

# National Disability Insurance Scheme

## Annual Financial Sustainability Report Summary - Interim update

Sarah Johnson BCom FIAA

Scheme Actuary

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# Acronyms and definitions

## Acronyms

ABS	Australian Bureau of Statistics
AFSR	Annual Financial Sustainability Report
CB	Capacity Building
CRM	Client Relationship Management
CY	Calendar Year
ECEI	Early Childhood Early Intervention
GDP	Gross Domestic Product
ILO	Independent Living Option
NDIA	National Disability Insurance Agency
NDIS	National Disability Insurance Scheme
NIIS	National Injury Insurance Scheme
PBS	Portfolio Budget Statements
PC	Productivity Commission
SDA	Specialist Disability Accommodation
SIL	Supported Independent Living
TTP	Temporary Transformation Payment

## Definitions used in this report

Accrual basis	Cost is based on when the service was actually provided to the participant recognising some services are paid for after the end of the period.
the Agency	National Disability Insurance Agency
Bilateral agreements	Agreements signed between the Commonwealth government and the States/Territories
Cash basis	Cost is based on when the cash is paid out by the Agency, regardless of when the support was provided
COVID-19 pandemic	Ongoing global pandemic of coronavirus disease (March 2020), with references to the 'first wave', 'second wave' and later waves
In-kind supports	Before the NDIS was established, States/Territories and the Commonwealth governments paid providers to deliver services to people with disability. States/Territories and the Commonwealth continue to pay for some services. State/Territory and Commonwealth governments receive a revenue offset.
Level of function	A participant's functional ability, measured using a range of widely accepted and validated tools which were selected based on expert advice from professionals with specialist disability knowledge, such as disability organisations, clinicians and researchers.
Mature participants	Participants active at both 30 September 2020 and 31 December 2020, and had their first plan approved on or prior to 30 September 2019.
NDIS Act	<i>National Disability Insurance Scheme Act 2013</i> , as amended
New entrants	All participants entering the Scheme
New incidence	Participants with a newly acquired disability accessing the Scheme
Participant intake	All participants entering the Scheme
Participant plan provision	A provision on the NDIA Balance Sheet for supports provided to participants but has not yet paid.
PC benchmark	Productivity Commission Inquiry Report. 2011. <i>Disability Care and Support</i>
2011 PC report	Productivity Commission Inquiry Report. 2011. <i>Disability Care and Support</i>
2017 PC study report	Productivity Commission 2017, <i>National Disability Insurance Scheme (NDIS) Costs</i> , Study Report, Canberra
Plan budgets	The reasonable and necessary supports outlined in a participant's plan that will be funded for a specific duration, typically a year. Plan budgets represent the dollar amount of support that has been made available to participants in their plan.
Portfolio Budget Statements	The purpose of the Portfolio Budget Statements is to inform Senators and Members of Parliament of the proposed allocation of resources to government outcomes by agencies within the relevant portfolio. Estimates of government expenditure in the Portfolio Budget Statements are on an accrual basis.
Previously unmet need	Participants with existing disability accessing disability supports for the first time.

Projection Group	A group of participants with similar characteristics. The Projection Groups have been determined by age band, primary disability, level of function, gender and whether the participant is in supported independent living.
SAP	SAP is a software company that makes enterprise software. Also known as Systems, Applications and Products in Data Processing.
the Scheme	National Disability Insurance Scheme
Steady Intake Date	The point in time where participant intake primarily represents participants with new incidence of disability. For this report 30 June 2024 has been assumed.
Superimposed inflation	Inflation over and above normal inflation. Normal inflation includes the consumer price index and increases in the minimum wage.
Supported Independent Living	This includes the assistance with and/or supervising tasks of daily life to develop the skills of individuals to live as autonomously as possible. These supports are provided to a participant in their home, regardless of property ownership, and can be in a shared or individual arrangement.
Trial period	From 1 July 2013 to 30 June 2016
Transition period	From 1 July 2016 to 30 June 2020

# Overview

An annual financial sustainability report (AFSR) is required under section 180B of the NDIS Act and provides an assessment of the financial sustainability of the National Disability Insurance Scheme (“the Scheme”, or NDIS). The AFSR is produced using data at 30 June each year and a summary of each year’s AFSR has been included in the NDIA annual report. This current interim report is a more detailed summary than what was included in the most recent NDIA annual report, and uses data to 31 December 2020 to project the future cost of the Scheme.<sup>1</sup> This interim report also includes analyses and discussion on recent Scheme experience, best estimate projections of future participant numbers and costs (based on emerging experience and future expectations), and strategies to address risks to sustainability.

This interim report has been reviewed by the Peer Review Actuary (see section 6 of this report).

## *Financial sustainability*

The *NDIS Insurance Principles and Financial Sustainability Manual*<sup>2</sup> outlines the insurance model in detail and defines financial sustainability as the state where:

- *The scheme is successful on the balance of objective measures and projections of economic and social participation and independence, and on participants’ views that they are getting enough money to buy enough goods and services to allow them reasonable access to life opportunities - that is, reasonable and necessary support;*
- *Contributors think that the cost is and will continue to be affordable, under control, represents value for money and, therefore, remain willing to contribute.*

The current government expectation of Scheme cost is included in the annual Portfolio Budget Statements (PBS), noting it is not only the financial cost of the Scheme that is important within the context of financial sustainability, but also the outcomes achieved by the Scheme.<sup>3</sup>

## *Projection model*

In projecting future scheme costs, assumptions on both the number of participants in the Scheme and the average payment per participant are required. The number of participants each year is derived based on assumptions on both the number of participants entering and

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<sup>1</sup> Analysis post 31 December 2020 (until 31 May 2021) is also included in parts of the report, and the impacts on the projection of Scheme costs due to this recent Scheme experience is also discussed.

<sup>2</sup> <https://www.ndis.gov.au/media/833/download>

<sup>3</sup> Outcomes for participants and their families/carers are reported regularly in the NDIA’s quarterly reports to Disability Ministers, and more detailed analysis and data is available on the NDIA Data and Insights website: <https://data.ndis.gov.au/reports-and-analyses/outcomes-and-goals>

the number of participants exiting the Scheme. Average payments are based on current payment levels which are then inflated each year.

Participant characteristics and levels of support need differ substantially amongst participants in the Scheme. Therefore, assumptions on participant numbers and average payments are calibrated by different participant cohorts. Specifically, assumptions are derived by age group, disability, level of function, gender, and whether the participant resides in Supported Independent Living (SIL).<sup>4</sup> This results in approximately 2,000 unique projection groups.

Assumptions have been set using both past Scheme experience and expectations of future Scheme performance. That is, the projection in this report is not just an extrapolation of past Scheme trends, rather a forward-looking approach is taken, which assumes operational initiatives undertaken by the NDIA will mean that past trends will not necessarily continue.

As with any projection, there is uncertainty in the results. As the Scheme continues to mature, Scheme experience can change, perhaps materially, resulting from the decisions and actions of the Agency and governments, and this would affect the eventual trajectory of participant costs.

### ***Number of participants***

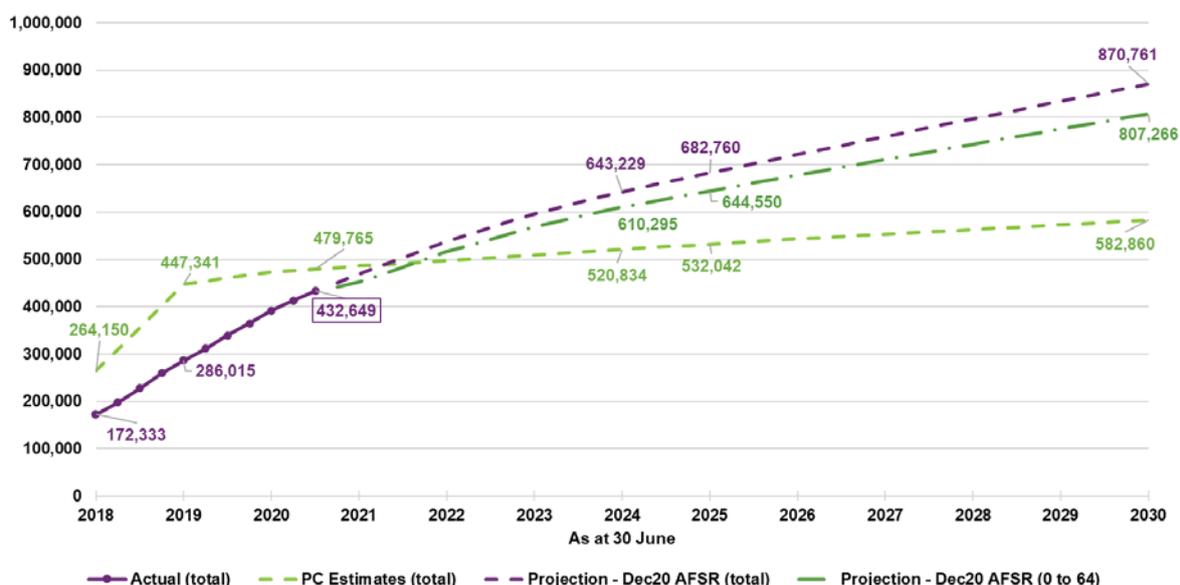
The number of the participants in the Scheme each year, and the projection of future participants is presented in Figure 1. In 2024-25 it is estimated that there will be 682,760 participants in the Scheme (of which 644,550 are under the age of 65 years), and in 2029-30 it is estimated that the number of participants will increase to 870,761 participants in the Scheme (of which 807,266 are under the age of 65 years). These figures are significantly higher than originally envisaged by the Productivity Commission. In comparison, the 2017 Productivity Commission Study report<sup>5</sup> assumed 582,860 participants in the Scheme at 2029-30 (of which 513,162 would be under 65 years). Specifically, in 2029-20 the number of participants is estimated to be 287,901 (or 49%) higher than estimated in the 2017 Productivity Commission Study report.

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<sup>4</sup> Supported Independent Living is modelled separately due to the high average payment per participant. SIL participants represent 5.7% of all participants, and 34% of payments made in the 2020-21 financial year to date. The average annualised payments year to date for SIL participants is \$318,000, and \$37,400 for participants not in SIL.

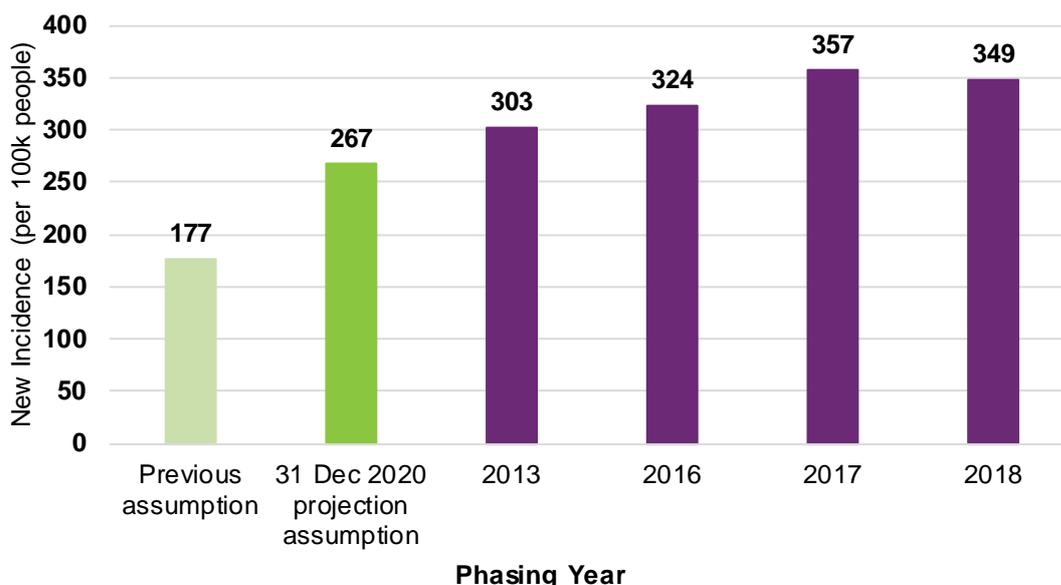
<sup>5</sup> Productivity Commission 2017, *National Disability Insurance Scheme (NDIS) Costs*, Study Report, Canberra (Table 2.3)

**Figure 1 Comparison of actuals, future projections (total, and participants aged 0 to 64) and 2017 Productivity Commission estimates**



The two drivers in the growth in the number of participants is the rate of new entrants to the Scheme, and the rate at which participants exit the Scheme. The rate of new entrants to the Scheme continues to be high in geographical areas where the Scheme has been operating for several years. As an example, the rate of new entrants in geographical areas that commenced in 2013 is 303 per 100,000 people, which is approximately 71% higher than the previously assumed rate of 177 per 100,000.

**Figure 2 New incidence by phasing year**



The assumption adopted in the 31 December 2020 projection (267 per 100,000 people), is higher than the previous assumption, but not as high as the rates observed. This means it is still expected that the rate of new entrants will be slower than previously observed and as a result there is significant upside risk in this assumption (that is, it increases the risk of higher total costs).

The rate at which participants exit the Scheme for reasons other than mortality is also lower than assumed in the 2020-21 PBS. Section 25 of the NDIS Act allows participants to enter the Scheme to receive early intervention support, and it was assumed that some participants would receive this support and then be supported by mainstream and community services. The rate of non-mortality exits has been lower than expected in the year to 31 December 2020 as seen in Figure 3 and Figure 4 below. For example, non-mortality exit rates were assumed to be 2.01% for 0-6 year olds, and the rate in the past year to 31 December 2020 was 0.57%. Similarly for participants aged 7+ years the non-mortality exit rate was assumed to be 1.04%, and the rate in the past year to 31 December 2020 was 0.55%.

**Figure 3 Actual versus expected non-mortality exits for participants aged 0 to 6**



**Figure 4 Actual versus expected non-mortality exits for participants aged over 7**

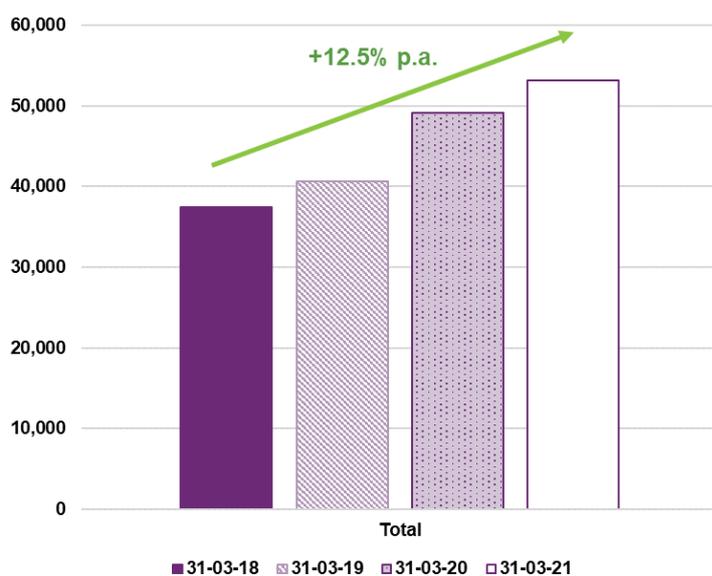


Despite the recent experience, lower rates of non-mortality exits have not been adopted in this projection. This is because it is assumed that rates of exit will increase as more children exit the Scheme after receiving early intervention support, and the NDIA focuses on ensuring participants continue to meet the access criteria (as per the NDIS Act). Again this adds upside risk (that is, it increases the risk of higher total costs) to the projections in this report.

## Average payments per participant

Average annualised payments have continued to increase year on year (Figure 5). The average annual increase in average payment is 12.5% over the last four years.

**Figure 5 Average annualised payments over time<sup>6</sup>**



Over the past four years, the mix of participants in the Scheme has changed. That is, as the Scheme has rolled out across the country, the proportion of participants by different characteristics has changed. As examples, the proportion of children in the Scheme is higher in 2020-21 compared with 2017-18, and the proportion of SIL participants in the Scheme is lower in 2020-21 compared with 2017-18.

Analysing the change in average payment over time by whether or not participants are in SIL indicates that the average annual increase in average payment has been consistently high across both participant groups. Specifically, the average annual payment has increased for SIL participants by 17%, and the average annual payment has also increased for non-SIL participants by 17% (Figure 6). These averages are higher than the overall average (of 12.5%), as the proportion of participants in SIL has decreased over the period.

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<sup>6</sup> Average annualised payments have been calculated on a cash basis using the 12 months over each year ending 31 March.

**Figure 6 Average annualised payments over time by SIL group and in total<sup>7</sup>**

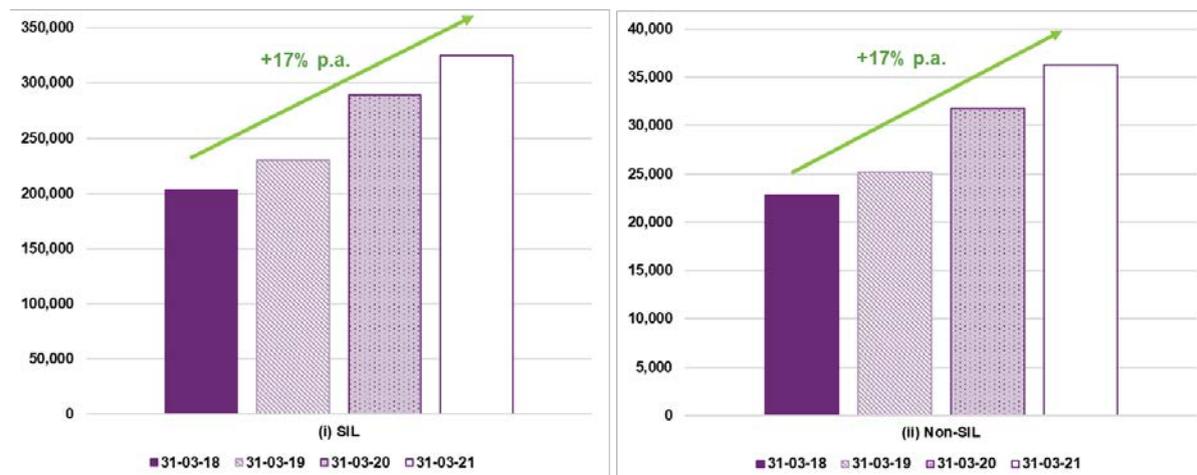
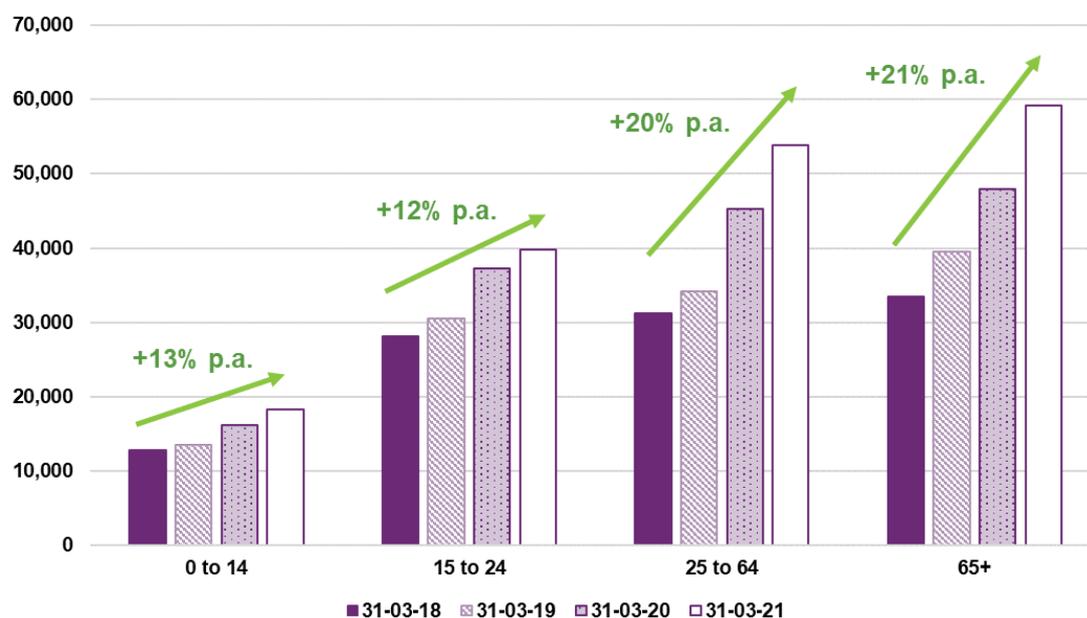


Figure 7 analyses the change in average payment over time by age band for participants not in SIL. The average increase for 0 to 14 year olds is 13%, the average increase for 15 to 24 year olds is 12%, the average increase for 25 to 64 year olds is 20%, and the average increase for participants aged over 65 is 21%. For participants not in SIL, average payments have increased at a faster rate for adults (those aged over 25) and reflects a material increase in the hours of attendant care support these participants are receiving over time.

<sup>7</sup> Average annualised payments have been calculated on a cash basis using the 12 months over each year ending 31 March.

**Figure 7 Average annualised payments over time for non-SIL participants by age band<sup>8</sup>**

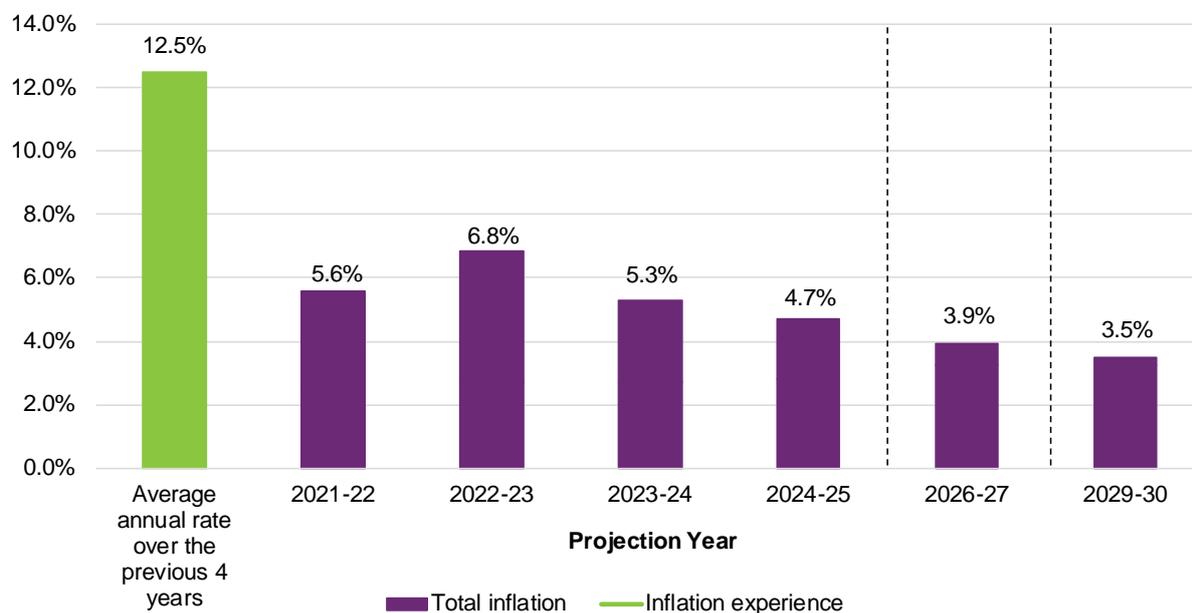


A forward looking approach to inflation has been adopted, that is, it is not assumed past trends will continue. Inflation is expected to be 6% in 2021-22 and 7% in 2022-23, decreasing to between 3% and 4% in later years.<sup>9</sup> Figure 8 below compares historical inflation experience with the adopted total inflation in the 31 December 2020 projection.

<sup>8</sup> Average annualised payments have been calculated on a cash basis using the 12 months over each year ending 31 March.

<sup>9</sup> See section 5.3 for more detail.

**Figure 8 Comparison of historical inflation experience and adopted total inflation<sup>10</sup>**



<sup>10</sup> The inflation assumptions are higher in 2022-23 than in 2021-22. These inflation assumptions are further stress-tested by analysing the change in the average payment per participant over time. The increase in the average payment per participant is similar from 2020-21 to 2021-22, and from 2021-22 to 2022-23.

## Total participant costs

Combining the information on the projected number of participants and projected average payment per participant, results in total participant costs of \$28.1 billion in 2021-22, \$40.7 billion in 2024-25, and \$60.3 billion in 2029-30 on an accrual basis.<sup>11</sup>

**Table 1a Projected participant costs by projection year on a cash basis**

Participant Costs (\$m)	2020-21	2021-22	2022-23	2023-24	2024-25	2026-27	2029-30
<b>0-64</b>	21,751	25,916	30,049	33,597	36,705	42,490	52,778
<b>65+</b>	1,207	1,783	2,387	3,025	3,680	5,003	7,140
<b>Total Cost</b>	<b>22,958</b>	<b>27,699</b>	<b>32,436</b>	<b>36,622</b>	<b>40,385</b>	<b>47,493</b>	<b>59,918</b>

**Table 1b Projected participant costs by projection year on an accrual basis**

Participant Costs (\$m)	2020-21	2021-22	2022-23	2023-24	2024-25	2026-27	2029-30
<b>0-64</b>	22,072	26,328	30,479	33,858	36,954	42,784	53,135
<b>65+</b>	1,225	1,811	2,421	3,049	3,705	5,038	7,189
<b>Total Cost</b>	<b>23,297</b>	<b>28,139</b>	<b>32,900</b>	<b>36,906</b>	<b>40,659</b>	<b>47,822</b>	<b>60,324</b>

As noted above, this projection is not an extrapolation of past trends. Instead, a forward-looking approach has been adopted for new entrants, non-mortality exit rates, and inflation in average payments. Extrapolation of past trends (which is included in the 31 March 2021 NDIA quarterly report to Disability Ministers) would result in a significantly higher forecast (participant costs would be \$44.1 billion in 2023-24 compared with \$36.9 billion, and \$53.7 billion in 2024-25 compared with \$40.7 billion). Hence, there is significant upside risk in the projection.

The projection is higher than the most recent 2021-22 Portfolio Budget Statements (Table 2), and higher than the 2017 Productivity Commission costing (Table 3).<sup>12</sup>

**Table 2 Total Participant costs by projection year (accrual basis) compared to PBS**

Comparison to Portfolio Budget Statements (PBS) (\$m)	2021-22	2022-23	2023-24	2024-25	Total
<b>2021-22 Portfolio Budget Statements (PBS)</b>	<b>26,487</b>	<b>28,257</b>	<b>29,425</b>	<b>31,884</b>	<b>116,054</b>
Participant costs from Dec20 AFSR (cash basis)	27,699	32,436	36,622	40,385	137,141
Expected changes in participant plan provision	440	464	284	274	1,462
<b>Participant costs from Dec20 AFSR (accrual basis)</b>	<b>28,139</b>	<b>32,900</b>	<b>36,906</b>	<b>40,659</b>	<b>138,603</b>
<b>Participant costs, compared to Portfolio Budget Statements</b>	<b>1,651</b>	<b>4,642</b>	<b>7,481</b>	<b>8,775</b>	<b>22,550</b>

<sup>11</sup> Cost is based on when the service was actually provided to the participant recognising some services are paid for after the end of the period. Estimates in the PBS are on an accrual basis.

<sup>12</sup> This projection is also higher than the 2021 Intergenerational Report projection which is based on the 2021-22 PBS in the short-term.

**Table 3 Estimates of Scheme costs in the 2017 PC study report<sup>13,14</sup>**

	2021-22	2022-23	2023-24	2024-25	2026-27	2029-30
2017 Productivity Commission report	\$25.2b	\$26.7b	\$28.4b	\$30.6b	\$34.5b	\$40.9b
<i>less operating costs</i>	-\$1.4b	-\$1.5b	-\$1.5b	-\$2.1b	-\$2.3b	-\$2.8b
<b>2017 Productivity Commission participant costs</b>	<b>\$23.7b</b>	<b>\$25.2b</b>	<b>\$26.8b</b>	<b>\$28.5b</b>	<b>\$32.2b</b>	<b>\$38.1b</b>
<b>Baseline projected participant costs (accrual basis)</b>	<b>\$28.1b</b>	<b>\$32.9b</b>	<b>\$36.9b</b>	<b>\$40.7b</b>	<b>\$47.8b</b>	<b>\$60.3b</b>
<b>Difference</b>	<b>\$4.4b</b>	<b>\$7.7b</b>	<b>\$10.1b</b>	<b>\$12.2b</b>	<b>\$15.7b</b>	<b>\$22.2b</b>

Scheme experience in the five months post 31 December 2020 (until 31 May 2021) has been higher than forecast due to higher average participant payments. Based on this experience, the actual result could be a further 4% higher than what is shown as the *Dec 2020 AFSR* forecast in the tables above.<sup>15</sup> A deeper analysis will be undertaken using 30 June 2021 data and the projection included in the NDIA annual report released in October 2021.

### **Scheme reform**

The introduction to NDIA's Quarterly Report to Disability Ministers at 31 March 2021 provided detail on a comprehensive set of initiatives being progressed to improve the Scheme's fairness, consistency, flexibility and affordability. These initiatives are in-line with the participant-focussed vision embodied in the 2011 Productivity Commission Report on Disability Care and Support. The projections in this report do not fully take into account these initiatives. The NDIA considers these reforms to be necessary to improve the financial sustainability of the NDIS now and into the future.

<sup>13</sup> The Productivity Commission costings did not include an explicit allowance for children with developmental delay, for the student transport and personal care in schools in-kind support programs and for disability related health supports, noting that these four items could account for an additional \$1.5 billion per annum.

<sup>14</sup> Productivity Commission 2017, *National Disability Insurance Scheme (NDIS) Costs*, Study Report, Canberra (Table 2.3), excluding operating costs and interim years are calculated on a consistent basis.

<sup>15</sup> See section 4.4 and 5.6 for more detail.

# 1. Introduction

An annual financial sustainability report (AFSR) is required under section 180B of the NDIS Act and provides an assessment of the financial sustainability of the National Disability Insurance Scheme (“the Scheme”, or NDIS). This interim report includes analyses and discussion on recent Scheme experience, best estimate projections of future participant numbers and costs (based on emerging experience and future expectations), and strategies to address risks to sustainability.

The best estimate projection in this interim report has been reviewed by the Peer Review Actuary (see section 6).

An update to this interim report (including review by the Peer Review Actuary) will be included in the 2020-21 NDIA Annual Report, released in October 2021.

## **Background**

The purpose of the NDIS is to provide reasonable and necessary funding to people with a permanent and significant disability so that they have choice and control over the supports and services they need to pursue life opportunities. A key cornerstone underlying the operation of the Scheme is strong insurance principles, where evidence-based decisions on access and planning are made by drawing on objective information on individuals and the longitudinal data that is collected on participants in the Scheme. Experience is closely and regularly monitored to allow emerging risks and issues to be identified and where required, remediation strategies to be implemented.

Importantly, the Scheme has a lifespan, person-centric approach to its model of support for people with disability, where early investment in core, capacity building and capital supports are anticipated to drive better outcomes for participants and their family/carers over their lifetime.

The *NDIS Insurance Principles and Financial Sustainability Manual*<sup>16</sup> outlines the insurance model in detail and defines financial sustainability as the state where:

- *the scheme is successful on the balance of objective measures and projections of economic and social participation and independence, and on participants’ views that they are getting enough money to buy enough goods and services to allow them reasonable access to life opportunities - that is, reasonable and necessary support;*
- *contributors think that the cost is and will continue to be affordable, under control, represents value for money and, therefore, remain willing to contribute.*

The current government expectation of Scheme cost is included in the annual Portfolio Budget Statements (PBS), noting it is not only the financial cost of the Scheme that is

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<sup>16</sup> <https://www.ndis.gov.au/media/833/download>

important within the context of financial sustainability, but also the outcomes achieved by the Scheme.

Outcomes for participants and their families/carers are reported regularly in the NDIA's quarterly reports to Disability Ministers, and more detailed analysis and data is available on the NDIA Data and Insights website.<sup>17</sup>

### ***Current financial sustainability position***

The NDIS has been in operation since 1 July 2013. The first three years of the Scheme were a trial period, and this was followed by the transition period which commenced on 1 July 2016, with the Scheme progressively rolled out across the country within four years. Since inception, the National Disability Insurance Agency ("the Agency", or NDIA) has had an increasing focus on improving participant experience. For example, there was significant work undertaken on the participant pathway to improve the participant experience, a need to improve the speed of internal decision-making<sup>18</sup>, and a need to improve access to reasonable and necessary disability supports by growing provider markets to meet the increased demand. Several financial sustainability issues have also been building over the years, and the impacts of which are becoming increasingly significant.

Specifically, these financial sustainability issues are evident when compared to the PBS. Between 2016-17 and 2018-19, total Scheme costs trended well below the estimates in the PBS. This was primarily due to participants entering the Scheme more slowly than initially anticipated in the bilateral agreements between the Commonwealth and State/Territory governments. However, in 2019-20, Scheme costs exceeded the 2019-20 PBS for the first time (costs were \$17.6 billion compared with \$16.3 billion). Costs in 2020-21 will also exceed the 2020-21 PBS (estimated to be \$23.3 billion compared with \$21.7 billion).

The 2021-22 PBS included an increase in future expenditure for 2021-22 onwards compared with the 2020-21 PBS (of \$12.0 billion). A comparison of actual participant costs and portfolio budget statements can be found in Table 4, with a negative amount reflecting underspend on participant costs and a positive amount reflecting an overspend.

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<sup>17</sup> <https://data.ndis.gov.au/reports-and-analyses/outcomes-and-goals>

<sup>18</sup> In particular, over the past year, the Agency has made a concerted focus on clearing internal backlogs in several areas such as access decisions, first plans, assistive technology, internal reviews, and manual payments.

**Table 4 Comparison of actual participant costs and PBS estimates**

Total participant costs (\$m)	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Portfolio Budget Statements 2021-22						26,487	28,257	29,425	31,884
Portfolio Budget Statements 2020-21					21,720	23,807	24,022	24,315	
Portfolio Budget Statements 2019-20				16,262	20,903	22,116	23,361		
Portfolio Budget Statements 2018-19			15,139	19,537	21,064	22,300			
Portfolio Budget Statements 2017-18		8,045	14,267	17,856	19,165				
Portfolio Budget Statements 2016-17	3,487	8,813	15,905	20,077					
Actual participant costs (accrual)	2,238	5,418	10,460	17,589	23,297 <sup>1</sup>				
Actual participant costs compared with latest PBS	-1,249	-2,627	-4,679	1,327	1,577				

<sup>1</sup> Estimated actual participant costs as per the Portfolio Budget Statements 2021-22

The estimates in the 2021-22 Portfolio Budget Statements now also exceed the estimates in the 2017 Productivity Commission study report by \$12.1b over the four years to 2024-25. A comparison of the 2021-22 PBS estimates with the 2017 PC estimates is included in Table 5.

**Table 5 Comparison of 2017 Productivity Commission estimates<sup>19</sup> and PBS estimates**

Total participant costs (\$m)	2021-22	2022-23	2023-24	2024-25	Total
2017 Productivity Commission Estimates	23,664	25,158	26,740	28,351	103,914
Portfolio Budget Statements 2021-22	26,487	28,257	29,425	31,884	116,053
Difference	2,823	3,099	2,685	3,533	12,139

### **COVID-19 pandemic**

The 2020 calendar year was also marked by the COVID-19 pandemic. For the NDIA, the identification and prioritisation of critical supports was key in the continued delivery of services to participants during this time. A temporary 10 per cent COVID loading was applied to certain critical core and capacity building supports until 30 June 2020<sup>20</sup>, changes were made to cancellation policies, and advance payments of approximately \$650 million were made to providers. The COVID-19 pandemic, and associated NDIA working from home arrangements, has not affected the ability of Agency staff to process access requests and first plans, or undertake plan reviews.

<sup>19</sup> The 2017 Productivity Commission estimates were sourced from the 2017 Productivity Commission Study Report into NDIS costs (Table 2.3. pp 100) excluding operating costs, with interim years calculated on a consistent basis.

<sup>20</sup> By the end of June 2020, about \$70 million was paid in respect of the COVID loading.

While the pandemic saw a shift between support types within the Scheme, the underlying payments for support remained at pre-pandemic levels, indicating that participants continued to receive supports. There were reductions in payments for community and social participation supports and employment supports compared with pre-pandemic payments experience, due to the lockdown and physical distancing measures which restricted face-to-face services. This was offset by increases in support for activities of daily living to support participants at home, as well as an increase in payments for consumables, such as low-cost assistive technology and personal protective equipment.

### ***Sections of the report***

The remainder of this report includes the following sections:

- Section 2 – data and information used in the analysis
- Section 3 – an outline of the methodology
- Section 4 – current experience – participants and average payments
- Section 5 – projected scheme costs, including discussion on scheme reform
- Section 6 – peer review actuarial report

### ***Reliances and limitations***

This work was conducted for the sole use and benefit of the NDIA to assist with monitoring, reporting, and management of the financial sustainability of the Scheme.

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This report is a more detailed summary than the one produced in the NDIA annual report and uses data to 31 December 2020 to project the future cost of the Scheme. Analysis post 31 December 2020 (until 31 May 2021) is also included in parts of the report, and the impacts on the projection of Scheme costs due to this recent Scheme experience is also discussed. A deeper analysis of this more recent experience will be included in the NDIA annual report released in October 2021.

Given the long-tail nature of the Scheme, experience continues to be relatively immature and many aspects remain difficult to interpret. Specifically, it is difficult to interpret future

expenditure based on past experience, meaning there is significant uncertainty in the projection. In addition, in the data available and emerging experience to date, there have been some issues with the current resource allocation process, and in particular the lack of a mechanism for robust assessment of support need. As the Scheme continues to mature, and staff, operational and governance capabilities improve, there is an expectation that the Scheme experience will change, perhaps materially, and this would affect the eventual trajectory of participant costs.

Future events, which cannot currently be predicted, may also occur and would have an unexpected impact on Scheme experience and thus the projections in this report. For example, the COVID-19 pandemic over the 2020 and 2021 calendar years was an unforeseen event that posed some initial uncertainty to participant experience, outcomes and cost trajectory of the Scheme over the short and medium term. Although the vaccine roll-out is currently underway, there still remains the risk of a 'third wave' of infections.

Lastly, more data on scheme experience is available in NDIA quarterly reports and on the NDIA Data and Insights website.<sup>21</sup>

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<sup>21</sup> <https://data.ndis.gov.au/>

## 2. Information and data integrity

An integral part of an insurance model is the collection of accurate data in a timely manner. This is because quality data drives the ability of the Agency to monitor emerging experience, perform meaningful analyses and make consistent evidence-based decisions. The success of the Scheme is thus dependent on the body of information that can be relied upon.

The data collected by the Agency is varied and broad-reaching, and covers information across each step of the participant pathway, from Scheme access and eligibility to participant plan approval, plan implementation and plan review. Payments for disability supports and the outcomes for participants and their family/carers are also collected regularly to track how participants and the Scheme is progressing over time. In that sense, the Agency is building one of the most comprehensive, longitudinal data sources on disability in the world.

### *Information and data used for analysis*

The detailed actuarial analysis underlying this report uses information from the Agency's case management system, finance system and data warehouse, as well as external sources (such as various industry benchmarks and population surveys). While there is a substantial amount of data in the current Client Relationship Management (CRM) system, this section focuses on the data utilised for the analysis presented in this report.

The analysis in this report predominantly uses data at 31 December 2020. However, discussion on the experience post 31 December 2020 until 31 May 2021, and the possible impact on projections is also included in this report.

The sources of data are summarised in Table 6.

**Table 6 Summary of data utilised for actuarial analysis**

Data	Description
<b>Access requests to the NDIS</b>	<ul style="list-style-type: none"> <li>• Demographic information (age, gender, disability, geographic location, living arrangements and other participant profile information)</li> <li>• Contact details</li> <li>• Access request date</li> <li>• Outcome of request (for example: eligible, ineligible)</li> </ul>
<b>Payments to service providers</b>	<ul style="list-style-type: none"> <li>• Service provider submitting the claim for payment</li> <li>• Participant for whom the support was provided</li> <li>• The support item and cost of support provided</li> <li>• Dates of when the support was provided</li> </ul>

Data	Description
<b>Payments to participants</b>	<ul style="list-style-type: none"> <li>Participant submitting the claim for payment</li> <li>The support category provided</li> <li>Total cost spend on support category</li> <li>Period of reimbursement</li> </ul>
<b>NDIS participant plans</b>	<ul style="list-style-type: none"> <li>Plan approval date</li> <li>Length of plan</li> <li>Participant goals</li> <li>All plan budgets included in the plan</li> <li>Mainstream and informal supports</li> <li>Level of function<sup>22</sup></li> <li>Reference package and typical support package</li> </ul>
<b>In-kind supports data</b>	<ul style="list-style-type: none"> <li>Unit record in-kind support details from State/Territory programs including details on support type, level and duration of coverage.</li> </ul>
<b>Data provided by the State/Territory and Commonwealth governments</b>	<ul style="list-style-type: none"> <li>List of clients receiving support from service providers in the previous disability system, including age and contact details. This data is loaded into the Client Relationship Management (CRM) for the National Access Team to contact potential participants.</li> <li>Projected Scheme costs and numbers from the State, Territory and Commonwealth bilateral agreements.</li> </ul>
<b>Australian Bureau of Statistics (ABS) population projections</b>	<ul style="list-style-type: none"> <li>3222.0 Population Projections, Australia, 2017 (base) to 2101 (Series B). This was published in November 2018.</li> </ul>
<b>Financial information</b>	<ul style="list-style-type: none"> <li>Data from the SAP<sup>23</sup> CRM system were reconciled with financial information in SAP.</li> </ul>
<b>ABS Survey of Disability, Ageing and Carers</b>	<ul style="list-style-type: none"> <li>Prevalence of disability in Australia, including demographic and socio-economic profile of people with disabilities.</li> </ul>
<b>Economic information</b>	<ul style="list-style-type: none"> <li>Government economic forecasts for GDP, inflation indicators, Australian Life Tables and population forecasts.</li> </ul>

<sup>22</sup> As at 30 June 2020, it is estimated that 1.5% of participants who have ever had an approved plan have a missing or default level of function.

<sup>23</sup> SAP is a software company that makes enterprise software. Also known as Systems, Applications and Products in Data Processing.

### 3. Modelling approach

An experience-based projection model has been used to project Scheme participant numbers and costs. The modelling approach splits participants into Projection Groups based on characteristics which reflect expected differences in average cost, new entrant rates and/or exit rates between different groups of participants. The characteristics allowed for are age, primary disability type, level of function, gender, whether a participant is in SIL arrangements, and the duration that a participant has been in the Scheme. Separate cost, new entrant and exit assumptions have been developed for each of these characteristics. These assumptions are described in more detail in the appendices to this report.

The assumptions in the projection model are at a national level. This best reflects the nationally consistent approach of the Scheme and enables the experience-based projection model to utilise the greatest volume of available data to inform assumptions.

Figure 9 summarises the modelling approach in graphical format, with the main components of the modelling approach noted below.

#### *Participant numbers*

- Aggregate participant numbers for ages 0 to 64 are estimated using actuarial techniques<sup>24</sup> up until the assumed Steady Intake Date<sup>25</sup> of 30 June 2024.
- The number and profile of participants expected to enter the Scheme in each projection year is based on the historical profile of participants, by:
  - i. New incidence of disability; and
  - ii. Previously unmet need for disability supports.<sup>26</sup>
- Annual population projections are calculated by exact age and Projection Group by adding participant intake to the starting population, subtracting mortality and non-mortality exits, and ageing the remaining participants by one year of age.
- Each Projection Group is differentiated by age band (summarised into nine groups), primary disability and level of function (57 groups), gender (two groups) and whether a participant is in SIL (two groups). This leads to 2,052 unique Projection Groups.
- The profile of participants at 30 June in each year has also been determined by Projection Group.
- There is also a transition model to explicitly allow for participants who enter the Scheme with developmental delay, but are later determined to have autism or an intellectual disability. Some participants with a developmental delay will transition to

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<sup>24</sup> A chain ladder analysis, prevalence methodology and decay methodology have been used.

<sup>25</sup> The point in time where participant intake primarily represents participants with new incidence of disability.

<sup>26</sup> These are participants who have an existing disability and are new to disability supports.

another disability once a diagnosis has been made. This transfer typically happens between the ages of 5 to 8, although this can also occur outside of these ages.

- The number of participants in SIL arrangements is modelled based on an assumed proportion of each Projection Group. There are different proportions adopted for the medium-term (i.e. a time horizon of three years to the Steady Intake Date) and long-term (i.e. a 10-year time horizon). SIL participants are modelled specifically as while they only comprise 5.7% of all participants, they contribute significantly to Scheme costs (34% over the 2020-21 financial year to date).

### **Participant costs**

- Participant costs<sup>27</sup> are estimated by Projection Group using annualised payment levels for the three months to 31 December 2020 for “mature participants”, i.e. participants who were active at both 30 September 2020 and 31 December 2020, and had their first plan approved on or prior to 30 September 2019.<sup>28</sup>
- Costs are projected on a cash flow basis, representing the estimated rate of outflows from the Scheme (noting in-kind supports are expected to be used evenly throughout a participant’s plan). Projected payments are split between 15 different support categories.<sup>29</sup>
- Inflation of costs is added in future years from both normal inflationary sources and sources of superimposed inflation.
- An allowance for the expected change in participant plan provision is then made to convert projected costs from a cash basis to an accrual basis.
- Comparisons are made to relevant benchmarks (such as the PBS).

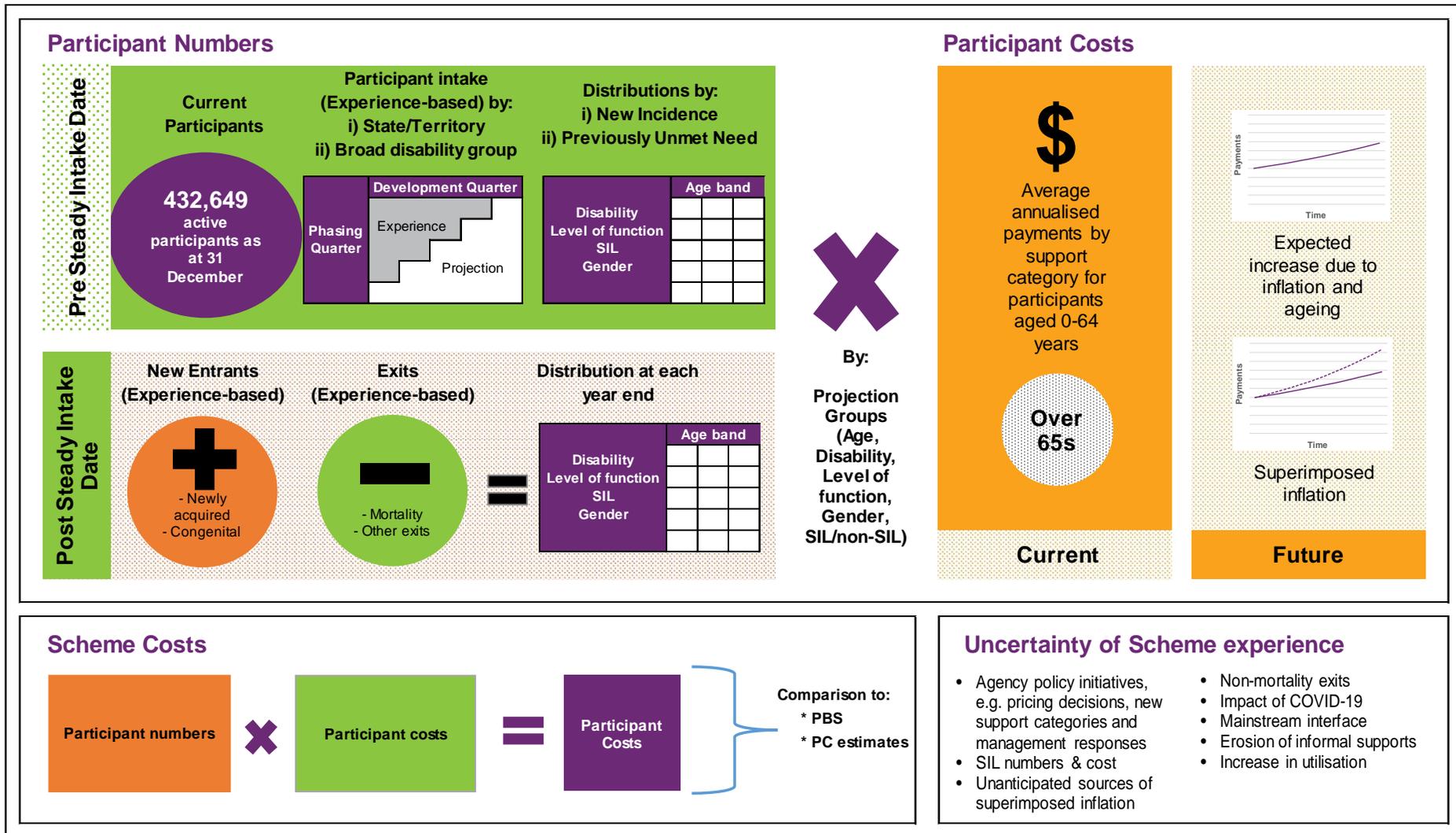
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<sup>27</sup> Note that payments from Victorian participants have been excluded from the base assumptions. This excludes any pandemic impact from the ‘second wave’ in the second half of 2020.

<sup>28</sup> Plan budgets represent the dollar amount of support that has been made available to participants in their plan. The proportion of plan budgets which are used is referred to as the ‘utilisation rate’, and the dollar amount of the plan budget used is referred to as ‘payments’. Payments are modelled as this is the actual cost to the Scheme. Increases in utilisation put upward pressure on payments, and assumptions on increasing utilisation are included in the assumptions on super-imposed inflation (which is discussed in section 5.3).

<sup>29</sup> The 15 support categories include four core support categories (Transport, Consumables, Daily Activities and Social Community Civic), two capital support categories (Assistive Technology and Home Modifications) and nine capital building (CB) support categories (Support Coordination, CB Relationships, CB Lifelong Learning, CB Home Living, CB Health and Wellbeing, CB Employment, CB Daily Activities, CB Choice and Control and CB Social Community Civic).

Figure 9 Schematic of modelling approach



## 4. Scheme experience

This section includes trends in Scheme experience until 31 December 2020. Where relevant, this section also compares the most recent six months of Scheme experience (1 July 2020 to 31 December 2020) with the 2020-21 PBS estimates, noting the 2020-21 PBS estimates are referred to as the “expected experience” in these comparisons.

It is important to note that estimates in the 2020-21 Portfolio Budget Statements were based on the projection of Scheme cost as at 31 December 2019, and that significant changes were made to the projections of scheme costs prior to 31 December 2019. As an example, between the 30 June 2018 projection and the 31 December 2019 projection, the estimated number of children aged 0-14 years in the Scheme for the current financial year (2020-21) increased by 30,000 (or 19%) in the projection, with this gap increasing to 56,000 (or 26%) by 2030.<sup>30</sup>

Hence, the comparisons below between actual and expected experience for the period between 1 July 2020 and 31 December 2020, using projections at 31 December 2019 need to be considered with the above in mind.

The 2020-21 PBS estimated that the cost of the NDIS in 2020-21 would be \$21,720 million. At 31 December 2020, scheme costs on an accrual basis (after allowing for seasonality within the Scheme) were tracking above this estimate by 4.2% (\$10,849 million over 6 months compared with \$10,408 million).<sup>31</sup> This is driven by both higher than expected number of participants and higher than expected average payments per participant.

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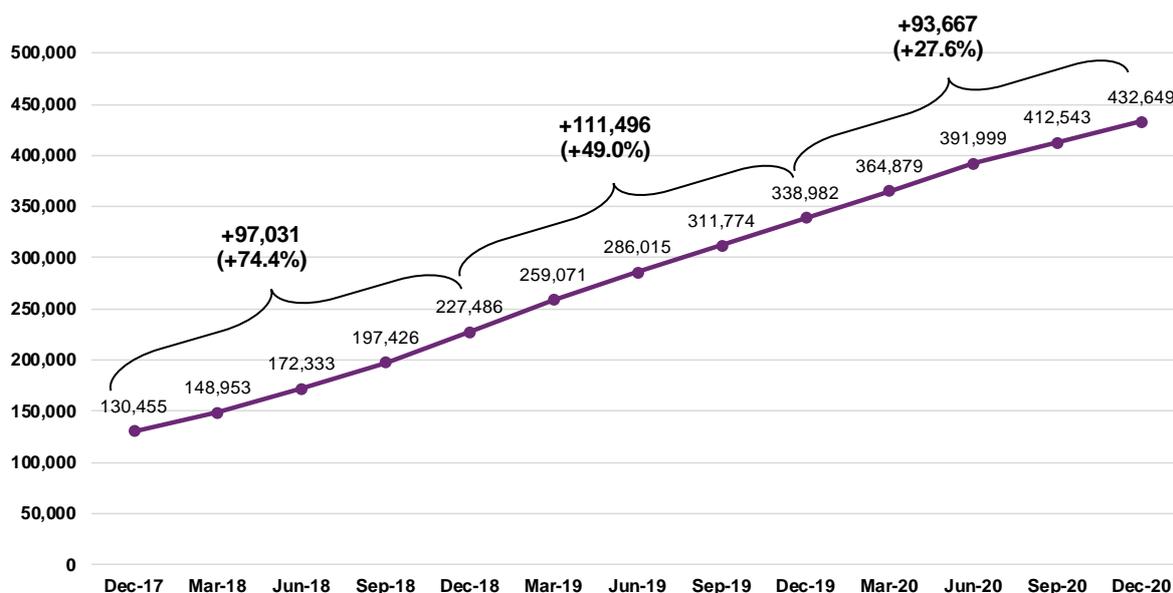
<sup>30</sup> Overall participant projections to 2030 increased by around 5%-10% between the 30 June 2018 and the 31 December 2019 projection, largely driven by higher than expected numbers of children with developmental delay and adults with autism that entered the Scheme during this period.

<sup>31</sup> At 31 May 2021, the scheme costs on an accrual basis are 6.4% higher than expected (\$20,942m compared with \$19,689m). This is discussed in more detail in section 4.4.

## 4.1 Participant numbers

There were 432,649 active participants in the Scheme as at 31 December 2020. This is an increase of 28% in the Scheme population since 31 December 2019 (from 338,982 active participants), and reflects the net effect of intake and exit of participants from the Scheme over the past 12 months. This can be seen in Figure 10 below.

**Figure 10 Active participants in the Scheme by quarter over the past 3 years**



*In the six months to 31 December 2020, the characteristics of active participants is similar to expectations, but the overall number of participants is higher than expected<sup>32</sup>*

There were 432,649 active Scheme participants as at 31 December 2020, which is 4.1% higher than the expected numbers of participants in the 2020-21 PBS estimates.<sup>33</sup> Further to this, the 2020-21 PBS estimates assumed 24,839 participants to have entered the Scheme since in the six months to 31 December 2020 (that is, since 1 July 2020). However, 40,650 have entered since 1 July 2020, which is significantly higher (64% higher than expected).

Comparing actual experience to expectations is useful to highlight emerging trends, assist in the development of projections and understand the impact on financial sustainability. This comparison is shown in Figure 11, Figure 12, Figure 13 and Figure 14 by key participant characteristics (SIL status, age band, disability type and level of function).

<sup>32</sup> As mentioned above, the expected number of participants in this comparison is based on the estimates in the 2020-21 PBS.

<sup>33</sup> As at 31 May 2021, the number of active participants is 4.8% higher than the expected number of participants in the 2020-21 PBS estimates.

The figures show that compared to expected:

- Slightly more participants in SIL have entered the Scheme (or transferred into SIL) than expected (graph i).<sup>34</sup>
- There has been a higher level of participant intake across all age groups except children aged 0 to 6. This is influenced by the revision of expectations to allow for the consistently elevated intake of children aged 0 to 6 in previous years (graph ii). Intake of children aged 0 to 6 continues to remain significantly higher than the original Productivity Commission (PC) assumptions.
- A greater number of participants with autism, developmental delay and psychosocial disability have entered the Scheme than expected, and a lower number with hearing and visual impairments (graph iii). Since the introduction of the disability-specific participant pathway for people with psychosocial disability, the proportion of participants with psychosocial disability has been increasing. However, it should be noted that the number of participants with a psychosocial disability is still lower than the estimate in the 2011 Productivity Commission report.
- There are more high and low functioning participants than expected<sup>35</sup> (graph iv). More detail on how the distribution of level of function is discussed below.

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<sup>34</sup> Note: an issue with reporting SIL participants in the Agency's data warehouse emerged in July 2020, and the number of SIL participants in the data (24,807) is likely understated. Operational changes in the way SIL is entered into the plan in the CRM (support category level, rather than at the support line item level) from 1 July 2020 has limited the ability to accurately identify SIL participants as the support category is not detailed enough to distinguish between SIL supports and other activities of daily living. This has resulted in a material reduction in the number of SIL participants since 30 June 2020. As at 31 December 2020, 1,143 participants have been identified as likely SIL participants. The Agency has and is continuing to implement processes to reduce the impact arising from this operational change, with less participants now identified as likely SIL participants.

<sup>35</sup> The Agency uses functional assessment scores to understand how a person's disability impacts their functioning in daily life. High, medium and low function is relative within the Scheme population and not comparable to the general population.

Figure 11 Profile of Scheme participants as at 31 December 2020 – actual versus expected by SIL group

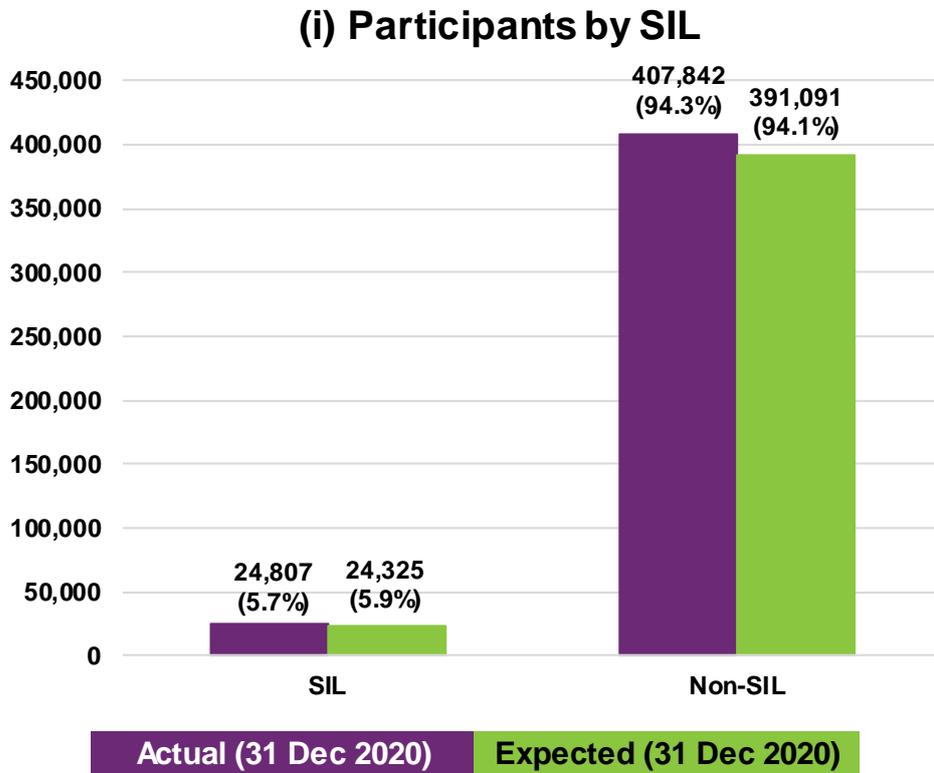


Figure 12 Profile of Scheme participants as at 31 December 2020 – actual versus expected by age band

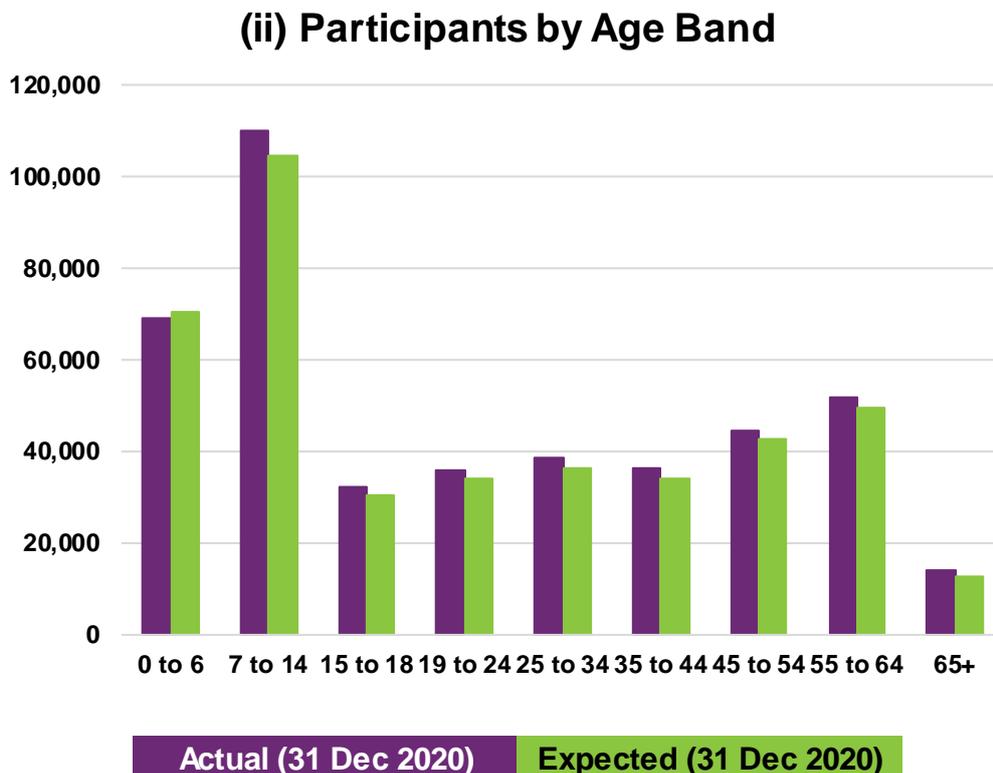


Figure 13 Profile of Scheme participants as at 31 December 2020 – actual versus expected by disability group

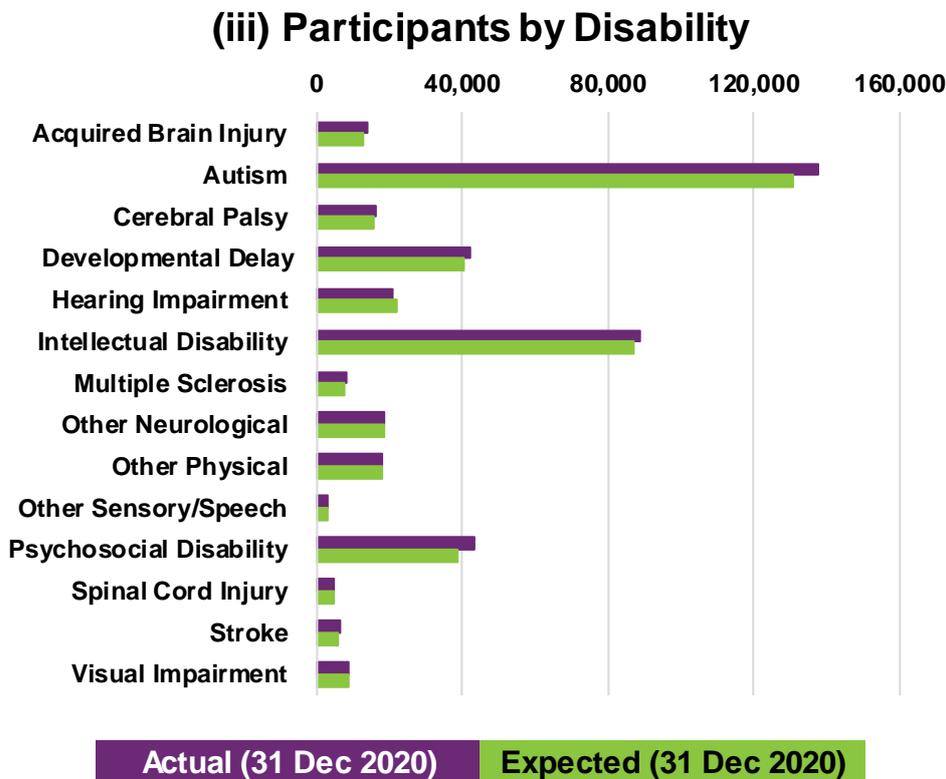
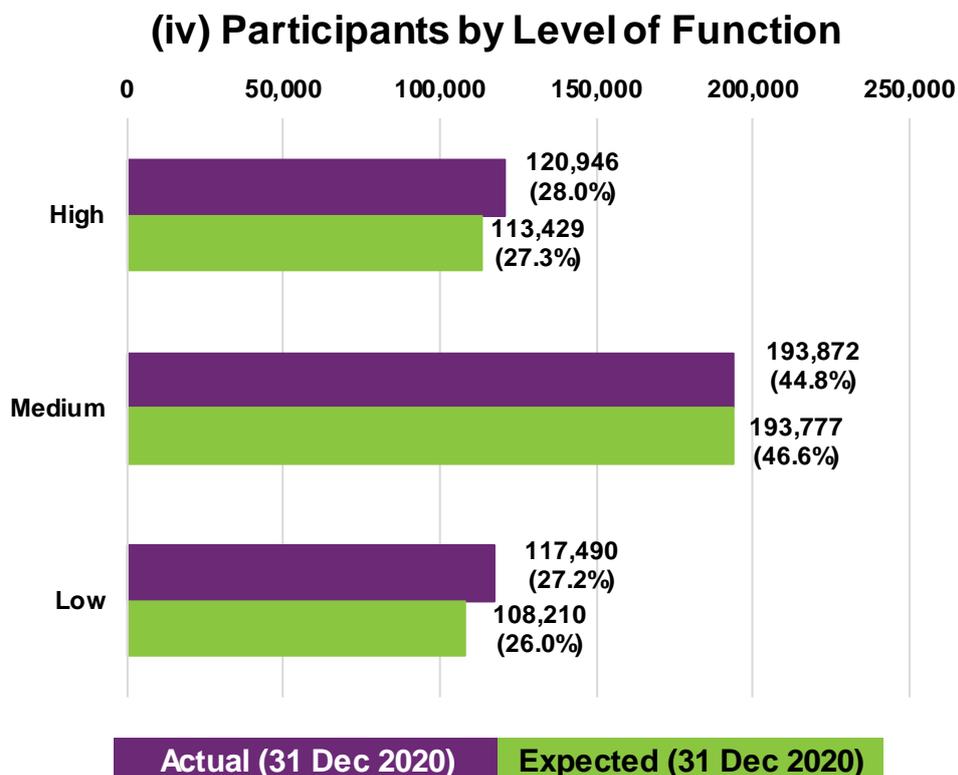


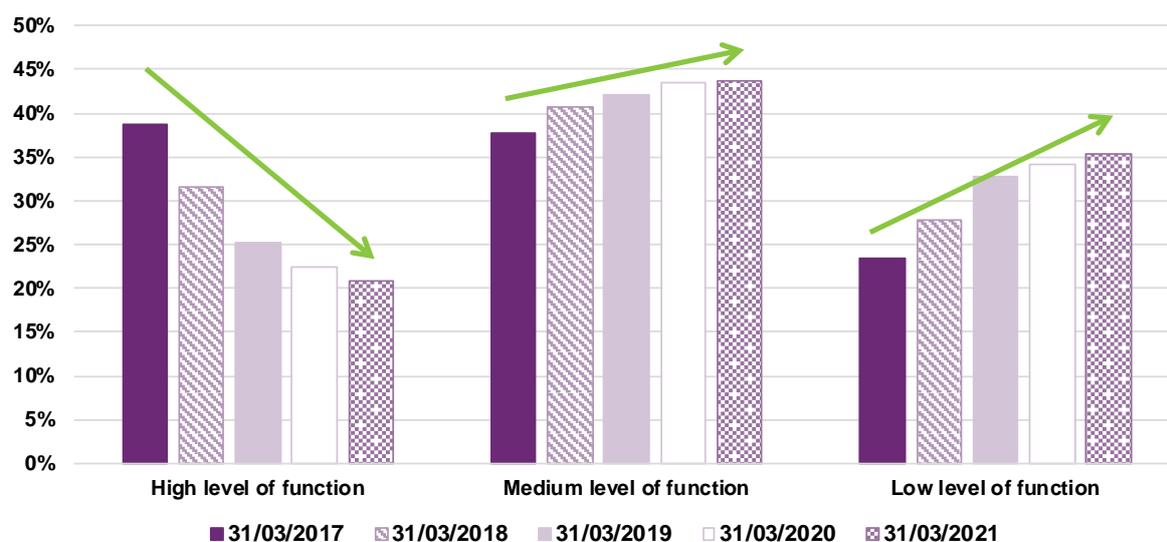
Figure 14 Profile of Scheme participants as at 31 December 2020 – actual versus expected by level of function



## Level of function

The distribution of level of function has shifted substantially over a relatively short period of time for cohorts of participants. This can be seen in Figure 15 below which indicates for participants who had entered the Scheme prior to 31 March 2017, over time the proportion with a high level of function has decreased, and the proportion of participants with medium and low function has increased. This trend most likely reflects inconsistent information, and is a driver of increasing costs (as lower function drives higher support packages). This trend is also consistent for participants who entered in later years (post 2017).

**Figure 15 Change in functional distribution from 31 March 2017 to 31 March 2021<sup>36</sup>**



## Supported independent living

Overall, approximately 5.7% of Scheme participants currently have SIL arrangements. The increasing number of participants in SIL is mainly due to existing participants moving into SIL and, to a lesser extent, new entrants with SIL arrangements in place transferring from existing programs into the Scheme.

However, the proportion of Scheme participants with SIL arrangements continues to decrease over time as participants from existing programs, who are more likely to require SIL supports, have mostly finished transitioning into the Scheme. This can be seen below in Figure 16. This gradual change in mix impacts the weighted average cost per participant at the total level.

<sup>36</sup> This chart only considers participants that were active at 31 March 2017 only. For further information, please refer to NDIA's Quarterly Report to Disability Ministers at 31 March 2021.

**Figure 16 Active participants in the Scheme by quarter over the past 3 years, split by SIL group**

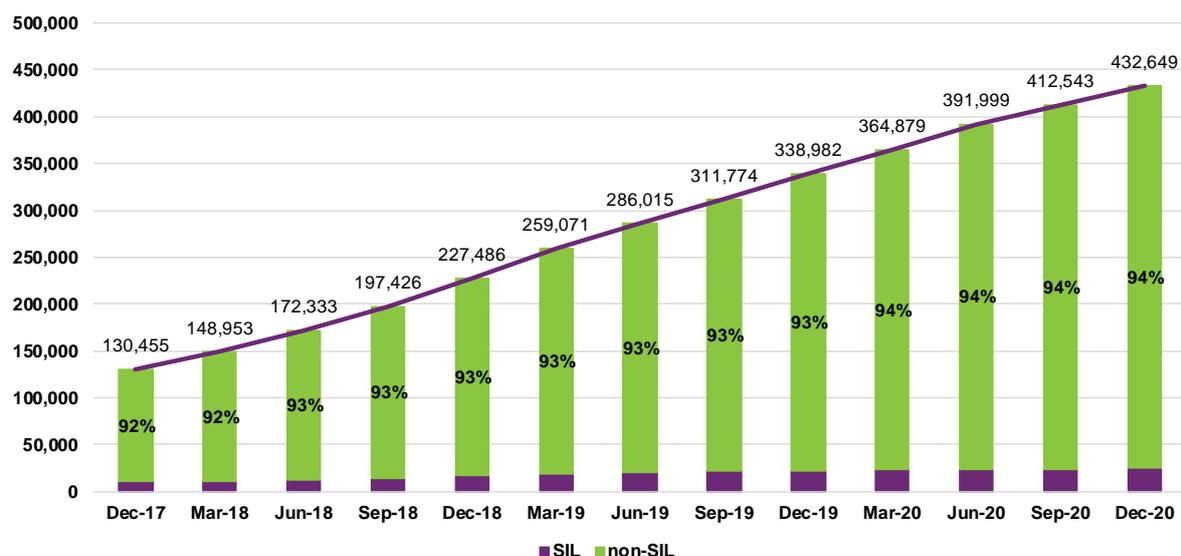


Figure 17, Figure 18, Figure 19 and Figure 20 below compares the actual number and proportion of participants with SIL arrangements as at 31 December 2020 against expectations from the 2020-21 PBS estimates by various participant characteristics.

Insights on participants in SIL arrangements based on this experience are as follows:

- The number of participants in SIL arrangements is slightly higher than expected in number but lower in proportion, with 5.7% of participants currently in SIL arrangements compared to the 5.9% expected. This might be partially due to the aforementioned data issue, however this experience is likely to have been influenced by fewer SIL participants transitioning into the Scheme or transferring into SIL over 2020-21.
- The number of participants in SIL arrangements has been greater than expected across the majority of disability types, with the exception of participants with intellectual disability. The number of SIL participants with an intellectual disability continues to account for the majority of the participants in SIL arrangements.<sup>37</sup>
- There are more SIL participants with a low level of function than expected, both as an absolute number of participants and as a proportion of SIL participants.
- There continues to be a material number of participants in SIL arrangements who have a high to medium level of function (about 30% of SIL participants are medium to high functioning). This may be a legacy issue from the previous disability system and may mean 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, or to move to contemporary Individual Living Options (ILOs) alternatives, if provided with the right supports.

<sup>37</sup> About 55% of all SIL Scheme participants have an intellectual disability and 15% of participants with an intellectual disability are in SIL arrangements as at 31 December 2020.

- The majority of SIL participants are aged 25 and above, similar to expectations, with about 11% of all participants over the age of 25 in SIL arrangements.

**Figure 17 Profile of participants in SIL as at 31 December 2020 – actual versus expected by SIL group**

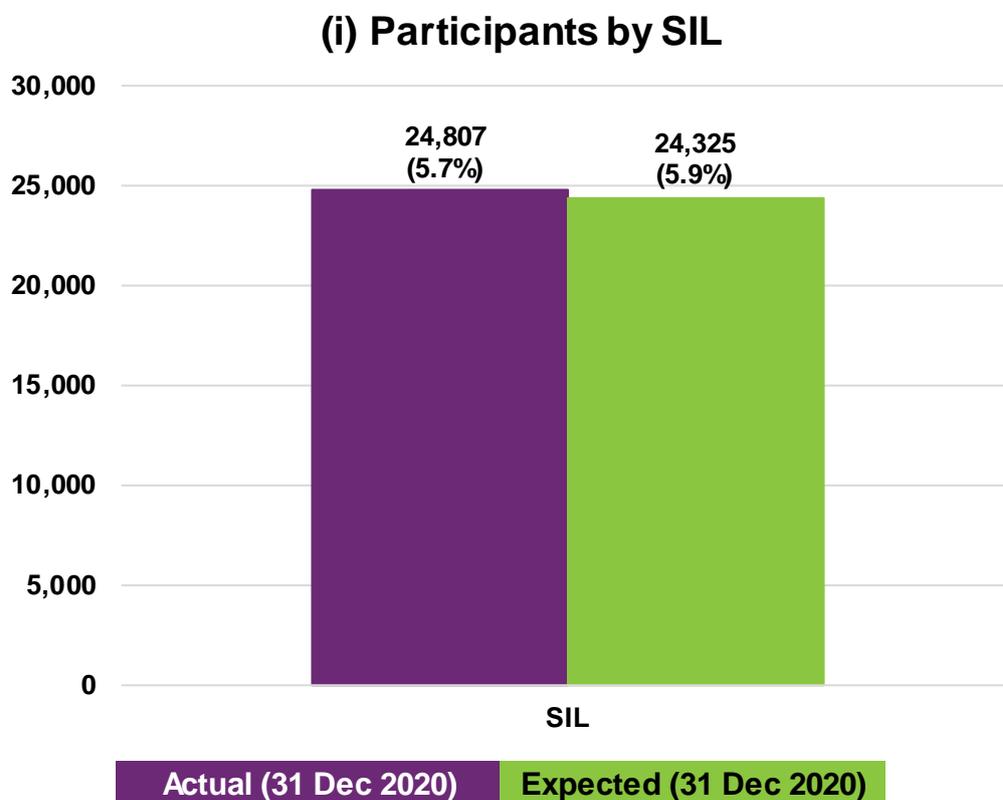


Figure 18 Profile of participants in SIL as at 31 December 2020 – actual versus expected by age band

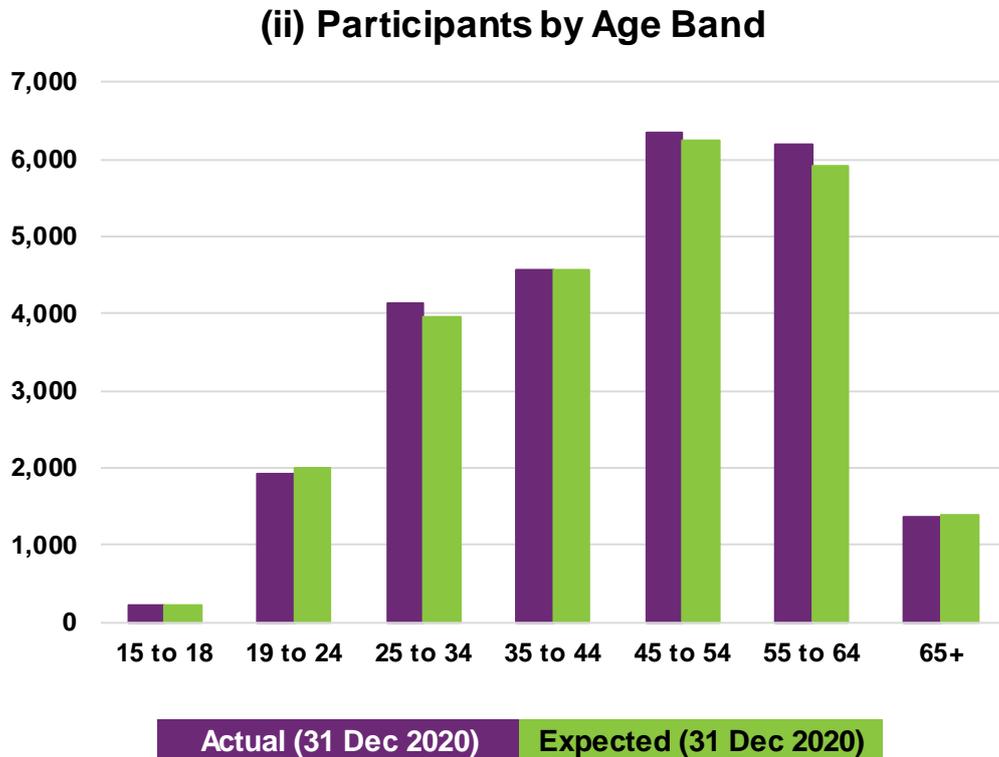
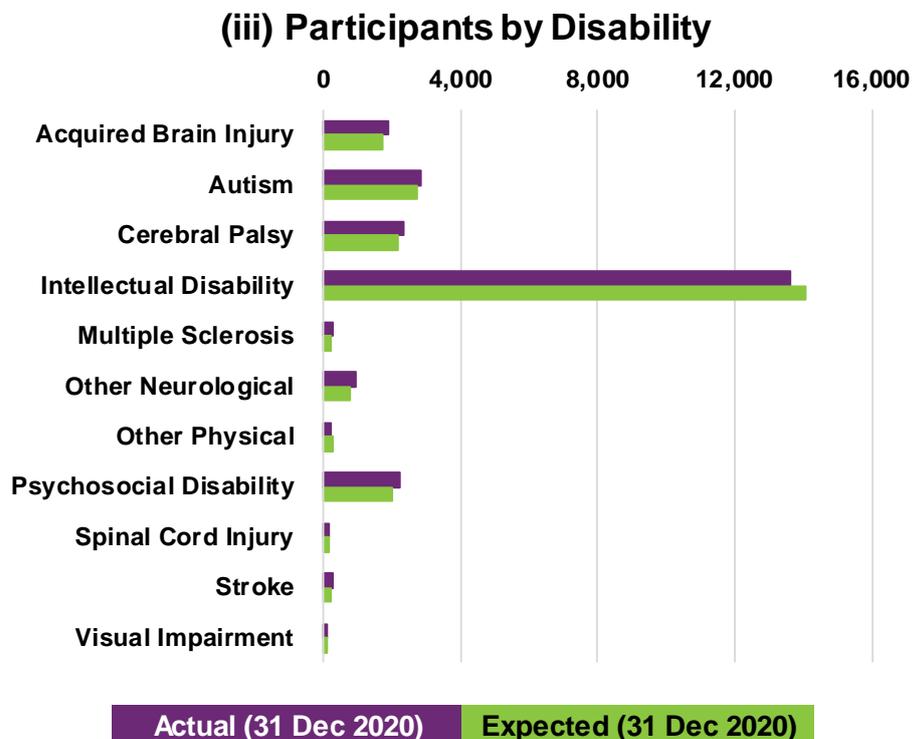
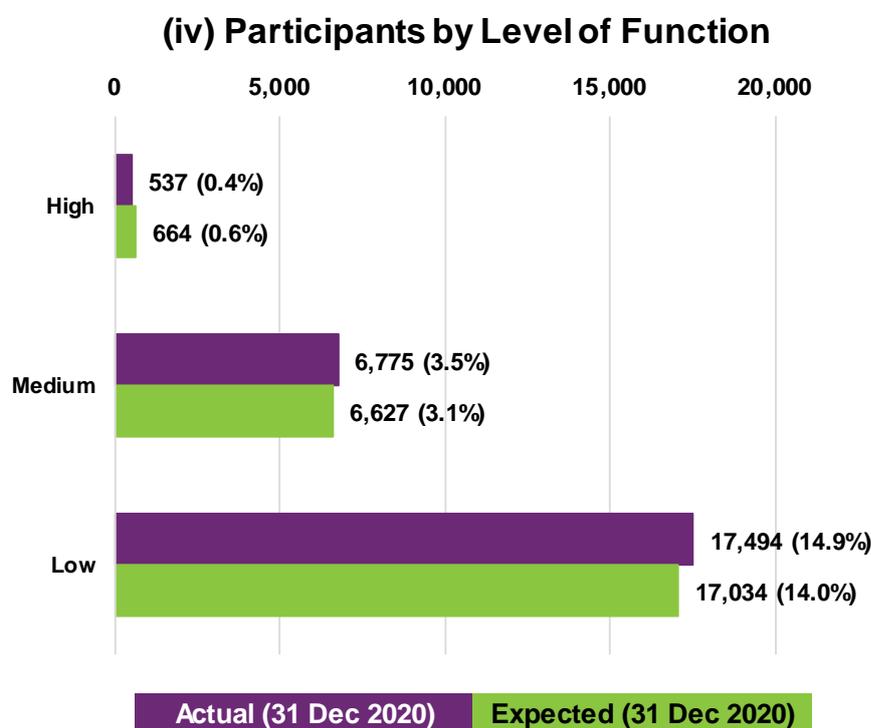


Figure 19 Profile of participants in SIL as at 31 December 2020 – actual versus expected by disability group



**Figure 20 Profile of participants in SIL as at 31 December 2020 – actual versus expected by level of function**



***Intake has slowed down but remained higher than expected in the six months to 31 December 2020***

Participant intake was expected to decline in the 2020-21 financial year as transition from the State/Territory arrangements concluded. While there has been some signs of slowing down in the six months to 31 December 2020, intake continues to trend higher than expected in the 2020-21 PBS estimates across most age groups.

This is evidenced in the prevalence<sup>38</sup> rates of mature regions<sup>39</sup> continuing to exceed benchmark levels assumed in the original scheme design. Figure 21 displays the rate of participant intake by phase-in quarter. The development curves show the proportion of active participants aged 0 to 64 (compared to the general population) in the Scheme at specific development points in time. Increases over development time reflect participants entering the Scheme while reductions reflect participants exiting the Scheme and/or turning age 65.

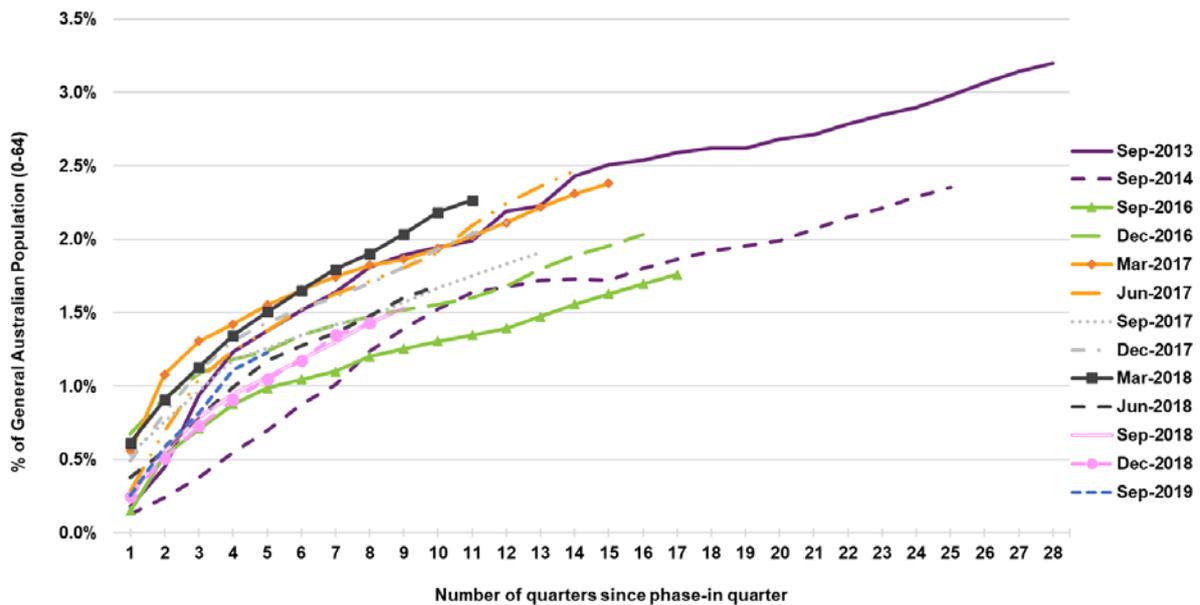
It is expected that these prevalence curves would “flatten out” over time. However, the Scheme population in these regions continues to increase above general population growth, and prevalence rates for ages 0 to 64 have thus continued to rise in the more mature sites. As an example, the unbroken dark purple line represents the prevalence rate of all regions that phased into the Scheme in the September 2013 quarter e.g. Barwon and Newcastle. It

<sup>38</sup> Prevalence is defined as the proportion of the general population that have a disability and are accessing Scheme supports

<sup>39</sup> The regions that commenced phasing during the Scheme’s trial and early transition period.

is evident that even after 28 quarters (or seven years), there is still an upward trend in the number of participants entering the Scheme and this trend is yet to “taper-off” to be in line with population growth.

**Figure 21 Participants as a proportion of Australian population since phase-in date – aged 0 to 64<sup>40</sup>**



### *Exit rates are lower than expected*

Within the context of financial sustainability, it is important to understand the emerging exits experience of participants. Participants may exit the Scheme for various reasons and are grouped into the following categories for projection purposes.

- **Mortality exits:** represent those participants who have died.
- **Non-mortality exits:** represent those participants who no longer meet the eligibility criteria, have chosen to leave the Scheme of their own accord, or have chosen to move into residential aged care if over the age of 65.

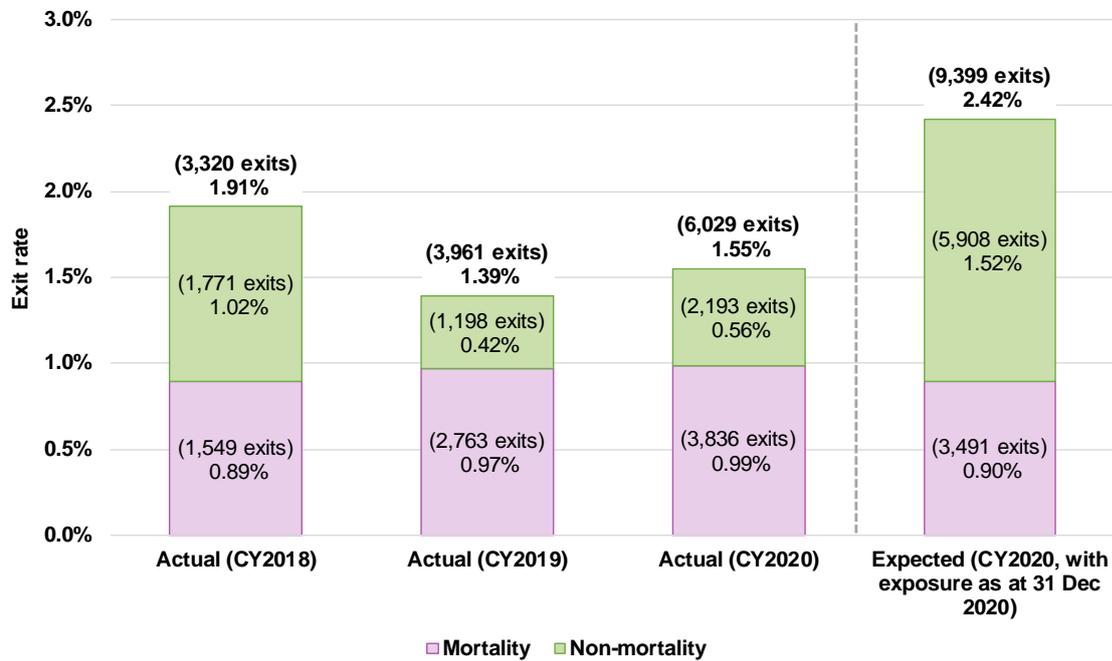
The non-mortality exit experience in the 2020 calendar year (CY2020) has been volatile and continues to remain well below 2018 calendar year (CY2018) levels, trending at 0.56% compared to 1.02% in CY2018.

Mortality exit rates have been trending broadly in line with recent experience – at 0.99% in CY2020 compared to 0.97% in the previous calendar year (CY2019).

<sup>40</sup> Excludes jurisdictions which have phased participants in by age or other non-standard phasing patterns (for example, South Australia, Tasmania and Northern Territory), as these sites would bias these development charts and any chain ladder analysis.

Figure 22 shows how the exit experience in the 2018, 2019 and 2020 calendar years, compare to expectations from the 2020-21 PBS estimates.

**Figure 22 Actual versus expected – mortality and non-mortality exit rate**

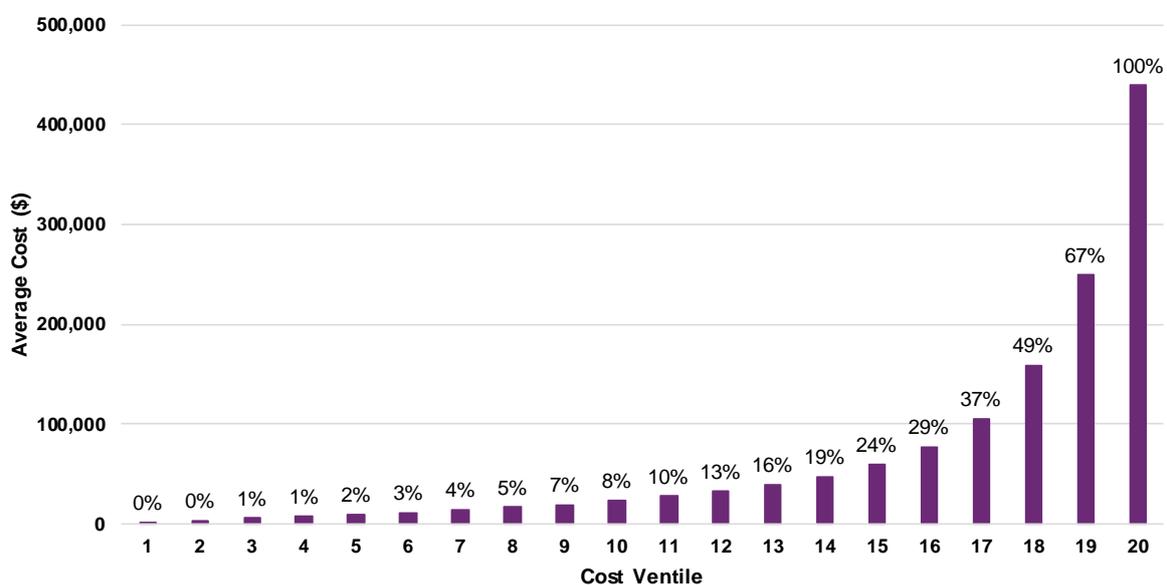


## 4.2 Average payments

On a cash basis<sup>41</sup>, there were \$17.2 billion in payments made in respect of participant costs in the 12 months to 30 June 2020 and \$10.9 billion in payments<sup>42</sup> in the six months to 31 December 2020.

The Scheme supports participants with a diverse range of needs. Of the payments over the 12 months to 31 December 2020 made to participants that had been in the Scheme for at least one year as at 31 December 2019, 51% were for supports for the top 10% of participants when ranked by cost over the period. Conversely, the bottom 40% of participants represent 5% of payments made, as shown in Figure 23 below.

**Figure 23 Average cost and cumulative percentage of cost by ventile (5% band)**

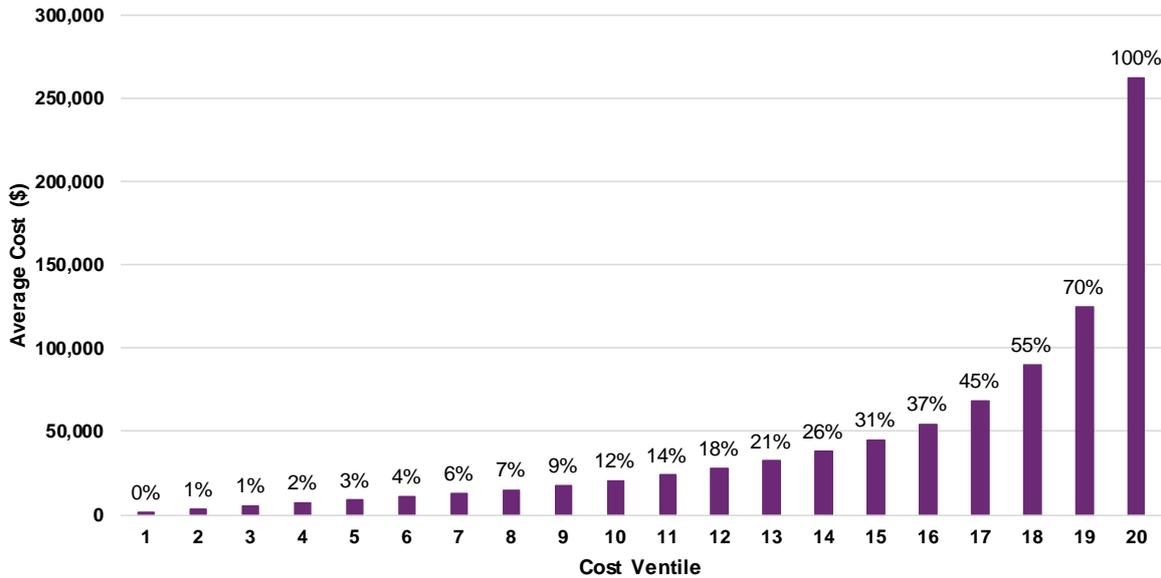


<sup>41</sup> Dates of payments relate to when the payment was made, rather than when the support was provided.

<sup>42</sup> Note this includes all on and off system payments (i.e. in-kind and Residential Aged Care), with the exception of \$11.4 million of off system in-kind and Finance payments for supports which cannot be allocated at a participant level.

This distribution does not vary greatly even when allowing for participants with SIL arrangements. As can be seen in Figure 24, the top 10% of non-SIL participants represent 45% of payments for supports provided to non-SIL participants and the bottom 40% representing 7%.

**Figure 24 Average cost and cumulative percentage of cost by ventile (5% band) – non-SIL only**



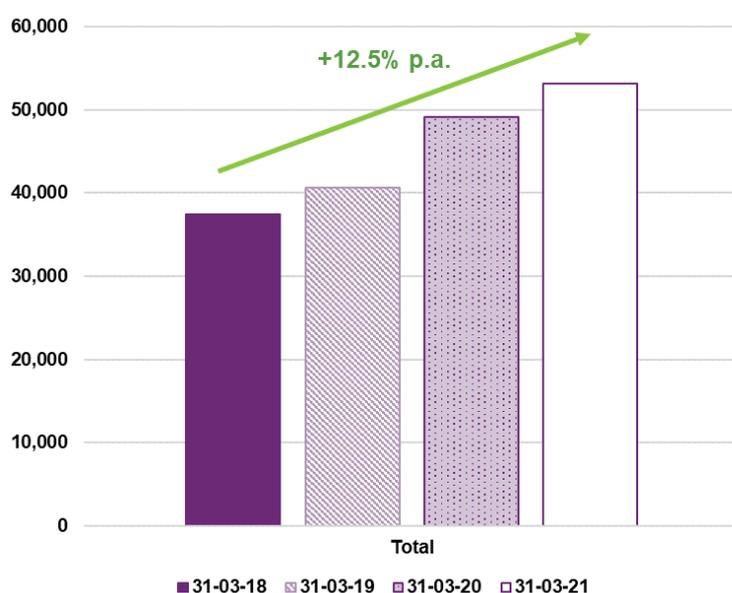
These observations are common in long-tail insurance schemes, and understanding these trends assist with monitoring scheme sustainability.

## Average payments have continued to track above projections

In the six months to 31 December 2020, total payments were 4% higher than expected in the 2020-21 PBS estimates. The variance in total payments compared with expected is driven by higher number of participants (discussed in section 4.1) and by increases in average annualised payment amounts, particularly for non-SIL participants (7% higher than expected).

Experience has demonstrated that average annualised payments have continued to increase year on year. The average annual increase in average payment is 12.5% over the last four years.

**Figure 25 Average annualised payments over time<sup>43</sup>**



Over the past four years, the mix of participants in the Scheme has changed. That is, as the Scheme has rolled out across the country, the proportion of participants by different characteristics has changed. As examples, the proportion of children in the Scheme is higher in 2020-21 compared with 2017-18, and the proportion of SIL participants in the Scheme is lower in 2020-21 compared with 2017-18.

Analysing the change in average payment over time by whether or not participants are in SIL indicates that the average annual increase in average payment has been consistently high across both participant groups. Specifically, the average annual payment has increased for SIL participants by 17%, and the average annual payment has also increased for non-SIL participants by 17% (Figure 26).

<sup>43</sup> Average annualised payments have been calculated on a cash basis using the 12 months over each year ending 31 March.

**Figure 26 Average annualised payments over time by SIL group and in total<sup>44</sup>**

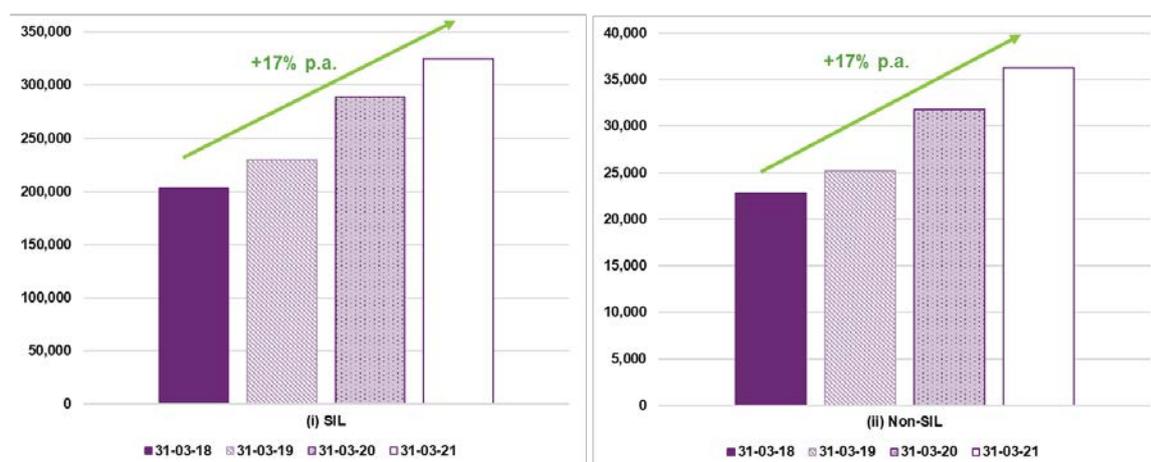
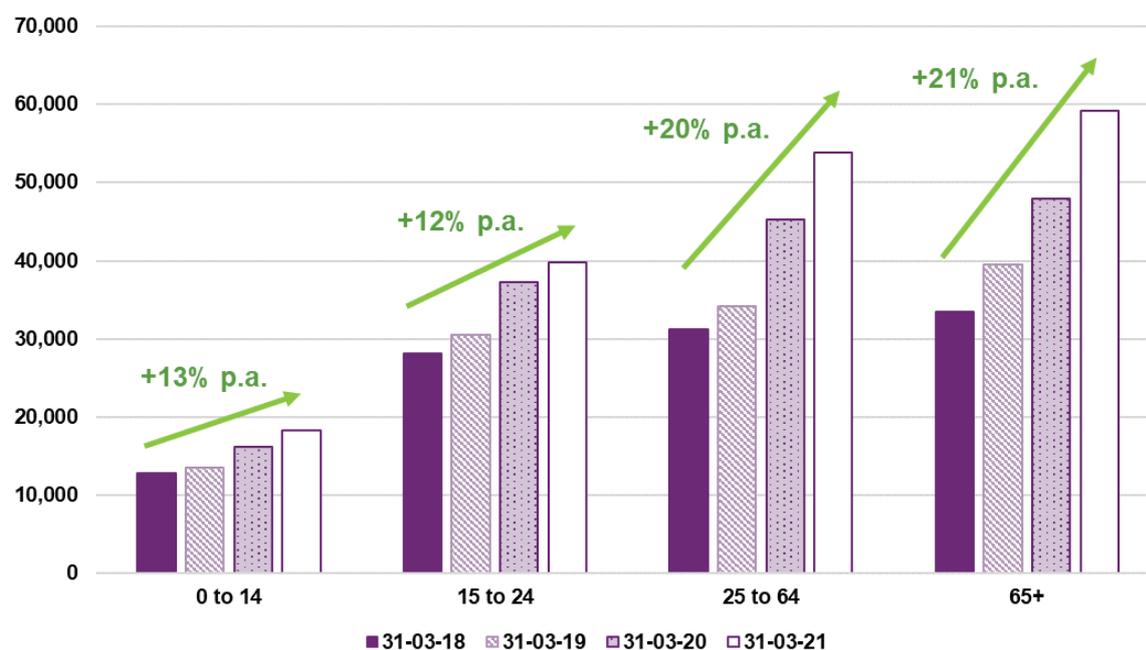


Figure 27 analyses the change in average payment over time by age band for participants not in SIL. The average increase for 0 to 14 year olds is 13%, the average increase for 15 to 24 year olds is 12%, the average increase for 25 to 64 year olds is 20%, and the average increase for participants aged over 65 is 21%. For participants not in SIL, average payments have increased at a faster rate for adults (those aged over 25) and reflects a material increase in the hours of attendant care support these participants are receiving over time.

**Figure 27 Average annualised payments over time for non-SIL participants by age band<sup>45</sup>**



<sup>44</sup> Average annualised payments have been calculated on a cash basis using the 12 months over each year ending 31 March.

<sup>45</sup> Average annualised payments have been calculated on a cash basis using the 12 months over each year ending 31 March.

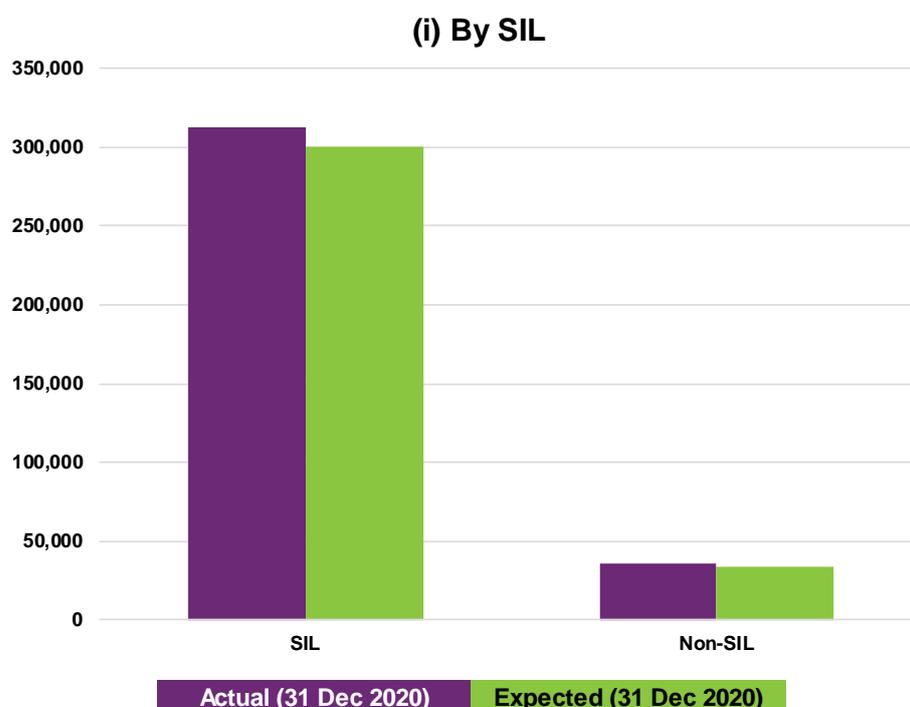
## Actual versus expected average annualised payments by participant characteristics

Comparing actual experience to expectations (using the 2020-21 PBS estimates) by various participant characteristics is also useful to highlight emerging trends and understand key cost pressures on the Scheme. Figure 28, Figure 29, Figure 30 and Figure 31 show average annualised payment levels by SIL status, age band, disability type and level of function. Note that the payment experience is impacted by emerging participant mix, as well as trends at the support category level.

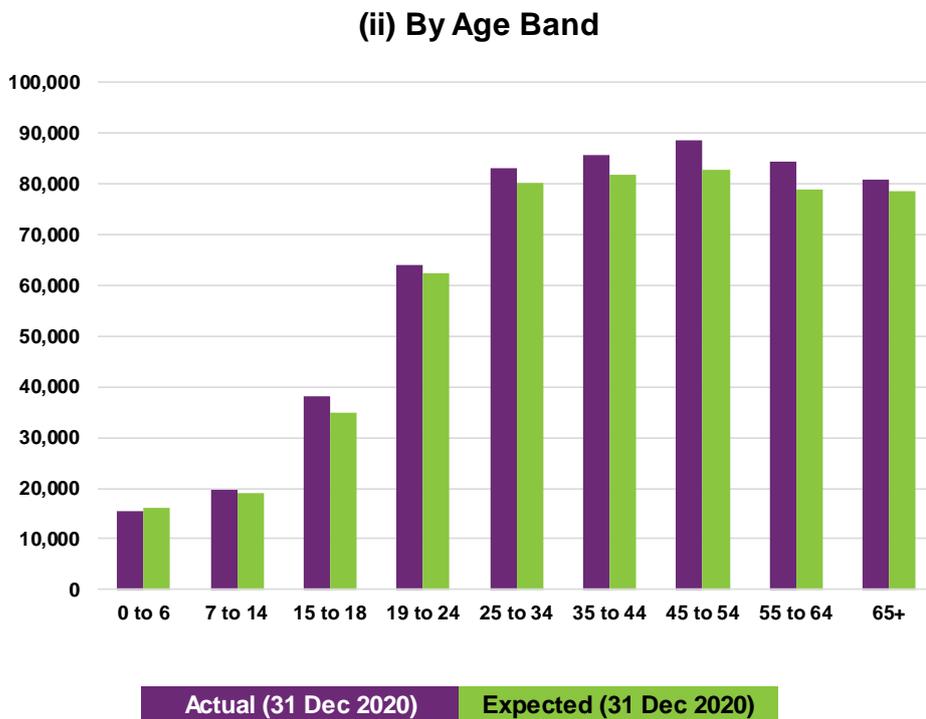
Compared to expectations from the 2020-21 PBS estimates, this shows that:

- Average annualised payments to both SIL and non-SIL participants are higher than expected (graph i).
- Average annualised payment experience for participants across all ages except 0 to 6 are higher than expected (graph ii).
- Similarly, average annualised payment experience has been higher than expected across most disabilities (graph iii), particularly for acquired brain injury, stroke and spinal cord injury.
- Average annualised payments to participants with low levels of function have been higher than expected (graph iv).

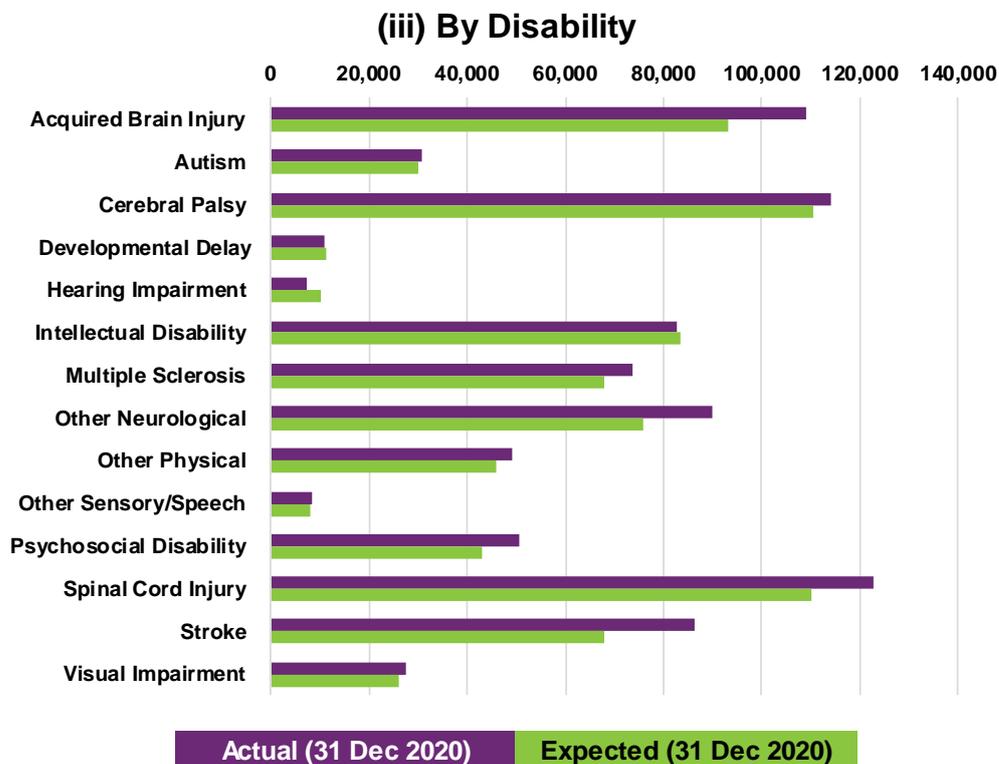
**Figure 28 Average annualised payments in the six months to 31 December 2020 by participant profile - actual vs expected by SIL group**



**Figure 29 Average annualised payments in the six months to 31 December 2020 by participant profile - actual vs expected by age band**



**Figure 30 Average annualised payments in the six months to 31 December 2020 by participant profile - actual vs expected by disability group**



**Figure 31 Average annualised payments in the six months to 31 December 2020 by participant profile - actual vs expected by level of function**

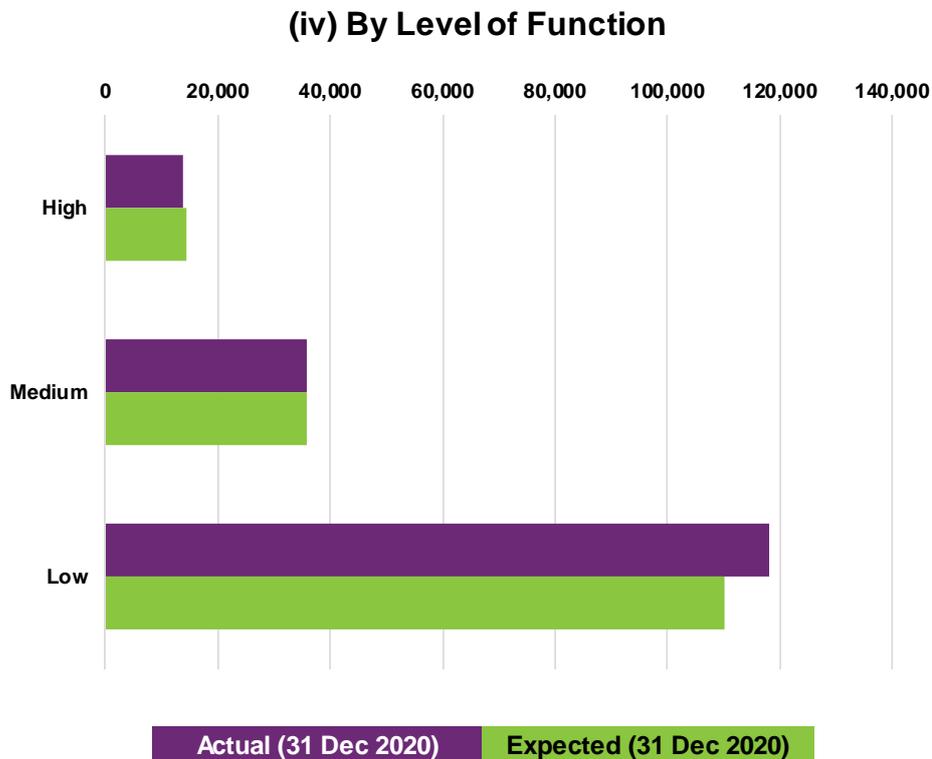
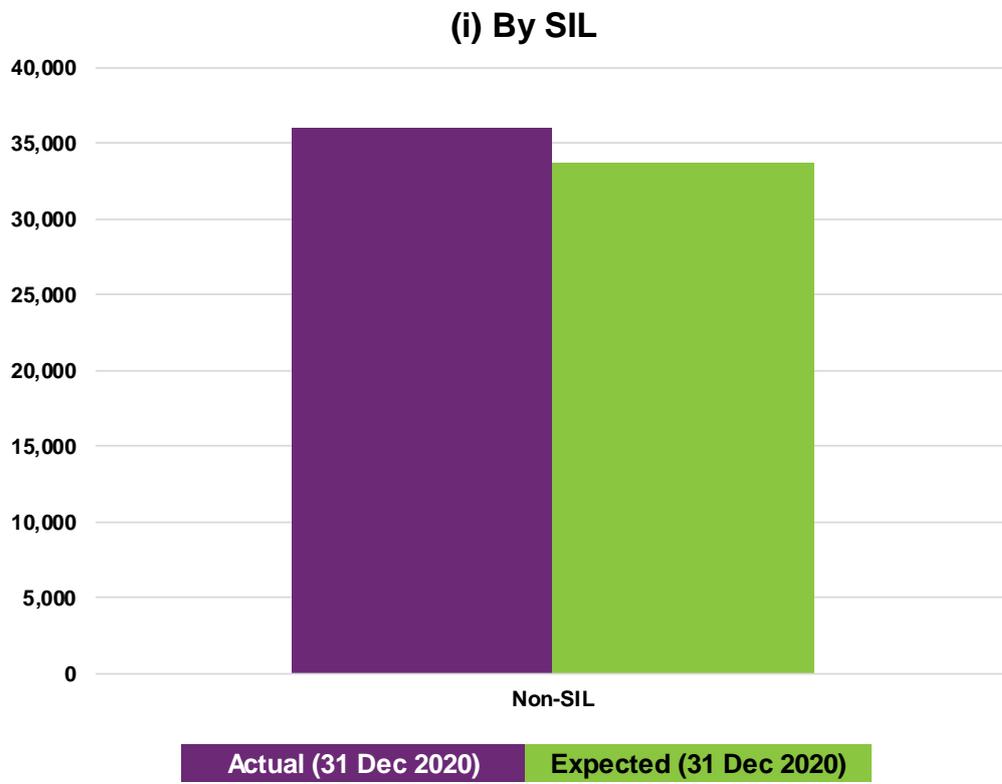
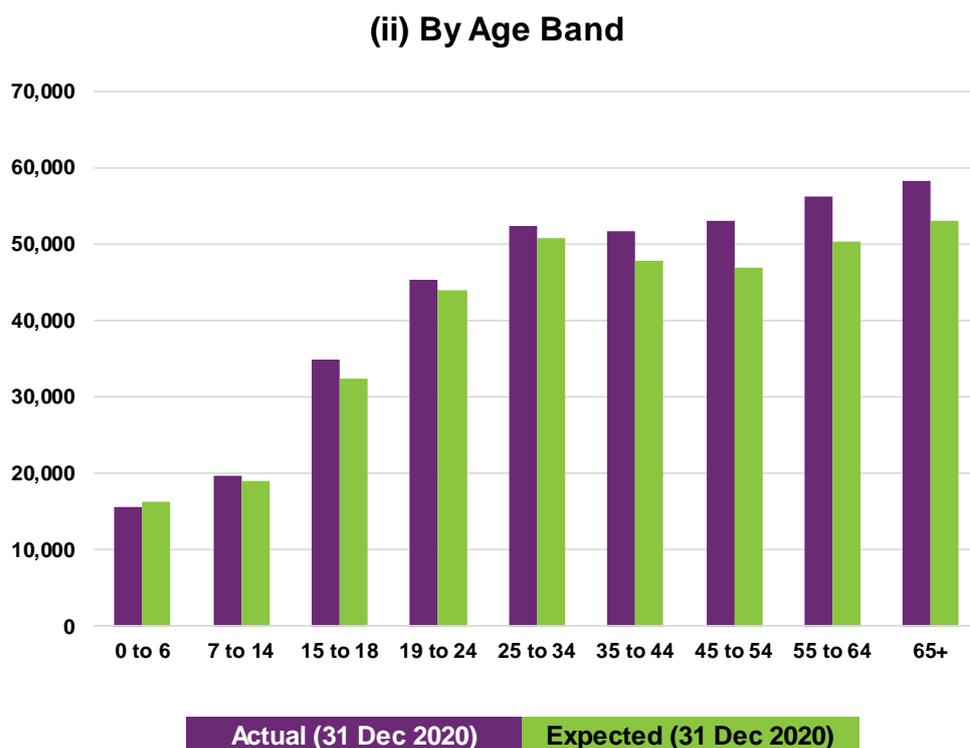


Figure 32, Figure 33, Figure 34 and Figure 35 below provide further detail around average annualised payments on those without SIL arrangements.

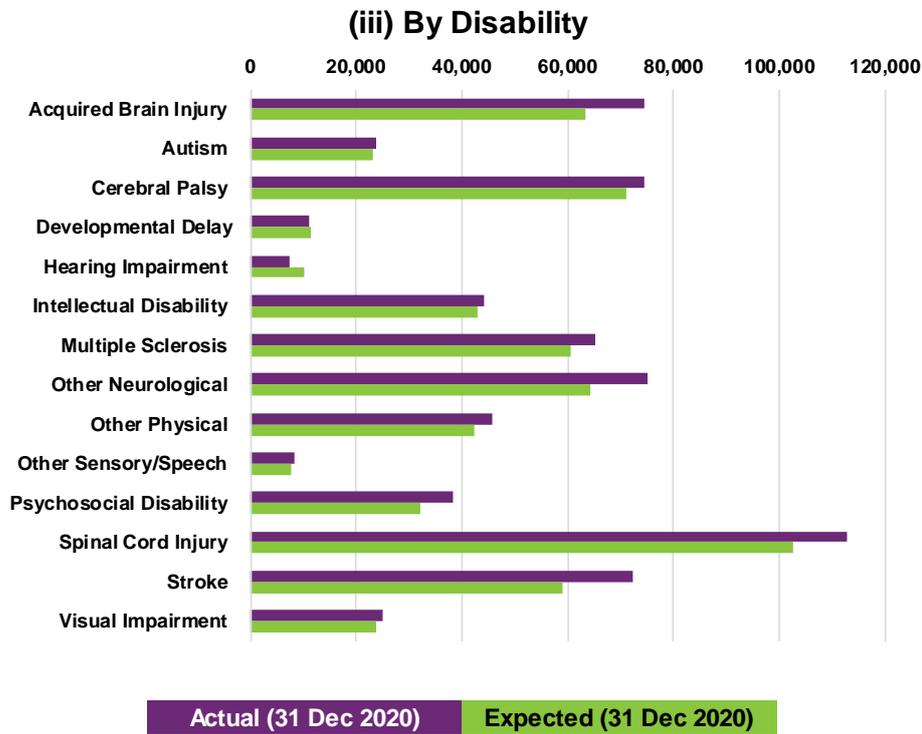
**Figure 32 Average annualised payments in the six months to 31 December 2020 by participant profile - actual vs expected (non-SIL)**



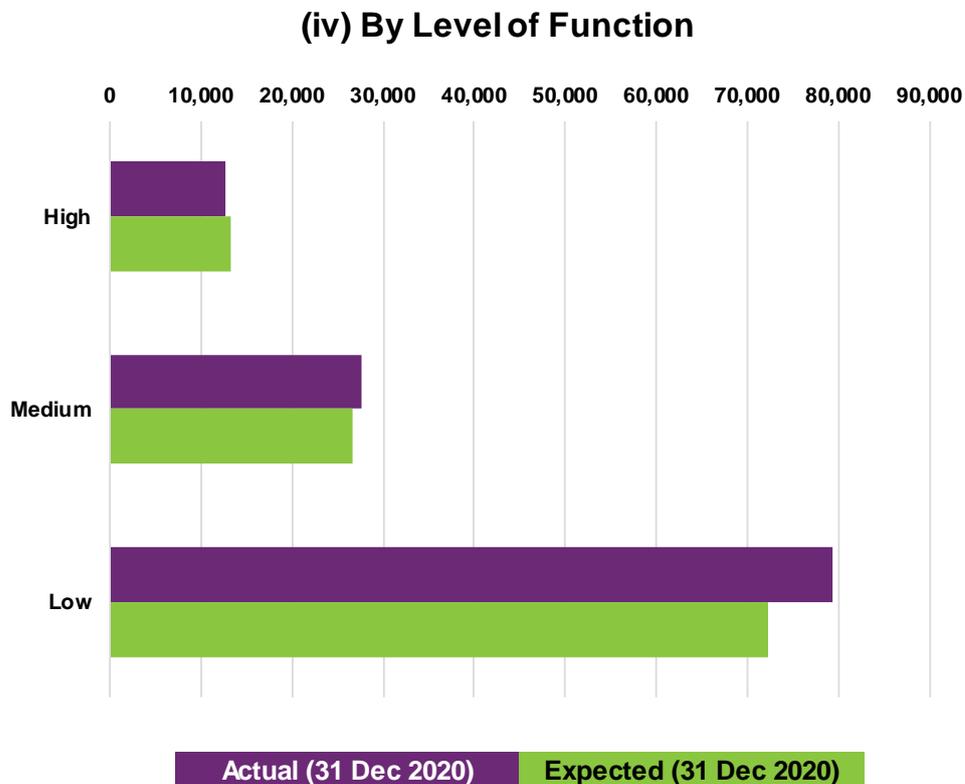
**Figure 33 Average annualised payments in the six months to 31 December 2020 by participant profile - actual vs expected (non-SIL) by age band**



**Figure 34 Average annualised payments in the six months to 31 December 2020 by participant profile - actual vs expected (non-SIL) by disability group**



**Figure 35 Average annualised payments in the six months to 31 December 2020 by participant profile - actual vs expected (non-SIL) by level of function**



For participants without SIL arrangements, compared to the 2020-21 PBS estimates:

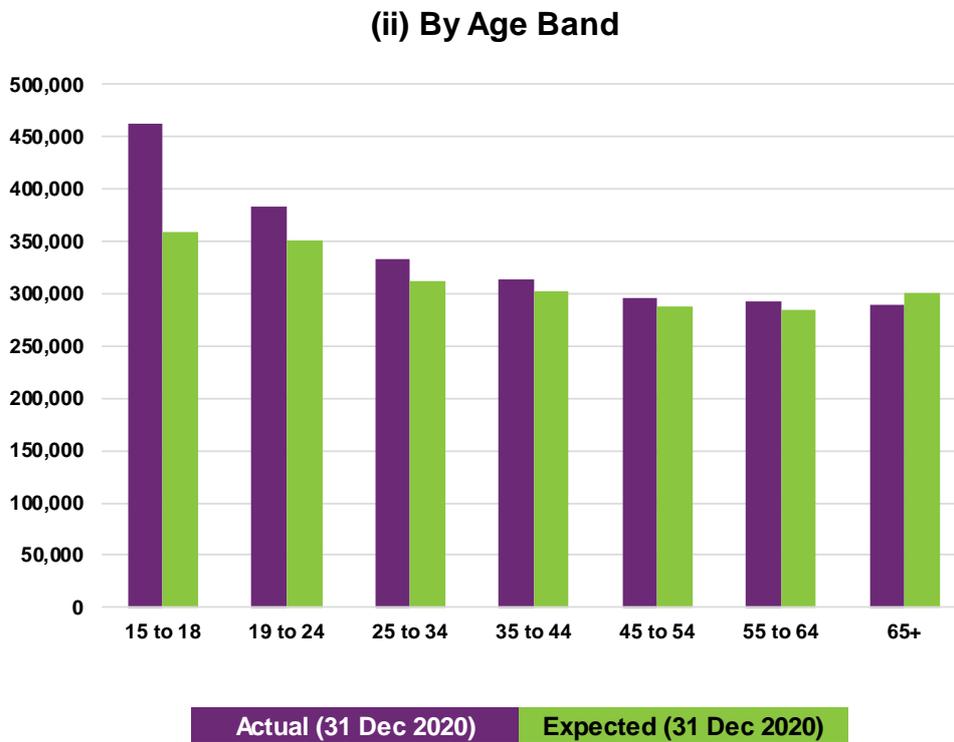
- Average annualised payments are higher than expected and this is consistent across all age groups except those aged 0 to 6 (graph i and ii).
- Average annualised payment experience has been higher than expected across all disabilities (graph iii), except for developmental delay and hearing impairment.
- Average annualised payments to participants with a low or medium level of function have been higher than expected, with participants with low levels of function showing the greatest difference with expected (graph iv).

Figure 36, Figure 37, Figure 38 and Figure 39 below provide further detail around average annualised payments on those with SIL arrangements.

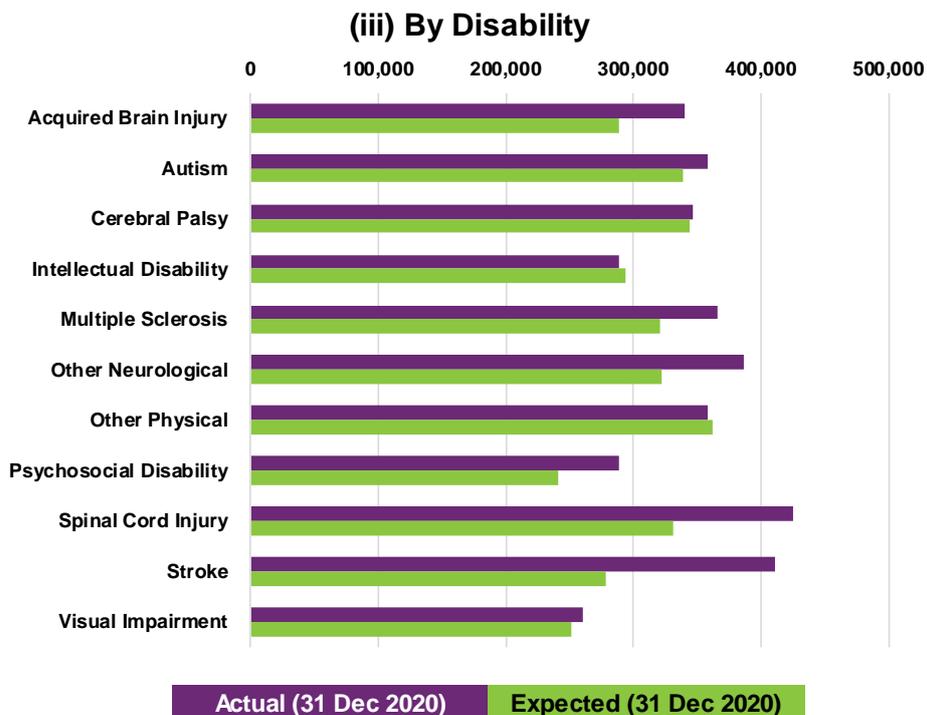
**Figure 36 Average annualised payments in the six months to 31 December 2020 by participant profile - actual vs expected (SIL)**



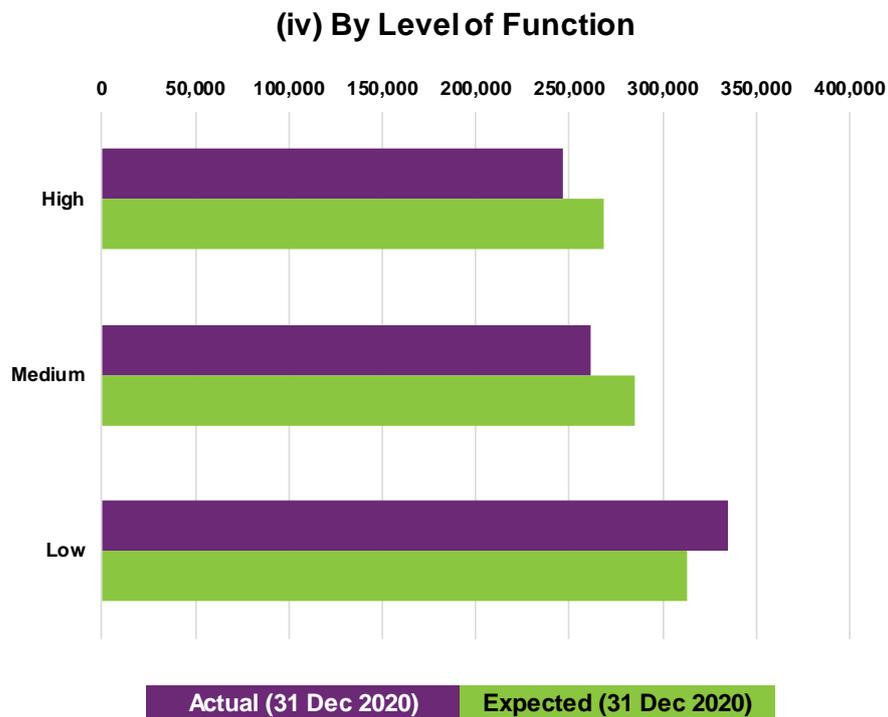
**Figure 37 Average annualised payments in the six months to 31 December 2020 by participant profile - actual vs expected (SIL) by age band**



**Figure 38 Average annualised payments in the six months to 31 December 2020 by participant profile - actual vs expected (SIL) by disability group**



**Figure 39 Average annualised payments in the six months to 31 December 2020 by participant profile - actual vs expected (SIL) by level of function**



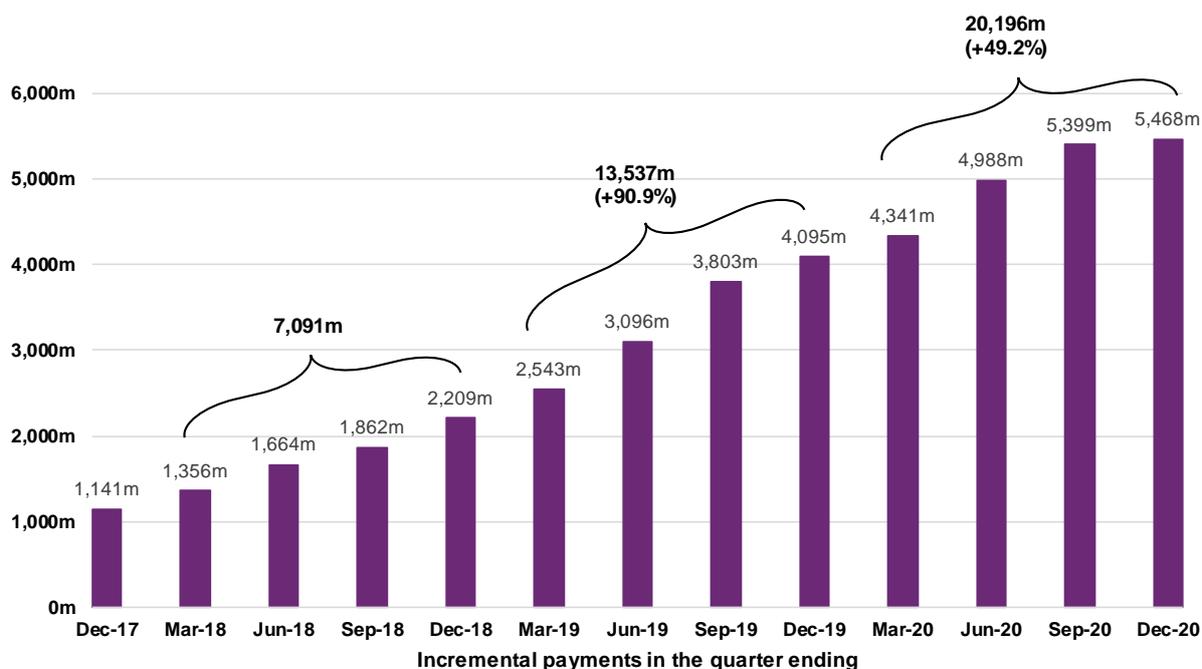
For participants with SIL arrangements, compared to expectations from the 2020-21 PBS estimates:

- Average annualised payments to SIL participants are higher than expected (graph i).
- Average annualised payment experience for participants are higher than expected for participants aged 19 to 64 and lower than expected for those aged over 65 (graph ii). The number of participants with SIL arrangements under the age of 18 is low and this impacts the usefulness of comparing the actual and expected average payment experience.
- Average annualised payment experience has been substantially higher than expected for stroke, spinal cord injury and acquired brain injury (graph iii).
- Average annualised payments to participants have been lower than expected for participants with high or medium levels of function, and higher than expected for those with low levels of function (graph iv).

## 4.3 Total payments

Figure 40 below illustrates Scheme spend on participant supports by quarter on a cash basis. The rapid growth in Scheme spend reflects the higher than expected active number of participants and higher than expected average payments per participant described in the sections above.

**Figure 40 Scheme spend on participant supports by quarter over the past 3 years (\$)**



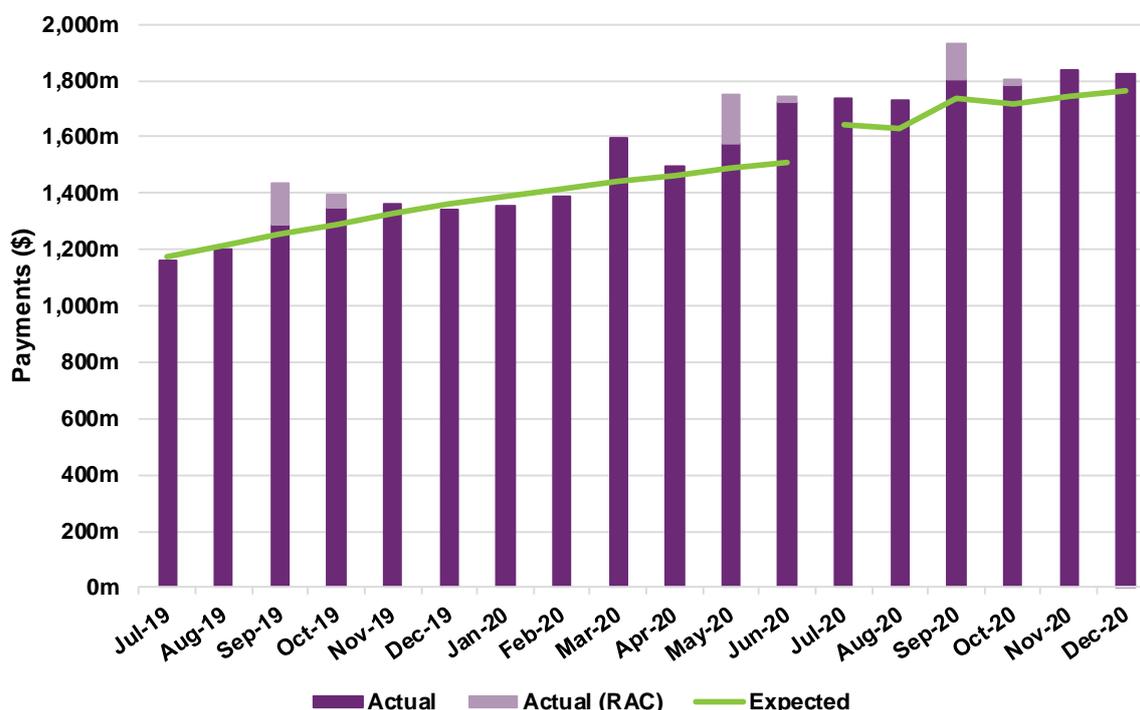
### *Overall payments have been higher than expected*

Figure 41 shows the monthly total payments from 1 July 2019 to 31 December 2020, and how it compares with the expected 2020-21 PBS estimates.

Note that total payments for the months of September 2020 and October 2020 were affected by cross-billing payments (with the Department of Health) totalling \$147 million for Residential Aged Care supports provided in 2017-18, 2018-19 and 2019-20.

Total payments were 4% higher than expected in the six months to December 2020. In particular, total payments were 8% higher than expected for participants not in SIL, and 3% lower than expected for participants in SIL for the same period.

Figure 41 Total payments by month – actual versus expected<sup>46</sup>



### Actual versus expected payments by support category<sup>47</sup>

Table 7 below shows actual versus expected (using 2020-21 PBS estimates) payments by support category in the six months to 31 December 2020, for participants in SIL and not in SIL.

The majority of payments for non-SIL participants are for Daily Activities (42%), Social Community Civic (19%) supports and Capacity Building Daily Activities (18%). For Daily Activities, actual payments were 20% higher than expected over the six months to 31 December 2020. The increase in Daily Activities is the main driver behind the higher than expected non-SIL payments. This is largely attributable to increases in payments for supports relating to attendant care.

For SIL participants, the majority of payments are for Daily Activities (81%) and Social Community Civic (11%). Lower payments than expected were observed for Daily Activities and Social, Community and Civic (both core support categories). In contrast, payments for Capacity Building Daily Activities<sup>48</sup> were above expectations. The increase in Capacity

<sup>46</sup> The expected experience between July 2020 and December 2020 reflect the 2020-21 PBS estimates. The expected experience between July 2019 and June 2020 reflect the expected experience from the 2018-19 AFSR projections.

<sup>47</sup> More detail on the definitions of the support categories and what is included in each support category is located at: <https://www.ndis.gov.au/participants/using-your-plan/managing-your-plan/support-budgets-your-plan>

<sup>48</sup> Supports in this category primarily relate to the cost of the delivery of therapy to Scheme participants, including specialised therapy supports in early childhood.

Building Daily Activities is largely driven by increases in payments for supports relating to therapy other than psychology and physiotherapy<sup>49</sup>, as well as therapy supports purchased by self-managed participants.

Across both SIL and non-SIL participants, higher payments than expected can be seen for Capacity Building Choice and Control (52% higher overall)<sup>50</sup> and Consumables (23% higher overall). This is attributable to increases in plan management and low cost assistive technology<sup>51</sup> in response to the COVID-19 pandemic.

**Table 7a Actual versus expected payments by support category in the six months to 31 December 2020<sup>52</sup>**

<b>Support Category</b>	<b>SIL</b>	<b>Non-SIL</b>	<b>Total</b>
Daily Activities	4%	21%	12%
Social Community Civic	-14%	-9%	-10%
Transport	-12%	-16%	-15%
Consumables	28%	22%	23%
Assistive Technology	-5%	-9%	-8%
Home Modifications	-1%	-14%	-8%
<i>CB Daily Activities</i>	52%	15%	17%
<i>Support Coordination</i>	5%	19%	17%
<i>CB Employment</i>	-30%	-30%	-30%
<i>CB Choice and Control</i>	79%	51%	52%
<i>Other CB supports</i>	35%	4%	10%
<b>Total</b>	<b>3%</b>	<b>8%</b>	<b>6%</b>

<sup>49</sup> Note that 'Other Therapy' makes up a large proportion of therapy supports within Capacity Building Daily Activities. No further detail is available in the data to understand the specific therapy services within this category.

<sup>50</sup> This includes payment to plan managers for plan management services.

<sup>51</sup> Note that low cost assistive technology has been categorised within Consumables since July 2019 as a mechanism to reduce waiting times.

<sup>52</sup> A number of smaller Capacity Building support categories have been grouped together (CB Relationships, CB Social Community Civic, CB Health and Wellbeing, CB Home Living and CB Lifelong Learning). These categories represent around 2% of payments combined.

**Table 8b Proportion of payments by support category in the six months to 31 December 2020**

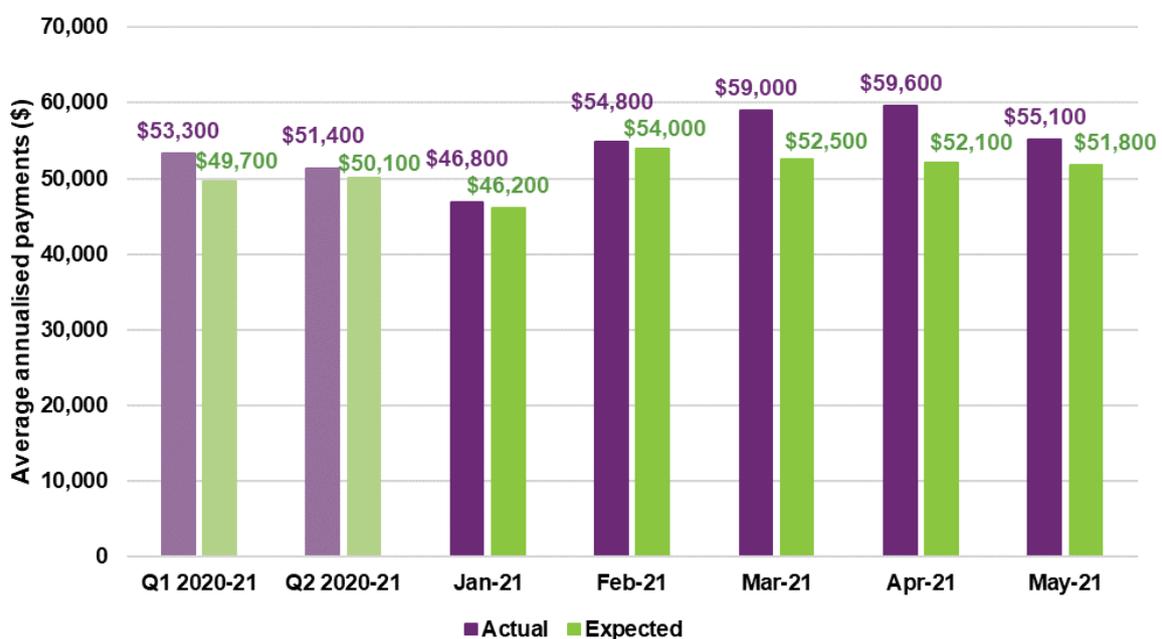
<b>Support Category</b>	<b>SIL</b>	<b>Non-SIL</b>	<b>Total</b>
<b>Core</b>	<b>93%</b>	<b>69%</b>	<b>77%</b>
Daily Activities	81%	42%	56%
Social Community Civic	11%	19%	16%
Transport	1%	4%	3%
Consumables	1%	3%	2%
<b>Capital</b>	<b>2%</b>	<b>5%</b>	<b>4%</b>
Assistive Technology	1%	4%	3%
Home Modifications	2%	1%	1%
<b>Capacity Building</b>	<b>5%</b>	<b>26%</b>	<b>19%</b>
<i>CB Daily Activities</i>	2%	18%	12%
<i>Support Coordination</i>	1%	3%	3%
<i>CB Employment</i>	0%	1%	1%
<i>CB Choice and Control</i>	0%	2%	1%
<i>Other CB supports</i>	1%	2%	2%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

## 4.4 Scheme experience since 31 December 2020

Scheme experience has further deviated in the five months between 31 December 2020 and 31 May 2021, with March to May demonstrating payment experience well above expectations from the 2020-21 PBS estimates. At 31 May 2021, total payments were \$20.9 billion compared with \$19.7 billion (which is \$1.2 billion (6.4%) above the 2020-21 PBS).

This can be seen in Figure 42 below which compares actual annualised average payments per participant against the expected average payments.

**Figure 42 Total average annualised payments per participant – actual versus expected**



It is evident there exists significant upwards pressure on participant costs. The impact of this most recent experience on scheme costs is discussed in section 5.6.

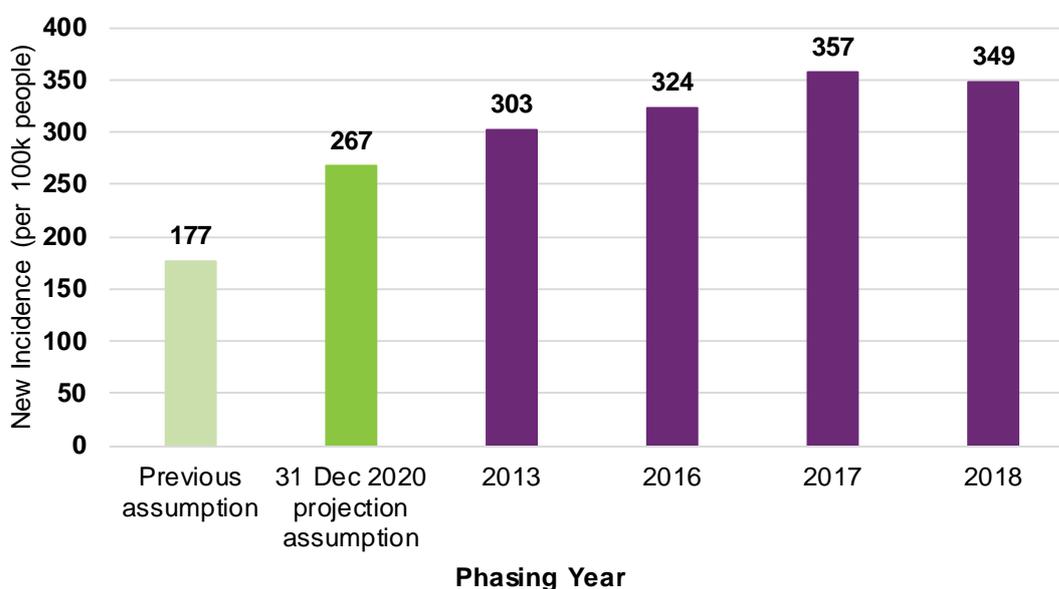
## 5. Projections

This section includes the projection of scheme costs from 2021-22 to 2029-30, using data as at 31 December 2020. The methodology for the projection is included in section 3, with more detail on the assumptions in the appendices. As outlined in section 4 of this report, actual experience has exceeded the 2020-21 PBS estimates in 2020-21, and this is driven by both higher rates of growth in both participant numbers and average payments per participant. The projections take into account this experience, and also adopt a forward-looking view to future scheme inflation.

### 5.1 Participant projections

As presented in section 4, the number of participants has continued to increase over and above previous forecasts. Analysis of new entrants in geographical sites that commenced in earlier years (Figure 43), indicates that the rate of new entrants is still higher than forecast (for example, the rate of new entrants in geographical sites that began phasing into the Scheme in 2013 is 303 per 100,000 people, which is approximately 71% higher than the previously assumed rate). The assumption adopted in the 31 December 2020 projection (267 per 100,000 people), is higher than the previous assumption, but not as high as the rates observed. This means it is still expected that the rate of new entrants will be slower than previously observed and as a result there is significant upside risk in this assumption.

**Figure 43 New incidence by phasing year**

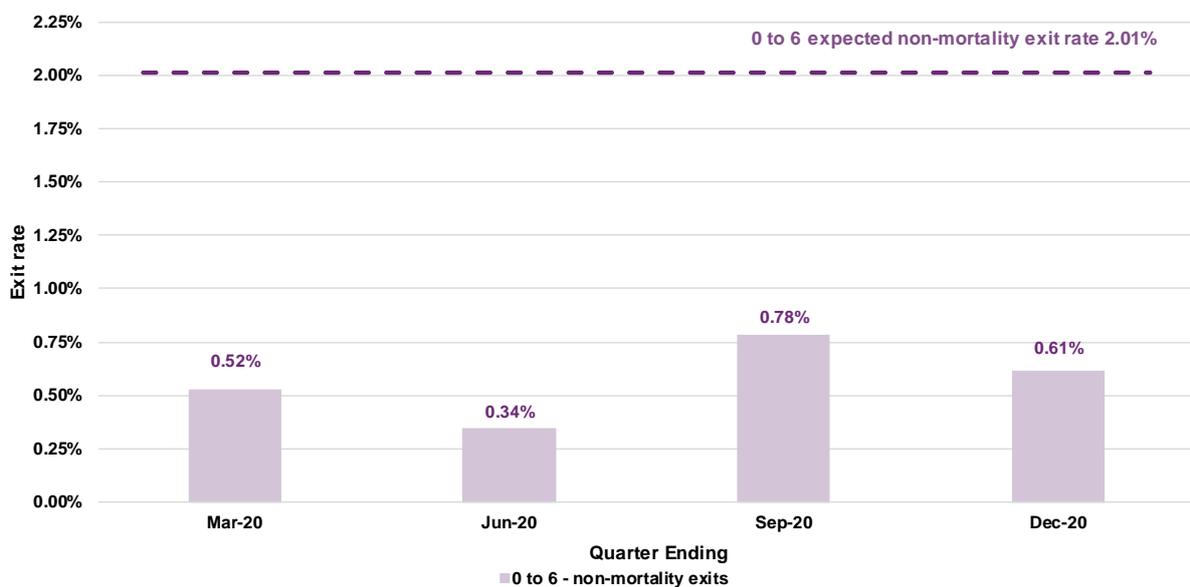


In addition to the rate of new entrants, the rate that participants exit the Scheme is also considered. In particular, the rate at which participants exit the Scheme for reasons other than mortality is lower than originally assumed. Section 25 of the NDIS Act allows participants to enter the Scheme to receive early intervention support, and it was assumed

that participants would receive this support and then be supported by mainstream and community services. The rate of non-mortality exit has not been as high as expected (see section 4). Non-mortality exit rates were assumed to be 2.01% for 0-6 year olds, and the rate in the past year to 31 December 2020 was 0.57%. Similarly for participants aged 7+ years the non-mortality exit rate was assumed to be 1.04%, and the rate in the past year to 31 December 2020 was 0.55%.

Despite the recent experience, lower rates of non-mortality exits have not been adopted in this projection. This is because it is assumed that rates of exit will increase as more children exit the Scheme after receiving early intervention support, and the NDIA focuses on ensuring participants continue to meet the access criteria (as per the NDIS Act). Figure 44 and Figure 45 below compare actual non-mortality exit rates over the 12 months to 31 December 2020 with the non-mortality exit rates that have been adopted in the 31 December 2020 projection by quarter.

**Figure 44 Actual versus expected non-mortality exits for participants aged 0 to 6**



**Figure 45 Actual versus expected non-mortality exits for participants aged over 7**



The expected number of participants at the end of each year is calculated as the starting participant population adding on participant intake and subtracting participant exits over the year. The resulting participant projections by age group is shown in Table 8 below.

**Table 9 Projected participant numbers by age band as at 30 June**

Number of participants	2021	2022	2023	2024	2025	2027	2030
<b>Children (0 to 14)</b>	193,814	224,674	248,634	265,698	277,797	296,452	316,785
<b>Young adults (15 to 24)</b>	74,036	86,518	99,151	111,246	123,584	151,285	192,676
<b>Adults (25 to 64)</b>	183,908	204,678	221,415	233,350	243,168	263,212	297,806
<b>Older adults (65+)</b>	16,935	22,030	27,447	32,934	38,211	48,757	63,495
<b>Total</b>	<b>468,692</b>	<b>537,900</b>	<b>596,647</b>	<b>643,229</b>	<b>682,760</b>	<b>759,706</b>	<b>870,761</b>

Young adults represent a growing proportion of the Scheme's participant numbers as the children from the intake of prior projection years begin to age into older age bands.

Table 9 has the same projections split by disability group.

**Table 10 Projected participant numbers by disability group**

Number of participants	2021	2022	2023	2024	2025	2027	2030
Autism	146,412	172,937	197,282	218,348	237,983	278,122	339,035
Intellectual Disability	91,336	99,255	106,405	112,514	118,062	129,293	146,259
Psychosocial Disability	48,281	56,711	63,545	68,382	72,271	79,835	90,674
Developmental Delay	53,264	64,580	72,735	78,356	81,658	86,002	89,378
Sensory	35,055	39,490	43,171	45,936	48,172	52,578	58,935
Other	94,344	104,927	113,509	119,693	124,614	133,878	146,480
<b>Total</b>	<b>468,692</b>	<b>537,900</b>	<b>596,647</b>	<b>643,229</b>	<b>682,760</b>	<b>759,706</b>	<b>870,761</b>

The increase in projected participant numbers prior to 2030 is mainly attributable to higher assumed prevalence of developmental delay. After 2030, autism and intellectual disability are the main drivers of increasing participant numbers, reflecting the transition of children with developmental delay to autism and intellectual disability. The trajectory is consistent with the increasing trends seen in successive Surveys of Disability, Caring and Ageing (released by the ABS) but based on Scheme experience is projected to increase at a faster rate.

Table 10 presents the projections split by whether or not the participant is in SIL.

**Table 11 Projected participant numbers by SIL group**

Number of participants	2021	2022	2023	2024	2025	2027	2030
Non-SIL	442,577	508,925	565,000	609,220	647,191	720,764	826,123
SIL	26,116	28,974	31,647	34,009	35,569	38,942	44,638
<b>Total</b>	<b>468,692</b>	<b>537,900</b>	<b>596,647</b>	<b>643,229</b>	<b>682,760</b>	<b>759,706</b>	<b>870,761</b>

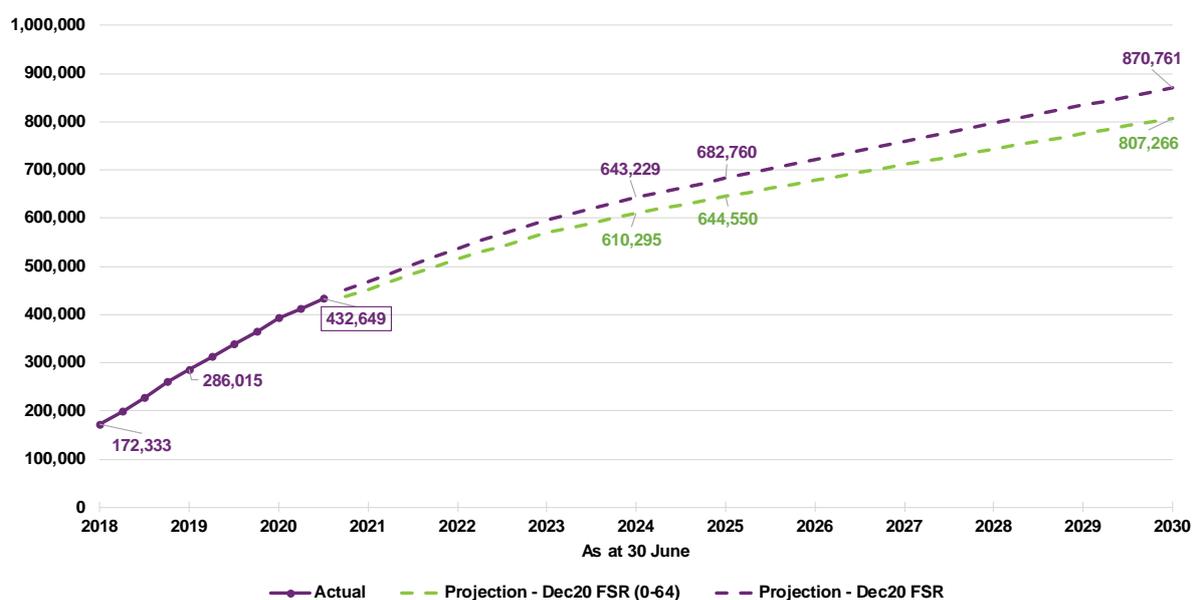
### *SIL as a % of Total Scheme population*

Number of participants	2021	2022	2023	2024	2025	2027	2030
Projection	5.6%	5.4%	5.3%	5.3%	5.2%	5.1%	5.1%

The number of participants with SIL arrangements is projected to increase over time to reflect existing participants moving to SIL arrangements and, to a lesser extent, new entrants with SIL arrangements in place transferring from existing programs into the Scheme. However, it is expected that the majority of new entrants into the Scheme will not require SIL which results in the projected proportion of participants in SIL steadily decreasing over time.

Figure 46 shows the projected number of participants graphically and compares the participant intake experience to date with the trajectory of the projected intake.

**Figure 46 Projected participant numbers for all ages**



## 5.2 Average payment assumptions

Scheme experience over the past six months has demonstrated higher average costs per participant than expected when compared to previous assumptions. The base average cost assumptions were derived using 31 December 2020 data, reflecting the actual payment experience over the 3 months to 31 December 2020.

This can be seen in Table 11 which displays the projected average annual payments (in current dollars) by grouped disability and age band for the 2021-22 financial year. The following table shows that:

- The average annualised payment amount for all Scheme participants in 2021-22 is \$53,149 in current dollars.
- Children have lower average annualised payments than adults, reflecting a higher proportion of early intervention participants, less usage of SIL arrangements and more informal supports, primarily provided by parents.
- Participants with intellectual disability and other disabilities<sup>53</sup> have the largest average costs.
- Participants with sensory disabilities<sup>54</sup> and developmental delay have the lowest average costs.

**Table 12 Average annual payments (\$) by age band and disability group in 2021-22 (current dollars)**

Disability Group	0 to 6	7 to 14	15 to 18	19 to 24	25 to 34
Autism	22,761	17,831	32,234	58,668	85,599
Intellectual Disability	26,288	26,018	43,139	73,705	98,022
Psychosocial Disability	-	17,475	38,344	58,498	57,157
Developmental Delay	13,092	9,504	-	-	-
Sensory	10,133	7,656	9,366	10,793	15,209
Other	35,981	42,844	66,432	104,269	117,600
<b>Total</b>	<b>16,833</b>	<b>19,174</b>	<b>36,349</b>	<b>65,926</b>	<b>85,745</b>

Disability Group	35 to 44	45 to 54	55 to 64	65+	Total
Autism	108,794	121,375	133,651	152,077	32,356
Intellectual Disability	114,391	137,911	149,226	160,140	86,398
Psychosocial Disability	57,398	58,491	62,742	66,422	59,183
Developmental Delay	-	-	-	-	12,460
Sensory	19,793	21,059	20,782	22,312	14,363
Other	108,254	98,936	90,819	88,427	90,062
<b>Total</b>	<b>88,830</b>	<b>89,245</b>	<b>87,573</b>	<b>88,363</b>	<b>53,149</b>

<sup>53</sup> In particular, participants with spinal cord injury, cerebral palsy and acquired brain injury.

<sup>54</sup> This includes hearing impairment, visual impairment and other sensory/speech disabilities.

Similarly, the expected average annual payment assumptions (in current dollars) in 2021-22, split by support category and age band, are shown in Table 12. The averages presented in the tables below are a weighted combination of the assumptions by Projection Group for each support category.

**Table 13 Average annual payments (\$) by age band and support category in 2021-22 (current dollars)**

Support Category	0 to 6	7 to 14	15 to 18	19 to 24	25 to 34
Consumables	580	683	751	916	1,132
Daily Activities	2,226	6,378	17,031	34,030	48,911
Social Community Civic	535	1,375	6,393	17,728	21,914
Transport	433	1,214	2,208	1,704	1,656
Assistive Technology	621	519	771	927	1,235
Home Modifications	35	74	157	361	649
CB Daily Activities	11,676	7,297	5,266	3,724	3,920
CB Employment	0	1	752	3,024	2,399
Support Coordination	201	402	1,035	1,408	1,837
Remaining CB	526	1,231	1,985	2,103	2,091
<b>Total</b>	<b>16,833</b>	<b>19,174</b>	<b>36,349</b>	<b>65,926</b>	<b>85,745</b>

Support Category	35 to 44	45 to 54	55 to 64	65+	Total
Consumables	1,300	1,522	1,770	2,000	1,043
Daily Activities	53,822	56,129	55,097	55,502	28,971
Social Community Civic	19,378	16,744	15,140	14,700	9,899
Transport	1,572	1,533	1,517	1,568	1,357
Assistive Technology	1,663	2,151	2,832	3,211	1,282
Home Modifications	956	1,205	1,414	1,434	542
CB Daily Activities	4,148	4,423	4,878	5,319	6,341
CB Employment	1,766	1,312	901	668	923
Support Coordination	2,290	2,438	2,378	2,344	1,291
Remaining CB	1,934	1,789	1,645	1,617	1,501
<b>Total</b>	<b>88,830</b>	<b>89,245</b>	<b>87,573</b>	<b>88,363</b>	<b>53,149</b>

## 5.3 Inflation assumptions

### *Normal inflation*

Participant costs are assumed to increase over time with inflation (examples of inflationary sources include general increases in wages and consumer prices).

The adopted inflation rate for the coming four years is 2.6% to 2.7% per annum, increasing to 3.2% to 3.3% per annum in the longer term. This comprises of:

- **3.0% per annual for attendant care rates**, which incorporates an additional 0.5% per annum for five years to allow for increases in the minimum employer superannuation contribution; and
- **Rates varying between 1.5% to 2.5% per annum for the remaining support categories** (predominantly assistive technology, home modifications and therapy supports). This increase is based on the target Consumer Price Index range currently adopted by the Commonwealth Treasury department.

**Table 14 Selected normal inflation rates by projection year**

Normal inflation	2021-22	2022-23	2023-24	2024-25	2025-26	Long-term
Attendant care	3.0%	3.0%	3.0%	3.0%	3.0%	3.5%
Other supports	1.5%	1.8%	2.0%	2.2%	2.3%	2.5%
<b>Overall</b>	<b>2.6%</b>	<b>2.7%</b>	<b>2.7%</b>	<b>2.8%</b>	<b>2.8%</b>	<b>3.2% - 3.3%</b>

### *Superimposed inflation*

Superimposed inflation is defined as the increase in average payments above the normal inflation rate. In the early years of the Scheme, this inflation reflected the dynamic and rapidly changing environment of a newly established scheme. However, these high levels of superimposed inflation have persisted or increased over time, despite the increasing maturity of the Scheme. This is evidenced in the observed inflation of 15-17% per annum over the past two years for both SIL and non-SIL participants.

The sustained high levels of superimposed inflation remain one of the most critical sustainability pressures for the Scheme given its material impact on projected costs. The main sources of expected superimposed inflation going forward are discussed below.

### *Increased focus on participant experience*

- **Increasing use of support coordination and of plan management.** This reflects a greater desire from participants for more choice and control.
- **Allowance for inflation from unanticipated sources.** There are inevitably cost pressures from unknown and unanticipated sources which emerge over time. While these unanticipated cost pressures may lead to both cost increases and cost reductions, the experience of the Scheme to date has seen significant bias towards cost increases.

## ***Emerging cost pressures due to interactions with the mainstream interfaces***

The Scheme is facing a number of pressures related to Scheme entry and funding decisions, including the intersection with mainstream interfaces. Expansion of coverage means the Scheme may be required to meet unanticipated costs that would otherwise be met through the State/Territory education, health, transport, or justice systems. The following sources of superimposed inflation due to Scheme interfaces with mainstream services have been allowed for in the model.

- **Allowance for participants in taxi subsidies schemes.** These costs are currently being met through the taxi subsidy schemes and are paid for by the Agency off-system.
- **The Agency's new supported employment strategy.** In 2020-21, a new pricing framework which introduces an hours-based, per-participant model was implemented. However due to the pandemic, the new supported employment strategy was unlikely to have gained traction over 2020-21. The impact is now expected to arise over 2021-22 and 2022-23.
- **An allowance for additional inflation** is designed to cover potential changes where the impact of mainstream interfaces are not yet confirmed but are likely to result in cost deterioration over time.<sup>55</sup> For example, erosion of access criteria for people with chronic health conditions, expansion of personal care in schools and school transport, resolution of transport interface (including removal of taxi subsidies), and clarification of funding for children in out-of-home care.

## ***The Scheme is rapidly maturing***

- **Utilisation expected to increase over time.**<sup>56</sup> As participants become more familiar and adept at navigating the Scheme, and the provider market for supports develops, utilisation of plan budgets is expected to increase towards an ultimate level. There is significant upside risk in this assumption.
- **Unwinding the Temporary Transformation Payment (TTP).** A 7.5% TTP, introduced at 1 July 2019, was designed to support providers as they moved from previous block funding arrangements to the Scheme, thereby offsetting some of the short-term overhead costs of transitioning into the Scheme. The removal of the TTP is expected to occur over the next five years, leading to future reductions in costs.
- **Payment calibration bias.** Participants from existing State/Territory programs have higher payment levels than those from Commonwealth programs or those previously not receiving supports. Analysis has shown that there is an implicit bias in the payment assumptions as these participants currently make up a greater proportion of participants

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<sup>55</sup> Some examples of historical cost deterioration from unanticipated sources include the incomplete rollout of the National Injury Insurance Scheme (NIIS), the inclusion of children with developmental delay in the Scheme, and coverage of student transport and personal care in schools in the Scheme.

<sup>56</sup> For further detail, please see Appendix D.

than they will in the future. A decrease in projected Scheme costs is thus expected as the participant profile changes and this payment bias recedes.

- **Increases in the usage of specialist disability accommodation (SDA).** Over time more participants are expected to access SIL arrangements and this will increase SDA costs. In addition, around 35% of current participants in SIL do not yet have SDA in their plans and costs are expected to increase for this reason.
- **An allowance for additional inflation** to allow for further “unidentified” areas of growth. This follows the high proportion of unaccounted sources of inflation seen in historical inflation experience over the past two years.

The following table shows that the overall impact of superimposed inflation is estimated to be a 14.3% increase in costs until 2029-30. This impact is expected to be more significant over the first four years.

**Table 15 Impact of adopted superimposed inflation assumptions on payments by projection year**

Source	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	Total
Plan management	0.0%	0.1%	0.0%							0.1%
Support coordination	0.1%	0.2%	0.1%							0.4%
Additional inflation	0.2%	0.3%	0.1%							0.6%
<b>Participant experience</b>	<b>0.3%</b>	<b>0.6%</b>	<b>0.3%</b>							<b>1.1%</b>
Employment	0.4%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%
Transport	0.1%	0.1%								0.1%
Additional inflation	0.3%	0.5%	0.8%	1.0%	0.5%					3.0%
<b>Mainstream interface</b>	<b>0.7%</b>	<b>1.0%</b>	<b>0.9%</b>	<b>1.0%</b>	<b>0.5%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>4.2%</b>
Ultimate utilisation	0.5%	1.0%	1.0%	1.1%	0.9%	0.6%	0.4%	0.3%	0.2%	6.1%
Payment bias	-0.3%	-0.4%	-0.1%	0.0%	0.0%					-0.8%
Unwind of TTP	-0.1%	-0.2%	-0.2%	-0.2%	-0.1%	0.0%	0.0%	0.0%	0.0%	-1.0%
ATHM	0.1%	0.1%								0.2%
Additional inflation	1.8%	2.1%	0.7%	0.1%	-0.3%	0.0%	0.0%	0.0%		4.4%
<b>Maturing Scheme</b>	<b>2.0%</b>	<b>2.6%</b>	<b>1.4%</b>	<b>0.9%</b>	<b>0.5%</b>	<b>0.6%</b>	<b>0.4%</b>	<b>0.3%</b>	<b>0.2%</b>	<b>8.9%</b>
<b>Total superimposed inflation</b>	<b>3.0%</b>	<b>4.1%</b>	<b>2.5%</b>	<b>1.9%</b>	<b>1.0%</b>	<b>0.7%</b>	<b>0.5%</b>	<b>0.3%</b>	<b>0.2%</b>	<b>14.3%</b>

### **Total inflation**

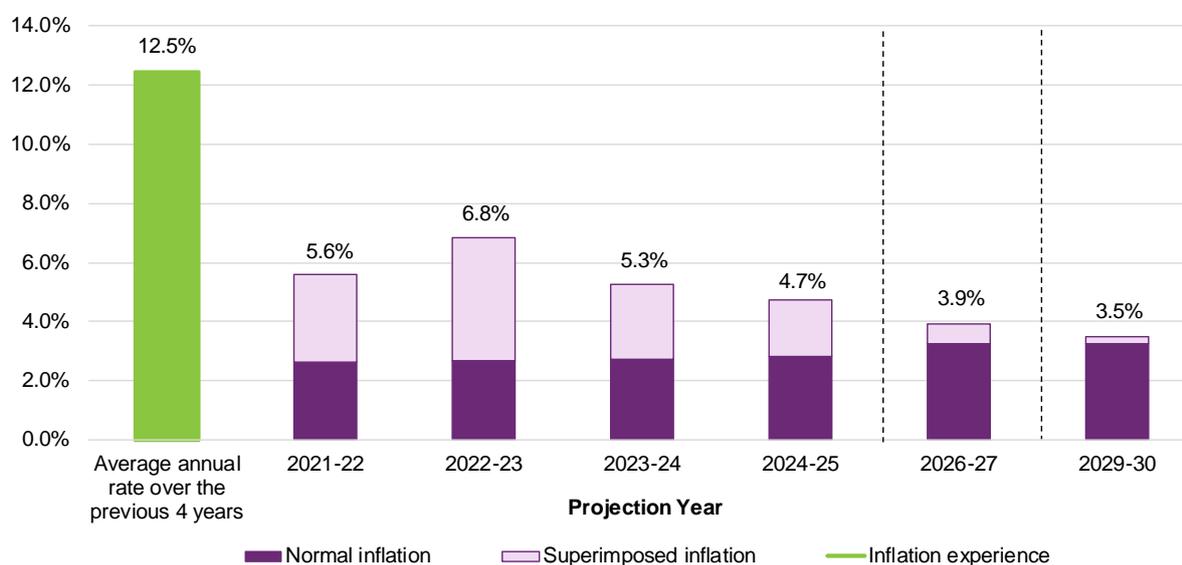
Normal inflation has been combined with superimposed inflation rates to calculate total inflation. Table 15 and Figure 47 below detail the underlying normal and superimposed inflation for each projection year, with a comparison made to historical inflation experience.

**Table 16 Comparison of historical inflation experience and adopted total inflation by projection year<sup>57</sup>**

Inflation on payments	Average annual rate over the previous 4 years	2021-22	2022-23	2023-24	2024-25	2026-27	2029-30	Thereafter
Normal inflation		2.6%	2.7%	2.7%	2.8%	3.3%	3.2%	3.2%
Superimposed inflation		3.0%	4.1%	2.5%	1.9%	0.7%	0.2%	0.0%
<b>Total inflation</b>	<b>12.5%</b>	<b>5.6%</b>	<b>6.8%</b>	<b>5.3%</b>	<b>4.7%</b>	<b>3.9%</b>	<b>3.5%</b>	<b>3.2%</b>

It is evident that the Scheme has experienced high levels of historical inflation, and these levels substantially exceed the adopted total inflation assumptions in the projections. This reflects an understanding that certain drivers of historical inflation are unlikely to persist over time.

**Figure 47 Comparison of historical inflation experience and adopted total inflation**



### ***Average payment per participant assumptions after inflation***

Table 16 details the resulting average annual payments by age group in each projection year after total inflation has been applied to the base average cost assumptions. Actual average annual payments for 2020-21 is also included below for comparison.

<sup>57</sup> The inflation assumptions are higher in 2022-23 than in 2021-22. These inflation assumptions are further stress-tested by analysing the change in the average payment per participant over time. The increase in the average payment per participant is similar from 2020-21 to 2021-22, and from 2021-22 to 2022-23.

**Table 17 Average annual payments (\$) by age group and projection year**

Age group	2020-21 <sup>1</sup>	2021-22	2022-23	2023-24	2024-25	2026-27	2029-30
Children (0 to 14)	18,327	18,932	19,921	20,839	21,740	23,371	25,773
Young adults (15 to 24)	51,889	53,323	54,728	55,338	55,711	56,213	59,109
Adults (25 to 64)	87,082	90,967	95,069	98,583	101,803	106,758	115,569
Older adults (65+)	82,366	91,499	96,471	100,205	103,453	108,467	116,811
<b>Total</b>	<b>53,195</b>	<b>55,035</b>	<b>57,178</b>	<b>59,074</b>	<b>60,913</b>	<b>64,123</b>	<b>70,290</b>

<sup>1</sup>Actual average payment per participant reflects the experience for the 12 months ending 31 March 2021.

Average annual payments increases each year across all age groups. Table 17 illustrates the percentage change in average annual payments by age group and projection year. The average annual costs, and therefore percentage change, each year is impacted by the change in the profile of participants.

**Table 18 Change in average annual payments (\$) by age group and projection year**

Age group	2021-22	2022-23	2023-24	2024-25	2026-27*	2029-30*
Children (0 to 14)	3.3%	5.2%	4.6%	4.3%	3.7%	3.3%
Young adults (15 to 24)	2.8%	2.6%	1.1%	0.7%	0.4%	1.7%
Adults (25 to 64)	4.5%	4.5%	3.7%	3.3%	2.4%	2.7%
Older adults (65+)	11.1%	5.4%	3.9%	3.2%	2.4%	2.5%
<b>Total</b>	<b>3.5%</b>	<b>3.9%</b>	<b>3.3%</b>	<b>3.1%</b>	<b>2.6%</b>	<b>3.1%</b>

\*Percentage change is calculated as the average annual rate over the period (i.e. 2 years between 2024-25

The greatest growth in average annual payments occurs for participants aged 0 to 14 and over 65 (children and older adults respectively).

Table 18 below displays the projected average annual payments (in 2024-25 dollars) by grouped disability and age band for the 2024-25 financial year. The following table shows that:

- The average annualised payment amount for all Scheme participants in 2024-25 is \$60,913 in 2024-2025 dollars.
- Children have lower average annualised payments than adults, reflecting a higher proportion of early intervention participants, less usage of SIL arrangements and more informal supports, primarily provided by parents.
- Participants with intellectual disability and other disabilities<sup>58</sup> have the largest average costs.

<sup>58</sup> In particular, participants with spinal cord injury, cerebral palsy and acquired brain injury.

- Participants with sensory disabilities<sup>59</sup> and developmental delay have the lowest average costs.

**Table 19 Average annual payments (\$) by age band and disability group in 2024-25 (2024-25 dollars)**

Disability Group	0 to 6	7 to 14	15 to 18	19 to 24	25 to 34
Autism	26,825	21,750	35,725	66,908	99,498
Intellectual Disability	34,254	27,846	47,879	87,865	116,000
Psychosocial Disability	12,065	31,338	54,063	72,707	71,621
Developmental Delay	16,094	11,386			
Sensory	12,841	9,028	10,964	12,973	17,480
Other	52,500	48,926	70,604	114,178	136,219
<b>Total</b>	<b>20,233</b>	<b>22,698</b>	<b>39,000</b>	<b>73,697</b>	<b>100,133</b>

Disability Group	35 to 44	45 to 54	55 to 64	65+	Total
Autism	128,272	136,801	154,390	190,393	40,029
Intellectual Disability	138,014	163,080	176,946	199,404	98,990
Psychosocial Disability	71,262	71,306	75,729	80,134	72,954
Developmental Delay					15,433
Sensory	22,956	24,384	24,547	25,828	17,066
Other	126,229	114,326	103,056	102,530	103,728
<b>Total</b>	<b>105,361</b>	<b>102,626</b>	<b>99,995</b>	<b>103,453</b>	<b>60,913</b>

Similarly, the expected average annual payment assumptions (in 2024-25 dollars) in 2021-22, split by support category and age band, are shown in Table 19. The averages presented in the tables below are a weighted combination of the assumptions by Projection Group for each support category.

**Table 20 Average annual payments (\$) by age band and support category in 2024-25 (2024-25 dollars)**

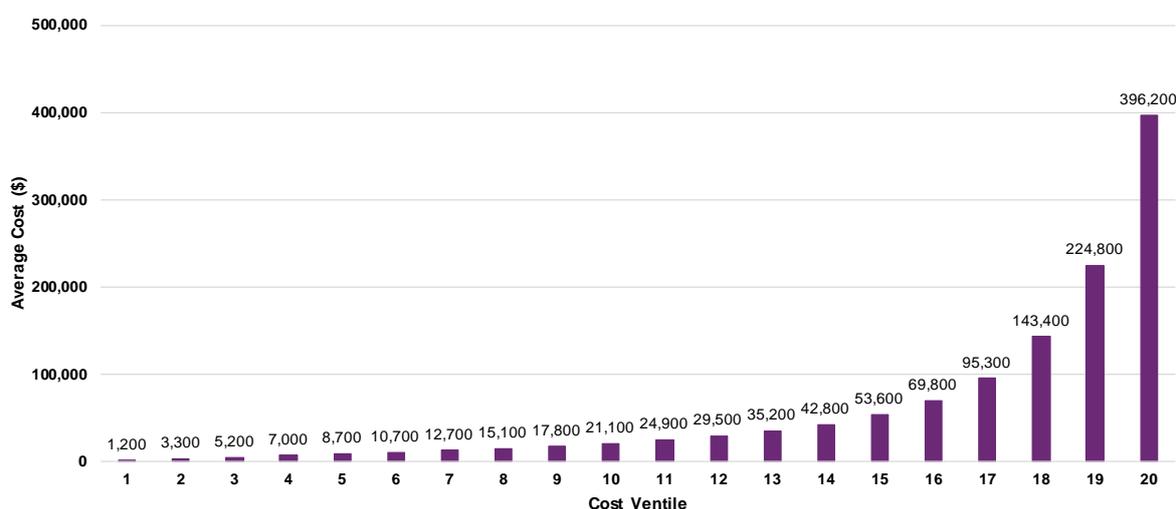
Support Category	0 to 6	7 to 14	15 to 18	19 to 24	25 to 34
Consumables	678	778	722	978	1,246
Daily Activities	2,712	7,331	17,210	36,631	56,149
Social Community Civic	582	1,644	6,871	19,503	25,377
Transport	516	1,479	2,433	2,028	1,997
Assistive Technology	720	511	692	890	1,298
Home Modifications	39	73	139	391	769
CB Daily Activities	14,044	8,806	6,091	4,327	4,541
CB Employment	0	1	1,174	4,690	3,828
Support Coordination	261	529	1,279	1,737	2,370
Remaining CB	679	1,548	2,387	2,523	2,557
<b>Total</b>	<b>20,233</b>	<b>22,698</b>	<b>39,000</b>	<b>73,697</b>	<b>100,133</b>

<sup>59</sup> This includes hearing impairment, visual impairment and other sensory/speech disabilities.

Support Category	35 to 44	45 to 54	55 to 64	65+	Total
Consumables	1,472	1,707	1,990	2,289	1,162
Daily Activities	63,112	63,094	61,412	63,837	32,286
Social Community Civic	22,824	19,581	17,699	17,580	11,326
Transport	1,901	1,830	1,813	1,890	1,626
Assistive Technology	1,841	2,424	3,242	3,717	1,399
Home Modifications	1,187	1,429	1,662	1,743	627
CB Daily Activities	4,843	5,145	5,649	6,224	7,534
CB Employment	2,776	1,983	1,400	1,056	1,435
Support Coordination	3,025	3,250	3,117	3,116	1,667
Remaining CB	2,380	2,183	2,011	2,002	1,851
<b>Total</b>	<b>105,361</b>	<b>102,626</b>	<b>99,995</b>	<b>103,453</b>	<b>60,913</b>

It is expected that projected participants and their projected average costs will follow a similar cost distribution by ventile as those presented in Figure 23. Applying this distribution results in the following average projected costs by ventile in 2024-25 (2024-25 dollars).

**Figure 48 Average projected cost by ventile (5% band) in 2024-25 (2024-25 dollars)**



## 5.4 Total participant cost projections

Combining participant number projections with average cost assumptions results in total participant cost projections for each financial year on a cash basis. An allowance for the expected change in the participant plan provision is then made to convert projected costs from a cash basis to an accrual basis.

Projected total participant costs, on both a cash and accrual basis, are presented below in Table 20. Participant costs for 2020-21 is also included in the below tables for comparison.

**Table 21a Projected participant costs on a cash basis<sup>60</sup>**

Participant Costs (\$m)	2020-21	2021-22	2022-23	2023-24	2024-25	2026-27	2029-30
Participant Costs (0-64)	21,751	25,916	30,049	33,597	36,705	42,490	52,778
Participant Costs (65+)	1,207	1,783	2,387	3,025	3,680	5,003	7,140
<b>Total Participant Costs (cash basis)</b>	<b>22,958</b>	<b>27,699</b>	<b>32,436</b>	<b>36,622</b>	<b>40,385</b>	<b>47,493</b>	<b>59,918</b>

**Table 22b Projected participant costs on an accrual basis**

Participant Costs (\$m)	2020-21	2021-22	2022-23	2023-24	2024-25	2026-27	2029-30
Participant Costs (0-64)	22,072	26,328	30,479	33,858	36,954	42,784	53,135
Participant Costs (65+)	1,225	1,811	2,421	3,049	3,705	5,038	7,189
<b>Total Participant Costs (accrual basis)</b>	<b>23,297</b>	<b>28,139</b>	<b>32,900</b>	<b>36,906</b>	<b>40,659</b>	<b>47,822</b>	<b>60,324</b>

The projected total participant costs on an accrual basis as a percentage of Gross Domestic Product (GDP) is included in Table 21.

**Table 23 Projected participant costs as a percentage of GDP (on an accrual basis) by projection year**

As % of GDP:	2020-21	2021-22	2022-23	2023-24	2024-25	2026-27	2029-30
Total Participant Costs (accrual basis)	1.13%	1.32%	1.51%	1.62%	1.70%	1.82%	1.96%
Total Participant Costs for 0-64 (accrual basis)	1.07%	1.23%	1.40%	1.48%	1.54%	1.63%	1.73%

Table 22 further breaks down projected participant costs on a cash basis, split between participants in SIL and those not in SIL.

**Table 24 Projected participant costs by SIL group (on a cash basis) by projection year**

Participant Costs (\$m)	2020-21	2021-22	2022-23	2023-24	2024-25	2026-27	2029-30
Non-SIL	15,120	18,760	22,129	24,990	27,522	32,514	40,787
SIL	7,838	8,939	10,306	11,632	12,863	14,979	19,132
<b>Total</b>	<b>22,958</b>	<b>27,699</b>	<b>32,436</b>	<b>36,622</b>	<b>40,385</b>	<b>47,493</b>	<b>59,918</b>

The projected costs are well above those projected previously, reflecting the recent Scheme experience of higher participant intake and higher average costs per participant.

Projected participant costs, split by support category, on a cash basis are presented below in Table 23.

<sup>60</sup> For a breakdown of total participant cost projections by State/Territory, please refer to Appendix E.  
National Disability Insurance Scheme: Annual Financial Sustainability Report Summary – Interim update

**Table 24 Projected participant costs by support category (on a cash basis) by projection year**

<b>Participant Costs (\$m)</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>2026-27</b>	<b>2029-30</b>
<i>Daily Activities</i>	12,899	15,098	17,398	19,489	21,405	24,977	31,549
<i>Social Community Civic</i>	3,878	5,159	6,015	6,795	7,509	8,965	11,609
<i>Transport</i>	689	707	850	969	1,078	1,290	1,632
<i>Consumables</i>	427	543	629	704	770	889	1,067
<i>Assistive Technology</i>	575	668	767	853	928	1,057	1,246
<i>Home Modifications</i>	237	283	344	382	416	472	566
<i>CB Daily Activities</i>	2,784	3,305	3,930	4,493	4,995	5,872	7,099
<i>Support Coordination</i>	599	673	850	999	1,105	1,303	1,624
<i>CB Employment</i>	212	481	703	839	951	1,197	1,655
<i>CB Choice and Control</i>	300	326	408	478	532	635	795
<i>Other CB supports</i>	358	456	541	621	695	837	1,075
<b>Total</b>	<b>22,958</b>	<b>27,699</b>	<b>32,436</b>	<b>36,622</b>	<b>40,385</b>	<b>47,493</b>	<b>59,918</b>

It can be seen that the Daily Activities support category is a large component of participant costs, representing over half of all participant costs. For the Capacity Building Daily Activities support category, the projected participant costs have increased and represent around 12% of participant costs over the next 15 projection years. This reflects the increases in payments for supports relating to therapy.

Table 24 details projected participant costs by age group on a cash basis.

**Table 25 Projected participant costs by age group (on a cash basis) by projection year**

Participant Costs (\$m)	2020-21	2021-22	2022-23	2023-24	2024-25	2026-27	2029-30
Children (0 to 14)	3,236	3,961	4,714	5,359	5,908	6,830	8,090
Young adults (15 to 24)	3,581	4,281	5,081	5,821	6,541	8,104	10,980
Adults (25 to 64)	14,933	17,674	20,254	22,416	24,256	27,556	33,708
Older adults (65+)	1,207	1,783	2,387	3,025	3,680	5,003	7,140
<b>Total</b>	<b>22,958</b>	<b>27,699</b>	<b>32,436</b>	<b>36,622</b>	<b>40,385</b>	<b>47,493</b>	<b>59,918</b>

Projected participant costs have increased across all age groups, with young adults representing a larger proportion of total participant costs over time which reflects both higher expected participant intake in these ages and ageing of a greater number of participants that have entered at earlier ages.

A breakdown of projected participant costs by disability group on a cash basis is presented below in Table 25.

**Table 26 Projected participant costs by disability group (on a cash basis) by projection year**

Participant Costs (\$m)	2020-21	2021-22	2022-23	2023-24	2024-25	2026-27	2029-30
Autism	4,260	5,350	6,622	7,876	9,133	11,847	17,025
Intellectual Disability	7,452	8,526	9,606	10,552	11,412	12,924	15,538
Psychosocial Disability	2,273	3,217	3,966	4,603	5,131	6,097	7,718
Developmental Delay	459	760	954	1,112	1,235	1,409	1,603
Sensory	25	554	650	732	803	936	1,147
Other	8,488	9,292	10,637	11,748	12,671	14,279	16,887
<b>Total</b>	<b>22,958</b>	<b>27,699</b>	<b>32,436</b>	<b>36,622</b>	<b>40,385</b>	<b>47,493</b>	<b>59,918</b>

Participants with autism and intellectual disability continue to represent a significant component of total participant costs. Additionally, higher expected intake of participants with psychosocial disability, partly driven by the introduction of the disability-specific participant pathway, and developmental delay has resulted in higher projected participant costs.

## 5.5 Comparison with PBS estimates and the Productivity Commission estimates

Table 26 shows that the baseline projection is materially higher than the estimate of reasonable and necessary supports in the most recent PBS (2021-22) from 2021-22 onwards.

**Table 27 Total Participant costs (accrual basis) compared to PBS by projection year**

<b>Comparison to Portfolio Budget Statements (PBS) (\$m)</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>Total</b>
<b>2021-22 Portfolio Budget Statements (PBS)</b>	<b>26,487</b>	<b>28,257</b>	<b>29,425</b>	<b>31,884</b>	<b>116,054</b>
Participant costs from Dec20 AFSR (cash basis)	27,699	32,436	36,622	40,385	137,141
Expected changes in participant plan provision	440	464	284	274	1,462
<b>Participant costs from Dec20 AFSR (accrual basis)</b>	<b>28,139</b>	<b>32,900</b>	<b>36,906</b>	<b>40,659</b>	<b>138,603</b>
<b>Participant costs, compared to Portfolio Budget Statements</b>	<b>1,651</b>	<b>4,642</b>	<b>7,481</b>	<b>8,775</b>	<b>22,550</b>

The baseline projection has also been compared against the projections outlined in 2017 PC study report<sup>61</sup>.

Table 27 shows that based on the 2017 PC study report, the estimated annual cost of the Scheme in 2021-22 was \$25.2 billion, or \$23.7 billion attributable to participant costs. By comparison, the baseline projected participant costs in 2021-22 are about \$28.1 billion, or about 19% above the 2017 PC estimate.

The difference is expected to continue to grow, such that by 2029-30, the baseline projected participant costs (\$60.3 billion) are 58% above the 2017 PC estimate of \$38.1 billion. It should be noted that 2017 PC estimate did not include costs for children with developmental delay, school transport, personal care in schools, disability related health supports, or a NIIS offset for motor/workplace injuries only – these are referred to as “unanticipated costs” in the table below.

A comparison of projected participants with 2017 PC estimates, is included in Appendix F.

<sup>61</sup> Productivity Commission 2017, *National Disability Insurance Scheme (NDIS) Costs*, Study Report, Canberra (Table 2.3), excluding operating costs, with interim years calculated on a consistent basis  
National Disability Insurance Scheme: Annual Financial Sustainability Report Summary – Interim update

**Table 28 Estimates of Scheme costs in the 2017 PC study report<sup>62</sup>**

	2021-22	2022-23	2023-24	2024-25	2026-27	2029-30
2017 Productivity Commission report	\$25.2b	\$26.7b	\$28.4b	\$30.6b	\$34.5b	\$40.9b
<i>less operating costs</i>	-\$1.4b	-\$1.5b	-\$1.5b	-\$2.1b	-\$2.3b	-\$2.8b
<b>2017 Productivity Commission participant costs</b>	<b>\$23.7b</b>	<b>\$25.2b</b>	<b>\$26.8b</b>	<b>\$28.5b</b>	<b>\$32.2b</b>	<b>\$38.1b</b>
<i>add unanticipated costs:</i>						
Decrease in NIIS offset as not fully operational	\$0.5b	\$0.5b	\$0.6b	\$0.6b	\$0.7b	\$0.9b
Children with developmental delay	\$0.5b	\$0.5b	\$0.6b	\$0.6b	\$0.7b	\$0.8b
School transport	\$0.4b	\$0.4b	\$0.4b	\$0.4b	\$0.5b	\$0.5b
Personal care in schools	\$0.3b	\$0.3b	\$0.3b	\$0.3b	\$0.3b	\$0.4b
Disability related health supports	\$0.2b	\$0.3b	\$0.3b	\$0.3b	\$0.4b	\$0.4b
<b>Participant cost allowing for unanticipated costs</b>	<b>\$25.5b</b>	<b>\$27.2b</b>	<b>\$29.0b</b>	<b>\$30.8b</b>	<b>\$34.8b</b>	<b>\$41.2b</b>
<b>Baseline projected participant costs (accrual basis)</b>	<b>\$28.1b</b>	<b>\$32.9b</b>	<b>\$36.9b</b>	<b>\$40.7b</b>	<b>\$47.8b</b>	<b>\$60.3b</b>

## 5.6 Impact of recent experience post 31 December 2020

As discussed in section 4.4, the gap between actual experience and expected experience has continued to widen, with total cost 6.4% above expected in 2020-21 at 31 May 2021, compared with 4.2% at 31 December 2020. Analysis of this most recent experience post 31 December 2020 indicates that scheme costs are likely to be 4% higher than projected in this report. The impact if this trend continued would be an additional \$5.5 billion over the four year period from 2021-22 to 2024-25. The 4% increase is based on the increasing rate of average participant payments over and above the current projection, and the consequent increases on total cost. This figure is only indicative and a deeper assessment is underway. This revised projection will be included in the AFSR summary included in the NDIA annual report in October 2021. A comparison of the estimated participant costs, allowing for experience post 31 December 2020, with the most recent PBS (2021-22) is included in Table 28.

<sup>62</sup> The Productivity Commission costings did not include an explicit allowance for children with developmental delay, for the student transport and personal care in schools in-kind support programs and for disability related health supports, noting that these four items could account for an additional \$1.5 billion per annum.

**Table 29 Estimated increase in participant cost allowing for the impact of recent experience by projection year**

<b>Comparison to Portfolio Budget Statements (PBS) (\$m)</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>Total</b>
<b>2021-22 Portfolio Budget Statements (PBS)</b>	<b>26,487</b>	<b>28,257</b>	<b>29,425</b>	<b>31,884</b>	<b>116,054</b>
Participant costs from Dec20 AFSR (accrual basis)	28,139	32,900	36,906	40,659	138,603
Expected increase in costs from experience post 31 December 2020	1,126	1,316	1,476	1,626	5,544
<b>Estimated participant costs (accrual basis)</b>	<b>29,264</b>	<b>34,216</b>	<b>38,383</b>	<b>42,285</b>	<b>144,148</b>
<b>Participant costs, compared to Portfolio Budget Statements</b>	<b>2,777</b>	<b>5,958</b>	<b>8,958</b>	<b>10,401</b>	<b>28,094</b>

## 5.7 Scheme reform

The projection of Scheme costs is substantially higher than originally projected by the Productivity Commission, and higher than the estimates in the 2021-22 Portfolio Budget Statements. The introduction to NDIA's Quarterly Report to Disability Ministers at 31 March 2021 provided detail on a comprehensive set of initiatives being progressed to improve the Scheme's fairness, consistency, flexibility and affordability. These initiatives are in-line with the participant-focussed vision embodied in the 2011 Productivity Commission Report on Disability Care and Support. The initiatives include:

- Implementing the Participant Service Guarantee recommend in the Tune review
- Reviewing Early Childhood Early Intervention (ECEI)
- Reviewing Supported Independent Living (SIL)
- Reviewing reasonable and necessary levels of support and improving operational guidelines
- Clarifying mainstream interfaces.

Independent assessments for access and planning decisions are also being considered, including determining an overall package of supports rather than the support line item approach currently used in planning. Consultation is underway on this initiative, including how to best implement independent assessments.

More detail on independent assessments and the consultation underway is included in the 31 March 2021 quarterly report to Disability Ministers. This report also includes more detail on the other initiatives listed above.

The NDIA considers these reforms to be necessary to improve the financial sustainability of the NDIS now and into the future.

## 6. Actuarial peer review



Australian Government  
Australian Government Actuary

2 July, 2021

Dr Helen Nugent  
Chairman  
National Disability Insurance Agency  
GPO Box 700  
CANBERRA ACT 2601

Dr Nugent

### INTERIM FINANCIAL SUSTAINABILITY REPORT

This letter summarises my review of the 31 December 2020 projection of Scheme costs, prepared by the Scheme Actuary.

To inform his review, I have been provided with the projection model used to undertake the 31 December 2020 projection and supplementary information summarizing the experience of the scheme to date. This review focused on the first five years of the projection.

This projection results in a significant increase in the projected participant costs for the Scheme, compared to prior projections.

Part of the increase is attributable to the higher than expected starting point for this projection, both higher than anticipated participant numbers and average costs. The Scheme Actuary's report discusses how recent scheme experience has been above what was previously expected. This part of the increase is attributable to experience that has already occurred.

Part of the increase in the projection is attributable to updated assumptions relating to the future experience of the Scheme. This takes into consideration the emerging experience of the scheme to inform such assumptions, in conjunction with judgement about how future experience may evolve. In doing so, these interim projections more fully represent the emerging experience than past projections. This is appropriate.

There is considerable uncertainty when setting some of the assumptions for the projection. This is particularly relevant when considering the ultimate prevalence of disabilities in the general population, the rates of new incidence of disabilities and whether these rates are stable over time, non-mortality exit rates from the scheme, long term SIL numbers and costs, the ultimate rate of utilisation of participant plans and future superimposed inflation. This uncertainty has existed in prior projections and remains present for this projection. Furthermore, in any scheme which is not yet fully mature, it is inevitable that there will be additional uncertainty when setting projection assumptions.

The Treasury Langton Crescent Parkes ACT 2600 General Enquiries 02 6263 4189 Facsimile 02 6263 2677

Uncertainty means that the actual future experience will vary from the projection set out in this report. Uncertainty in all projections is generally greater in the longer term, compared to the shorter term. This projection assumes a reduction in the rate of new entrants and an increase in the rate of exits, as the scheme matures. In addition, the projection assumes a reduction in the future rates of superimposed inflation. Whilst I believe the Scheme Actuary has taken reasonable steps to set "best estimate" assumptions, future experience has the potential to vary more considerably in respect of these assumptions. There is potential for this projection to understate actual future cash flows.

Uncertainty is exacerbated due to the immature phase of this scheme, relative to its long-term purpose and design. Whilst noting that there is uncertainty in a number of elements regarding any projection, I am nevertheless satisfied that the results of the scheme projection are reasonable and within a range of reasonably likely outcomes in the short term.

Yours sincerely

A handwritten signature in blue ink, appearing to read "Guy Thorburn". The signature is fluid and cursive, with a long horizontal stroke at the end.

Guy Thorburn  
Australian Government Actuary

# Appendix A: New incidence

## Modelling new incidence rates

The prevalence rates of disability for New South Wales, Victoria, Australian Capital Territory and Queensland were used to derive an implicit new incidence rate.<sup>63</sup> The model developed for this analysis presumes that the prevalence rate for any age (say X) is equal to the prevalence rate at the previous age (X-1) plus the new incidence rate (for age X) minus the exit rate (again, for age X). From this relationship, a raw new incidence rate for each age can be indirectly calculated.<sup>64</sup>

This methodology was preferred to directly modelling new incidence as prior investigations into the rate of participant intake in mature regions showed elevated levels of participant intake. This suggested intake represented both new incidence and intake from people with existing disabilities who are new to funded supports. However, recent experience has shown that participant intake in mature regions has no indication of slowing down. Therefore, in this model, it was prudent to adopt a blended approach giving equal credibility to the indirect new incidence rate and the direct new incidence rate.

## Adopted assumptions

### New Incidence Rate (per 100,000 population)

Age group	As at 31 December 2019	As at 31 December 2020
Children (0 to 14)	595.8	820.4
Young adults (15 to 24)	17.8	104.2
Adults (25 to 64)	66.2	110.8
<b>Total</b>	<b>177.1</b>	<b>267.3</b>

### New Incidence Rate (per 100,000 population), 0-14 years old

Disability type	As at 31 December 2019	As at 31 December 2020
Autism	217.5	208.3
Intellectual Disability	35.8	41.9
Psychosocial Disability	1.8	1.6
Developmental Delay	270.5	506.2
Sensory	45.5	38.2
Other	24.6	24.2
<b>All Disabilities</b>	<b>595.8</b>	<b>820.4</b>

<sup>63</sup> The methodology does not work for regions that phased by age. Hence, South Australia and Tasmania were excluded from the analysis, and the assumption that participants aged 0 to 18 entered with the rest of the population was made for Nepean Blue Mountains and Townsville.

<sup>64</sup> An underlying assumption of this relationship is that the rate of onset for each disability and in total has stayed constant over time, while noting that this may not be true for some disabilities

**New Incidence Rate (per 100,000 population), 15-24 years old**

<b>Disability type</b>	<b>As at 31 December 2019</b>	<b>As at 31 December 2020</b>
Autism	0.0	48.5
Intellectual Disability	1.3	24.5
Psychosocial Disability	12.7	13.3
Developmental Delay	0.0	0.0
Sensory	0.1	8.4
Other	3.7	9.5
<b>All Disabilities</b>	<b>17.8</b>	<b>104.2</b>

**New Incidence Rate (per 100,000 population), 25-64 years old**

<b>Disability type</b>	<b>As at 31 December 2019</b>	<b>As at 31 December 2020</b>
Autism	0.0	2.2
Intellectual Disability	0.0	6.4
Psychosocial Disability	14.7	35.0
Developmental Delay	0.0	0.0
Sensory	10.4	11.9
Other	41.2	55.4
<b>All Disabilities</b>	<b>66.2</b>	<b>110.8</b>

# Appendix B: Exits

## *Modelling mortality exit rates*

The mortality exit assumptions are calibrated using an experience-based model, drawing on the experience during the 2019 calendar year. Actual experience has been explicitly allowed for in the mortality model through a credibility<sup>65</sup> approach, applied at the gender, level of function and primary disability level, and then distributed at the age group level based on exposure.

## *Modelling non-mortality exit rates*

Non-mortality rates are expected to be higher at younger ages, reflecting exits due to early intervention, and for participants over the age of 65, as they exit the Scheme into the aged care system. Non-mortality exit rates are also highest for those disabilities with the greatest proportion of participants entering the Scheme through the early intervention requirement (Section 25 of the Act).

The experience of non-mortality exits to date has been volatile to date. A blended approach was adopted for this projection, with assumed non-mortality exit rates starting broadly at current levels and progressively increasing over the next 4 years to reach the long-term assumptions by 2024-25. This reflects the expectation that non-mortality exits will gradually become more stable by 2024-25 and reach similar levels to that seen in CY2018.<sup>66</sup>

## *Adopted assumptions*

### **Total Exit Rate**

<b>Age group</b>	<b>As at 31 December 2019</b>	<b>As at 31 December 2020</b>
Children (0 to 14)	2.0%	2.2%
Young Adults (15 to 24)	1.0%	1.0%
Adults (25 to 64)	2.5%	3.0%
<b>Overall</b>	<b>2.1%</b>	<b>2.1%</b>

<sup>65</sup> Participant groups that have had more mortality exits and exposure years will have a higher credibility factor applied to their actual experience over the most recent calendar year. It is worth bearing in mind that some disability types have relatively low exposure and little exits experience, and some participant groups also have exposure levels which were too sparse to be utilised in revising assumptions.

<sup>66</sup> The non-mortality exit rate assumptions are based primarily on experience in the 2018 calendar year, with the exception of developmental delay. Non-mortality assumptions for participants with developmental delay under the age of 14 have been revised upwards to better reflect the experience of single ages from 0 to 14.

<b>Disability type</b>	<b>As at 31 December 2019</b>	<b>As at 31 December 2020</b>
Autism	0.6%	0.6%
Delay	7.7%	9.6%
Intellectual Disability	1.2%	1.2%
Psychosocial Disability	1.6%	1.6%
Sensory	3.6%	3.5%
Other	3.3%	3.4%
<b>Overall</b>	<b>2.1%</b>	<b>2.1%</b>

# Appendix C: Payments

## Modelling average payment assumptions

Payment assumptions have been calculated separately for each of the 15 different support categories, with different types of participant costs treated as follows:

- Payments to participants and providers are treated on a cash basis (when the cash is paid out by the Agency, regardless of when the support was provided).
- Payments relating to in-kind supports are treated on an accrual basis (when the service was actually provided to the participant).<sup>67</sup>
- Payments relating to Residential Aged Care supports have been removed due to the infrequent occurrence of cross-billing payments which distort the payment experience in a given period. Costs relating to Residential Aged Care are allowed for separately in the projection.

Payments in the three months to 31 December 2020 for mature participants<sup>68</sup> were considered, annualised and smoothed into cost assumptions per Projection Group.

## Adopted assumptions<sup>69</sup>

### Average annual payments (\$) in 2024-25 (2024-25 dollars)

Age group	As at 31 December 2019	As at 31 December 2020
Children (0 to 14)	20,562	21,740
Young adults (15 to 24)	52,276	55,711
Adults (25 to 64)	92,942	102,017
<b>Total</b>	<b>57,437</b>	<b>60,913</b>

Disability type	As at 31 December 2019	As at 31 December 2020
Autism	39,177	40,029
Intellectual Disability	103,472	98,990
Psychosocial Disability	54,308	72,954
Developmental Delay	13,092	15,433
Sensory	16,677	17,066
Other	90,919	103,728
<b>All Disabilities</b>	<b>57,437</b>	<b>60,913</b>

<sup>67</sup> This approach was taken to remove any timing bias related to payments, given that there is a general lag between when supports are provided and when data is received from States/Territory and Commonwealth governments.

<sup>68</sup> Mature participants are defined as participants who were active at both 30 September 2020 and 31 December 2020, and had their first plan approved on or prior to 30 September 2019.

<sup>69</sup> As these assumptions are presented at an aggregate level, changes in the mix of participants will impact changes to average annual costs over time.

<b>Support category</b>	<b>As at 31 December 2019</b>	<b>As at 31 December 2020</b>
Consumables	1,052	1,162
Daily Activities	29,972	32,286
Social Community Civic	10,743	11,326
Transport	2,293	1,626
Assistive Technology	1,997	1,399
Home Modifications	727	627
CB Daily Activities	6,541	7,534
CB Employment	1,123	1,435
Support Coordination	1,468	1,667
Remaining CB	1,520	1,851
<b>Total</b>	<b>57,437</b>	<b>60,913</b>

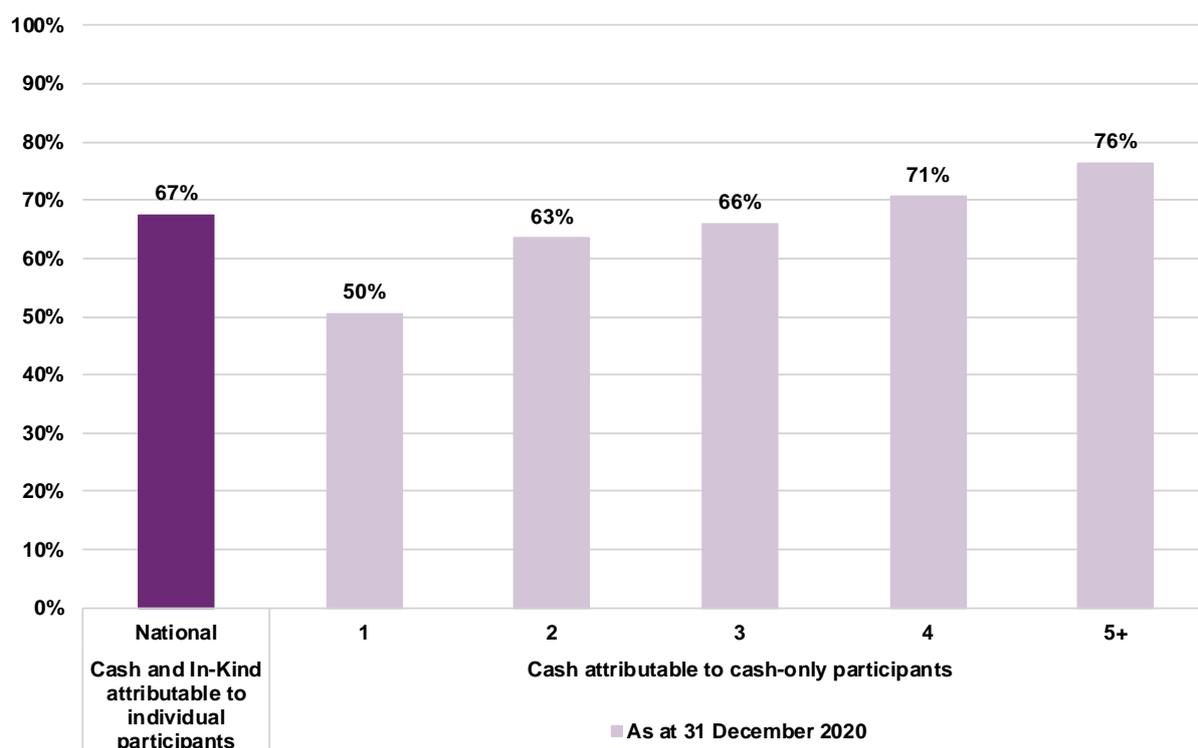
## Appendix D: Utilisation over time

Plan budgets represent the dollar amount of support that has been made available to participants in their plan. Experience has demonstrated that participants do not use all that is included in their plan budget. The proportion of plan budgets which are used is referred to as the 'utilisation rate'.

For supports provided between 1 April 2020 and 30 September 2020<sup>70</sup>, data as at 31 December 2020 indicated that 67% of support had been utilised nationally.

Figure 49 shows the breakdown of utilisation rates by plan number. Utilisation of plan budgets for participants on their first plan is 50%, compared to 76% for participants on their fifth plan. This highlights that the longer a participant is in the Scheme, the more they utilise their plan, as they get more familiar with the Scheme and are better able to navigate their supports. Over time, the number of participants on their first plan decreases relative to the number of participants on their second (or later) plan. This is one of the reasons that aggregate plan utilisation is increasing over time.

**Figure 49 Utilisation of plan budgets by plan number from 1 April 2020 to 30 September 2020 based on data to 31 December 2020<sup>71</sup>**



<sup>70</sup> This allows for a three month lag between when support was provided and when it had been paid. Utilisation will increase as more payments for this support period are made.

<sup>71</sup> Participants receiving in-kind supports are excluded from the analysis as it is not possible to accurately separate in-kind payments and plan budgets between plans. Only utilisation of plan budgets between 1 April 2020 to 30 September 2020 is shown, as experience in the most recent quarter is still emerging.

Further evidence that utilisation increases over time can be seen below when considering plan budgets by support year. Table 29 provides an overview of the estimated ultimate utilisation rates<sup>72</sup> by support year as at 31 December 2020.

**Table 30 Estimated ultimate utilisation rate by support year as at 31 December 2020**

Utilisation component	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
<b>Plan budgets (\$m)</b>	<b>133</b>	<b>497</b>	<b>939</b>	<b>3,234</b>	<b>7,741</b>	<b>14,560</b>	<b>24,515</b>	<b>15,534</b>	<b>67,151</b>
Payments to date (\$m)	86	371	704	2,186	5,431	10,356	17,147	9,821	46,102
Participant plan provision - central estimate (\$m)	0	0	0	1	8	51	310	1,357	1,727
<b>Projected ultimate payments (\$m)</b>	<b>86</b>	<b>371</b>	<b>704</b>	<b>2,186</b>	<b>5,440</b>	<b>10,407</b>	<b>17,457</b>	<b>11,178</b>	<b>47,830</b>
<b>Projected ultimate utilisation (%)</b>	<b>64.7%</b>	<b>74.7%</b>	<b>75.0%</b>	<b>67.6%</b>	<b>70.3%</b>	<b>71.5%</b>	<b>71.2%</b>	<b>72.0%</b>	<b>71.2%</b>

Over the transition period (from 1 July 2016), projected ultimate utilisation rates have been steadily increasing and are currently at 72% in the latest support year (2020-21).

<sup>72</sup> Ultimate utilisation rate considers both payments already made and payments for supports already provided but not yet paid. This is to allow for the impact of payment delays when calculating ultimate utilisation for a given support year.

## Appendix E: State/Territory breakdown

As mentioned in section 3, the projection model adopts a national view on its assumptions, and therefore its projected participant numbers and costs. A separate model has been developed to allocate projected national participant numbers and costs by State and Territory. The resulting participant numbers and costs by jurisdiction can be seen below in Table 30 and Table 31.

**Table 31 Projected participant numbers by jurisdiction**

Participant numbers	2021-22	2022-23	2023-24	2024-25	2026-27	2029-30
NSW	168,283	186,385	197,937	210,102	233,780	267,954
VIC	143,053	158,652	171,936	182,503	203,071	232,756
QLD	110,172	125,227	138,044	146,528	163,041	186,875
SA	43,833	46,886	49,655	52,707	58,647	67,220
WA	46,349	51,331	55,847	59,280	65,960	75,603
TAS	12,417	13,744	14,797	15,707	17,477	20,031
ACT	9,111	9,248	9,400	9,978	11,103	12,726
NT	4,681	5,173	5,611	5,956	6,628	7,596
<b>Total</b>	<b>537,900</b>	<b>596,647</b>	<b>643,229</b>	<b>682,760</b>	<b>759,706</b>	<b>870,761</b>

**Table 32 Projected participant costs by jurisdiction and projection year**

Participant costs (\$m)	2021-22	2022-23	2023-24	2024-25	2026-27	2029-30
NSW	8,787	10,265	11,578	12,767	15,014	18,942
VIC	6,453	7,518	8,410	9,274	10,906	13,759
QLD	6,163	7,366	8,468	9,338	10,982	13,855
SA	2,256	2,608	2,936	3,237	3,807	4,803
WA	2,410	2,809	3,167	3,492	4,107	5,182
TAS	725	858	980	1,081	1,271	1,603
ACT	439	477	505	557	655	826
NT	467	535	579	639	751	948
<b>Total</b>	<b>27,699</b>	<b>32,436</b>	<b>36,622</b>	<b>40,385</b>	<b>47,493</b>	<b>59,918</b>

## Appendix F: Participant projection comparison

Section 5.5 compared total participant cost projections with 2017 PC estimates. The following table and figure compare the underlying participant number projections. While participant number projections are similar as at 30 June 2021, the projections diverge significantly in subsequent years, and reach a total difference of 287,900 by 2030.

**Table 33 Comparison of projected participant numbers with PC estimates as at 30 June**

Participant projections	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
PC estimates (total)	485,877	497,728	509,347	520,834	532,042	542,873	553,234	563,096	573,049	582,860
Dec20 AFSR (total)	468,692	537,900	596,647	643,229	682,760	721,609	759,706	797,155	834,128	870,761
<b>Difference (total)</b>	<b>17,184</b>	<b>-40,171</b>	<b>-87,300</b>	<b>-122,395</b>	<b>-150,719</b>	<b>-178,736</b>	<b>-206,472</b>	<b>-234,058</b>	<b>-261,078</b>	<b>-287,900</b>
PC estimates (0 to 64)	464,998	471,252	477,223	483,008	488,517	493,603	498,339	502,759	507,520	513,162
Dec20 AFSR (0 to 64)	451,757	515,870	569,200	610,295	644,550	678,113	710,949	743,295	775,369	807,266
<b>Difference (0 to 64)</b>	<b>13,241</b>	<b>-44,618</b>	<b>-91,977</b>	<b>-127,286</b>	<b>-156,032</b>	<b>-184,511</b>	<b>-212,610</b>	<b>-240,536</b>	<b>-267,848</b>	<b>-294,104</b>
PC estimates (65+)	20,878	26,476	32,124	37,826	43,524	49,271	54,895	60,337	65,529	69,698
Dec20 AFSR (65+)	16,935	22,030	27,447	32,934	38,211	43,496	48,757	53,860	58,759	63,495
<b>Difference (65+)</b>	<b>3,943</b>	<b>4,446</b>	<b>4,677</b>	<b>4,892</b>	<b>5,314</b>	<b>5,775</b>	<b>6,139</b>	<b>6,477</b>	<b>6,770</b>	<b>6,203</b>

Figure 50 Comparison of projected total participant numbers with PC estimates

