.g. clearly distinguishing between support types) and the inclusion of a Challenging Behaviour Measure factor to enable consideration of behaviours of concern.[55]

It is also important to note that benchmark values determined by the guided planning 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.

In the previous report, it was observed that many plans differed from the expected benchmark amount. Experience in the past year has shown that the gap between committed supports and the benchmark amount has reduced, particularly in recent months. However, there remains a focus on understanding the differences between benchmark and plan amounts and in instances where a differential exists, implementing strategies to bring committed supports more in line with expectations. In particular, there should be a focus on certain groups where a significant difference is seen, for example participants in supported accommodation and those with high levels of function.

Recommendation

13. The Agency should implement a review of the reference package and guided planning approval process taking into account the emerging scheme experience. Specific focus should be applied to areas where the average committed supports differ from expected, with analysis of the potential reasons why the difference has emerged. For example, in relation to participants with high levels of function. Where appropriate, revisions should be made to the typical support package results that emerge from the plan review and guided planning approval process. Going forward, a risk-based quality assurance process should assist in understanding differences from expectations and implementation of the Business Intelligence Strategy should assist staff in decision-making.

6.2.3 Plan review strategy

The development of the plan review strategy commenced in March 2017 with the aim that the NDIS plan review process best reflects the needs of participants as their confidence with the Scheme grows and as the Agency's evidence about plan review effectiveness increases. A number of different plan review processes were used in different States/Territories during trial. The plan review strategy aims to move towards a nationally consistent plan review approach that will be implemented for plans expiring after 1 July 2017, reflecting the

[55] These new questions are scheduled to be implemented in September 2017.

previous learnings from trial sites, noting that some elements of this approach have already been implemented.

The two key focus areas of the plan review strategy center around the alignment of package amounts to typical support packages and the use of risk-based plan duration.

Alignment of package amounts to typical support packages (TSP)

The plan review strategy aims to provide better alignment of a participant's plan to the Scheme's growing evidence base of TSP's and the experience of other participants with plans. The use of TSP's as the building block helps to make plan reviews fair, equitable and sustainable, while also reflecting individual needs and circumstances and mean that participants are individually funded for the supports they need to achieve their goals. This approach will mean that plans developed during the trial period will be reviewed with the additional evidence-based supports information that TSP provides.

Risk-based plan duration

This focus area aims to provide better alignment of the plan duration to the nature of the supports needed in the plan. This involves the implementation of a new risk-based approach to plan duration, with the option to vary the duration from the usual 12 months in specific circumstances. For example, more frequent reviews may be required for younger participants streamed as super-intensive, those participants with rapidly declining levels of function, participants likely to exit the scheme, those with poor baseline outcomes and those vulnerable participants with unstable circumstances. Conversely, this will also allow participants to extend their plan if they live in a stable supported environment and have predictable support needs. Changes to duration have not yet been implemented, pending agreement to the risk assessment criteria to be applied.

Key challenges

There are some key challenges to the implementation of the plan review strategy, many of which involve staff training in the approach to plan review. This will include:

- Staff being able to review achievements gained during the previous plan, and assessing the value of the interventions applied.
- The application of a reasonable and necessary lens will mean that some participants will receive changes in package amounts. For example, capital purchases or home modifications may not need to be included in future plans, or if a participant is achieving goals and increasing their capacity then there may be a reduction in some supports. That is, early intervention supports may reduce or no longer be required as their capacity increases.
- There is an expectation that some participants will no longer need an NDIS plan, although would still be supported in transition to mainstream and community services, if required.

- Stakeholder engagement will require informing staff, community, strategic partners and other key stakeholders about the NDIS plan review approach and providing relevant, timely information.
- LACs are key to the success of the initiative and they will need to be informed about how it will impact them and what resources and information will be available to them to help them work in the new way.

The success of this approach can be measured by looking at the distribution of the comparison of actual participant packages against TSP's. The actuarial team is developing further monitoring in this regard as the plan review strategy is implemented in full.

6.2.4 Qualitative review of plans

There have been a number of targeted reviews of plans related to access eligibility and higher than expected levels of plan inflation. Two recent targeted reviews are plans which have had significant increases upon plan review and a procedural review of scheme access.

Plans which had significant increases upon plan review

This review provided an overview of the data integrity and other apparent factors explaining some of the increases in plans, as well as quantifying the number of plan reviews affected and the quantum of these issues. Further details of this review is included in Section 2.3 and Section 3.3.2.

Procedural review of scheme access

A quality assurance testing review was recently completed in respect to scheme access, plan approval and provider registration. A number of steps in these processes were tested, from which errors and non-compliance instances were documented and recommendations for improvement made.

There were a number of errors identified:

- About 78% of plans had inadequate explanation of variations in funded supports from benchmarks, from no justification to "copy and pasted" explanations from prior plans.
- About 10% of plan approvals used the incorrect severity indicator tool, such as inappropriate use of the WHODAS tool, or using a tool not relevant to the participant's primary disability.
- About 3% of new scheme access decisions contained evidence of error, an example being insignificant evidence of developmental delay.

Further, a significant range of procedural non-compliance instances were identified showing inconsistent work practices. While these are usually minor matters, these findings can help to understand the level of consistency in the decisions being made within the Agency.

Examples of procedural non-compliance include plans not being sent to the participant and inadequate time being spent on documenting community informal and mainstream services.

The review contained a number of recommendations which can be summarised under the following themes:

- Clearer policy guidance for staff, through replacement of individual fact sheets and other policy guidance with a single “one-stop shop” guidance document.
- Enhancing system functionality to better support planners, for example in flagging where critical information is missing or where legislative or business rules are not fully completed.
- Additional training to enable a greater national consistency in areas such as the use of the CRM system and the documentation details required to support funded support decisions.

The focus of this review was on compliance, and there was limited analysis on whether an access decision or a participant plan amount was an appropriate decision.

6.2.5 Sustainability and quality team

The Sustainability and Quality team is part of the Service Delivery Branch, Operations Division, and aims to improve performance against scheme sustainability KPIs and embed a continuous improvement approach to addressing systems and practice issues across the participant pathway. They work closely with the Regional Network to build awareness of sustainability and quality and develop strategies to ensure a balance in meeting bi-lateral estimates with building the scheme in a sustainable way and delivering a high quality experience for participants. They also work closely with the National Access Team, the Technical Advisory Team, National Complaints Team, the Participant Pathway Design Team and the Scheme Actuary.

The team was established in April/May 2017 and the key purpose of the team is to:

- Develop and monitor the internal quality management framework and quality action plan.
- Provide support to sites, where support includes: training, reviews and continuous improvement monitoring as required.
- Complete internal file reviews and audits (e.g. review of ineligible decisions and topic based reviews) and projects as requested.
- Prepare for and support external quality reviews.
- Coordinate regular meetings for the National Quality representatives.
- Work closely with the actuarial team on sustainability risks.

The Agency's Internal Quality Management Framework is designed to support continuous improvements that benefit participants and at the same time provide a benchmark for best practice of the Agency. It is intended to create an environment where:

- quality assurance is an everyday practice for all Agency staff, and
- the Agency and its partners share a willingness to review practices and explore and implement new and improved ways of doing things.

6.2.6 Foundation (re-baseline) training

An end-to-end review of the Participant and Provider Pathways was completed during 2016-17 with aspiration to provide a first-class participant and provider experience (Section 6.3).

The initiative that will most immediately impact on all service delivery staff is the re-baselining training. This training will focus on refreshing the core knowledge of service delivery staff and provide opportunities to apply these skills through the use of case studies and participant scenarios. The re-baselining training will be delivered by regional Subject Matter Experts in August 2017 and will include five days of training in topics that were identified as a priority in a Learning Needs Identification survey. They include:

- Insurance principles and scheme sustainability
- Reasonable & necessary
- Typical support packages
- Delegate approvals
- Quality
- Guided planning questions
- Critical conversations
- Plan management
- Provider support
- Plan implementation and review
- Complaint management
- Scheme integrity
- Disability awareness

The target audience for re-baseline training is Business Support Officers, Planners and Local Area Coordinators, however all staff are encouraged to attend the sessions to the extent that it is applicable to them.

Full implementation of other strategies arising from the participant and provider pathways will also require systems changes and significantly improved communications.

6.3 Participant and Provider Pathway review

The NDIA has been undertaking an end to end review of the Participant and Provider Pathway following stakeholder feedback that experience was not meeting the high standards to which the Agency aspires. This has involved workshops and discussions with over 300 bodies, including 118 people with disability, families/carers and 68 providers, to learn about their issues with the NDIS.

The outcomes of the review will be designed to:

- ensure participants are at the centre of everything the Agency undertakes
- recognise the important role played by families/carers, providers and disability groups, with increased focus on maintaining existing mainstream, informal and community supports
- work with participants to focus more on outcomes, and achieve their goals through high quality plans
- make it easier for providers to work with the Agency
- ensure that the Scheme is managed in a financially sustainable way within a defined funding envelope.

A key finding from the review is that an 'outcomes focus' is not sufficiently embedded into the pathway. A number of other issues in the current Participant and Provider Pathway were also identified. In response, the current approach is being redesigned, in consultation with participants, providers, Agency staff and partners to deliver a pathway that is participant centric, outcomes-focused, and based on insurance principles. The Review also aims to reduce overheads and transaction costs for providers and facilitate the growth of a market of adequate size, quality and innovation. Further, the review aims to ensure that the pathway provides better assurance of sustainability through tighter oversight and control over funded supports, and facilitating greater data integrity.

The pathway is currently being developed, and any changes to the pathway will be piloted before nation-wide rollout. At this stage the detail on the pathways is also still being developed, and this detailed work has not been seen or reviewed in any detail by the Scheme Actuary. Preliminary detail on the pathway highlights the need for the development of clear and consistent documentation of the pathway, the need for up-front and continuing training, and the importance of using business intelligence throughout the pathway to enable enhanced business decision making. It is important that the participant and provider pathway review continues to take into account financial sustainability issues, including the incorporation of recommendations contained within this report, where appropriate.

7. Recommendations arising from this review

The full-scheme roll out target is challenging given the Scheme's significant data integrity issues, the significant levels of superimposed inflation in plan reviews, the prevalence of children above expectations within the Scheme, continuing pressures on Scheme entry levels, and reducing participant satisfaction levels. This, combined with the need for significantly enhanced and more effective quality assurance controls, mean it is critical that the capacity and capability of the agency be supported to meet the challenge.

This report has provided an overview of the emerging experience of the scheme and has provided a number of recommendations which may address current challenges impacting on financial sustainability. A consolidated list of these recommendations is contained in Appendix J. Some of these recommendations have common themes and the following sections consolidate these recommendations into four groups:

1. Data integrity
2. Access and eligibility
3. Quality assurance
4. Planning and assessment

7.1 Data integrity

There are a number of emerging issues in relation to data integrity which questions the adequacy of the current ICT business system to provide timely, appropriate and quality Scheme data. It has also been relatively difficult and time consuming for changes to be implemented to rectify emerging data integrity issues. The longer that these issues remain unresolved, the harder it will be to form views on any adverse trends in Scheme experience and for management to be able to respond accordingly.

It is recommended that data quality, through the Data Management Committee, be a key priority for the Agency over the next 12 months to help respond to emerging data integrity issues. In particular, focus should be given to improving the efficiency of changes being made to the ICT business system.

7.2 Access and eligibility

The number of children accessing the scheme continues to be above expectations, despite the introduction of the Early Childhood Early Intervention gateway. It is unclear whether the

right children are gaining access to the Scheme to benefit from early intervention strategies, especially children with autism and developmental delay disabilities. It is recommended that:

- The eligibility criteria for children should be a continued point of focus for the Scheme and that the PEDI-CAT assessment tool be used as a key indicator in the determination of eligibility to the Scheme for children.
- The Agency should remove the provision of automatic eligibility for children in defined programs.
- The Agency should consider the implementation of a more rigorous review of continued eligibility for participants who have entered the Scheme via the early intervention pathway, with the intention of continued development of an appropriate exit pathway strategy from the scheme for those participants.

A large number of participants continue to have a 'missing' level of function or have a functional assessment using the general disability tool WHODAS. It is recommended that the Scheme focuses on the collection of functional information using disability-specific tools, with a particular focus on participants whose functional assessments are missing.

7.3 Quality assurance

The Agency should implement more effective risk-based quality assurance around key business processes to ensure better decision making, focusing on areas that have the greatest potential impact on the financial sustainability of the Scheme. Particular areas of focus should include:

- The eligibility process for new children entering the scheme, particularly children aged 0 to 6 with developmental delay and children diagnosed with autism.
- The controls around approval of plan reviews with annualised increases in committed supports above expectations and large differences in initial plans against benchmark.
- Review of decisions by staff who have approved/developed a high proportion of their plans that are above/below typical support package benchmarks to better understand what may be driving the large differences.
- Review of decisions by staff having low/high proportions of access ineligibility rates.

Instilling a risk management culture across all levels of staff throughout the Agency is integral to the long term financial sustainability of the Scheme. Frontline staff and Agency partners must be supported to make eligibility and planning decisions consistent with the legislation and to understand the impact of those decisions. Extensive training is required to put Scheme sustainability at the core of the Agency's business processes.

7.4 Planning and assessment

Analysis of actual package amounts against typical support package benchmarks has shown that participants with a high level of function as well as those in shared supported accommodation have committed supports that may be too high in comparison to the benchmark, with the former creating tensions with eligibility thresholds. Conversely, participants with low levels of function have committed supports that are low in comparison to benchmark. It is recommended that:

- A targeted review of committed supports should be conducted for these participants to understand why their supports are so high/low respectively against benchmark.
- The Agency should implement a review of the typical support package amounts arising from the guided planning process, taking into account the emerging scheme experience and specifically the review outcomes from the bullet point above, making adjustments to the benchmarks where considered appropriate.
- A risk-based quality assurance process should be developed to assist in understanding differences from expectations and implementation of the business intelligence strategy should assist staff in decision-making.
- The existing participant pathway resources should be streamlined to reduce the volume of supporting documentation and to ensure consistency in decision making across different regions. Resources should be reviewed to ensure they highlight key risks to scheme sustainability and align with management responses.