

National Disability Insurance Scheme

Annual financial sustainability report

2013/14

Version 1, September 2014

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Scheme Actuary

Executive Summary

Introduction

The National Disability Insurance Scheme (NDIS) Act received Royal Assent on 28 March 2013, and the NDIS became fully operational on 1 July 2013 with the commencement of NDIS trial sites. A number of significant milestones in recent history contributed to the launch of the NDIS, and importantly the insurance approach to funding and supporting people with a disability over their lifetime.

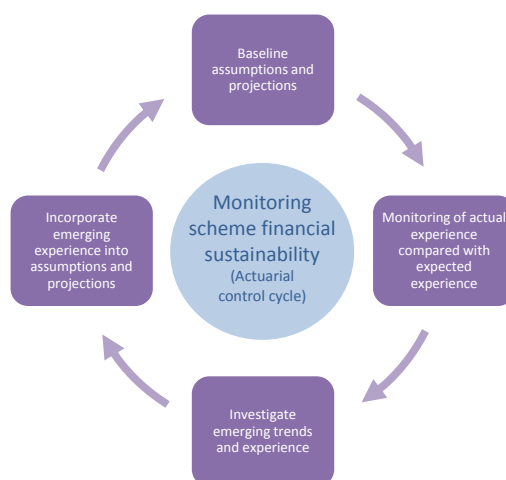
The NDIS Act commits to the provision of reasonable and necessary supports, including early intervention supports, to all eligible participants. Unlike the existing disability system, eligible participants will be provided with reasonable and necessary supports and this introduces financial risk into the disability system. This annual sustainability report is required under section 180B of the NDIS Act, and provides an assessment of the financial sustainability of the NDIS after its first year of operations. Further, this report describes the methodology for monitoring financial sustainability.

The framework for monitoring financial sustainability

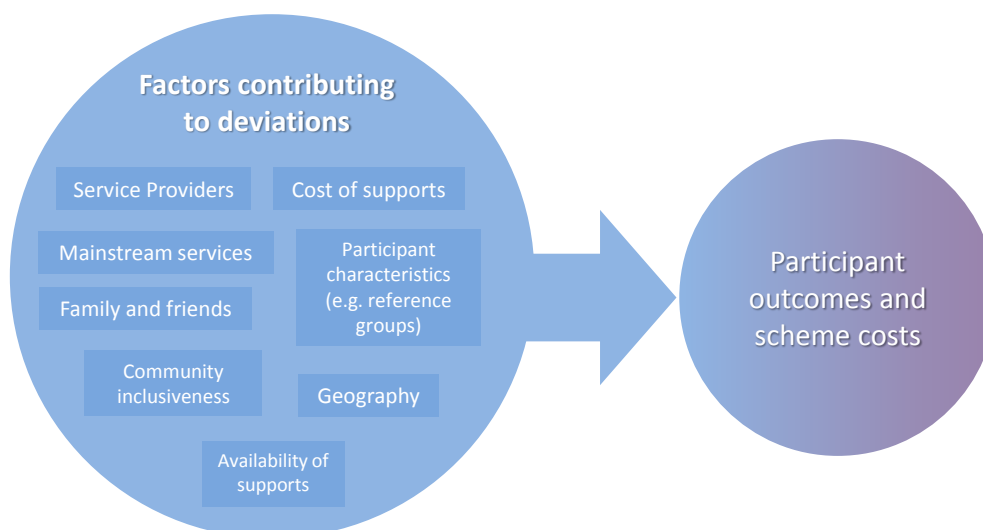
Financial sustainability can be defined as a state where:

- 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 supports; and
- contributing governments think that the cost is and will continue to be affordable, is under control, represents value for money and, therefore, remain willing to contribute.

In order to continue to achieve financial sustainability a solid framework for monitoring financial sustainability is required. This process is outlined in section 3. This framework includes continuous monitoring and evaluation of participant outcomes and costs.



Specifically, the framework involves collecting data on the number of participants, the characteristics of these participants (to allow analysis of reference groups), the outcomes for these participants, and the cost of supports provided to participants. This allows a detailed understanding of deviations between actual and expected experience and hence identification of cost drivers. This information can then be used by the NDIS Board and NDIA management to implement any changes required to continue to ensure the NDIS remains financially sustainable.



Scheme experience

As at 30 June 2014:

- 10,271 people had lodged an access request
- 8,585 participants were eligible for the scheme
- 7,316 participants had an approved plan.

The Productivity Commission estimates assumed that around 2.2% of the population under 65 years would be eligible for the NDIS – specifically 2.9% for 0-14 year olds, 1.8% for 15-49 year olds, and 2.4% for 50-64 years olds. Whilst one year's worth of experience is not adequate to understand the number of participants at full scheme, departure from the Productivity Commission estimates does not seem warranted. Specifically:

- The New South Wales and Victorian trial sites appear likely to have a lower number of participants than expected. The number of medium and high cost participants across the trial sites is likely to be broadly in line with expected. However, the number of low cost participants is likely to be lower than expected.

- The numbers of participants in the South Australian and Tasmanian age-specific trial sites are tracking in line with expected.
- A number of people in current disability programs have declined to phase into the Scheme or have withdrawn indicating they may not need NDIS support at the present time, but may require some support in the future (or episodically).

Understanding the distribution of cost is critical to managing the financial sustainability of the scheme. As mentioned above, a higher proportion of low cost participants were expected compared with actual experience in the New South Wales and Victorian trial sites. The distribution of cost is skewed towards a small number of participants with high cost packages – specifically, of the 5,148 active participants with approved plans in the New South Wales and Victorian trial sites, 3,346 participants have an annualised package cost of less than \$30,000 (65%). The total annualised package costs of these 3,346 participants only represent 18% of committed supports. On the other hand, the total annualised package costs of the 571 participants with support packages of more than \$100,000 represents 49% of total committed supports.

Lastly, analysis of packages across age groups and disability types indicates that costs increase with age, with children costing less than adults. This is in line with the Productivity Commission estimates.

Projections

In order to project the costs of the NDIS over time, a number of assumptions were required. These assumptions include:

- rates of new incidence by age and disability
- rates of exit from the scheme, both through mortality and because of no longer requiring NDIS support
- ageing in the scheme
- package costs over the participant’s lifetime (including the impact of early investment)
- inflation
- estimates of the impact of accident compensation schemes and particularly the National Injury Insurance Scheme (NIIS)¹
- operating costs.

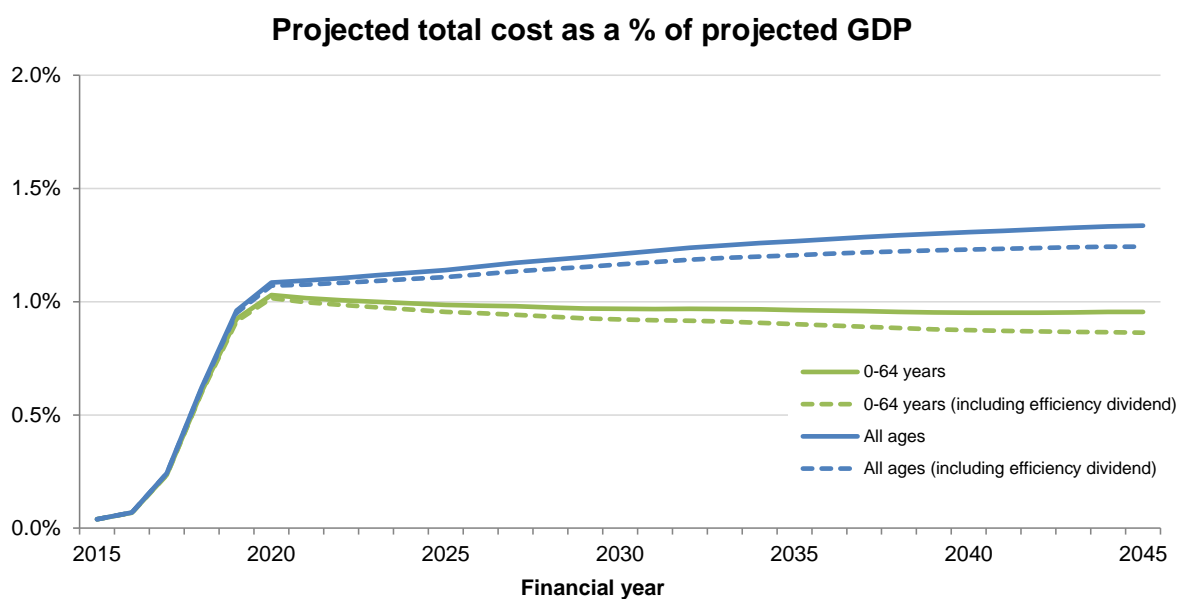
¹ The proposed NIIS sees States/Territories put in place arrangements to cover the care and support needs of people seriously injured in motor vehicle accidents, the workplace, through medical misadventure, or other means (referred to as general injury), regardless of whether the individual was at fault in the accident.

Overall:

- Package costs at full scheme in 2019/20 are estimated to be \$21.8 billion, including \$1.2 billion for people aged over 65 years (Table 6.1).
- The effect of introducing the NIIS reduces the cost of the NDIS over time. Further, some people with serious injury are already covered under accident compensation scheme arrangements and hence do not require the support of the NDIS. The impact in 2019/20 reduces the total cost of the NDIS to \$21.1 billion.
- Including operating costs increases this to \$22.7 billion.
- Including an efficiency dividend due to early investment reduces this number to **\$22.4 billion**. The efficiency dividend could be higher or lower than expected, and more experience (over many years) will need to emerge to understand the actual efficiency dividend.

In 2044/45, over 65 year olds represent a much higher proportion of package costs – around 27% of costs compared with 5% in 2019/20. Further, the reduction due to the maturing of the NIIS increases – in 2044/45 this is \$6.1 billion (around 6% of total package costs).

Compared with the PC estimates of full scheme costs, the estimates below are consistent when considering inflation and population growth, and only considering participants under the age of 65 years – 0.9% of GDP in the long term (see figure below). However, as participants age in the scheme the cost of the scheme increases from 0.9% of GDP in 2019/20 to 1.3% in 2044/45, with the additional 0.4% of GDP contributing to the cost of the aged care system.



The PC provided a range around the full scheme estimate indicating that the estimate was uncertain. In order to better manage short term cash flow uncertainty, a buffer could be considered. This buffer would provide more certainty to funders of the scheme of their required contributions, and allow any fluctuations in experience to be managed by putting in place appropriate operational changes. Further, a buffer would allow the Agency to take a longer term view and invest early in participants to achieve reduced lifetime costs. The buffer could be in the order of around 10%-15% subject to further analysis of emerging experience, and would not be drawn upon unless needed.

Managing financial sustainability

There are a number of steps that could be taken to support the surety of scheme financial sustainability. These measures go to both components of financial sustainability – (a) achieving outcomes for people with disability, and (b) doing this at a continuing affordable cost. These steps include pre-empting potential cost escalation, achieving outcomes, and operational efficiency.

Cost escalation

- Funding needs to be adequate to meet reasonable and necessary support, needs to be certain, and needs to be predictable. Management of this funding needs to include detailed modelling of future scheme costs (as included in this report), and funding needs to be based on the most up-to-date and reliable estimates of future costs which take into account all scheme dynamics.
- Potential lack of mainstream services funded by other systems and a reduction in community and family support needs to be recognised and mitigated. Monitoring actual and expected experience, routinely gathering qualitative information, and putting in place memoranda of understanding will assist in mitigating this issue.
- The capacity of the sector to expand to meet the increased demand from increased funding and develop innovative and flexible ways for supporting participants in the timelines outlined in the Heads of Agreement is critical. If demand increases at a rate that is faster than supply, then inflationary pressure will emerge. The scheme will need to roll out at a pace which does not result in inflationary pressures, but which encourages sound investment from service providers to expand their operations and credible new entrants to enter the market.

Achieving outcomes

- Sector capacity to develop innovative and flexible ways for supporting participants is a necessary ingredient to achieve positive participant outcomes. Further, capacity of participants to articulate the supports they require in a way which contributes to them achieving a good life and improved outcomes is required to ensure financial sustainability. Considered full scheme transition planning and building the capacity of

participants and potential participants in the lead up to, and throughout, transition is required.

- Participants need to remain satisfied, and the community needs to continue to see value for money in the NDIS. Clear information on reasonable and necessary supports and comfort that the scheme will support participant needs, including in ways that may be different from current service models. Communication of the performance of the Scheme (both participant outcomes and financial sustainability) by the NDIA will also assist in building community confidence.

Operational effectiveness

- The ICT system needs to accommodate a longitudinal database, provide expert support to front-line staff, and meet the needs of participants and service providers. A longitudinal database is essential to scheme financial sustainability and the actuarial analysis described in this report. Further, the ICT system should meet the needs of NDIA operations, participants and services providers. The current ICT system does not meet these requirements.
- The continuous learning culture now embedded in the NDIA is a critical component to meet the significant challenges of transition to full scheme. The Agency needs to actively evolve in response to emerging experience, consultation and feedback, and ensure that incoming workforce is committed to the values of the NDIS in maintaining financial sustainability.

List of abbreviations

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
ARF	Access Request Form
CAC	Commonwealth Authorities and Companies
CALD	Culturally and Linguistically Diverse
CDRC	COAG Disability Reform Council
COAG	Council of Australian Governments
CPI	Consumer Price Index
CRPD	Convention on the Rights of People with a Disability
CSTDA	Commonwealth State Territory Disability Agreement
DCAF	DisabilityCare Australia Fund
DIG	Disability Investment Group
DSS	Department of Social Services
IAC	Independent Advisory Council
ICT	Information and communications technology
IGA	Intergovernmental Agreement
LAC	Local area co-ordination
LGA	Local Government Area
NDIA	National Disability Insurance Agency
NDIS	National Disability Insurance Scheme
NIIS	National Injury Insurance Scheme
NSW	New South Wales
NT	Northern Territory
OECD	Organisation for Economic Co-operation and Development
PC	Productivity Commission
SA	South Australia
SACS	Social and Community Services
SCFFR	Standing Council on Federal Financial Relations
SDAC	Survey of Disability Ageing and Carers
SNAT	Support Needs Assessment Tool
UN	United Nations

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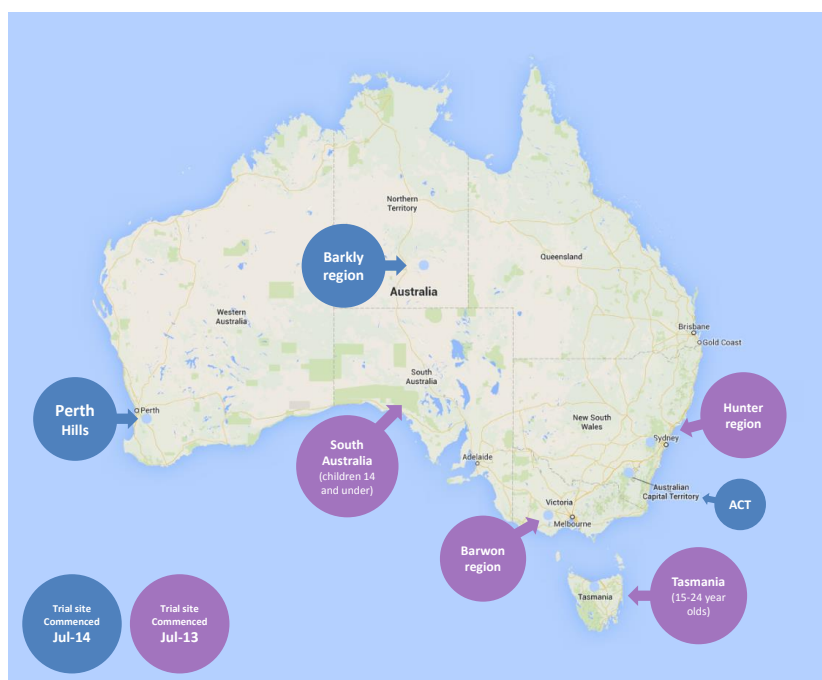
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1 Introduction to the NDIS

The National Disability Insurance Scheme (NDIS) Act received Royal Assent on 28 March 2013, and the NDIS became fully operational on 1 July 2013 with the commencement of NDIS trial sites. A number of significant milestones in recent history contributed to the launch of the NDIS, and importantly the insurance approach to funding and supporting people with a disability over their lifetime.

Currently the NDIS operates in seven locations:

- The Hunter trial site – Newcastle, Lake Macquarie, and Maitland Local Government Areas (LGAs) in New South Wales.
- The Barwon trial site – Greater Geelong, Surf Coast, Queenscliff and Colac-Otway LGAs in Victoria.
- The South Australian trial site – 0-14 year olds.
- The Tasmanian trial site – 15-24 year olds.
- The Australian Capital Territory
- The Perth Hills trial site - Swan, Kalamunda and Mundaring LGAs in Western Australia
- The Barkly region in the Northern Territory.



The first four commenced on 1 July 2013 and the remaining three on 1 July 2014. Heads of Agreement signed by the Commonwealth government and all State/Territory governments (except Western Australia) outline that the full scheme will be rolled out between 2016/17 and 2018/19.

The NDIS is world-leading and leverages all contemporary thinking on including and supporting people with a disability in Australian society. This report describes the methodology for monitoring financial sustainability and provides an assessment of the financial sustainability of the NDIS after its first year of operations.

1.1 The insurance model and principles

The NDIS Act provides that the objects of the Act are to be achieved by 'adopting an insurance-based approach, informed by actuarial analysis' (subsection 3(2)(b)), and the NDIS 2013-2016 Strategic Plan has as its second Goal: 'The NDIS is financially sustainable and is governed using insurance principles'.

The key features of the insurance model are listed below. Comparison with traditional disability welfare systems is also discussed.

- The NDIS Act commits to the provision of reasonable and necessary supports, including early intervention supports, to all eligible participants (section 3(1)(d)). This is different from the traditional disability welfare model whereby the annual budget is fixed and hence once this money is exhausted for the year, people with a disability essentially either miss out on support altogether, or do not receive enough support. As NDIS participants can access reasonable and necessary support, a financial risk is introduced to the NDIS model which was not present in the disability system due to its fixed annual budget. This financial risk requires management, and the monitoring and management of this risk is discussed throughout this report.
- The insurance model focuses on the individual participant. An assessment of reasonable and necessary support is undertaken for each individual considering their support needs, life stages and goals, and ways of achieving these goals. The traditional disability welfare model is program-based rather than individual-based, with individuals needing to slot into fixed service models that often do not meet their needs, and provide them with little choice and control over the services they receive and when they receive them.
- The NDIS introduces a focus on early investment in people with a disability to increase their independence, self-management, and economic and social participation. This will be beneficial, not only for participants but also for the long term cost of the NDIS. The traditional disability welfare model focuses on the annual budget rather than on early investment or the lifetime cost of the participant.
- The insurance model includes a strong ongoing cycle of projecting, monitoring, analysis and reporting (including this annual financial sustainability report). This analysis provides management with the information required to make informed decisions on achieving participant outcomes and management of scheme financial sustainability (this is described in more detail in section 3). The traditional disability welfare model reports ex-post on service outputs rather than projecting and then monitoring and reporting on individual and scheme outcomes.

1.2 Financial sustainability

Financial sustainability can be defined as a 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 supports; and
- contributing governments think that the cost is and will continue to be affordable, is under control, represents value for money and, therefore, remain willing to contribute.

The financial sustainability of the scheme requires strong management. In order to manage financial sustainability, a detailed understanding of cost drivers, the trajectory of costs (both at the individual level and aggregate level) and risks to this cost trajectory is required. This report intends to inform this understanding.

1.3 The annual financial sustainability report in the NDIS legislation

The NDIS Act and Rules outline the requirement for the scheme actuary to produce an annual financial sustainability report. Specifically section 180B(1) of the NDIS Act:

The scheme actuary must do all of the following each time an annual report on the Agency under section 9 of the CAC Act is being prepared:

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

This report is the first annual financial sustainability report of the NDIS prepared by the Scheme Actuary.

1.4 Sections of this report

The sections of this report are as follows:

- An **executive summary**
- **Introduction** including the insurance model and principles, and how this model differs from the traditional disability welfare model, the definition of financial sustainability, and the purpose of the annual financial sustainability report (section 1).
- The **NDIS participant pathway** and the key steps from a financial sustainability perspective (section 2).
- The **actuarial control cycle** which is the methodology for monitoring the financial sustainability of the NDIS (section 3).
- **Information and data**, including a description of the data available for actuarial analysis (section 4).
- Analysis of first year of **scheme experience** (section 5).
- **Projections** of future expenditure based on experience and other relevant data, including scenario analysis (section 6).
- **Management of financial sustainability** and strategies to mitigate potential risks to financial sustainability (section 7).

1.5 Reliances and limitations

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

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

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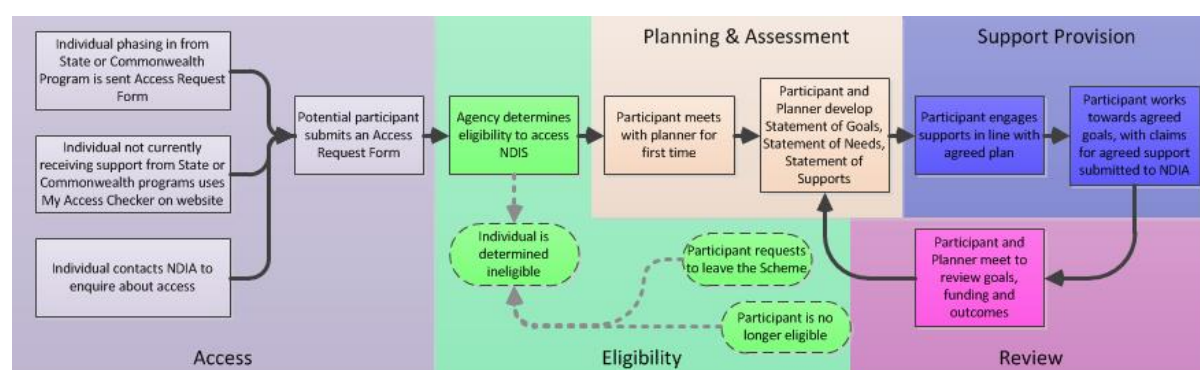
This report has been prepared in accordance with all relevant Professional Code of Conduct guidelines of the Institute of Actuaries of Australia.

2 The NDIS participant pathway

The steps in the participant pathway include (Figure 2.1):

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

Figure 2.1 NDIS participant journey



Some of the key steps in the process (from a financial sustainability perspective) include:

- Eligibility: The costs of the scheme are directly related to the number of people found eligible. Examples of reasons for the number of people found eligible to increase includes:
 - Increases in the incidence of certain disabilities.
 - More people may be assessed as eligible against the eligibility criteria, and this may change over time. For example, interpretation of whether support for the person is best met by the NDIS rather than other general systems – particularly the health system - may mean more people are assessed as eligible over time.
- Determining the participant's statement of supports: Scheme costs are directly related to the amount of reasonable and necessary support allocated to participants during the

planning process. Examples of possible increases to the amount of supports provided include:

- Participants with similar characteristics do not receive similar amounts of support
 - The amount of support provided to participants with similar characteristics increases over time.
 - Funded NDIS support may start to replace support provided by mainstream services, community, and/or family.
- Support provision: The success of the scheme depends on the reasonable and necessary supports being available to assist participants. The scheme will not be successful if participants are not able to get the supports (or flexibility of the supports) they require.
 - Operating costs: the NDIA needs to be able to administer the functions of access, eligibility, and planning and assessment in an efficient way in order for the operating costs to remain within the budget.

All of these processes need to be closely monitored and considered in conjunction with each other rather than in isolation. The process for monitoring financial sustainability is discussed in section 3 and the management of financial sustainability is discussed in section 7.

3 The actuarial control cycle

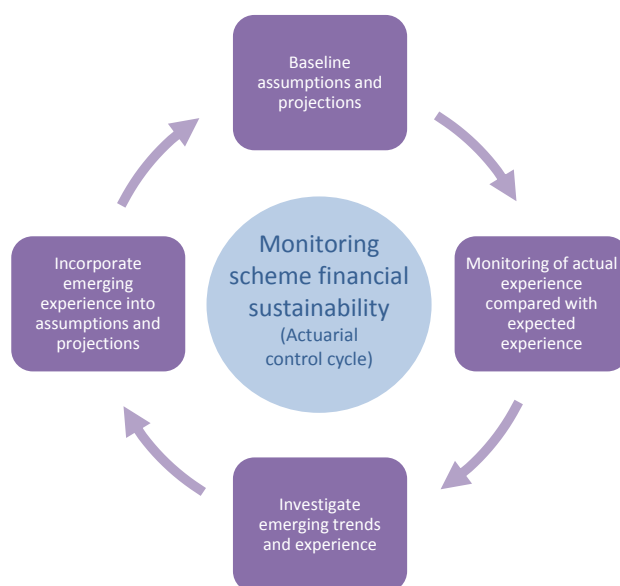
The actuarial control cycle is the methodology for monitoring scheme financial sustainability. This framework allows for continuous evaluation of the NDIS.

At a high level the key features of the actuarial control cycle are (Figure 3.1):

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

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

Figure 3.1 Monitoring scheme financial sustainability (actuarial control cycle)



3.1 Baseline assumptions

The aggregate estimate of the number of people likely to receive an individualised support package under the NDIS and the cost of these support packages was derived by the Productivity Commission – approximately 419,500 people and \$14.7 billion (in 2013/14 values).

Additional assumptions have been developed to assist in monitoring the cost of supporting participants over their lifetime. Aggregate participant numbers are broken into reference groups. Reference groups are groups of participants with similar characteristics. For each reference group:

- An average estimated expected cost (both an annual expected cost and an expected lifetime cost) was determined.²
- Assumptions on new incidence, mortality, and rates of exiting the scheme were determined.

Key variables in the reference groups are:

- Age – costs are assumed to increase with age.³
- Disability – this assists with projecting the trajectory of costs over time. For example, participants with degenerative disabilities are likely to require more support over time more quickly than participants without degenerative conditions.
- Severity indicators providing information on function.

In addition to the assumptions discussed above, it is also important to establish baseline participant outcomes across the lifespan, including key life transition points (such as starting school, entering the workforce, and leaving home). A participant outcomes framework is being developed and focuses on a number of domains across the life span. Underpinning the outcomes framework are the principles of independence, self-management, social inclusion, and economic participation. The proposed domains include:

- choice and control
- daily activities
- relationships

² Note: when these average annual costs are multiplied by the number of participants in each cohort, the total cost of support packages is \$14.7 billion. This average cost assigned to each cohort is the reference package.

³ The Productivity Commission assumed that for children aged 0-14 years, 30% of the average per person cost was assumed to be met by the NDIS.

- home
- health
- education
- work
- social participation
- family outcomes.

3.2 Monitoring and investigation of actual experience

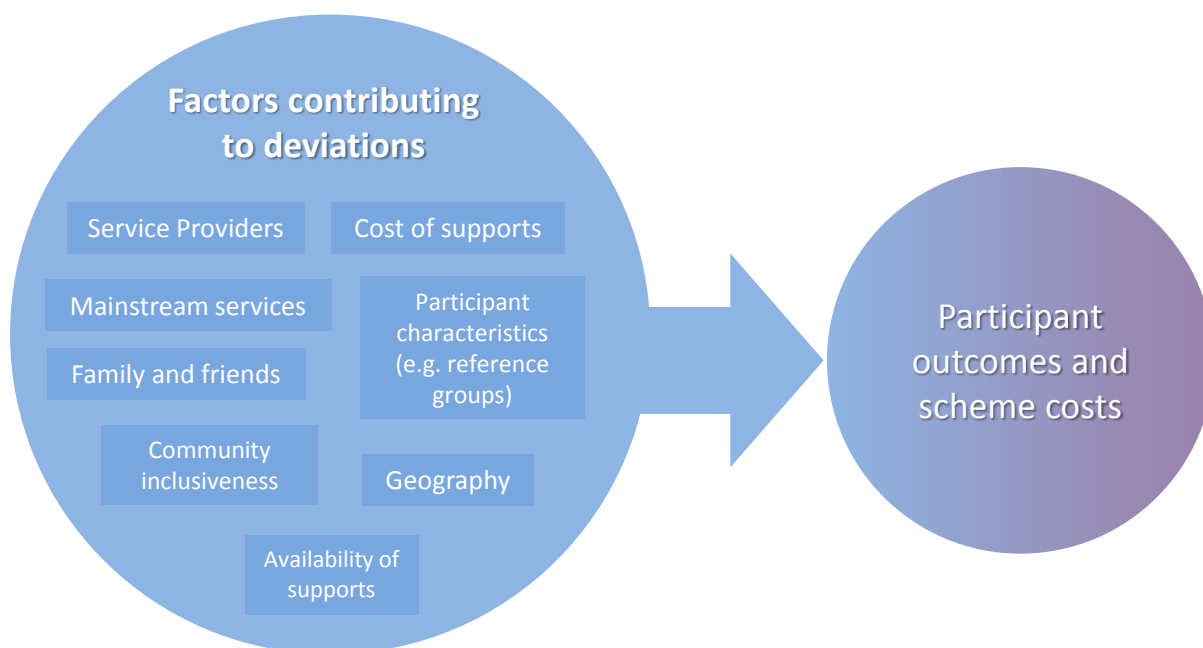
Actual experience is compared with expected experience and detailed analysis of deviations undertaken. The expected experience is derived from the baseline assumptions. Deviations include:

- higher or lower number of participants
- higher or lower scheme costs
- good and poor participant outcomes.

Detailed actuarial analysis as to the reasons for these deviations between actual and expected experience is then possible. Possible drivers of deviations include (Figure 3.2):

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

Figure 3.2 Monitoring participant outcomes and costs



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

3.3 Continuous evaluation

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

As the scheme experience emerges this methodology will allow:

- Identification of successful early investment which leads to good outcomes, including detailed benefit-cost analysis. Life trajectories can be measured and compared for participants with similar characteristics.
- Identification of models of support which lead to increased independence by monitoring life trajectories.
- Benchmarking of participant groups across a number of factors including geography.
- Measurement of the change over time with regards to participant outcomes related to personal goals.
- Measurement of the reduction in the gap between Australia and other OECD countries in including people with a disability in society.

- Measurement of the reduction in the gap between people with a disability and people without a disability in Australia.

Importantly this analysis happens continuously – hence, continuous evaluation of the scheme, and distinguishes the insurance model from “time-limited evaluation”. This fundamental characteristic of the scheme reinforces the need for rigorous longitudinal data on scheme participants (discussed in section 4).

4 Information and data

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

4.1 Information systems

The NDIA obtains information from the following systems:

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

4.2 Data available for analysis

The following table summarises the data available for actuarial analysis.

Table 4.1 Summary of data available for actuarial analysis

Data	Description
Access requests to the NDIS	<ul style="list-style-type: none">• Demographic information (age, gender, disability, Indigenous status, CALD status)• Contact details• Outcome of request (for example: eligible, ineligible)
NDIS participant plans	<ul style="list-style-type: none">• Plan approval date• All supports included in the plan, including quantity and cost• Length of plan• Length of individual support in the plan (note: some support items within plans are for a shorter period of time than the length of the plan)• Participant goals• Mainstream and informal supports
Payments to service providers	<ul style="list-style-type: none">• Service provider submitting the claim• Participant for whom the support was provided• Type of support provided• Quantity of support provided

	<ul style="list-style-type: none"> • Cost of support provided • Dates of when the support was provided
“Section 55 data” ⁴	<ul style="list-style-type: none"> • List of clients receiving support from service providers in the existing disability system, including age and contact details.
Productivity Commission costings	<ul style="list-style-type: none"> • The PC original costings of the NDIS. This was based on the 2009 ABS Survey of Disability, Ageing and Carers, and the cost of supports from accident compensation schemes, and state/territory disability systems.
Epidemiological data	<ul style="list-style-type: none"> • Incidence, prevalence and relative risk mortality on a range of disabilities, from accident compensation schemes, and the Burden of Disease Study.⁵
ABS population projections	<ul style="list-style-type: none"> • 3222.0 Population Projections, Australia, 2012 (base) to 2101 (Series B) • Projections of new participants entering the scheme.
Financial information	<ul style="list-style-type: none"> • Data from Siebel were reconciled with financial information in SAP.

⁴ Under section 55 of the NDIS Act, the CEO can request information held by other persons to ensure the integrity of the NDIS. This has allowed the NDIA to request information from service providers receiving funding under existing Commonwealth and State/Territory programs on the number of people they provide services to who might be eligible for the NDIS.

⁵ <http://www.aihw.gov.au/burden-of-disease/>

5 Scheme experience

This section describes the experience of the NDIS in its first year of operations (2013/14). Where relevant, comparisons to the Productivity Commission estimates of participant numbers and cost are discussed.

Specifically this section includes analysis on:

- **Participants** – participant numbers and trends, participant characteristics compared with what was expected based on the Productivity Commission model and other baseline actuarial assumptions, comparison of participant characteristics across trial sites, and analysis of data provided by service providers receiving funding from existing relevant State/Territory and Commonwealth programs (section 55 data).
- **Committed supports and actual payments** – the amount of support committed, the distribution of committed support, types of support committed, and actual payments to service providers.

5.1 Participants

5.1.1 Scheme participant summary

As at 30 June 2014:

- 10,271 people had lodged an access request
- 8,585 participants had been deemed eligible for the scheme
- 997 people (or 10% of people lodging an access request) had been found ineligible. The proportion of people found ineligible remained consistent over the year.
- 7,316 participants had an approved plan, of whom 7,285 were active and 31 were inactive. The main reason participants were inactive is because they died or chose to leave the scheme.
- 263 participants had received a second plan and three participants had received a third plan – these were mainly young children in the South Australian trial site.

5.1.2 Key characteristics of participants

This section describes participant characteristics (including age, gender, Indigenous status, CALD status, and primary disability) across trial sites. Comparisons to the Productivity Commission estimates are discussed where possible, and in other instances comparisons with baseline estimates derived by the Scheme Actuary (baseline actuarial modelling) are

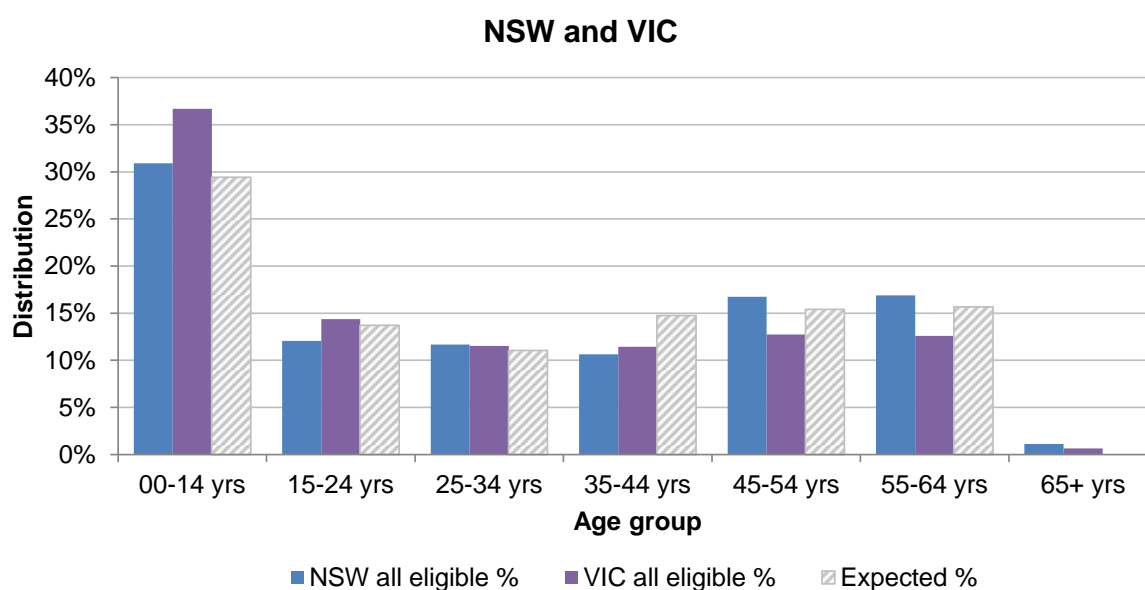
discussed. Work is underway to capture data on outcomes and functional support need. This was discussed in section 3.

Currently, participants are being “phased in” to the scheme based on a schedule of programs and service providers. As a result, it is important to note that there is still some bias in the characteristics of participants who have entered the scheme to date (compared with full scheme), since not all participants have been phased in. Moreover, these phasing schedules and priorities differ across trial sites.

Age

Comparison of participant ages with Productivity Commission estimates is most relevant for New South Wales and Victoria. To date, the Victorian trial site has a younger population than the New South Wales trial site. The New South Wales trial site is more in line with the Productivity Commission estimates - around 30% are aged 0-14 years and 23% aged over 50 years (Figure 5.1).

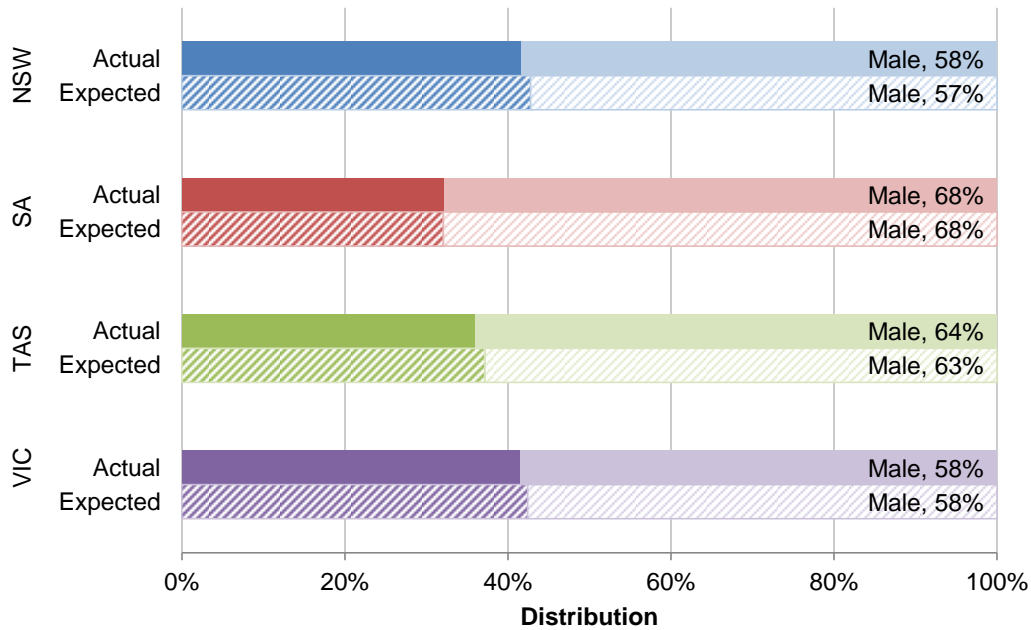
Figure 5.1 Eligible participants – age distribution



Gender

The proportion of males and females is consistent with the actuarial baseline estimates for all trial sites.⁶ The South Australian and Tasmanian trial sites have relatively more males than females due to the specific age groups in these trial sites. In particular, the prevalence of autism is higher in males than females in these specific age groups.

Figure 5.2 Active participants with approved plans – gender distribution



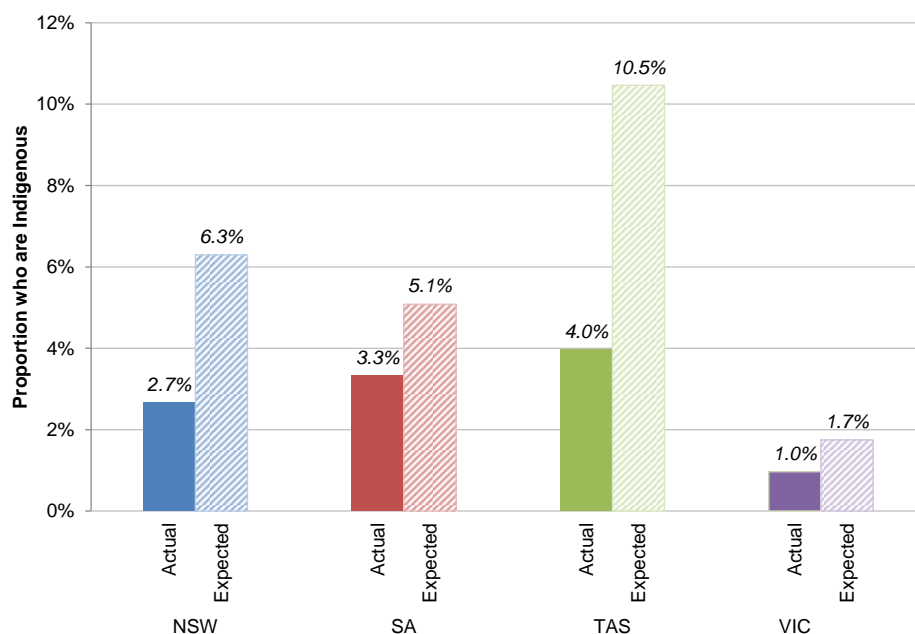
⁶ These estimates were derived using information from the ABS Survey of Disability, Ageing and Carers.

Indigenous status

Indigenous status is not well completed in the system, with 58% of records “not stated”. Hence, comparison of Indigenous rates with expected rates is difficult. The figure of 58% has improved over recent months and detailed exception reporting is underway to make sure these data are collected.

There are fewer than expected⁷ Indigenous participants recorded in the scheme at the end of June 2014. The true rate is unknown due to the high proportion of “not stated” records. The scheme has a role in supporting potential Indigenous participants to access the scheme.

Figure 5.3 Active participants with approved plans – Indigenous distribution



⁷ These estimates of expected were derived using the 2011 Census of Population and Housing. The 'need for assistance with core activities' variable was used to determine the relative number of Indigenous people with a disability in each trial site.

CALD status

CALD status is reasonably well completed in the system, with the data field filled in for 87% of participants. Detailed exception reporting is underway to make sure these data are collected.

CALD is lower than expected⁸ in New South Wales and Victoria – with this particularly being the case in Victoria. It is currently significantly higher than expected in South Australia and CALD is in line with expected in Tasmania. As with the Indigenous population, the scheme has a role in supporting potential CALD participants to access the scheme.

Figure 5.4 Active participants with approved plans – CALD distribution



Primary disability

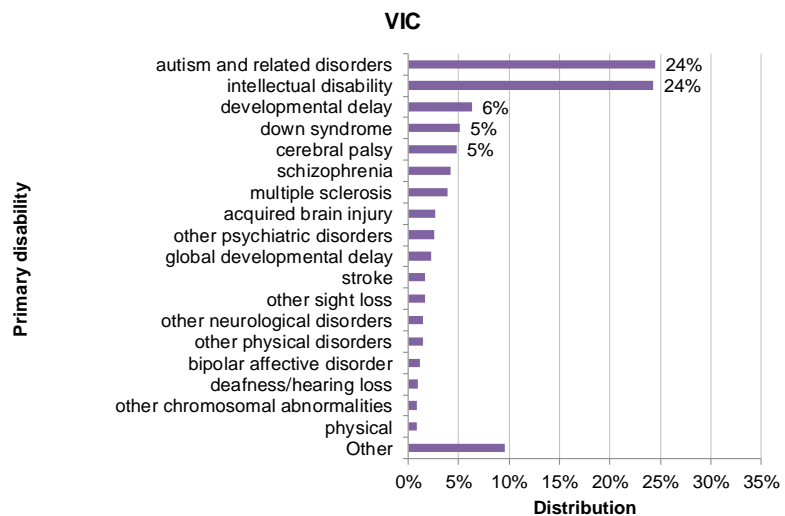
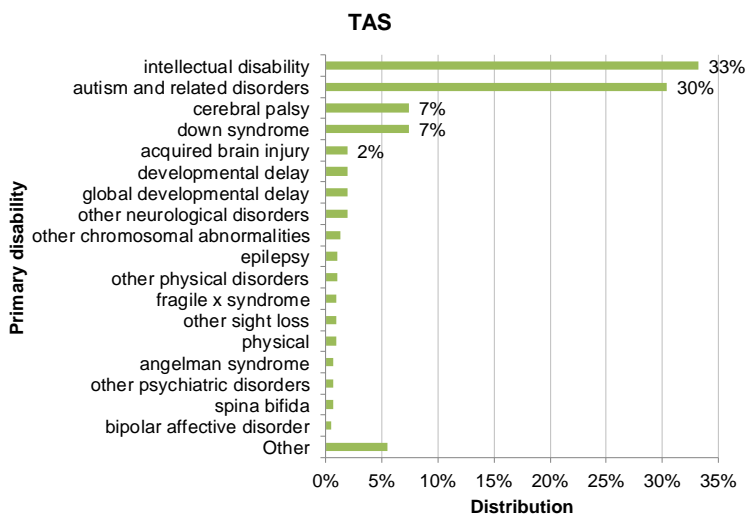
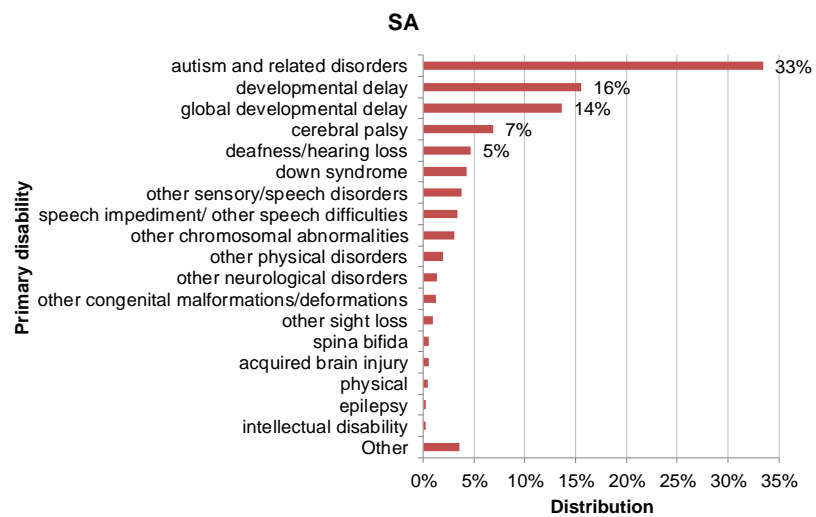
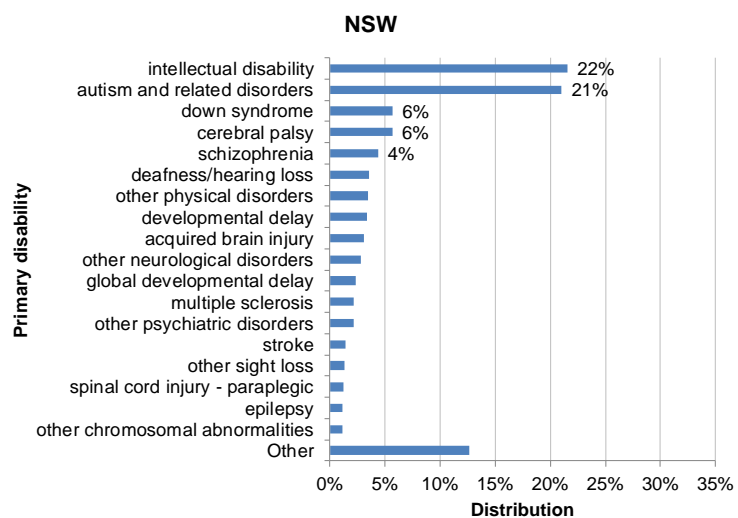
Across all trial sites, autism and related disorders, intellectual disability, Down syndrome, and cerebral palsy are the largest primary disability groups. In South Australia, developmental delay and global developmental delay are also large groups. There is some other variation between trial sites – there is a higher proportion of participants with schizophrenia in New South Wales and Victoria, deafness/hearing loss in South Australia, and multiple sclerosis in Victoria.

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

⁸ These estimates were derived using the 2011 Census of Population and Housing. The 'need for assistance with core activities' variable was used to determine the relative number of CALD people with a disability in each trial site.

Compared with analysis of the ABS Survey of Disability, Ageing and Carers (SDAC), which formed the basis of the Productivity Commission estimates, fewer people with mental illness have entered the scheme. Other disabilities are broadly in line with the Productivity Commission estimates.

Figure 5.5 Active participants with approved plans – primary disability distribution

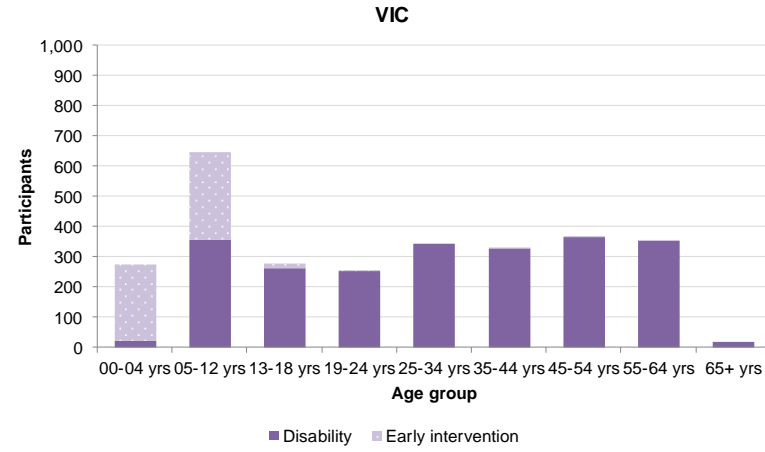
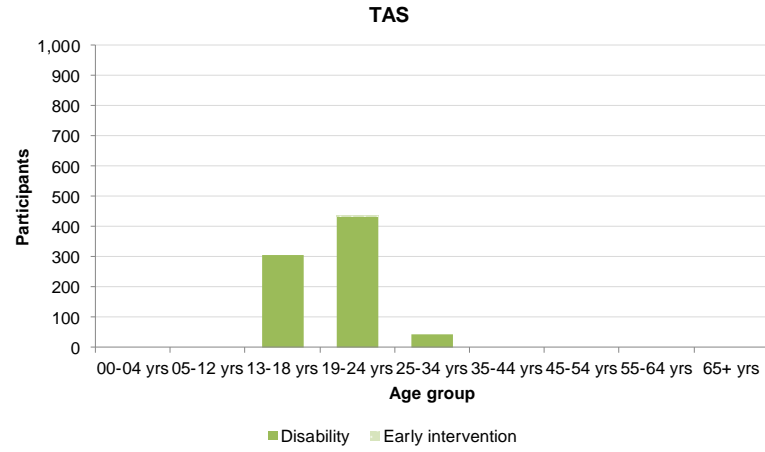
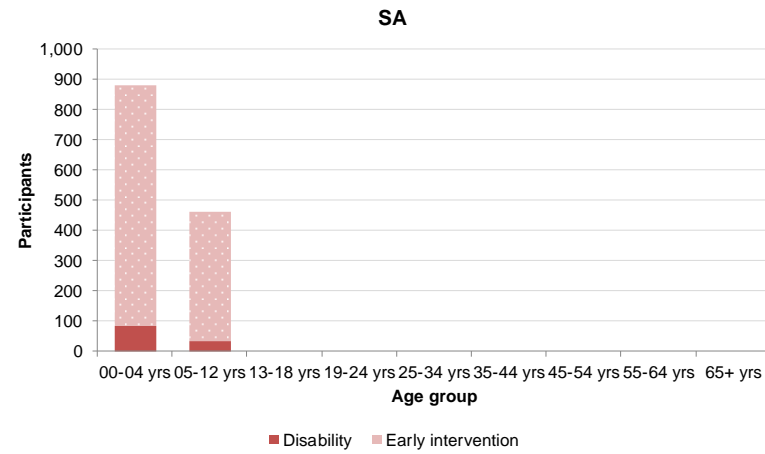
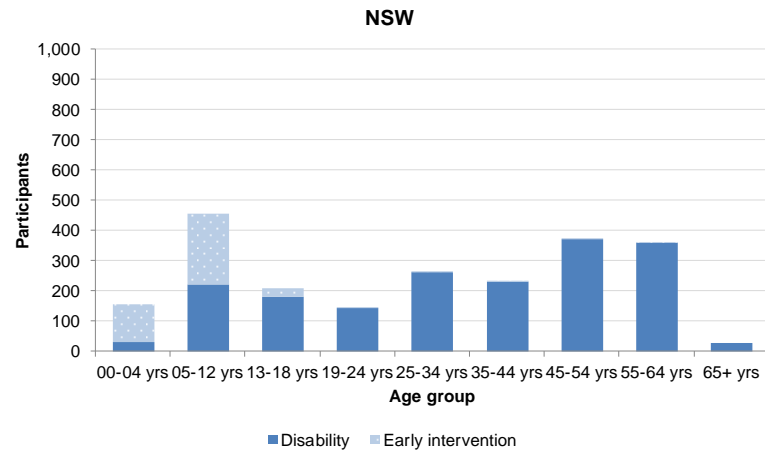


Disability and early intervention

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

Participants in the younger age groups (particularly 0-12 year olds) often meet the early intervention requirements rather than the disability requirements. A small proportion of participants aged 13-18 have entered the scheme because they meet the early intervention requirements. From age 19 onwards almost all participants meet the disability requirements (Figure 5.6).

Figure 5.6 Active participants with approved plans – disability and early intervention



5.1.3 Prevalence of participants

The Productivity Commission estimates assumed that around 2.2% of the population under 65 years would be eligible for the NDIS – specifically 2.9% for 0-14 year olds, 1.8% for 15-49 year olds, and 2.4% for 50-64 years olds.

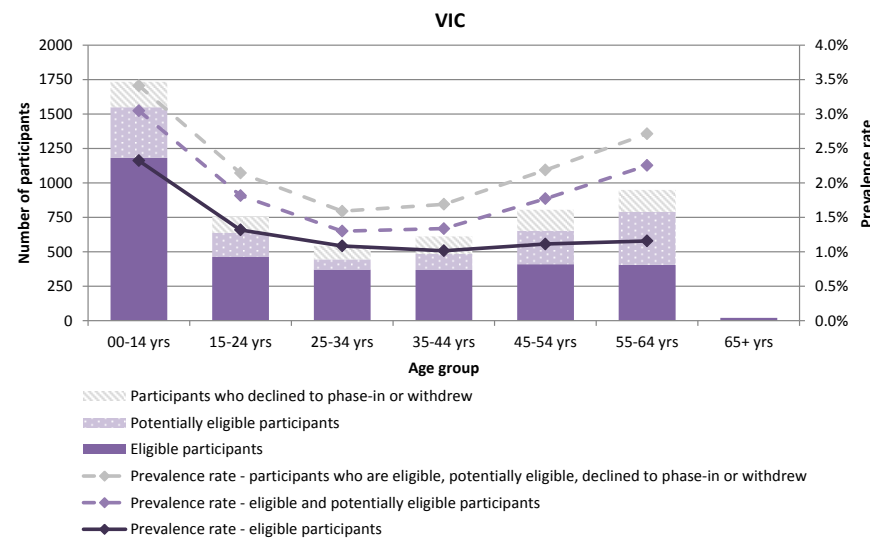
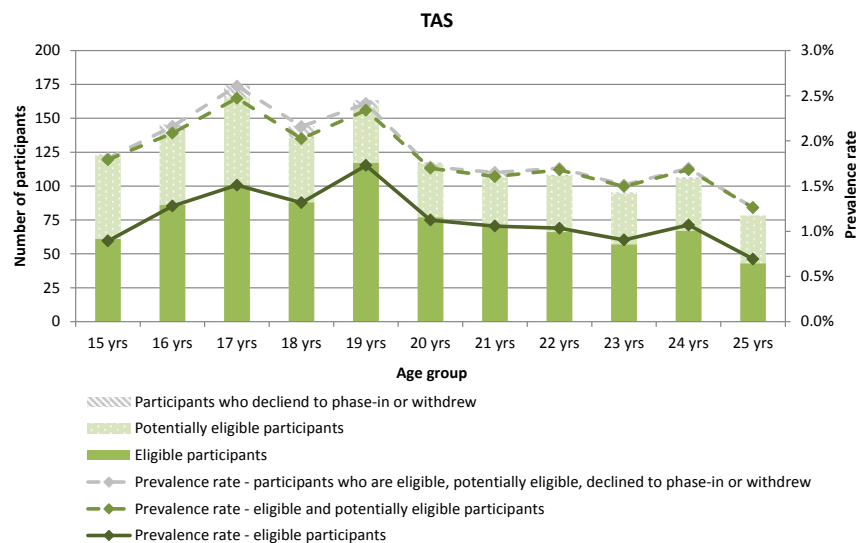
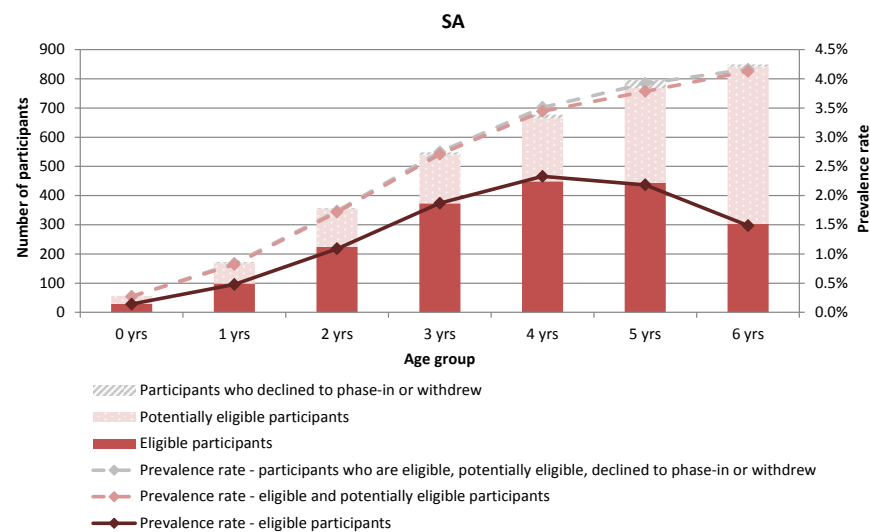
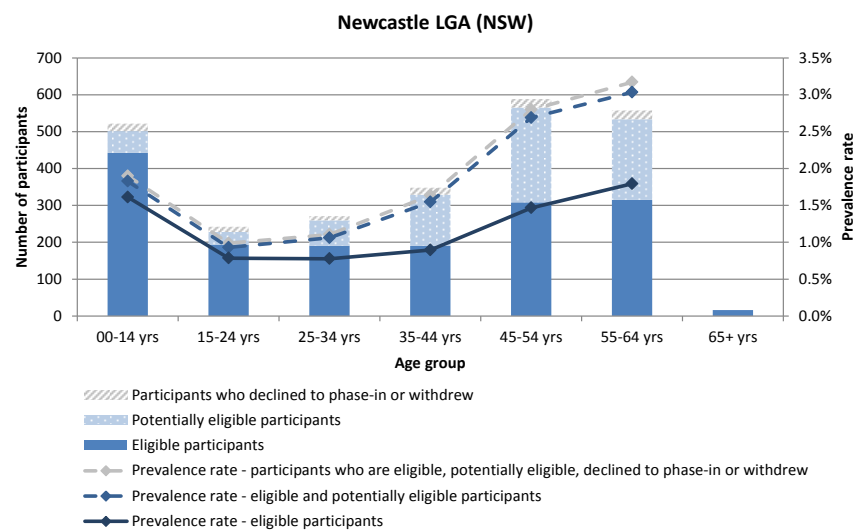
Whilst one year's worth of trial experience is not adequate to understand the number of participants at full scheme⁹, it is possible to estimate the structure of the trial site participant populations by using data on existing participants and additional data collected from the section 55 process (Figure 5.7). Using both scheme experience and section 55 data the following observations can be made:

- The New South Wales and Victorian trial sites appear likely to have a lower number of participants than expected. The number of medium and high cost participants across the trial sites is likely to be broadly in line with expected. However, the number of low cost participants is likely to be lower than expected. This is discussed further in section 5.2.2.
- The number of participants in the South Australian and Tasmanian age-specific trial sites are tracking in line with expected.
- A number of people in current disability programs have declined to phase into the Scheme or have withdrawn indicating they may not need NDIS support at the present time, but may require some support in the future (or episodically).

Considering the points above, departure from the population prevalence assumptions of the Productivity Commission estimates does not seem warranted.

⁹ At the end of June 2014, participants in the scheme represent approximately 2% of the expected number of participants based on the PC estimates.

Figure 5.7 Prevalence of eligible participants



5.2 Committed supports and actual payments

Committed support is the dollar amount of support that has been made available to participants in their statements of support – their package of supports.

5.2.1 Summary of committed supports

At the end of 2013/14 (the first year of the scheme), 7,285 participants have approved active plans, and \$285.4 million of support has been committed to these participants.

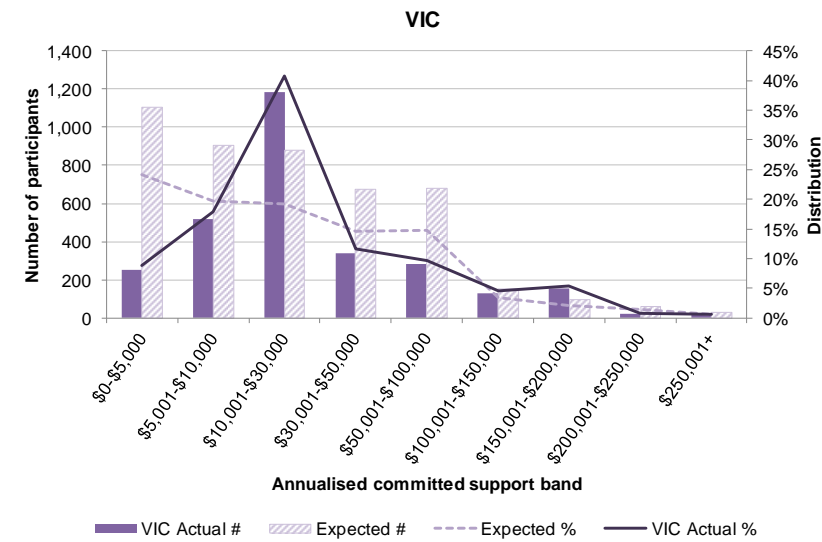
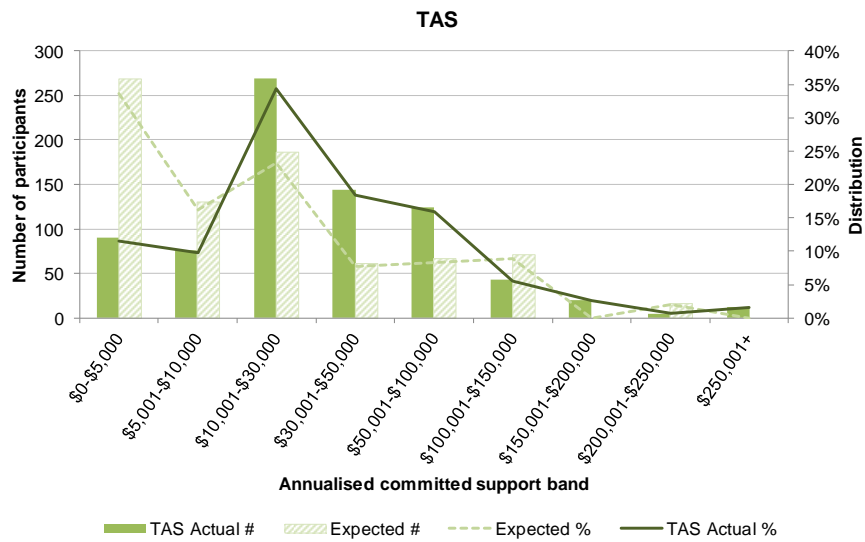
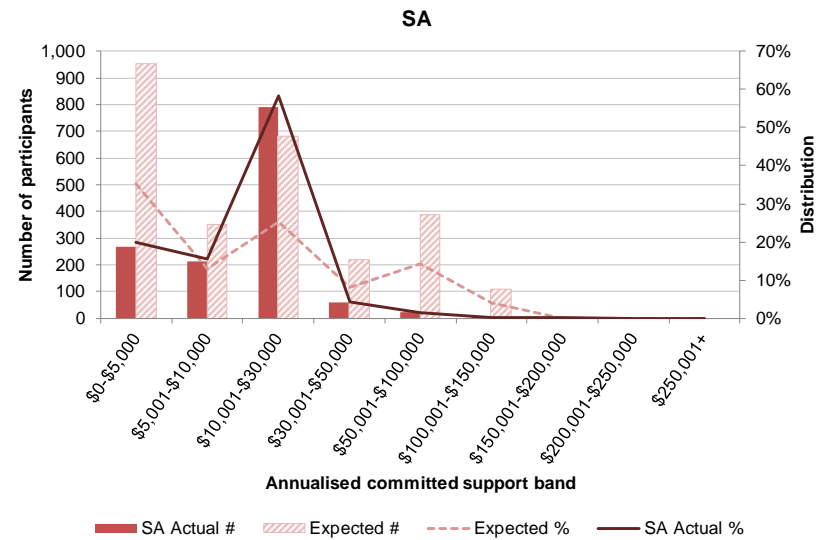
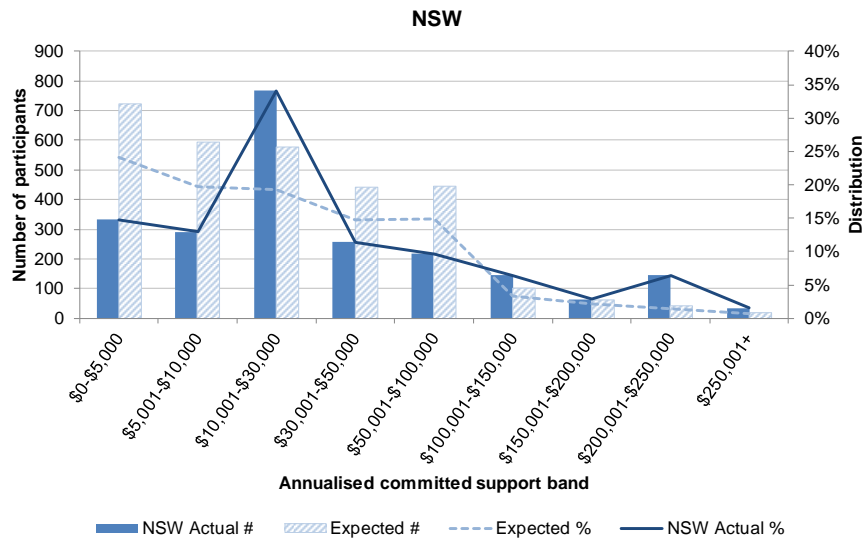
Of this \$285.4 million, it is estimated that \$130.9 million (46%) will be provided in 2013/14 (including actual paid to date), and \$154.5 million (54%) is estimated to be provided in 2014/15.

5.2.2 Distribution of costs

The annualised amount of a participant plan (support package) can vary from a few thousand dollars for a low cost participant to around two hundred thousand dollars for a participant in shared supported accommodation.

The distribution of support packages differs from expected across all trial sites (Figure 5.8). In particular, a higher proportion of low cost participants were expected compared with actual experience, and there are a higher proportion of participants receiving mid-range packages than expected. This is consistent across all trial sites.

Figure 5.8 Distribution of package costs by trial site

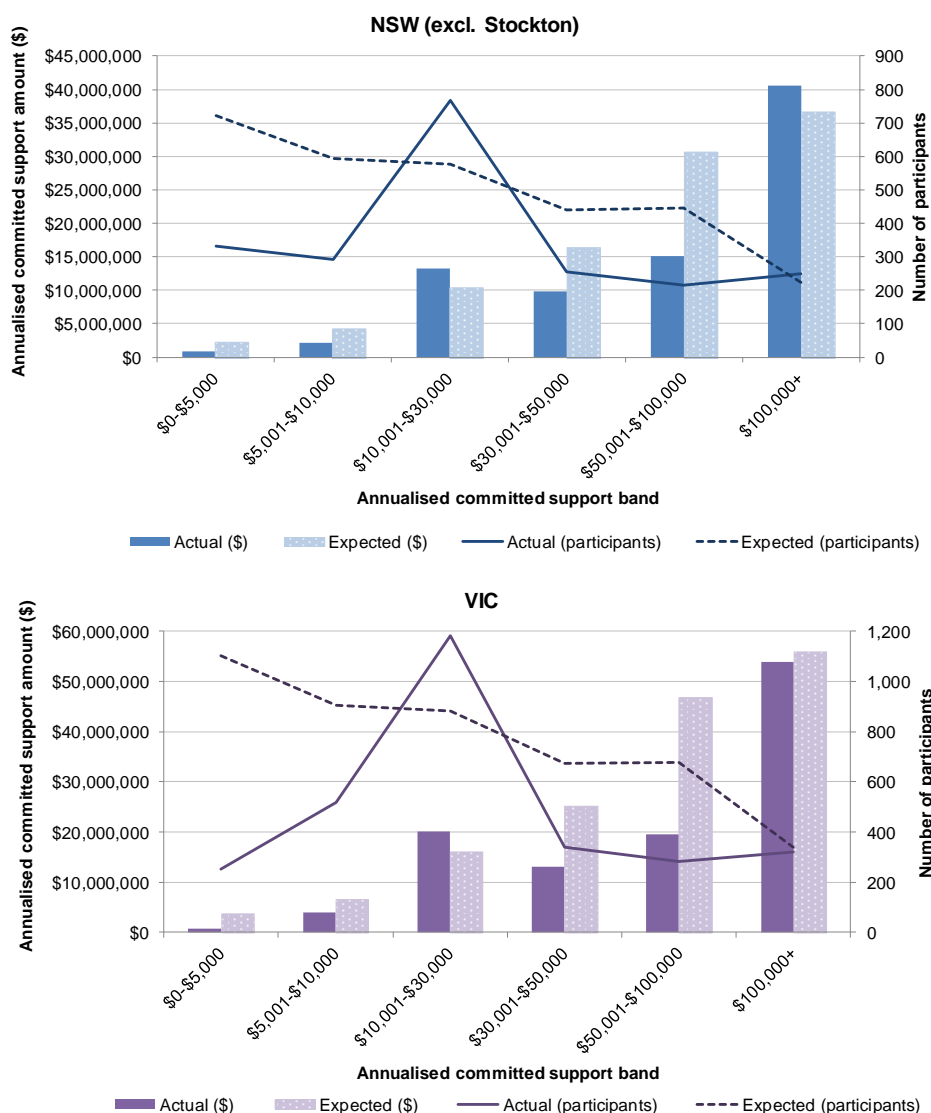


The majority of participants in the New South Wales and Victorian trial sites have annualised package costs of less than \$30,000 and few participants have high cost plans of over \$100,000 (Figure 5.8). Of the 5,148 active participants with approved plans in the New South Wales and Victorian trial sites, 3,346 participants have an annualised package cost of less than \$30,000 (65%).

The discussion above considered the distribution of participants by support package amount. Figure 5.9 below considers the distribution of total committed support by support package amount. The total annualised package costs of the 3,346 participants with support packages of less than \$30,000 is \$41.1 million which represents only 18% of total committed supports. On the other hand, the total annualised package costs of the 571¹⁰ participants with support packages of more than \$100,000 is \$94.4 million which represents 49% of total committed supports. Therefore, the total cost of the scheme will be driven by the relatively few participants with high cost plans.

¹⁰ Stockton is a large residence in the Hunter trial site. This is a high concentration of high cost people in one geographical area. For this reason Stockton has been excluded from this analysis.

Figure 5.9 Total package costs and number of participants by trial site and annualised committed support band



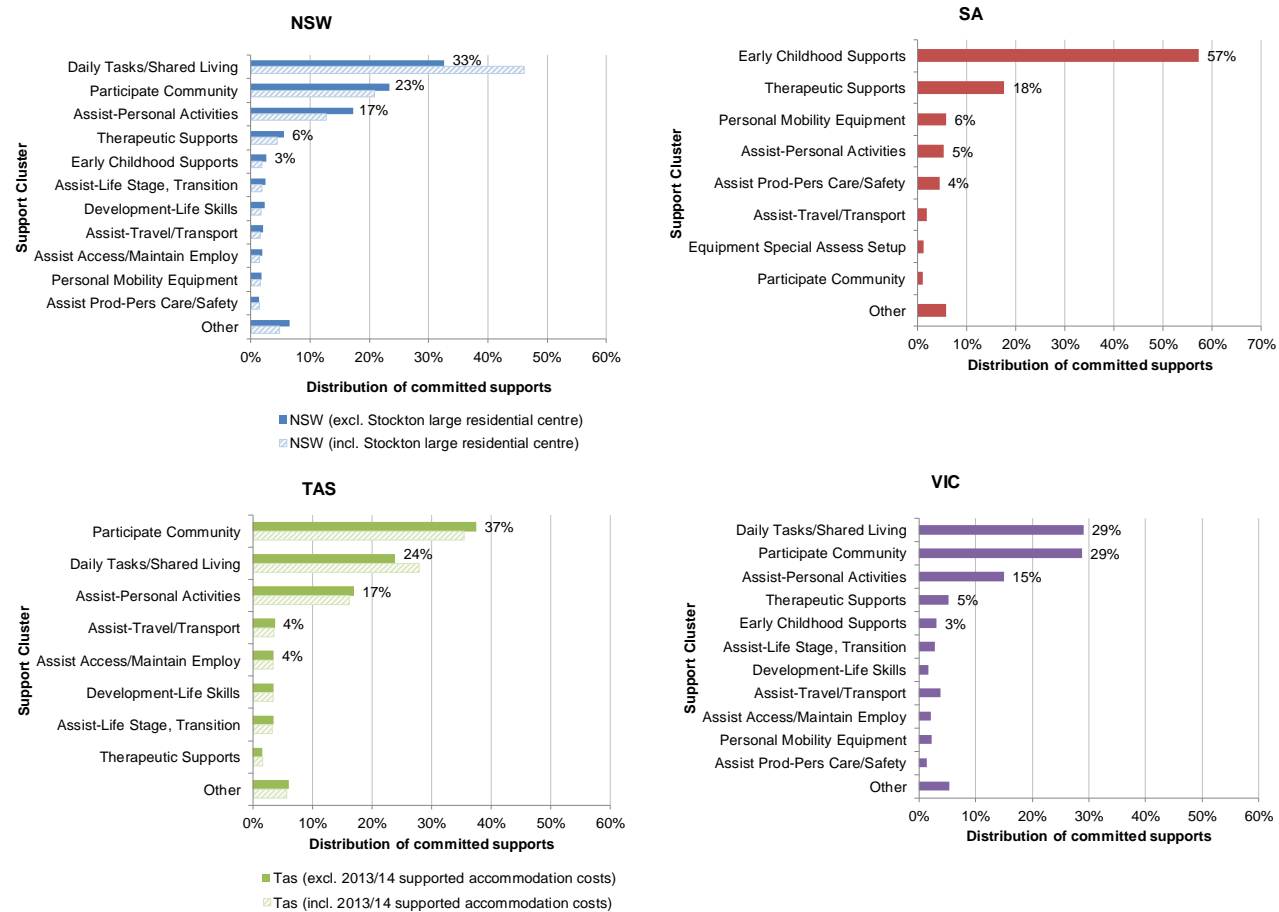
5.2.3 Types of committed supports

The types and amount of supports committed are fairly consistent across New South Wales and Victoria, with supports focussed on community participation, assistance with personal activities, and daily tasks in shared living arrangements representing the highest proportion of committed supports in dollar terms (73% of committed supports in both New South Wales (excluding Stockton) and Victoria). Currently New South Wales has a slightly higher proportion of committed supports in daily tasks in shared living arrangements compared with Victoria when Stockton is excluded from the analysis.

In Tasmania the most common support type based on dollars is community participation followed by daily tasks in shared living arrangements (together comprising just over 60% of committed support). A further 17% of committed supports are for assistance with personal activities.

In South Australia the most common committed supports on a dollar basis are early childhood supports and therapeutic supports (totalling 75% of committed supports).

Figure 5.10 Distribution of committed supports by trial sites¹¹



¹¹ In 2013/14 the Tasmanian state government funded supported accommodation.

5.2.4 Actual payments

Actual payments represent payments to service providers for supports provided. Actual payments to service providers as at 30 June 2014 were \$49.7 million, of which 15% is in-kind¹² (Table 5.1). A much higher proportion of in-kind has been claimed in Tasmania and Victoria, compared with in New South Wales and South Australia. It is known that supports are being provided in-kind across all trial sites but not being claimed.

There is an upward trend in the amount claimed each month across all trial sites, with more than double claimed in May and June compared with in April and March. This trend is expected to continue until the amount being claimed is broadly in line with the amount of support being committed.

Table 5.1 Actual payments by month of payment authorisation and trial site

Month of payment authorisation	Total payments (\$'000)					Proportion of payments that are made in-kind				
	NSW	SA	TAS	VIC	Total	NSW	SA	TAS	VIC	Total
Jul-13	\$0	\$0	\$0	\$1	\$1				0.0%	0.0%
Aug-13	\$1	\$0	\$1	\$1	\$3	0.0%		0.0%	0.0%	0.0%
Sep-13	\$51	\$9	\$7	\$26	\$93	0.0%	0.0%	0.0%	0.6%	0.2%
Oct-13	\$171	\$22	\$31	\$67	\$291	0.0%	0.0%	6.2%	5.5%	1.9%
Nov-13	\$535	\$163	\$187	\$363	\$1,248	0.0%	0.0%	6.0%	11.8%	4.3%
Dec-13	\$976	\$142	\$400	\$456	\$1,974	0.0%	0.0%	16.8%	26.1%	9.4%
Jan-14	\$1,186	\$119	\$235	\$833	\$2,373	0.0%	0.0%	28.0%	25.4%	11.7%
Feb-14	\$2,048	\$297	\$831	\$1,628	\$4,805	0.2%	0.0%	18.8%	42.3%	17.7%
Mar-14	\$1,875	\$338	\$821	\$1,988	\$5,023	0.0%	0.0%	35.3%	28.1%	16.9%
Apr-14	\$2,720	\$551	\$979	\$2,366	\$6,615	0.0%	0.0%	23.2%	13.9%	8.4%
May-14	\$4,682	\$851	\$1,817	\$4,434	\$11,784	0.0%	1.8%	28.6%	35.1%	17.8%
Jun-14	\$4,928	\$1,323	\$2,205	\$7,080	\$15,537	0.5%	21.1%	19.1%	25.0%	16.1%
Total	\$19,173	\$3,817	\$7,514	\$19,243	\$49,748	0.2%	7.7%	23.4%	27.5%	14.8%

¹² In-kind supports are existing Commonwealth or State/Territory government programs delivered under existing block grant funding arrangements.

6 Projections

This section leverages the scheme experience to date and other available data to project the long-term costs of the NDIS. The scheme is far from maturity and limited scheme experience has emerged. Hence, these projections should be treated with caution.

6.1 Data, assumptions and methodology

6.1.1 Data

The data sources used in the projections are:

- **Scheme experience** including the number and profile of participants (age, disability, early intervention), and the distribution of plans across the lifespan for participants with different disabilities. Committed support in plans is considered a better measure of likely full scheme expenditure compared with actual payments at this point in time.
- **Epidemiological data** including information on incidence rates and mortality rates for different disabilities. These data are required to supplement scheme experience as the scheme is not mature enough for this experience to have emerged.
- **Research on severity measures for different disabilities** (discussed in section 3.1). This research assists with building a detailed profile of participants in the scheme, including costs across the lifespan.
- **ABS Survey of Disability Ageing and Carers (SDAC)** including information on the prevalence of functional support need across the population. The ABS SDAC was used in the original projections of the scheme and provides further checks on the scheme experience emerging.
- **ABS population projections** are used to determine the number of new participants entering the scheme each year (based on the incidence rates).

6.1.2 Assumptions and methodology

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

- The Productivity Commission estimate of full scheme participant numbers (around 419,500 in 2013/14) is assumed to be the best available at the current time. Scheme experience to date is mixed across the trial sites (section 5.1), and hence not enough evidence has emerged to develop a more reliable estimate than the Productivity Commission estimate.

- In order to project participant numbers, assumptions on exit rates and new entry rates are required. Each year, participants exit the scheme or remain in the scheme and age one year. In addition to this, new participants enter the scheme. This dynamic is modelled based on the participant profile determined and the underlying general population.
- Assumptions on participants exiting the scheme were based on scheme experience and epidemiological data. These assumptions are broken down by age, disability and severity. Participants exit the scheme due to mortality, no longer needing support, and entering into residential aged care (in the case of participants aged over 65 years).
- Assumptions on participants entering the scheme (as a percentage of the general population) were based on scheme experience and epidemiological data. These assumptions are broken down by age, disability and severity. The general population was based on ABS projections of the Australian population. Further, it was assumed that the incidence of disability remained the same over time.
- Estimated annual costs are then applied to participants (broken down by age, disability and severity) for each year. These costs are informed by scheme experience and research on reference packages (discussed in section 3.1). Importantly this allows an estimate of the lifetime cost of participants who are currently in the scheme and estimates of lifetime costs for participants who enter the scheme over time. For each year, the annual cost across the whole scheme can also be determined based on the underlying profile of participants in the scheme for the year.
- Inflation is applied to participant costs considering wage rates (including the SACS award), and increases in CPI. Inflation of 4.3% is assumed in the short-term reflecting current wage rates and the SACS award, with a long term assumption of 4% per annum.
- NDIA operating costs are assumed to be in line with original scheme projections and 7% of package costs at full scheme (in line with agreed efficiency parameters). Note: these assumptions were not derived by the Scheme Actuary. Work is underway to develop a detailed operating model considering options for full scheme roll out.
- The potential cost of the National Injury Insurance Scheme (NIIS) is removed from the total costs from the start of full scheme. Estimates of the NIIS include consideration of the incidence of injury across motor vehicles, the workplace,

medical misadventure and general injury by year, and the costs of care and support.¹³

- The number of participants entering the scheme each year during the trial sites and transition years, is based on scheme experience for 2013/14, information on phasing from the bilateral agreements, the actuarial estimates of the number of participants in each trial site, and consideration of when the scheme will be fully rolled out (as outlined in the Heads of Agreement).
- Lastly, the resulting costs are then compared with nominal GDP.

6.2 Results

This section presents the results of the analysis discussed above. A baseline projection is presented, along with three alternative projections. These alternative projections do not represent the range of possible outcomes that may eventuate over time - rather they are reasonable alternatives to the baseline projection. These alternatives are:

- Lower numbers of low cost participants. This is based on experience in the New South Wales and Victorian trial sites which suggest that the number of participants may be lower than the original PC estimates.
- Higher numbers of participants entering the scheme before age 65. There will be incentives for people to enter the NDIS before age 65 years as NDIS packages appear likely to be more generous and provide more benefits than current aged care arrangements.
- Higher costs associated with over 65 year olds. Very little scheme experience is available on people over the age of 65 years (and all of these people are actually 65 years, so no experience is available past this age). Hence, this scenario assumes higher average costs.

6.2.1 Baseline

Overall (Table 6.1):

- Package costs at full scheme in 2019/20 are estimated to be \$21.8 billion, including \$1.2 billion for people aged over 65 years.
- The effect of introducing the NIIS reduces the cost of the NDIS over time. Further, some people with serious injury are already covered under accident compensation

¹³ Estimates of the NIIS are based on Walsh et al, 2005: Long Term Care for Catastrophically Injured people, and the Productivity Commission, 2011: Inquiry in Disability Care and Support.

scheme arrangements and hence do not require the support of the NDIS. The impact in 2019/20 reduces the total cost of the NDIS to \$21.1 billion.

- Including operating costs increases this to \$22.7 billion.
- Including an efficiency dividend (of 0.35% per annum) due to early investment reduces this number to \$22.4 billion.¹⁴

In 2044/45, over 65 year olds represent a much higher proportion of package costs – around 27% of costs compared with 5% in 2019/20. Further, the reduction due to the maturing of the NIIS is \$6.1 billion in 2044/45 (around 6% of package costs).

The estimates below are consistent with the PC estimates of full scheme costs when considering inflation and population growth, and only considering participants under the age of 65 years – 0.9% of GDP in the long term (Figure 6.1). However, as participants age over 65 years in the scheme the cost of the scheme increases from 0.9% of GDP in 2019/20 to 1.3% in 2044/45, with the additional 0.4% of GDP contributing to the cost of the aged care system.

The PC provided a range around the full scheme estimate indicating that the estimate was uncertain. In order to better manage short term cash flow uncertainty, a buffer should be considered. This buffer would provide more certainty to funders of the scheme of their required contributions, and allow any fluctuations in experience to be managed by putting in place appropriate operational changes. Further, a buffer would allow the Agency to take a longer term view and invest early in participants to achieve reduced lifetime costs. The buffer could be in the order of around 10%-15% subject to further analysis of emerging experience, and would not be drawn upon unless needed.

This percentage figure is based on consideration of risk margins¹⁵ and solvency and capital requirements of insurers and accident compensation schemes. Health insurers in particular are possibly the most akin to the NDIS, as members make contributions to support short-term cash flows. In the past health insurers have been required to hold approximately two months of contributions to assist with maintaining solvency (around 16%).¹⁶ More recently, the amount of additional capital held to reduce the risk of insolvency of health insurers is based on consideration of a number of risks - including liability risk, economic risk, and expense risk. Over time, a methodology for determining an appropriate buffer will be established drawing upon the concepts underpinning this framework.

¹⁴ The Productivity Commission assumed early investment would result in reduced costs in the future. This reduction is approximately 0.35% per annum and this has been used in the baseline modelling.

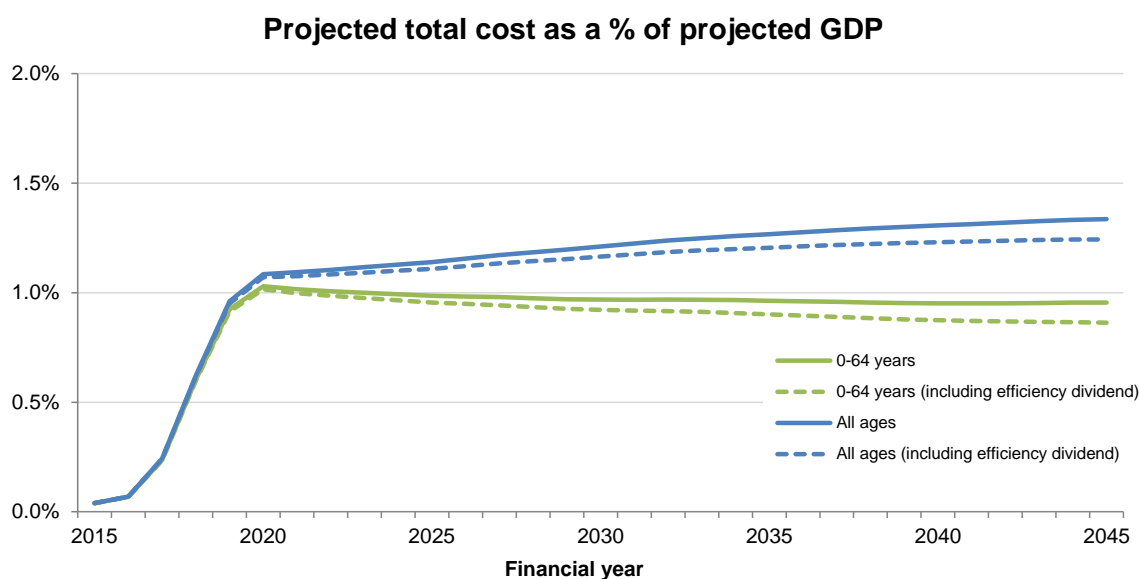
¹⁵ A risk margin within the insurance context is the amount of additional money held by an insurer to increase the probability that future outlays will be met.

¹⁶ Operations of the Registered Benefits Organisations – Annual Report 1997-98.

Table 6.1 Baseline projection of the NDIS

Baseline	2014	2015	2016	2017	2018	2019	2020	2025	2030	2035	2040	2045
Total participants												
0-64 years	7,240	19,564	30,382	148,909	339,632	451,836	457,848	485,837	510,220	536,616	561,082	591,768
65+ years	45	164	390	1,801	5,376	10,576	16,116	45,128	73,669	94,704	114,079	125,024
Total	7,285	19,728	30,772	150,710	345,008	462,412	473,963	530,965	583,890	631,320	675,161	716,792
Uninflated total cost (\$m)												
0-64 years				\$3,064	\$8,388	\$13,757	\$16,039	\$16,983	\$17,808	\$18,867	\$19,784	\$20,934
65+ years				\$100	\$298	\$588	\$894	\$2,523	\$4,189	\$5,531	\$6,813	\$7,628
Total				\$3,163	\$8,686	\$14,345	\$16,933	\$19,506	\$21,997	\$24,397	\$26,597	\$28,562
<i>NDIS adjustment</i>												
Total after NDIS adjustment				\$0	\$0	-\$279	-\$545	-\$814	-\$1,091	-\$1,344	-\$1,576	-\$1,784
				\$3,163	\$8,686	\$14,066	\$16,387	\$18,693	\$20,906	\$23,054	\$25,021	\$26,778
Inflated total cost (\$m)												
0-64 years	\$131	\$431	\$915	\$3,477	\$9,928	\$16,984	\$20,654	\$26,686	\$34,045	\$43,883	\$55,985	\$72,074
65+ years	\$0	\$9	\$23	\$113	\$353	\$726	\$1,151	\$3,965	\$8,008	\$12,864	\$19,280	\$26,264
Total	\$131	\$440	\$938	\$3,590	\$10,281	\$17,710	\$21,805	\$30,651	\$42,052	\$56,747	\$75,265	\$98,338
<i>NDIS adjustment</i>												
Total after NDIS adjustment	\$0	\$0	\$0	\$0	\$0	-\$342	-\$698	-\$1,271	-\$2,073	-\$3,107	-\$4,434	-\$6,106
	\$131	\$440	\$938	\$3,590	\$10,281	\$17,368	\$21,107	\$29,379	\$39,980	\$53,640	\$70,830	\$92,232
<i>Operating costs</i>												
Total after operating costs	\$128	\$208	\$240	\$749	\$1,412	\$1,667	\$1,613	\$2,057	\$2,799	\$3,755	\$4,958	\$6,456
	\$259	\$648	\$1,178	\$4,338	\$11,693	\$19,035	\$22,720	\$31,436	\$42,778	\$57,394	\$75,788	\$98,689
Total after efficiency dividend	\$259	\$648	\$1,178	\$4,324	\$11,614	\$18,843	\$22,420	\$30,591	\$41,140	\$54,583	\$71,337	\$91,864

Figure 6.1 Projected total cost as a % of projected GDP



6.2.2 Scenario 1: Lower numbers of low cost participants

There is some evidence to suggest that the number of participants could be lower than the original PC estimate. The lower number is due to not as many low cost participants entering the scheme compared with the original estimate. Assuming the number of participants is 20% less than the PC estimate and that the participants who do not enter the scheme are low cost participants, there is a reduction in package costs in 2019/20 from \$21.8 billion to \$20.7 billion - a reduction of 5% (Table 6.2). Whilst these people may not be supported with an individual package, it is still likely that these people may require information, linkage, and capacity building.

Table 6.2 Scenario 1: 20% lower number of low cost participants

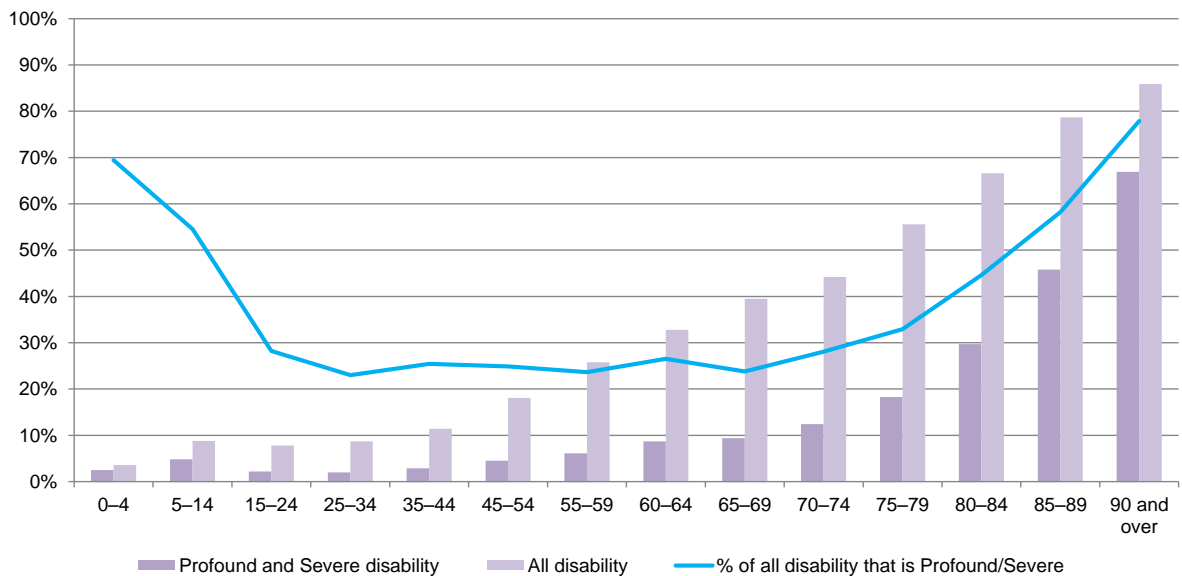
Scenario 1	2014	2015	2016	2017	2018	2019	2020	2025	2030	2035	2040	2045
Total participants												
0-64 years	7,240	19,564	30,382	119,127	271,706	361,469	368,895	399,841	421,678	443,748	463,642	489,865
65+ years	45	164	390	1,441	4,301	8,461	12,893	36,102	58,936	75,763	91,263	100,019
Total	7,285	19,728	30,772	120,568	276,006	369,930	381,787	435,944	480,613	519,511	554,906	589,883
Uninflated total cost (\$m)												
0-64 years				\$2,911	\$7,968	\$13,069	\$15,237	\$16,134	\$16,918	\$17,923	\$18,794	\$19,887
65+ years				\$95	\$283	\$559	\$849	\$2,397	\$3,979	\$5,254	\$6,472	\$7,247
Total				\$3,005	\$8,252	\$13,628	\$16,086	\$18,531	\$20,897	\$23,178	\$25,267	\$27,134
<i>NiIS adjustment</i>				\$0	\$0	-\$279	-\$545	-\$814	-\$1,091	-\$1,344	-\$1,576	-\$1,784
Total after NiIS adjustment				\$3,005	\$8,252	\$13,349	\$15,541	\$17,717	\$19,806	\$21,834	\$23,691	\$25,350
Inflated total cost (\$m)												
0-64 years	\$131	\$431	\$915	\$3,303	\$9,432	\$16,135	\$19,621	\$25,351	\$32,343	\$41,689	\$53,185	\$68,470
65+ years	\$0	\$9	\$23	\$107	\$335	\$690	\$1,094	\$3,767	\$7,607	\$12,221	\$18,316	\$24,951
Total	\$131	\$440	\$938	\$3,410	\$9,767	\$16,825	\$20,714	\$29,118	\$39,950	\$53,910	\$71,501	\$93,421
<i>NiIS adjustment</i>	\$0	\$0	\$0	\$0	\$0	-\$342	-\$698	-\$1,271	-\$2,073	-\$3,107	-\$4,434	-\$6,106
Total after NiIS adjustment	\$131	\$440	\$938	\$3,410	\$9,767	\$16,483	\$20,016	\$27,847	\$37,877	\$50,802	\$67,067	\$87,315
<i>Operating costs</i>	\$128	\$208	\$240	\$749	\$1,412	\$1,667	\$1,613	\$1,949	\$2,651	\$3,556	\$4,695	\$6,112
Total after operating costs	\$259	\$648	\$1,178	\$4,159	\$11,179	\$18,149	\$21,630	\$29,796	\$40,528	\$54,358	\$71,762	\$93,427
Total after efficiency dividend	\$259	\$648	\$1,178	\$4,145	\$11,103	\$17,967	\$21,344	\$28,993	\$38,970	\$51,684	\$67,527	\$86,935

6.2.3 Scenario 2: Higher numbers of participants entering the scheme before age 65 years

In similar schemes to the NDIS, such as accident compensation schemes, research has shown that changes in benefit levels introduce behavioural impacts over and above the financial impacts of the changes.¹⁷ In order to become a participant of the NDIS, a person needs to be found eligible for the scheme before age 65 years. Currently the NDIS care and support package appears likely to be higher and provide more advantages than the care and support received in the aged care system. Hence, there is an incentive for people to gain access to the scheme before age 65 years.

The prevalence of disability increases with age, and in particular the proportion of people with disability who have a severe/profound core activity limitation also increases (Figure 6.2). There is a high probability that people otherwise likely to report their disability between aged 65-74 years will have incentives to attempt to access the scheme before they turn 65 years in order to gain access to higher benefits for the remainder of their lifetime. Further, people with a disability, but not a severe/profound core activity limitation, may have incentive to access the scheme before age 65 years.

Figure 6.2 Prevalence of disability in Australia by age group¹⁸



¹⁷ Butler, Richard J. and Worrall, John D. (1991). Claims Reporting and Risk Bearing Moral Hazard in Workers' Compensation, *The Journal of Risk and Insurance*, 58:2, 191-204

¹⁸ ABS Survey of Disability, Ageing and Carers, 2012

It is possible that with additional incentive to enter the NDIS rather than the aged care system, the reported prevalence of severe/profound core activity limitation could increase from 25% of all people with a disability to over 30% in the 55-64 year age group. This corresponds to a reported increase in new entrants to the scheme in the 55-64 year age group by as much as 150%. This has a flow on effect to package costs over the long term. In 2019/20 this effect is not large (around \$184 million). However, this increases to \$9.8 billion by 2044/45 (Table 6.3), which is an approximate increase of 10% in package costs.

Table 6.3 Scenario 2: Increase in participants entering the scheme in the 55-64 year age group

Scenario 2	2014	2015	2016	2017	2018	2019	2020	2025	2030	2035	2040	2045
Total participants												
0-64 years	7,240	19,564	30,382	148,909	339,632	451,836	461,119	499,802	527,097	554,685	579,553	612,331
65+ years	45	164	390	1,801	5,376	10,576	16,116	49,687	88,708	120,409	149,538	167,371
Total	7,285	19,728	30,772	150,710	345,008	462,412	477,234	549,489	615,806	675,094	729,090	779,701
Uninflated total cost (\$m)												
0-64 years				\$3,064	\$8,388	\$13,757	\$16,183	\$17,599	\$18,555	\$19,666	\$20,601	\$21,845
65+ years				\$99	\$294	\$577	\$881	\$2,708	\$4,849	\$6,691	\$8,435	\$9,576
Total				\$3,162	\$8,682	\$14,334	\$17,063	\$20,307	\$23,404	\$26,357	\$29,036	\$31,421
<i>NIIS adjustment</i>				\$0	\$0	-\$279	-\$545	-\$814	-\$1,091	-\$1,344	-\$1,576	-\$1,784
Total after NIIS adjustment				\$3,162	\$8,682	\$14,055	\$16,518	\$19,493	\$22,314	\$25,013	\$27,460	\$29,637
Inflated total cost (\$m)												
0-64 years	\$131	\$431	\$915	\$3,477	\$9,928	\$16,984	\$20,839	\$27,654	\$35,472	\$45,742	\$58,298	\$75,211
65+ years	\$0	\$9	\$23	\$113	\$353	\$726	\$1,150	\$4,255	\$9,271	\$15,562	\$23,870	\$32,970
Total	\$131	\$440	\$938	\$3,590	\$10,281	\$17,710	\$21,988	\$31,909	\$44,743	\$61,304	\$82,168	\$108,181
<i>NIIS adjustment</i>	\$0	\$0	\$0	\$0	\$0	-\$342	-\$698	-\$1,271	-\$2,073	-\$3,107	-\$4,434	-\$6,106
Total after NIIS adjustment	\$131	\$440	\$938	\$3,590	\$10,281	\$17,368	\$21,290	\$30,638	\$42,670	\$58,197	\$77,734	\$102,075
<i>Operating costs</i>	\$128	\$208	\$240	\$749	\$1,412	\$1,667	\$1,613	\$2,145	\$2,987	\$4,074	\$5,441	\$7,145
Total after operating costs	\$259	\$648	\$1,178	\$4,338	\$11,693	\$19,035	\$22,904	\$32,782	\$45,657	\$62,270	\$83,175	\$109,220
Total after efficiency dividend	\$259	\$648	\$1,178	\$4,324	\$11,614	\$18,843	\$22,601	\$31,903	\$43,938	\$59,317	\$78,499	\$102,030

6.2.4 Scenario 3: Higher cost associated with over 65s

There is very limited scheme experience to inform the costs of over 65 year olds in the NDIS. Specifically, there are approximately 50 participants aged 65 years and none of these participants have aged past 65 years. Currently it is assumed that people over the age of 65 years have an annual cost which is 20% higher than the participants in the 55-64 year age group. This increases over time to around 25% to allow for ageing.

This scenario assumes a higher cost – an annual cost which is 30% higher than the 55-64 year age group increasing to over 35%. In 2044/45 the impact on package costs is an additional \$1.4 billion, or 1.5% (Table 6.4).

Table 6.4 Scenario 3: Increase in costs associated with the over 65s age group

Scenario 3	2014	2015	2016	2017	2018	2019	2020	2025	2030	2035	2040	2045
Total participants												
0-64 years	7,240	19,564	30,382	148,909	339,632	451,836	457,848	485,837	510,220	536,616	561,082	591,768
65+ years	45	164	390	1,801	5,376	10,576	16,116	45,128	73,669	94,704	114,079	125,024
Total	7,285	19,728	30,772	150,710	345,008	462,412	473,963	530,965	583,890	631,320	675,161	716,792
Uninflated total cost (\$m)												
0-64 years				\$3,064	\$8,388	\$13,757	\$16,039	\$16,983	\$17,808	\$18,867	\$19,784	\$20,934
65+ years				\$105	\$314	\$619	\$940	\$2,654	\$4,404	\$5,823	\$7,179	\$8,044
Total				\$3,169	\$8,701	\$14,376	\$16,979	\$19,637	\$22,213	\$24,690	\$26,962	\$28,978
<i>NIIS adjustment</i>				\$0	\$0	-\$279	-\$545	-\$814	-\$1,091	-\$1,344	-\$1,576	-\$1,784
Total after NIIS adjustment				\$3,169	\$8,701	\$14,097	\$16,434	\$18,823	\$21,122	\$23,346	\$25,386	\$27,194
Inflated total cost (\$m)												
0-64 years	\$131	\$431	\$915	\$3,477	\$9,928	\$16,984	\$20,654	\$26,686	\$34,045	\$43,883	\$55,985	\$72,074
65+ years	\$0	\$10	\$24	\$119	\$371	\$764	\$1,211	\$4,170	\$8,420	\$13,545	\$20,314	\$27,695
Total	\$131	\$441	\$939	\$3,596	\$10,299	\$17,748	\$21,865	\$30,855	\$42,465	\$57,427	\$76,299	\$99,770
<i>NIIS adjustment</i>	\$0	\$0	\$0	\$0	\$0	-\$342	-\$698	-\$1,271	-\$2,073	-\$3,107	-\$4,434	-\$6,106
Total after NIIS adjustment	\$131	\$441	\$939	\$3,596	\$10,299	\$17,406	\$21,166	\$29,584	\$40,392	\$54,320	\$71,865	\$93,664
<i>Operating costs</i>	\$128	\$208	\$240	\$749	\$1,412	\$1,667	\$1,613	\$2,071	\$2,827	\$3,802	\$5,031	\$6,556
Total after operating costs	\$259	\$649	\$1,180	\$4,344	\$11,711	\$19,073	\$22,780	\$31,655	\$43,220	\$58,122	\$76,895	\$100,220
Total after efficiency dividend	\$259	\$649	\$1,180	\$4,329	\$11,632	\$18,881	\$22,479	\$30,810	\$41,581	\$55,311	\$72,444	\$93,396

7 Managing financial sustainability

The definition of financial sustainability is outlined in section 0 – a state where both participants are satisfied with their reasonable and necessary supports and improved independence and social/economic participation, and contributors continue to be willing to contribute based on perceived value for money.

A solid framework for managing financial sustainability is required. The process for monitoring financial sustainability is outlined in section 3. This framework involves collecting data on the number of participants, the characteristics of these participants (to allow analysis of reference groups), the outcomes for these participants, and the cost of supports provided to participants. This allows a detailed analysis of emerging experience and an understanding of cost drivers. This information can then be used by the NDIS Board and NDIA management to implement any changes required to ensure the NDIS remains financially sustainability.

In order to implement the framework effectively, a number of key conditions must be met:

- **Adequate and accurate data must be collected.** Substantial work is underway on reference groups and individual outcomes measurement to ensure the correct data are collected. These data allow consistency of resource allocation between participants to be monitored, cost drivers to be identified, and appropriate strategies to be put in place to mitigate risks. In addition to this, longitudinal information on participants, including characteristics and the supports provided to participants needs to be collected. Data exception reports and other measures are used to ensure the data are collected in a timely and accurate manner.
- **An ICT system which accommodates a longitudinal database, provides expert support to front-line staff, and meets the needs of participants and service providers.** A longitudinal database is essential to scheme financial sustainability and the actuarial analysis described in this report. Further, the ICT system needs to meet the needs of NDIA operations, participants and services providers. The current IT system does not meet these requirements.
- **Insurance principles need to be embedded throughout the Agency.** A fundamental precept of the NDIS is to invest in participants to improve long term outcomes and costs. Strategies to assist with embedding insurance principles throughout the Agency include:
 - Development of decision support tools. The work on reference groups mentioned in section 3 will provide a check on the amount of support allocated to participants in their plans, by comparing the amount allocated with the reference group. Further, a lifetime cost estimator which assists planners to understand the possible cost impacts of investing in high cost supports has

been developed, and a planner tool is being built which allows planners to compare their portfolio of participants with other planners.

- Regular analysis of scheme experience and communication of this experience to staff.
- Regular staff training.
- **A risk management strategy needs to be in place.** Identification of risks (including those identified using the actuarial control cycle), developing mitigation strategies to address these risks, and implementing these strategies is crucial to achieving scheme financial sustainability. Significant work has been undertaken on the risk management strategy – the NDIA has developed a business plan to achieve the deliverables listed in the 2013-16 Strategic Plan. The risks associated with not meeting these deliverables have been allocated to NDIA divisions, and divisions have plans in place to mitigate these risks.

In addition to the requirements described above, there are other issues that are not directly in control of the NDIA, but which will have an impact on financial sustainability. These include:

- **The funding model.** Funding needs to be adequate to support the long term nature of support provision (including early investment to best support participants over their lifetime), certain so participants and their carers have confidence in the system, and predictable so contributors have some certainty over their future contributions. Detailed actuarial modelling of future scheme costs (as included in this report), and funding should be based on the most up-to-date and reliable estimates of future costs which take into account all scheme dynamics. Further, consideration of a buffer to allow for short term cash flow fluctuations and volatility inherent in the start of the scheme would enable a degree of certainty to be afforded to contributing governments around their future contribution obligations. a buffer could also allow the Agency to take a longer term view and invest early in participants to reduce lifetime costs.
- **Cost-shifting.** It is critical that mainstream services bolster their support to people with a disability and meet their requirements under the National Disability Strategy. Further, friends, family and community support needs to continue to provide the base on which the formal system can be built. The above costings and projections do not include any allowance for the NDIS to fund services that would be expected to be provided by the mainstream system. Similarly, expected improvements in participant outcomes are contingent on participants receiving the mainstream and natural supports assumed to underpin the scheme. The NDIA is taking steps to support these collaborative efforts:
 - The NDIA is applying to be a Data Integrating Authority. This, along with the establishment of data sharing protocols with mainstream government

departments will assist in monitoring trends and outcomes in scheme participants' interactions with mainstream services such as income support, housing, health services, justice services, education services, and child protection services.

- Qualitative information on the provision of mainstream services also needs to be gathered regularly and tested to the extent that is possible with the quantitative data.
- Memoranda of understanding with relevant government departments will assist with the issue of mainstream support provision (as recommended by the PC). Strategies for supporting families and friends who provide support will also be required.
- **Sector capacity.** The service provider sector will need to expand to meet the increased demand as the NDIS ramps up to full scheme. If demand increases at a rate that is faster than supply, then, at best, inflationary pressure will emerge. At worst, confidence in the scheme could be compromised. The transition to full scheme needs to be managed carefully. The scheme will need to roll out at a pace which does not result in inflationary pressures, but which encourages sound investment from service providers to expand their operations and credible new entrants to enter the market.

Further, capacity of participants to articulate the supports they require in a way which contributes to them achieving a good life and improved outcomes is required to ensure financial sustainability. Building the capacity of participants and potential participants should be undertaken in the lead up to, and throughout, transition. This will mean that when participants enter the scheme they are informed about the scheme and have thought about what a "good life" might look like for them.

- **Community attitudes.** The NDIS will remain financially sustainable if participants are satisfied with their supports, and the community continues to be willing to invest in the NDIS. To address this issue:
 - Participants need clear information on reasonable and necessary supports and comfort that the scheme will support their needs. Participants need comfort that they can try different support options in the confidence that their support package will continue, rather than be concerned that if they relinquish a service, then it will be unavailable at a later date (as is often the case in the current service system).
 - Honest communication of the performance of the Scheme (both participant outcomes and financial sustainability) is required by the NDIA. It will be crucial to collect the information needed (as articulated throughout this report) to be able to inform the community of the NDIS performance.