MELBOURNE
DISABILITY
INSTITUTE

NDIS UTILISATION PROJECT

DESCRIBING, UNDERSTANDING AND EXPLAINING INEQUALITIES IN PLAN UTILISATION

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About this report

This report was funded by the Australian Government Department of Social Services.

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About the Melbourne Disability Institute

The Melbourne Disability Institute (MDI) is an interdisciplinary research institute that was established by the University of Melbourne in 2018 to build a collaborative, interdisciplinary and translational disability research program. The MDI research program aims to capitalise on national reforms and active partnerships with the disability sector to deliver evidence for transformation.

The Melbourne Disability Institute (MDI) is situated on the land of the Woiwurrung (Wurundjeri) people of the Kulin nation and conducts its activities on Aboriginal land. This land has never been ceded and the impacts of colonisation are ongoing. MDI acknowledges Traditional Custodians' continual care for country, the importance of Indigenous sustainability practice and knowledge, and the Woiwurrung and Boon Wurrung's ongoing contributions to the life of this city and this region. MDI pays respects to Elders past, present and emerging.

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Executive Summary

Background: Utilisation, the proportion of individuals' National Disability Insurance Scheme (NDIS) plans that are used, was 70% for the period between 1 October 2019 and 31 March 2020[1]. While full utilisation is not realistic, it is possible that utilisation lower than 100% could be indicative of people not receiving the supports they need.

Aims: This project has two aims: A) to quantify inequalities in NDIS utilisation and B) assess whether exemplar scenarios can close these inequalities.

Data: In accordance with the NDIA's public data sharing policy, a tailored data release was obtained through a data sharing request with the NDIA. The tailored dataset covers 1 July 2016 – 30 June 2020. We used detailed information on socio-demographic characteristics (e.g., age, disability), plans and spending for active participants' completed post-trial plans. Having the plan and payment data allows us to calculate utilisation for each individual as they progress through their plans. It also allows us to calculate the utilisation of specific support categories (e.g., core, capacity building or capital supports).

Study design: Utilisation is a complex outcome to analyse. It is a composite measure of the use of multiple planned supports. This complexity was highlighted in the Comparative Analysis, conducted in parallel to this report. It found if utilisation is to be used as an indicator, it should be used to compare groups or individuals over time. As such, the rate of utilisation is not necessarily that informative, rather its why there are large differences at the individual level. These findings frame how we design the analysis in this report. We need ways of making comparisons between groups that help us determine what is driving utilisation. To do this we have two main ways of splitting the population of NDIS participants up that serves two distinct purposes:

1. Target populations

Target populations are segments of NDIS participants that, broadly speaking, either have relatively similar service needs (e.g., a given disability type) or share common, policy relevant characteristics (e.g., an intervention might be aimed at a specific age group).

Our target populations are:

A) All participants with any disability type

B) Adults with psychosocial disability (identified as being "at risk" of low utilisation)

C) Adults with intellectual disability (identified as being "at risk" of low utilisation)

D) Children with autism (the largest disability group within the scheme).

2. Inequality groups

We focus on three inequality groups we hypothesise are disadvantaged and are likely to face barriers accessing and using the NDIS:

- participants who identify as Culturally and Linguistically Diverse (CALD),
- participants who identify as Aboriginal and Torres Strait Islander (ATSI)

[1] COAG Disability Reform Council Quarterly Report, Quarter 2 2020. 2020. National Disability Insurance Agency

- participants who live in an area classified as having a low socio-economic status (low-SES).

Each of the three inequality groups are compared to the rest of the target population – e.g., people assigned to the CALD group are compared to the non-CALD group. This comparison will provide a benchmark level of utilisation for each of the three inequality groups. Throughout this report, all analysis is structured in this way – using target populations to establish who is included in each analysis, and inequality groups to establish what a "benchmark" level of utilisation looks like within each target population.

Inequality analysis

Methods | To quantify inequalities, we compared each of the three inequality groups to their respective comparators (CALD v non-CALD; ATSI v non-ATSI; low-SES to higher-SES). The inequality quantified is a proxy for a) a benchmark level of utilisation that the inequality groups could be lifted up to and b) a measure for the disadvantage and barriers each inequality group may face in using their plans.

Results | We found that each inequality group had its own distinctive combination of plan size, spending and utilisation. Some of these results vary somewhat over time, target population and support class but in general the inequality analyses found:

The CALD inequality group have:

- larger plans than the non-CALD group.
- broadly similar-to-higher levels of spending than the non-CALD group.
- similar-to-higher levels of utilisation than the non-CALD group.

Aboriginal and Torres Strait Islander Australians have:

- larger plans than the non-ATSI group.
- similar-to-lower levels of spending than the non-ATSI group.
- lower levels of utilisation than non-ATSI group

The low-SES group have:

- similar-to-smaller plans than the higher-SES group.
- similar-to-lower spending than the higher-SES group.
- slightly lower utilisation than the higher-SES group.

These inequalities were broadly evident for the three disability groups we analysed – target populations B (adults with psychosocial disability), C (adults with intellectual disability) and D (children with autism). In terms of support classes, the most pronounced inequalities in utilisation arising from their respective combination of plan size and spending were identified for capacity building supports, especially for Aboriginal and Torres Strait Islanders adults with intellectual disability. Even though there are inequalities in utilisation, it appears that the scheme, if our assumptions about disadvantage are valid, does recognise that some groups may require more supports in their plans. For example, it does appear that the CALD population are accessing a relatively higher amount of NDIS disability supports and services.

Exemplar support coordination scenarios – increasing use of planned support coordination

Methods

We modelled the impact of a range of support coordination scenarios on utilisation inequalities. Support coordination is one of the drivers of utilisation inequality we considered. It is a focus of this study as we a) have data on support coordination, b) sufficient subject matter knowledge to identify a causal effect and c) its purpose is to aid planning and increase service use. Other drivers were either taken into account in the model (e.g., plan management) or we were unable to include in the analysis because there was insufficient data (e.g., market influences).

The causal model quantified what would happen to inequalities in utilisation for adults with psychosocial disability, adults with intellectual disability and children with autism under the following scenarios:

Business as usual (i.e., in the model support coordination utilisation is set at the "observed level")

Participants utilise at least 20% of their planned support coordination (i.e., in the model people who use less than 20% of their support coordination have their use of support coordination increased to 20%. Everyone else's support coordination use is set at the "observed level")

Participants utilise at least 80% of their planned support coordination (i.e., in the model people who use less than 80% of their support coordination have their use of support coordination increased to 80%. Everyone else's support coordination use is set at the "observed level")

Results

Comparing the first (business as usual) and second (use of planned support coordination set to at least 20%) scenarios, it is clear that getting people to use at least some of their planned support coordination has little impact on plan spending and utilisation.

However, the third scenario – people utilising at least 80% of their planned support coordination – in general led to increased spending (and thus utilisation). The main findings of this scenario are detailed below:

Adults with psychosocial disability: spending of capacity building and core supports increases substantially for all three inequality groups.

Adults with intellectual disability: spending of capacity building supports increases substantially for all three inequality groups. For core supports, there is an increase in spending for the ATSI and low-SES groups but no increase for the CALD group.

Children with autism: there is a clear increase in capacity building spending (and thus utilisation). There is a small increase in spending for core supports for all three inequality groups.

Summary of findings

In designing this study, we hypothesised that each of three inequality groups were likely to face barriers accessing and using the NDIS. However, the inequality analysis we conducted illustrates that is not necessarily the case.

The CALD and ATSI inequality groups have larger plans than the rest of the population, even after taking into account other drivers of utilisation. If our hypothesis about disadvantage holds, it appears that the scheme is recognising that these groups may need more services.

However, for the ATSI inequality group, where inequalities in utilisation do arise it is because the higher plan sizes are not matched by higher levels of spending. This is a pattern that is exhibited across disability types and in both urban and rural areas, especially for capacity building supports.

Our causal modelling established that, under a scenario where participants use at least 80% of their planned support coordination, there would be increased use of capacity building supports, and in some circumstances core supports.

We have not made qualitative or quantitative judgements about which “drivers” are the most important. We simply quantify, under a range of assumptions, inequalities in plan size, spending and utilisation and how they can be closed through increased use of support coordination.

Limitations and future research

We were unable to model the impact of markets on plan utilisation, as the data at-hand has detailed information on what is spent but no information on the availability of supports. This means we were unable to assess whether people were not using their plans simply because the services they need were not available.

Another limitation is the lack of previous quantitative research that aims to capture and understand drivers of plan utilisation. Prior to this report, research has largely been exploratory and summarised utilisation at the population level. This made constructing causal models very challenging. However, this project has made huge strides in plugging this gap. We have made each assumption about causation and analytical choice explicit.

This approach could be expanded to assess other potential drivers of utilisation. Furthermore, combining data on the use of the NDIS with other life outcomes such as employment and/or health and wellbeing could help government determine whether increased utilisation is also effective utilisation.

PART 1: Project Rationale

1.1. Introduction

This report, by Melbourne Disability Institute (MDI), University of Melbourne, presents findings from a quantitative analysis of National Disability Insurance Scheme participant data.

The Australian Government's Department of Social Services (DSS) have commissioned MDI to analyse differences in utilisation between socio-demographic and disability groups and to identify drivers of utilisation and potential interventions to improve utilisation. In this report, utilisation is the proportion of an NDIS plan that is spent.

This report is one part of a larger project commissioned by DSS (referred to as 'The Utilisation Project'). University of Adelaide are conducting a large qualitative study (referred to as the "Qualitative Project"). The Qualitative Project aims to understand the dynamics affecting utilisation of individuals' plans from the participant point of view.

Findings from the Qualitative Project have highlighted issues with plan utilisation for several "at-risk" groups of NDIS participants. These include socio-demographic groups that could be experiencing inequality (e.g. people from Culturally and Linguistically Diverse backgrounds and Aboriginal and Torres Strait Islander Australians) and disability groups that could face particular barriers to service use – e.g. people with psychosocial disability. Findings from the Qualitative Project are synthesised to inform the study design detailed throughout part 1 of this report. UNSW Canberra collaborated with MDI to conduct a desktop review and interviews to compare the NDIS with other individualised care models internationally (referred to as the "Comparative Analysis"). Pertinent findings of the Comparative Analysis were:

- There are no examples of schemes similar to the NDIS where utilisation is a policy target or benchmark.
- Treating utilisation as a simple continuous outcome, where low is always bad and high is always good, does not make sense. 100% utilisation may not be a sign of success - it may indicate a plan that is insufficient for a participant's needs.
- If utilisation is to be used as an indicator, it should be used to compare groups or individuals over time.

Previous research has shown there are differences in utilisation between groups (this is synthesised in section 1.7). However, none of this research has aimed to quantify whether these differences are avoidable and/or modifiable. Given high utilisation, at an individual level, is not necessarily a sign of success, identifying systematic and potentially avoidable differences in utilisation may improve understanding of where utilisation can be more equitable. While use of NDIS funded supports may never reach 100% (in financial year 2018/19 utilisation of the NDIS was 68%), utilisation markedly less than 100% could be indicative of people not receiving the support they need. Furthermore, there may be groups within the NDIS population who have low utilisation, and this low utilisation could be related to disadvantage.

Box 1.1: Key concepts

Inequality: an avoidable, modifiable difference in an outcome (e.g., plan size or utilisation) that potentially can be closed

Inequality group: a group within the population that we hypothesise experiences barriers to utilisation that are modifiable (e.g., people with a low socioeconomic status)

Comparator group: a group within the population that the inequality group is compared to (e.g., people with a high socioeconomic status).

Target population: segments of NDIS participants that, broadly speaking, have relatively similar service needs (e.g., disability type) or share common policy relevant characteristics (e.g., a specific age group)

This report aims to provide the first evidence on differences and variations in utilisation that are in fact *inequalities* and the extent to which these inequalities could be closed. Consequently, this report has two overarching aims:

A) Quantify inequalities in NDIS plan utilisation

B) Assess whether exemplar scenarios can close these inequalities in utilisation

To address Aim A, we investigate inequalities in plan size, spending and utilisation between the following inequality and comparator group combinations:

- Aboriginal and Torres Strait Islander (ATSI) participants in comparison to non-ATSI participants.
- Culturally and Linguistically Diverse (CALD) participants in comparison to non-CALD participants
- People who live in areas classified as having a low socio-economic status (SES) in comparison to those who live in higher SES areas.

To address Aim B, we modelled the impact of a range of support coordination scenarios on spending (and thus utilisation) inequalities.

The causal model quantified what would happen to inequalities in spending (and thus utilisation) under the following scenarios:

- **Business as usual** (i.e., in the model use of planned support coordination is set at the "observed level")
- **Participants use at least 20% of their planned support coordination** (i.e., in the model people who use less than 20% of their support coordination have their use of support coordination increased to 20%. Everyone else's use of planned support coordination is set at the "observed level")
- **Participants use at least 80% of their planned support coordination** (i.e., in the model people who use less than 80% of their support coordination have their use of support coordination increased to 80%. Everyone else's use of planned support coordination is set at the "observed level".

Box 1.2: Key concepts

Causal model: uses statistical tools, explicitly informed by existing research and subject matter expertise, to isolate drivers of utilisation. Under strict assumptions some of these drivers can then be manipulated to conduct “what-if” scenarios

Scenario: a hypothetical shift in a potential driver of utilisation, e.g., increase utilisation of support coordination to at-least 80%. NB. we do not specify *how* the shift could be achieved

Business as usual: the level of utilisation observed in the data under the policy regime that relates to the period of study.

‘Observed level': as observed in the data. For example, if person Y uses 15% of their support coordination in 2019/20, then their "observed level” utilisation of support coordination is set at 15%.

Throughout Parts 1 and 2 we provide a rationale for why we chose to model support coordination. We detail how it is one of many drivers of utilisation inequalities we considered and that it is a focus of our modelling because a) we have detailed data on support coordination, b) sufficient subject matter knowledge to identify a causal effect and c) its purpose is to aid planning and increase service use. Other drivers were either taken into account in the model (e.g., plan management) or we were unable to include in the analysis because there was insufficient data (e.g., market influences).

To progressively detail the motivation, rationale and previous evidence that our study design is based on and then our findings, this report has five parts.

‘Part 1 Project Rationale’ justifies and explains our chosen approach of analysing inequalities in plan utilisation. It sets out how the findings from the Comparative Analysis led to our focus on quantifying inequalities. It then goes on to summarise existing evidence on potential drivers of utilisation into “evidence themes”. These evidence themes are the foundation used to construct both our inequality analysis and support coordination scenario modelling. We finish Part 1 by providing an overview of the data available and how we can / cannot use it to address the evidence themes and our proposed inequality and causal analyses. It concludes by setting out the specific research questions we will answer.

‘Part 2 Methods’ details the causal assumptions that our inequality analysis and causal modelling is based on. Details of our causal assumptions and statistical methods are set out in non-technical terms. A detailed technical account of these assumptions and the statistical methods applied is outlined in the Technical Appendix. Please note both the inequality analysis and scenario modelling attempt to isolate causal effects. The inequality analysis attempts to isolate the effect of disadvantage, as a result of being a member of an inequality group, on plan size and spending. The support coordination scenario modelling attempts to isolate the impact of a range of support coordination scenarios on inequalities in spending.

‘Part 3 Inequality analysis results’ firstly describes how the NDIS population has changed from June 2016 to June 2020, and who has planned services from each support class in the most recent financial year (2019/2020) for which we have data. Having provided an overarching description of participants and services, we detail the inequality

results for each inequality group for four main target populations – 1) All participants, 2) Adults with psychosocial disability, 3) Adults with intellectual disability and 4) children with autism.

'Part 4 Support Coordination Scenario Modelling Results' details the results of the scenario – support coordination - we identified as feasible, and of policy relevance, to identify a causal effect from. The results show how a range of scenarios, where the utilisation of support coordination is hypothetically adjusted, affect the main utilisation inequalities quantified in Part 3.

For the inequality results (part 3) and support coordination scenario modelling (part 4) we use statistical adjustment and sub-group analysis to isolate the effect of a) disadvantage associated with membership of each inequality group on plan size, spending and thus utilisation (part 3) and b) a range of support coordination scenarios on inequalities in plan spending (part 4).

Finally, **'Part 5 Summary'** provides an overview of the main results detailed in the report. It discusses the methodological strengths and highlights gaps in knowledge that could be filled with further research.

1.2. Background

The National Disability Insurance Scheme (NDIS)[2] is the largest social policy reform since Medicare. It is a consumer directed care model of disability support provision that provides support to people with disability, their families and carers. It is jointly governed and funded by the Australian, state and territory governments. The NDIS was launched in 2013 beginning with a trial phase and was introduced across Australia from July 2016, with full scheme arrangements coming into place for all jurisdictionsby the end of 2020. [3]

Participants are provided funding packages to purchase the supports they need in a marketplace. The June 2020 NDIA quarterly report to COAG[4] showed for support provided between 1 October 2019 and 31 March 2020, data at 30 June 2020 indicated that 70% of support had been utilised nationally. With people joining the scheme, this figure includes people who are new users, including people who have never received disability supports before. Utilisation does increase as people progress from plan to plan. The June 2020 Quarterly Report data also showed, on average, that 54% of allocated supports were used in first plans rising to over 70% by third and subsequent plans.

The Productivity Commission's inquiry into NDIS Costs in 2018[5] noted that "underutilisation" of plans was a major problem. They also noted that funding for some supports were much higher including: Early Childhood Early Intervention (ECEI), Supported Independent Living (SIL), consumables, home modifications, life-long learning, home learning, and improved relationships and for participants living in urban areas or between birth and 14 years of age.

[2] National Disability Insurance Scheme (NDIS). https://www.ndis.gov.au/understanding/what-ndis

[3] Luke Buckmaster and Shannon Clark, The National Disability Insurance Scheme: a chronology, Social Policy Section, Research Paper Series 2018-2019, Department of Australia, 2018.

[4] COAG Disability Reform Council Quarterly Report. June 2020. National Disability Insurance Agency

[5] Productivity Commission 2017, *National Disability Insurance Scheme (NDIS) Costs*, Study Report, Canberra

There are also concerns inequalities in spending, according to demographic and socio-economic factors, are starting to develop. However, this analysis is simply descriptive. More in-depth analyses are needed to establish what is driving differential utilisation and identify where government can intervene.

While we have knowledge of some patterns of utilisation over time and between different groups, we do not know whether these differences are avoidable or a reflection of specific characteristics of the Scheme, such as the type of supports funded. As mentioned earlier, by avoidable, we mean inequalities, which could be reduced by changing policies and practices. We also refer to these inequalities as 'modifiable'.

To quantify inequalities – modifiable differences in plan utilisation - this report focuses on identifying the causes of plan utilisation as best we can in the context of a) limited published and prior knowledge on patterns and dynamics of plan utilisation and b) the quantitative data at hand.

The starting point for this quantitative analysis is a clear specification of the outcome of interest – plan utilisation.

1.3. Utilisation as the outcome of interest

In this section we detail the complexity of quantitatively analysing plan utilisation and the implications of the findings from the Comparative Analysis for measuring utilisation. This information is then used to justify our inequalities study design.

The outcome of interest in this project – utilisation – is complex. A given individual's total utilisation is a composite measure of the proportion of the multiple planned supports they use. People within the scheme have markedly different plans, and therefore access markedly different supports.

There are also many ways in which utilisation - a proportion with two moving parts (plans and spending) - could go up or down and be systematically higher or lower for different individuals. People's plan size could increase or decrease, thereby changing the total amount of supports available to each individual. Some supports may be more readily accessed and used thereby changing the number and amount of services that are used. Or both – plans and services used – could change at the same time. This complexity was highlighted in the Comparative Analysis.

Another key finding of the Comparative Analysis was that the absolute level of utilisation is not that informative, and that utilisation cannot be treated as an outcome on a simple continuous scale, where low is always bad and high is always good. In fact, 100% utilisation may not be a sign of success, as it may indicate a plan that is insufficient for a participant's needs.

Rather, utilisation, if it is to be used as an outcome, should be used to compare groups and individuals over time.

That said, making simple comparisons between groups does not necessarily help us understand how observed differences in utilisation have arisen. The differences observed could be attributable to other factors – e.g., age or disability severity. Moreover, there are a huge range of supports available to participants in the scheme – ranging from speech

therapy through to home modification. Finding that utilisation is different for two groups, who have different supports in their plans, will not tell us what is driving utilisation.

As such, our analysis of utilisation, where possible, needs to:

- Consider changing plan size and spending separately before calculating utilisation
- Compare groups and individuals over time
- In making these comparisons, appropriately take into account other important drivers of plan size, spending and utilisation. This will ensure these comparisons provide useful information on what is driving utilisation.

The next two sections details the two key components of our study design that are applied in the inequality analysis and support coordination scenario modelling. The first component is how we plan to split NDIS participants up into target populations and inequality groups, to enable us to quantify and then explain inequalities. This approach is applied for both the inequality analysis (part 3) and the support coordination scenario modelling (part 4).

The second component provides a high-level summary of the structure of our causal approach to isolate the effect of:

a) disadvantage associated with membership of each inequality group on plan size, spending (and thus) utilisation (Part 3 - Inequality analysis results) and

b) a range of support coordination scenarios on inequalities in plan spending (Part 4 – Support coordination scenario modelling results).

1.4. Study design: target populations and inequality groups

Given the complexities of analysing plan utilisation outlined in section 1.3 we need a way to make comparisons that help provide insights into what is driving utilisation.

To do this, we have two main ways of splitting the population of NDIS participants up that serves two distinct purposes (see figure 1.1 for a graphical illustration):

1. Target populations

Target populations are segments of NDIS participants that, broadly speaking, either have relatively similar service needs (e.g., a given disability type) or share common, policy-relevant characteristics (e.g., an intervention might be aimed at all participants or a given age group).

To understand the drivers of utilisation it does not make sense to compare two different disability types that may have very different plan compositions. For example, people with a sensory impairment are likely to have very different supports in their plans to people with an intellectual disability. The drivers of utilisation for different supports (e.g., given capital supports [such as home modification] in comparison to capacity building supports [such as improved daily living]) are likely to be different.

Given the changing needs of participants at different ages, it would also not make sense to compare, say, children with adults where the comparison is trying to explain what is causing differential levels of utilisation.

In this project, target populations are constructed according to age-group, disability type and geography (e.g., adults with psychosocial disability in all areas is one target population). Restricting specific analyses to target populations in this way should help overcome some of the complexities of analysing utilisation detailed in section 1.3. For example, a given target population (e.g., adults with a psychosocial disability) are likely to have relatively similar supports in their plans. Given the drivers of supports typically used by given target populations are likely to be different, splitting the analysis up into target populations help us isolate specific drivers of plan size, spending (and thus) utilisation.

Later in the analysis we look at inequalities in different support classes within the target populations.

2. Inequality groups

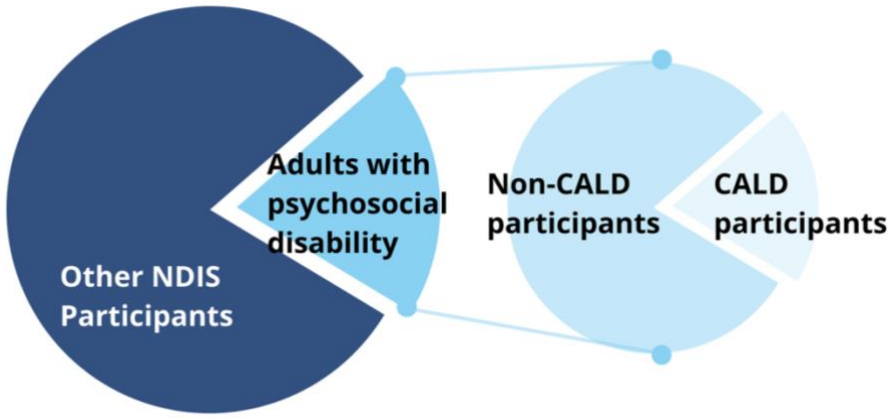
Having established a target population (e.g., adults with psychosocial disability), inequality groups within the target population are established. In this project we have three inequality groups:

1. Cultural and Linguistic Diverse Australians (CALD);
2. Aboriginal and Torres Strait Islander Australians; and
3. People who live in low socio-economic status (SES) areas[5].

Each of the three inequality groups are compared to the rest of the target population – e.g., people assigned to the CALD group would be compared to the non-CALD group.

Given the findings of the Comparative Analysis, that treating utilisation as a simple continuous measure where high is good and low is bad, quantification of inequalities provides a useful comparator and a benchmark level of utilisation for the three inequality groups. Through isolating the relationship between membership of an inequality group and plan size and spending, it also provides a proxy measure for the disadvantage and barriers each inequality group may face in using their plans. We hypothesise that each of the three inequality groups we are considering have lower levels of utilisation than their respective comparator groups, and that this inequality is modifiable (see sections 1.6 and 1.7 for a full review of existing evidence and box 1.1 for full elaboration of key concepts referred to here).

[5] Socio-economic status defined using the Index of Relative Socio-economic Disadvantage (IRSD). IRSD is a general socio-economic index that summarises a range of information about the economic and social conditions of people and households within an area. The index includes measures of relative disadvantage. We use this index to rank areas from low to high socio-economic status. More details are included in the main body of the report.



Target population: adults with psychosocial disability; **The inequality group:** CALD participants; **The comparator group:** non-CALD participants

Figure 1.1. An example of the inequality group and the comparator group in a target population

Throughout this report, all analysis is structured in this way – using target populations to establish who is included in each analysis, and inequality groups to establish what a "benchmark" level of utilisation looks like within each target population.

This way of splitting the NDIS population, that helps us compare inequality groups, provides the basis for the whole quantitative analysis.

In the next section we outline, in broad terms, the causal approach that we use to first quantify inequalities in utilisation, and then model the impact of hypothetical scenarios on these inequalities.

1.5. Study design: causal approach for inequality analysis and modelling the impact of support coordination scenarios

Section 1.4 has established an overarching structure for splitting NDIS participants into inequality groups within target populations. It has also made clear our rationale for focussing on inequalities and specifically the three inequality groups - that inequalities in utilisation for these groups could be caused by disadvantage.

However, any observed differences in utilisation between inequality and comparator groups could be due to other factors. These factors often co-exist with the inequality characteristics of interest (i.e., CALD, ATSI, and SES status), and become entangled with the effect we aim to identify. For example, differences in plan size according to ATSI status could be due to the ATSI population being younger, and younger people tending to have smaller plans. To isolate the possible impact of disadvantage experienced by the CALD, ATSI and low-SES groups on plan utilisation, we need to block the effect of these factors (also known as confounders, see Box 1.3).

Box 1.3: Causal concepts

Causal diagram: A graphical representation of our qualitative expert knowledge and underlying causal relationships relevant to our research questions. It helps us be explicit about the assumed causal relationships relevant to this project, the temporal ordering of causes and the quantities we aim to estimate.

Causal pathway: The causal process through which, in the case of this project, the level of plan size and then spending is driven. Causal diagrams can be used to identify specific causal pathways, and causal models used to estimate their relative strength of causation.

Confounder: Underpinned by qualitative expert knowledge, a confounder is a causal concept. It is a variable that is a *prior* common cause of A (e.g., ATSI) and Y (e.g. spending). A confounder is a characteristics that is "fixed" and participants have as they enter the NDIS (e.g. prior service use, age, gender). It cannot be intervened on. It biases results when we are attempting to isolate the causal effect of A on Y. The way we correct for this is through statistical adjustment (see Technical Appendix sections 2 and 3).

Mediator: Also underpinned by qualitative expert knowledge, a mediator is a causal concept. In this report it is a variable *caused* by membership of the CALD, ATSI and Low-SES inequality groups, that *goes on to cause* utilisation (i.e., it is on the causal pathway A → **M** → Y). Intervening on a mediator is one potential way inequalities can be modified as the causal pathway between disadvantage and barriers to spending (for example) is broken.

Inequality analysis[6]

Figure 1.2 below, a simplified causal diagram (see Box 1.3 for definition), illustrates this specific challenge (confounding) when looking at inequalities. For example, differences in the age profile of the CALD and non-CALD groups could be driving some of the differences in utilisation we observe. Factors such as these are represented by C1 on the causal diagram.

To isolate the effect of being a member of an inequality group on utilisation, it is necessary to identify factors that could be classified under C1. Using a causal diagram to identify these factors will make the causal assumptions we use to isolate the effect of CALD, ATSI, and SES status on plan utilisation explicit. All results are interpreted in the context of these assumptions.

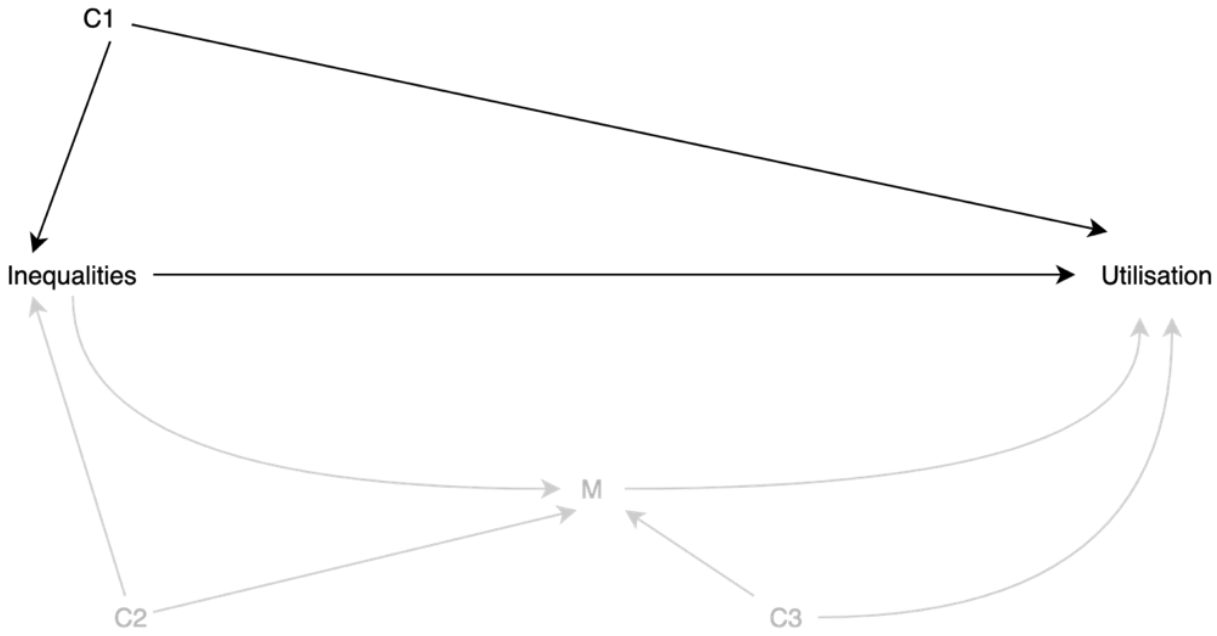


Figure 1.2. A simplified causal diagram detailing how we will isolate the possible impact of disadvantage experienced by the CALD, ATSI and low-SES groups on plan utilisation

On the other hand, the disadvantage experienced by the inequality group may affect plan utilisation through other intermediate factors (also known as mediators, i.e., factors that mediate the effect of CALD/ATSI/SES). The greyed-out part of the diagram represents how a given scenario that hypothetically shifts **M** (a mediator, see Box 1.3) fits into our inequality study design.

In the inequality analysis, that focuses on "just" isolating the effect of inequality on utilisation, **M** is excluded from the statistical methods applied, as its inclusion will mask the true magnitude of the inequality.

[6] For a full elaboration of the causal theory underpinning the concepts of causal diagrams and confounding see: Hernán MA, Robins JM (2020). Causal Inference: What If. Boca Raton: Chapman & Hall/CRC

Scenarios to close inequalities

While we cannot change participants' membership of an inequality group, we can model the impact on inequalities in plan utilisation when given mediator (**M**) values are hypothetically shifted.

Figure 1.3 below details how a given shift in mediator scenario **M** is integrated into the inequality study design. A scenario, aimed at reducing inequalities, needs to be something that is caused by membership of the inequality group and in turn goes on to cause utilisation (i.e., see the arrows on the causal graph from inequality → **M** → utilisation).

For example, the NDIS may recognise that certain disadvantaged groups need a greater level of support coordination to help support overall service use. In this example, support coordination would be treated as a mediator, as its presence in an individual's plan is driven by disadvantage.

And similar to the causal diagram for the inequality analysis, we also need to isolate the effect of **M** on utilisation. Accordingly, our causal assumptions for aim B need to account for confounders **C1, C2** and **C3** for us to isolate the effect of inequality, and then the effect of the mediator scenario on utilisation. A full elaboration of these causal assumptions is outlined in Part 2.

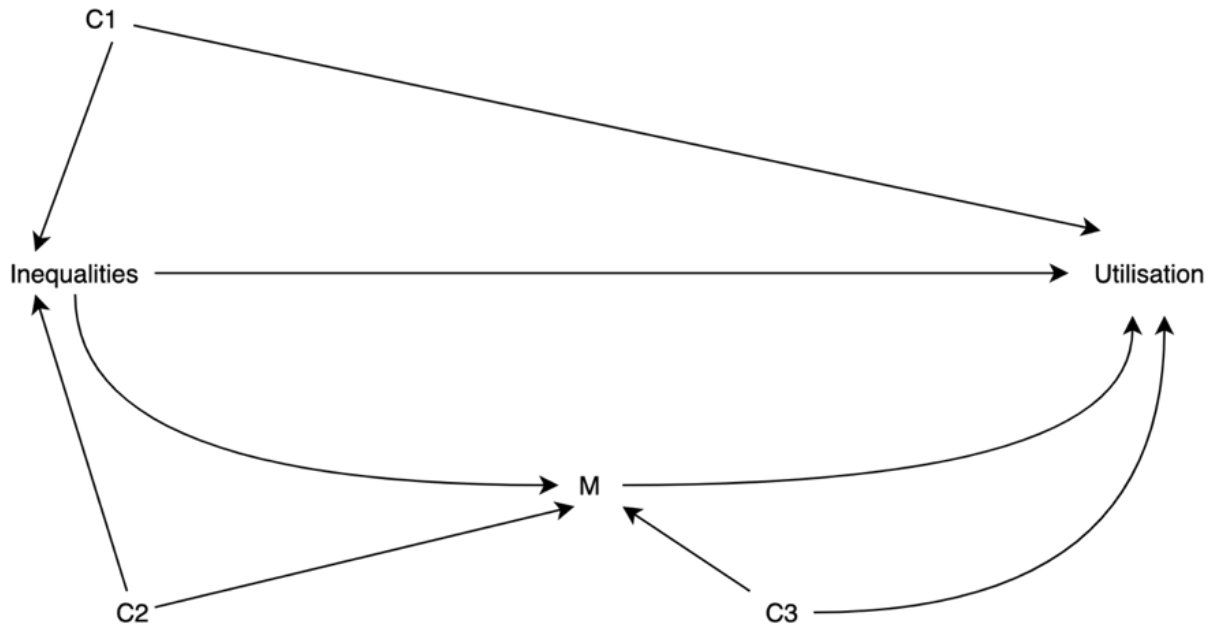


Figure 1.3. A simplified causal diagram detailing how we will isolate the extent to which pre-specified mediators (M, i.e., modifiable factors) could close plan utilisation inequalities experienced by the CALD, ATSI and low-SES groups

In the next section we detail existing quantitative and qualitative evidence on the drivers of utilisation. This evidence is then synthesised in a way so that it can be used to populate causal diagrams for inequality and scenario analysis in the structure detailed above.

1.6. Existing evidence on drivers of utilisation

Having outlined the rationale for focussing on examining inequalities within target populations and the overall causal approach to quantification of inequalities and estimating how they can be modified through a hypothetical scenario; the next step is to review existing quantitative and qualitative research. This provides the evidence base for fleshing out the simplified causal diagrams presented in section 1.5.

Evidence from the Comparative Analysis[7]

One of the aims of the Comparative Analysis was to examine schemes with similar features to the NDIS to "identify potential interventions to optimise budget utilisation to reflect needs and choices of NDIS participants"

Based on a desktop review of relevant literature and interviews with national and international experts, a range of national and international individual funding schemes were identified. Of these, some had comparable features to the NDIS. Table 1.1 identifies some of the drivers of underspend and facilitators of budget spend as reported in the Comparative Analysis.

[7] Comparative analysis of budget utilisation in individualised funding models, UNSW. 2021.

Table 1.1 | Drivers of underspend and facilitators of budget spend reported in the Comparative Analysis.

Drivers for underspend in individualised budget spending	Facilitators of individualised budget spending
Funding and service systems are unduly complex, and individuals struggle to understand and complete administrative processes	Clear communication regarding eligibility and spending restrictions
Lack of information about how individualised funding operates and allowable budget spends	Provision of formal supports to participants
Lack of support in planning and implementing spending	Development of informal social networks to provide support to participants.
Lack of information about what services are available or their quality	Training of professional staff in individualised funding philosophy, and facilitating decision making and supporting people with a diverse range of needs.
Lack of providers or providers able to meet needs of individual needs available	Training to address cultural and linguistic needs when providing support and information.
Funding and service system lacks understanding of needs of CALD and Indigenous clients and services are culturally unsafe	Availability of advocacy within the community
Poor relationship between budget holder and funder/intermediary	Training and skill development for people with disability around decision making, creating a plan and responsibilities as employers
Being new to individualised funding	Professionals letting go of traditional power relations
Putting money aside for a rainy day	Availability of tools to identify what services are available locally and provision of some means to quality assess these.
Lack of appropriately trained workforce	Market stewardship tools to help identify where there are market gaps and to prevent market failure.

The majority of the drivers identified by the Comparative Analysis were not readily captured through quantitative data. One of the reasons for this is there are no systems comparable to NDIS internationally that have a comprehensive intelligence system or data infrastructure to provide quantitative evidence.

However, a key theme identified in the Comparative Analysis is that people may need help and assistance to access and use the supports they need. It is feasible that the need for assistance could have a social gradient and be larger in the three inequality groups we have identified as the focus of this report.

As such, a hypothetical scenario that affects the amount of support participants receive is a realistic candidate to model.

Overview of evidence from published government reports

We know there are population differences in utilisation. Some of these differences may reflect barriers to utilisation that affect the whole population but have uneven effects (e.g., difficulties navigating a complex service may affect some population groups more than others). For example, we know that Aboriginal and Torres Strait Islander Australians had lower utilisation (62%) in 2018/19 than the rest of the population (68%)[9]. It is plausible that this difference in utilisation is an inequality, with ATSI peoples not receiving the support they need.

In addition to inequalities arising out of disadvantage, there are a range of other systematic differences in utilisation [8]. For example, we know that people living in specialist disability accommodation (SDA) and Supported Independent Living (SIL) have higher plan utilisation. This higher utilisation is largely driven by a large proportion of individual's plans being utilised at 100% on accommodation cost. Certain target populations (e.g., people with psychosocial disability) have particularly low utilisation rates, which could be driven by the supports typically included in their plans being hard to access or unavailable.

The next section synthesises the existing evidence detailed above into broad themes. Importantly these themes will help construct the causal assumptions that for the basis for the inequality analysis (Part 3) and scenario modelling (Part 4).

[9] COAG Disability Reform Council Quarterly Report. 2019. National Disability Insurance Agency
[8] COAG Disability Reform Council Quarterly Report. 2019. National Disability Insurance Agency

1.7. Synthesising evidence into themes

Evidence from government reports has illustrated some variation in plan utilisation, which is to be expected. However, we do not know the extent to which differences in utilisation are in fact inequalities that are modifiable and potentially indicative of people not receiving the support they need.

That said, normally, for a study of this kind, that attempts to identify causes of a given outcome, there is a strong, established evidence base on a) the characteristics of the population of interest, b) what is correlated with the outcome and c) emerging (to strong) evidence on potential causes of the outcome. The causal study will then attempt to disentangle whether a pre-specified factor has a causal relationship with the outcome.

This approach is not possible for this project, as there is very little published quantitative evidence on the NDIS and its participants. As such, to enable us to construct a study design that attempts to identify causal drivers of utilisation, we have to build up a pre-specified theoretical model of causation as best we can from the limited evidence available.

Table 1.2 provides a high-level overview of the current evidence on drivers of utilisation. We have structured it using the following ***"evidence themes"***:

- **Overall utilisation** – general patterns and headline figures (e.g., by age)
- **Disability** – nature of support available and support needs are expected to vary according to disability
- **Type of support** – utilisation of different support categories is markedly different
- **Geography** – utilisation varies according to location
- **Inequality** – structural disadvantage may be related to utilisation
- **Scheme** – how the scheme is administered and whether this facilitates or hinders utilisation

Each of these "evidence themes" help us understand differences in utilisation. Defining the causal role of each of these, in relation to the three inequality groups will help us determine the main drivers of utilisation at a population level. These are what we refer to as "causal assumptions".

Table 1.2 expands on these themes, detailing existing quantitative evidence on patterns in utilisation and, where available, synthesising qualitative evidence on potential causal mechanisms underpinning the quantitative patterns detailed.

Summary of evidence (table 1.2)

We were not able to identify any quantitative evidence that explicitly modelled or estimated causal effects. One analysis of differences in utilisation by CALD status did "standardise" for potential differences in SIL and age characteristics between the CALD and non-CALD population. However, the method used to do this was not detailed in the report. There are many other confounders that were not adjusted for that could bias that particular analysis if quantifying an inequality was the aim.

All other quantitative analysis was simply descriptive and all results (apart from the results relating to CALD mentioned above) presented in table 1.2 from published evidence are unadjusted. However, these descriptive results can be used to help build a

picture of what is driving plan utilisation, especially when analysed alongside qualitative findings. For example, the qualitative finding that, as people's knowledge and experience of the NDIS increases, individuals are more likely to utilise the services they need is broadly consistent with the quantitative evidence on utilisation increasing according to plan number. Taking this account in our study design is important.

Some of the evidence summarised in table 1.2 has already been outlined in previous sections. For example, that there is no "ideal" level of utilisation. The descriptive evidence that relates to disability and age, also provides further rationale for focussing on inequalities within target populations. People with different disabilities are likely to have different support needs, and therefore different causal drivers of utilisation.

A common thread in the qualitative evidence is that people may face barriers to using the supports they need. This corroborates our working hypotheses that the three inequality groups – CALD, ATSI and low-SES – may have lower levels of utilisation and that this is related to disadvantage. People with different disabilities are likely to have different support needs, and therefore different causal drivers of utilisation.

Further qualitative evidence highlighted inconsistencies in the quality of help and assistance to develop and implement plans. While quantitative data can be used as a proxy for the amount or type of "help and assistance" people receive (e.g., plan management type, and support coordination) quantitative data rarely includes information on the quality of help and support provided as part of the NDIS.

Table 1.2 | Existing quantitative and qualitative/synthesis evidence on drivers of utilisation

DRIVER OF UTILISATION	DRIVER DESCRIPTION	QUANTITATIVE EVIDENCE[9,10,11]	QUALITATIVE/SYNTHESIS EVIDENCE[12,13,14]
Overall utilisation	General patterns and headline figures	**Financial year:** in 2018/19 utilisation of the NDIS was 68% **Plan number:** as people progress through their plans, utilisation increases (56% in plan 1 to 78% in plan 5+ **Age**: younger people have lower utilisation than older people	**Systems and time:** factors driving utilisation of individual funding systems internationally vary across micro, meso and macro levels of funding systems and across time **Ideal utilization level:** there is not a sense of an "ideal" utilization level, with 100% largely seen to indicate a problem with care planning / budget allocation
Disability	Nature of support available and support needs are expected to vary according to disability type and functioning	**Disability type:** Utilisation varies according to disability. E.g. 70% for people with autism, 53% for people with psychosocial disability (2018/19) **Functioning:** People with higher level of functioning have lower utilisation (compared to people with low functioning)	**Capacity and support:** Require time for mental health recovery and to build capacity to use plans Limited recognition of and support to address co-occurring conditions Utilisation also increases with pre-NDIS knowledge and expertise
Type of support	Utilisation of different support categories is markedly different	**SDA and SIL:** People living in specialist disability accommodation and shared independent living have higher utilisation **Residential care:** Young people in residential aged care have very low utilisation (24%) **Support type:** Utilisation varies substantially by support type. For example, 98% for core-transport in comparison to 39% consumables	**Information:** Lack of clear communication, decision making and consistent and accessible information across all NDIA processes

[9] Annual Report 2018-2019. National Disability Insurance Agency
[10] COAG Disability Reform Council Quarterly Report. 2019. National Disability Insurance Agency
[11] KPI deep dive: utilisation. Department of Social Service. AlphaBeta. 2019.
[12] Comparative analysis of budget utilisation in individualised funding models, UNSW. 2021.
[13] NDIS Plan Utilisation: Qualitative Progress Report, University of Adelaide. 2020.
[14] Victorian NDIS utilisation project. Qualitative study summary update. 2020.

Geography	Utilisation varies according to location	**Remoteness:** Geography (headline summary) – utilisation is higher in urban centres **Jurisdiction:** At the State/territory level utilisation differs	**Access:** Inequity in access (geographic, those with knowledge, between participants with same needs) is a barrier to service utilisation **Markets:** Lack of supply of professionals, services and supports, particularly in rural areas, is a barrier to service utilisation
Inequality	Structural disadvantage may be related to utilisation	**ATSI:** Aboriginal and Torres Strait Islanders have lower utilisation (62% in 2018/19) than the non-ATSI population (68% in 2018/19). This does not take into account any differences between the two populations. **CALD:** have lower utilisation according to the NDIA analysis but higher utilisation, when utilisation is "standardised" according to SIL and age	**Cultural competency:** Limited cultural competency within NDIA and disability market to support people with intersecting CALD and disability needs **Inclusion:** Barriers to inclusion within society lead to barriers to utilisation
Scheme	How the scheme is administered and whether this facilitates or hinders utilisation	**Entry cohorts:** Earlier cohorts have higher utilisation by financial year 2018/19 **Plan management option:** Agency managed utilisation is higher (70%) than self-managed (59%, self-managed (fully)) in 2018/19	**Time:** Utilisation of the NDIS increases according to time spent in the scheme **Knowledge:** Utilisation increases with knowledge sharing and as participants are connected with services/supports **Quality of support:** Inconsistencies in the quality of support to develop and implement plans (e.g. LACs, support coordinators, family, NDIA planners) **Delays:** in equipment and home modifications, **Flexibility:** NDIS cost implications/inflexible categorisation of funding/support category **Loss of programs:** For participants with psychosocial disability: loss of previous mental health programs and workforce

Having synthesised existing evidence into themes, the next step is to establish the quantitative data available for this project, and then extent it can be used within our inequalities study design as evidence on each theme.

1.8. Quantitative data audit

The Quantitative Project uses a National Disability Insurance Agency (NDIA) tailored dataset. The data is de-identified, and for use in this project is stored on the Sax Institute's secure virtual data lab platform. Only results based on 15 or more participant observations are released. Senior Researcher Disney checks all results before release.

The data is structured into a series of tables. A de-identified numeric participant identifier can be used to link participants across files. Figure 1.4 includes brief descriptions of the key information contained in the data tables (detailed accounts of the data tables and data preparation are included in section 1 of the *Technical Appendix*). Below we detail how this data relates to the inequalities study design outlined in section 1.5.

Target populations

Information on disability, age and a range of information on the area where participants live that allows us to classify them into remoteness categories[15] and state is included in the participant information file. The information on disability details the main impairment type of the participants (e.g., autism), and a "normalised severity score". For each participant there is a variable that details that a remoteness classification of where a participant lives, which can be used to split participants up into urban and rural target populations.

Inequality groups

CALD and Aboriginal and Torres Strait Islander status data is included as part of the participant information in the NDIA data set. Participants' residential location information included Statistical Area 1 (SA1). There are 57,523 SA1s in Australia and each is designed to predominantly rural or urban and have an average population of 400 people. Through the Index of Relative Socio-economic Disadvantage (IRSD), we can map each SA1 to a socio-economic decile using data from the Australia Bureau of Statistics website[16]. Participants were deemed to be low-SES if their SA1 area had an SES in the lowest three IRSD deciles (30%) in Australia. All other areas were assigned to the higher-SES group.

Utilisation outcomes – plans and payment data

There is no data that explicitly measures utilisation, as it is a summary measure of the proportion of planned supports that are used. However, detailed plan information is available for each participant, including plan size, support class and category for each financial year, plan start and end dates, plan management options, and information on

[15] We used the Modified Monash Model (MMM) data on remoteness provided in the NDIA Research Data. For full details on MMM see: https://www.health.gov.au/health-topics/health-workforce/health-workforce-classifications/modified-monash-model#:~:text=The%20Modified%20Monash%20Model%20(MMM)%20is%20how%20we%20define%20whether,MM%207%20is%20very%20remote.

[16] https://www.abs.gov.au/ausstats/subscriber.nsf/log?openagent&2033055001%20-%20sa1%20indexes.xls&2033.0.55.001&Data%20Cubes&40A0EFDE970A1511CA25825D000F8E8D&0&2016&27.03.2018&Latest

whether a participant is currently or has ever received SDA and SIL. The payments file details the amount services providers are paid following use of supports. Each payment can be related to an individual's plan through a plan-ID number.

Socio-demographic information	Each participant's socio-demographic information, including area of residence, remoteness of residence, age, gender, CALD status, ATSI status, disability type and severity score, and indicators of whether the participant was eligible for the scheme, is still active, received a compensation payment, has been a young person in residential aged care, is receiving funds for shared supported accommodation, and date of death if applicable.
Service use prior to NDIS	Information on the previous services received by the participant (State, Commonwealth or no service).
Carers Information	Demographics information of carers for each participant. It is not clear the caring role someone classified as a "carer" takes on.
Plans	Plan information for each participant, including plan size, support class and category for each financial year, plan start and end dates, plan management options, and information on SDA and SIL costs.
Payments	Payments (i.e. spending) information for participants, including payment details (classification, category, description, dates when the payment was lodged, sent and cleared, associated financial year), and provider information.
Markets	The payments file can be used to create a table of Plan ID's and ABN's to assess how many providers service each geographical area. It does not appear that we have enough geographical information or other detail to make this useful.

Figure 1.4. Brief description of main information from each of the data tables

Potential drivers of utilisation

While there is some information on carers- a possible source of support and potential facilitator of utilisation - this information is limited. Almost all participants have one or more carers listed, with approximately three carers per participant. Most have one “professional” carer, most of whom are of the type “My NDIS Contact”. We do not deem this information to be sufficient to assess the role of support provided by carers in facilitating utilisation.

Another key theme identified in section 1.7 is role of market influences in driving utilisation. From the payments and provider files we attempted to summarise the number of providers of given services in each area. However, there is no clear information on the services offered by providers, just what was used by participants. As such, given there is also no explicit information on the services people were *not able* to use due to a lack of provider availability, modelling the role of markets is not possible with the available information.

It is clear that we have detailed information on participant characteristics, plan and payment details, and some additional information on how the NDIS is administered (i.e., plan management type). As expected, the quantitative data we have access to lacks indicators or variables that provide qualitative information (e.g. the quality of support coordinators).

Within these constraints, the next section fleshes out the simplified causal diagrams from section 1.5, where possible using the synthesis of evidence detailed in section 1.7.

1.9. Constructing the underlying causal relationships

Figure 1.5 shows a fleshed out but still somewhat simplified causal diagram of the assumed relationships between the inequality groups of interest (box **A:** CALD/ATSI/SES) and spending (box **Y**, plan spending), and other factors in boxes **C, M**, and **L**. Factors – e.g., market influences and informal supports from carers - that in our audit of the data we deemed evidence was insufficient to include in modelling have been left off this simplified causal diagram.

The causal structure was based on preliminary qualitative findings, available quantitative evidence (both synthesised in table 1.2, section 1.7) and expert opinion / judgement developed throughout the project from formal (e.g., project workshops) and informal discussions and correspondence with (but not limited to) DSS, NDIA, University of Adelaide and people with lived experience of disability and the NDIS.

Each arrow indicates an assumed causal effect and its direction; each dotted line indicates a causal effect with no assumed direction (due to the lack of evidence). U represents a set of unmeasured factors (e.g., past immigration status) that linked CALD, ATSI, SES with co-existing factors listed in box C.

Temporal ordering

Broadly, the causal diagram represents the temporal ordering of “causes”. **U, C** and **A** (predominantly participant characteristics) are “set” prior to people entering the scheme. **M** and **L** occur as people progress through the scheme, and lead to outcome **Y**. Dependent on the question being answered it is possible that certain factors could be shifted around the causal diagram. For example, experience and familiarity occurs over time and builds

up as people progress through the scheme. However, the causal ordering specified below represents the predominant ordering of causes.

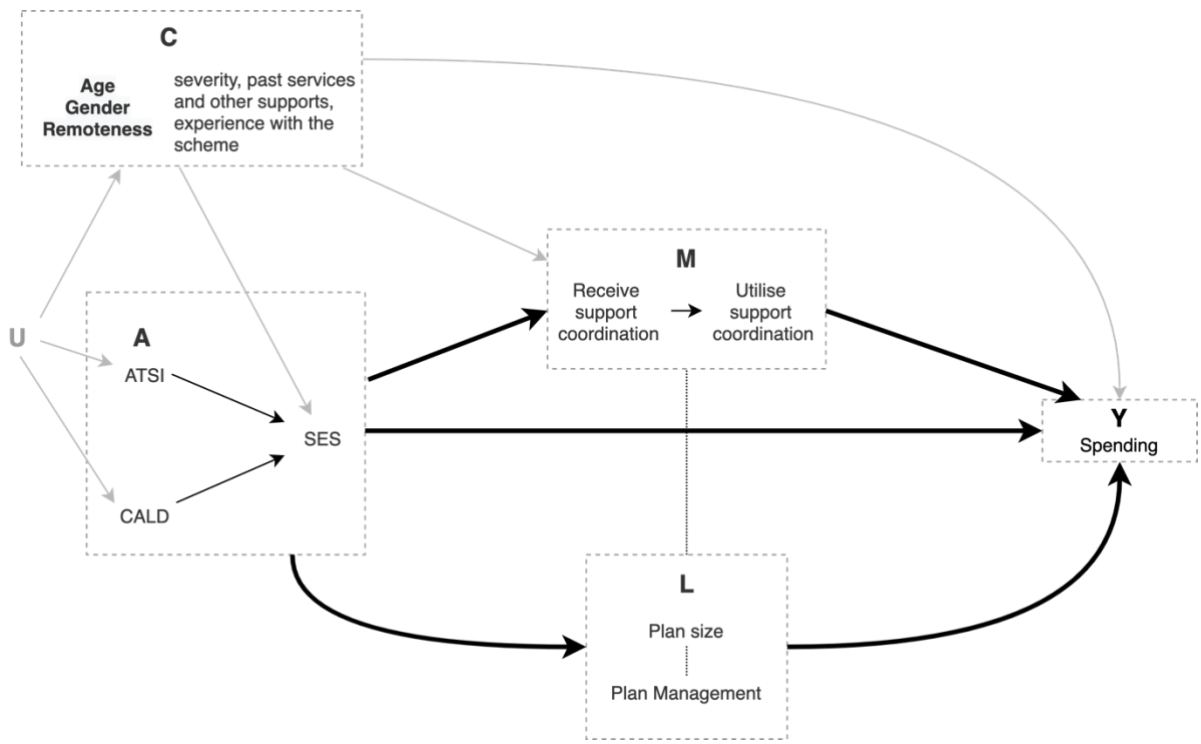


Figure 1.5. Causal diagram depicting the assumed causal relationships between the ATSI, CALD and low- SES inequality groups (A), outcome (Y), confounders (C), mediators (M and L) and unmeasured factors (U) that link C to A. The causal pathways from the inequality groups to the outcome are bolded.

In the causal diagram (figure 1.5) causal pathways (see Box 1.3 for definition) from CALD/ATSI/SES status to the outcome are bolded. These are the causal pathways we are aiming to isolate. Our estimates in the inequality analysis (Aim A), estimate the causal effect of the inequality group (CALD/ATSI/SES status) has on utilisation, acting through all the bolded causal pathways. The estimates in the scenario modelling (Aim B), estimate how much of the inequality can be explaned by the **A → M → Y** causal pathway – i.e. how much inequality in service use can be closed through a hypothetical shift in support coordination.

Confounders (C and U)

A quick reminder, confounders in this report are factors that often co-exist with the inequality characteristics of interest (i.e. CALD, ATSI, and SES status), and become entangled with the effect we aim to identify. To isolate the possible impact of disadvantage experienced by the CALD, ATSI and low-SES groups on plan utilisation, we need to block the effect of these factors (e.g. age, disability severity, pre-NDIS support).

A further complicating factor is that the inequality groups are not mutually exclusive – e.g. an individual recorded as CALD can also be recorded as low-SES. In this case the effect of disadvantage from SES can co-exist with the effect of disadvantage from CALD.

We need to account for this in our analysis. For the three inequality groups, we deal with this complexity as follows:

- CALD inequality – we adjust for ATSI status
- ATSI inequality – we adjust for CALD status
- SES inequality – we adjust for ATSI and CALD status

Please note, we did not adjust for SES, when considering CALD and ATSI inequalities respectively. Looking at figure 1.5 (and referring to Box 1.3), when CALD or ATSI are specified as the inequality group, SES is assumed to be *caused* by CALD and SES and is therefore on the causal pathway. In this case SES becomes a mediator of the ATSI or CALD → spending relationship. Adjusting for SES, given it is on the causal pathway and would mask the true inequalities for the ATSI and CALD groups.

How well participants spend their plans is influenced by participant factors, such as individual characteristics (age and gender), disability related characteristics (severity of the disability, type of disability, and prior disability service use) and the circumstances a participant lives in (remoteness of the area of residence, which is also related to market factors). These factors are presented on the causal diagram (figure 1.5) in box C. All of which were highlighted in table 1.2, section 1.7. All these confounding variables are taken into account in both the inequality analysis and scenario modelling (see section 2.2 and section 2 in the *Technical Appendix*).

Mediators we model as hypothetical scenarios (M, support coordination)

A quick reminder, a mediator is a variable caused by membership of the CALD, ATSI and Low-SES inequality groups, that goes on to cause utilisation. Intervening on a mediator is one potential way inequalities can be modified.

There are two sets of mediators on the causal diagram. **M** represent mediators that we can model exemplar scenarios for - the inclusion and then use of support coordination in individuals' plans.

We have chosen to focus on support coordination, as our exemplar scenario for a number of reasons:

MDI qualitative findings in a concurrent project for the Victorian Department of Families, Fairness and Housing suggested participants feel they would benefit from support coordination. However, the role of support coordination, and access to it is not well understood among participants. For that reason, as well as looking at whether support coordination is present in people's plans, we will also look at the effect of differing levels of utilisation of support coordination.

As previously mentioned in our rationale for our inequalities study design (sections 1.4 and 1.5), we cannot intervene on the membership to the inequality groups directly, e.g., increase people's income to reduce socio-economic inequality. But it is feasible that government could modify a mediator that could help participants spend and use their supports, such as support coordination. It could also help equalise inequitable differences in service use.

From a causal inference technical perspective, all participants are eligible for an intervention, i.e., all participants, in theory, could benefit from some level of support co-ordination. We will therefore be able to model and compare the outcomes of under given scenarios, without having to worry if other participant characteristics, related to eligibility for receiving support coordination, are not letting us isolate the effect of support coordination.

From a quantitative evidence perspective, we have data on people who have (and do not have) support coordination in their plans, and the extent to which support coordination is utilised.

Mediators we take into account in the model (L, plan size and plan management)

L represent mediators that we do not model hypothetical scenarios for, but include in the causal model. They are important drivers of spending and could potentially also be associated with use of planned support coordination so are important to take into account in our support coordination scenario modelling.

However, we did not model hypothetical scenarios for these variables. For plan size, it is not clear that shifting its value in and of itself could, on average, remove barriers to spending. With regard to plan management, it is not clear what the causes of people choosing given plan management options are, which makes isolating its effect on spending challenging. Furthermore, from the data at hand, we do not know which parts of an individual's plan are managed in a given way, given that participants can be partly self and agency managed.

1.10. Research questions

Part 1 has outlined:

- The rationale (from the Comparative Analysis) for looking at specific target populations, and then inequalities within target populations.
- The broad study design for the inequality analysis and the support coordination scenario modelling
- Our assumed causal relationships (see simplified causal diagram, figure 1.5), and rationale for our exemplar scenarios (see section 1.9).

Given the above, we now detail the specific research questions this report answers.

Aim A: Quantify inequalities in NDIS plan utilisation

As outlined in sections 1.1 – 1.6, given the complexity of utilisation as an outcome, this project addresses Aim A by quantifying inequalities in plan utilisation. In our inequality analysis we aim to isolate the effect of membership of an inequality group (CALD, ATSI and SES) on plan utilisation.

Inequalities are estimated for four broad target populations (A-D):

A) all participants;

B) adults with psychosocial disability;

C) adults with intellectual disability; and

D) children with autism.

To provide context for the inequality analysis we first need to build our understanding of how the composition of scheme participants has changed over time (from 2016 – 2020), who has each of the three support classes included in their plans and the typical planned and spent amount of each support class. To do this we answer research questions 1 - 3:

RQ1: How has the composition of scheme participants changed over time?

RQ2: What are the characteristics of scheme participants who have core, capital and capacity building supports included in their plans in financial year 2019/20?

RQ3: What is the median plan and spending value for each support class?

To fully address Aim A, following the high-level description of scheme participants and planned supports, our focus turns to the inequality analysis. Firstly we compare causal factors for each inequality group (and their respective comparator) to build up a picture of potential confounding that we need to control for and mediation we can model.

To do this we answer Research Question 4 (RQ1) for target populations A – D.

RQ4: How do the characteristics that capture potential drivers of plan size, spending and utilisation differ between the CALD, ATSI and SES inequality groups and their respective comparator populations? (e.g., participants from a non-CALD background)

Having established the main differences in potential causes of utilisation for each inequality and comparator groups, we then apply our method (see section 2.3) to isolate the effect of being a member of an inequality group on plan size, spending and utilisation for total, core, capacity building and capital supports respectively.

Specifically, we answer the following research questions for target populations A-D:

RQ5: Are there inequalities in plan size, spending and utilisation, comparing CALD, ATSI and SES inequality groups to their respective comparator populations?

RQ5.1: Are these inequalities different in rural areas?

RQ5.2: Are these inequalities different at a state level?

For Research Question 5 we only estimate inequalities where there is sufficient data to provide realistic and stable estimates. This will mean not calculating inequalities for all target population, inequality group and support class combinations.

Aim B: Assess whether exemplar scenarios can close inequalities in utilisation

The scenario modelling focuses on three target populations: adults with psychosocial disability, adults with intellectual disability, and children with autism. We investigate how exemplar scenarios targeting support coordination affect the spending of 1) core and 2) capacity building supports in participants from the inequality groups. All analysis is conducted using data from the most recent financial year (2019/2020) for which we have data.

As highlighted in the Comparative Analysis, the absolute level of utilisation is not necessarily informative. Therefore, we use the non-ATSI, non-CALD and higher-SES groups as benchmarks against which to compare ATSI, CALD and low-SES.

Furthermore, to assess the support coordination scnearios' impact on inequalities in spending, we first need isolate the effect of inequality group membership as actually occurred in the data we are using for this particular analysis.

To do this we answer research question 6.

RQ6.1: What's the effect of the disadvantage experienced by participants from the inequality group (CALD, ATSI, and low-SES group) on spending in the most recent financial year, defined as the difference between the utilisation in the inequality group and the comparator group.

We expect our RQ6.1 findings to be similar to our findings answering RQ5, given we are controlling for the same confounding factors as the inequality analysis. However, it is necessary to re-estimate inequalities given we exclude given supports (e.g., SIL) from our outcomes, and treat time in the scheme differently. Full details on what is included in the outcomes for the inequality and scenario modelling respectively is detailed in section 2.2.

Support Coordination Scenario 1.

Having set our benchmark levels of spending and utilisation for each inequality group, we then model the following support coordination scenarios. Scenario 1 (RQ6.2) is somewhat exploratory, as we unsure we have the data to support modelling a hypothetical scenario in this way. However, we have included it in the analysis we report to illustrate the modelling process and provide an indication of the data needed for further research in this area.

For all participants in each target population (i.e., those who did and did not have support coordination funded in their plans):

RQ6.2: What would happen to spending (and therefore utilisation) in the inequality group if the proportion with support coordination in their plan was set to the level of the comparator group?

Support Coordination Scenario 2.

Given we are limited to what we can model for all participants in each target population, we focus our remaining causal analysis on participants who have support coordination in their plans.

Among people who have support coordination planned in 2019/2020 some will use none (or a small amount) of their support coordination budget. Consequently, we test whether getting people to use at least some of their support coordination has an impact on spending. Specifically:

RQ6.3: Does utilising at least some support coordination (at least 20%) increase spending (hence utilisation) of core and capacity building supports?

Support Coordination Scenario 3.

Given the planning process should set support coordination budgets according to the amount of help participants need, we go on to model what would happen if participants use the majority of their support coordination. Specifically:

RQ6.4: Does utilising most of planned support coordination (at least 80%) increase spending (hence utilisation) of core and capacity building supports?

PART 2: Statistical Methods

Part 1 details the overall aims of the project, the rationale for focussing on inequalities in plan size, spending and utilisation, the study design and a synthesis of current knowledge and research on potential drivers of plan utilisation. This information is then used to flesh out our assumed causal structure for quantifying and explaining inequalities in this report.

At the end of Part 1 (section 1.10) the specific research questions are detailed. In Part 2 we detail how we use the NDIA tailored dataset and statistical methods to answer these questions.

The contribution of Part 2 is a clear articulation of how we translate evidence from existing research (see sections 1.5 and 1.6) into an analysis that allows us to estimate inequalities in plan size, spending utilisation and the extent to which a range of support coordination scenarios could close these inequalities.

2.1. Data preparation

We use an NDIA tailored dataset, provided to DSS, for this project. The study period for this project is from 1 July 2016 to 30 June 2020. Therefore, we only include plans that started after 1 July 2016 and were completed before 30 June 2020. The data was provided to MDI in October 2020, we assume that the vast majority of payments had been recorded and any bias from such lags would be minimal.

We make the following restrictions and exclusions:

- Trial plans are excluded. For those individuals who had trial plans their "plan one" is deemed to be their first completed plan that starts after 1 July 2016.
- Analysis is restricted to eligible and active participants.
- Plans that last less than 30 days are excluded.

Figure 2.1. shows an overview of the sample selection and sample size for each target population, and the percentages of the inequality groups in each target population.

Inequality analysis

For the inequality analysis, each individual is assigned to a financial year cohort. E.g. people who had their first plan between 1 July 2016 and 30 June 2017 are allocated to the 2016/17 cohort. For each cohort, completed plans are the then assigned to 12-month periods. For example, if an individual completes two plans within 12 months of their first plan starting, both plans will be assigned to year 1 for that individual. We then track each financial year cohort, estimating plan size and spending of given support classes for each 12-month period.

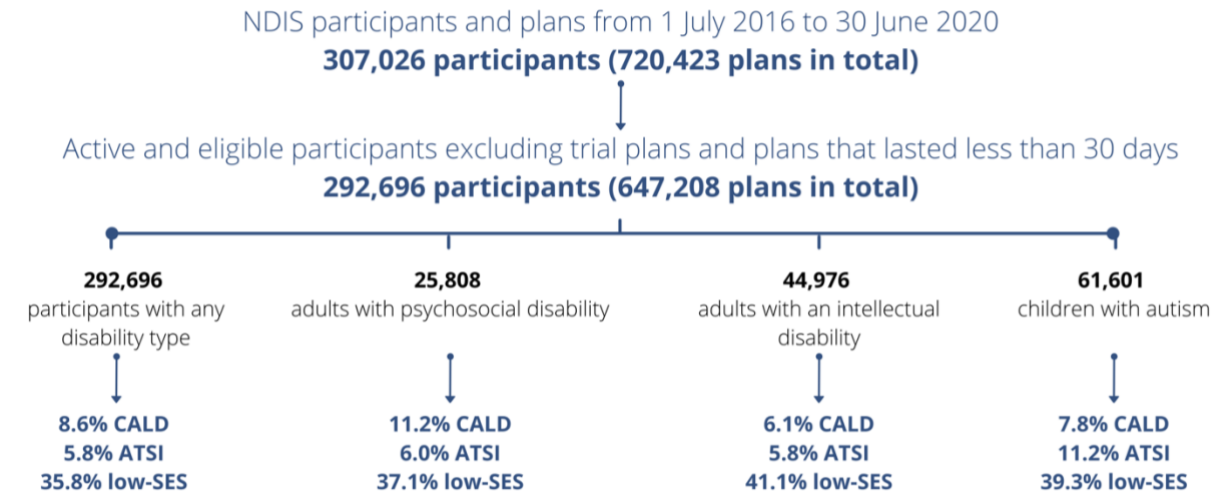


Figure 2.1. An overview of the study sample for each target population.

Support coordination scenario analysis

For the support coordination scenario analysis, active participants' plan and spending information was gathered for all plans with a valid plan type, which excluded trial-period plans and those that lasted less than 30 days. Each individual's plan size and spending data were totalled for the most recent financial year (i.e., financial year 2019/20).

2.2. Study Variables

In this section we define and, where appropriate, detail how we re-code variables we use in analysis. A comprehensive summary and rationale (based on existing evidence detailed in Part 1) of how each variable was selected and used in the inequality and support coordination scenario modelling can be found in table 2.1 at the end of Part 2.

Target populations

A) All participants

B) Adults with a psychosocial disability (aged 19+)

C) Adults with an intellectual disability (aged 19+)

D) Children with autism (aged 7 – 18)

Inequality groups

- Cultural and Linguistically Diverse status: language spoken at home is not English and/or born overseas in countries other than those classified by the ABS as "main English-speaking countries" (Australia, Canada, Republic of Ireland, New Zealand, South Africa, United Kingdom (England, Scotland, Wales, Northern Ireland) and United States of America).
- Aboriginal and Torres Strait Islander status: self-determined

- Low socioeconomic status: people who live in an area that is classified as being in the lowest 30 percentile according to the ABS Index of Relative Socio-economic Disadvantage (see section 1.8 for full elaboration)

Please note, inequality groups are not mutually exclusive. For example, for a given individual, if they were recorded as being Culturally and Linguistically Diverse and live in a low socioeconomic status area, they would be included in both the CALD and low-SES inequality groups.

Confounders – i.e., pre-NDIS characteristics we control for (in both inequality and support coordination scenario modelling)

- ATSI status (when CALD or SES status is the exposure of interest)
- CALD status (when ATSI or SES status is the exposure of interest)
- Age
- Gender
- Normalised severity score used by NDIA
- An indicator for whether the participant ever had the following experience:
    - been a Young Person in Residential Aged Care (YPIRAC)
    - is receiving funds for Shared Supported Accommodation
    - had experience with an NDIS trial plan
- Participants' pre-NDIS supports (i.e., state, commonwealth, or new entry)

The justifications for including these variables as confounders are given in Table 2.1.

Mediators – i.e., NDIS factors that are potentially modifiable (support coordination scenario analysis)

- Support coordination
    - Having support coordination in the plan (yes/no)
    - For individuals having support coordination: utilising support coordination for at least 20%; or utilising it for at least 80%
- Plan management options (agency managed or not)
- Plan size of support coordination
- Plan size of capacity building supports (minus support coordination plan size), or plan size of core supports (minus plan size of supports for transport and Supported Independent Living)

Outcomes in statistical models

Inequality analysis:

- Total plan size and spending
- Capacity building plan size and spending
- Core plan size and spending

- Capital plan size and spending

Support coordination scenario modelling:

- Core spending (minus spending of transport and supported independent living (SIL))
- Capacity building spending (minus spending on support coordination)

In both the inequality analysis and support coordination scenario modelling we also summarise utilisation from our model outputs.

At the individual level, utilisation is the proportion of individuals' plans that are spent on services. There are two components to this indicator – the plan itself, and spending. Changes to plans, spending or both can contribute to changes in utilisation. For example, utilisation can change if plan size increases but the amount spent on services stays the same.

Moreover, utilisation, because it is a summary measure for an individual is not, strictly speaking, a status that is directly measured (see Box 2.1 for more details on how utilisation is summarised in other published research – e.g. by the NDIA – in comparison to in this project). As such, plan size *and* spending are analysed separately in this project. Where statistical modelling allows (i.e. in the inequality analysis), we calculate utilisation for each individual and then use summary statistics to summarise utilisation for inequality groups within each target population of interest.

At the population level – estimating utilisation for the whole population or a group within the population is challenging. The most straight-forward way is to estimate a summary mean for a given group. The mean will capture the average plan size and spending amounts. However, it does not typically represent the typical plan and spending amounts for participants in the scheme. It is overly influenced by individuals with large plans, and high spending amounts. An alternative measure could be to calculate the median plan and spending amounts. This is not overly influenced by very large values as it represents the typical plan and/or spending amount.

That said, current causal inference methodology is based on predicting expected mean values. Methods to estimate the impact of interventions of the median outcome value are in very early stages of development and cannot therefore be applied in this project. We therefore only consider median plan and spending amounts in the descriptive analysis (research question 3), and mean plan size and spending for research questions 5 and 6.

Box 2.1: Summarising utilisation, differing approaches

Putting aside data issues (e.g., lags between payments being reported in the data) there are two main ways to summarise utilisation.

1. *Scheme utilisation*: total spending divided by total plan size in the group of participants and time period being reported (used by the NDIA)
2. *Individual utilisation*: individual's spending divided by their plan size (used in the inequality analysis). Individual utilisations can then be summarised for periods or groups

How utilisation is summarised by the NDIA

Scheme utilisation is commonly used by government departments and agencies as one of the key metrics to measure NDIS performance. It provides an overall metric for the proportion of planned services being used.

In NDIA Quarterly Reports, scheme utilisation is calculated without adjusting for the lag in payments being reported. In the NDIA data cubes and market monitoring reports, utilisation is calculated as total spending divided by total plan size in a 6-months period ending 3 months before the reporting date.

How utilisation is summarised in this report

Inequality analysis - *individual utilisation*.

The inequality analysis uses statistical models to predict plan size and spending separately. Utilisation is then calculated for each individual using the model predicted values, and summary statistics used to obtain utilisation for inequality groups.

Causal analysis – *scheme utilisation*

Given statistical constraints (see limitations section in Part 5) we were unable to summarise individual utilisation for the support coordination scenario modelling.

2.3. Statistical methods – inequality analysis

To quantify inequalities, we have structured our analysis into the following steps.

Step 1. Select a target population that share common, policy-relevant characteristics (e.g., adults with psychosocial disability)

Step 2. Within the target population select the inequality (e.g., ATSI participants) and comparator group (e.g. non-ATSI participants) of interest

Step 3. Describe the key causal characteristics of the inequality and comparator groups

Step 4. Use a statistical model, to estimate plan size of the inequality group and comparator groups, while adjusting for confounders (i.e., participant factors set prior to NDIS)

Step 5. Use a statistical model, to estimate plan spending of the inequality group and comparator groups, while adjusting for confounders (i.e., participant factors set prior to NDIS)

Step 6. Use the model estimates from steps 4 (plan size) and 5 (spending) to calculate individual utilisation rates for the inequality and comparator groups

The above steps to estimate CALD, ATSI and SES inequalities are conducted within target populations A-D.

We have aligned our statistical and causal methods used to estimate inequalities with the method we use to estimate the impact of exemplar support coordination scenarios on spending inequalities. Details of the statistical analysis are included in part 2 of the *Technical Appendix*.

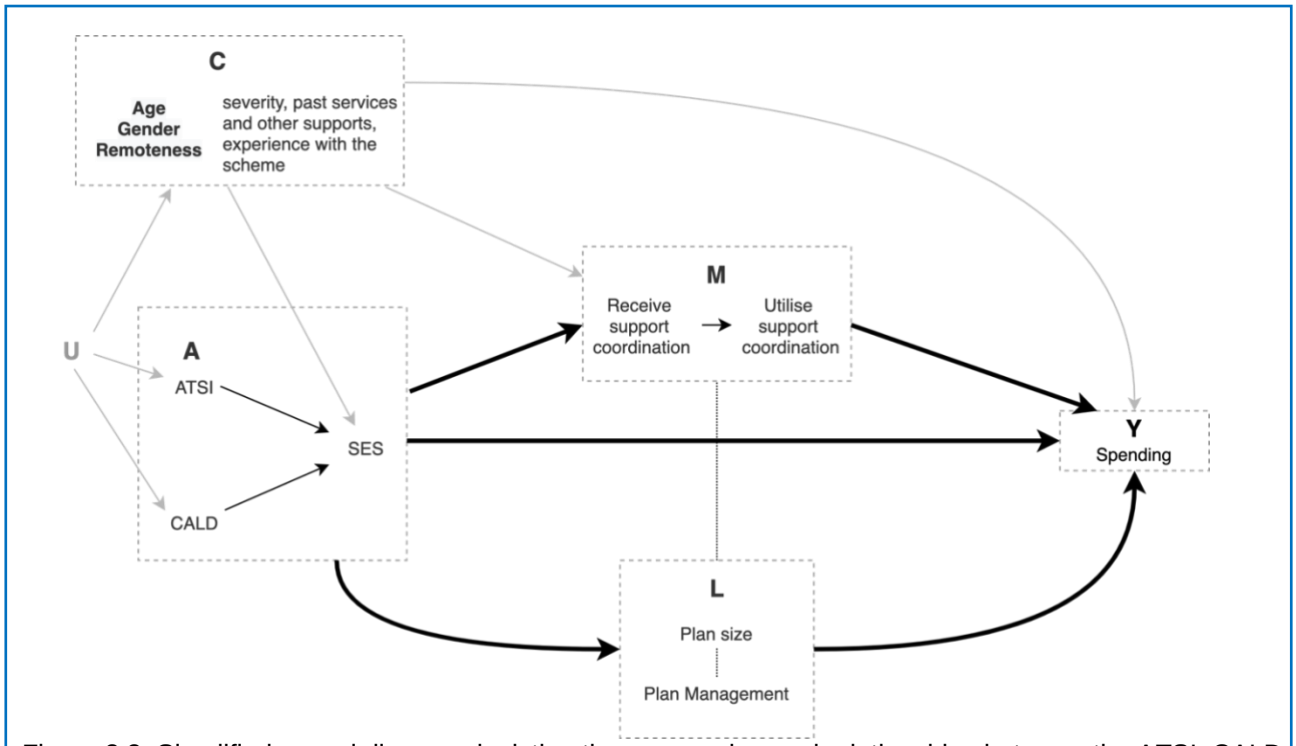


Figure 2.2: Simplified causal diagram depicting the assumed causal relationships between the ATSI, CALD and low-SES inequality groups (A), spending (Y), confounders (C), mediators (M and L) and unmeasured factors (U) that link C to A. The causal pathways to from the inequality groups to spending are bolded

In this section of the report, it is the relationship between **the inequality group** and **plan size and spending (and therefore utilisation)** we are estimating. In Figure 2.2, the causal pathways from CALD/ATSI/SES status to theese outcomes are bolded. Our estimates in the inequality analysis (inequality steps 4 to 6), estimate the overall effect of the inequality group (CALD/ATSI/SES status) has on plan size and spending, acting through all the bolded pathways.

How well participants spend their plans is influenced by participant factors, such as individual characteristics (age and gender), disability related characteristics (severity of the disability and prior disability service use) and the circumstances a participant lives in (remoteness of the area of residence, which is also related to market factors). These factors are presented on the causal diagram in box C.

As a reminder, to isolate whether disadvantage, related to membership of the inequality group, is driving utilisation rates, we need to block the effect of the confounding characteristics people have when they enter the scheme (box **C)**. If we did not do this, the differences in utilisation between inequality groups may be due to these other causes.

For instance, the CALD population in the scheme is on average older than the non-CALD population. In the analysis we account for this difference in age distributions, so that any difference in how the CALD and non-CALD participants utilise their plans is not due to this difference in age.

There are two ways to do this - through statistical adjustment or through a sub-group analysis. Using the example of age, statistical adjustment equalises the age differences in the inequality and comparator groups, whereas the sub-group analysis estimates an inequality for each age sub-group.

In the inequality analysis, we use statistical adjustment to block the effect of the non-bold factors in box **C.** The bolded factors in box **C,** are either used to construct sub-groups for analysis (remoteness), are controlled for (age and gender) or a mix of both (age is used to establish target populations, e.g. **adults** with psychosocial disability, and then within that target population age is adjusted for).

The rationale for conducting sub-group analyses of remoteness to deal with confounding but not using statistical adjustment is as follows. Market factors are likely to operate differently in more remote regions. Furthermore, it is closely related to our measure of SES (i.e., SEIFA). Both variables (remoteness and SES) are defined based on the participants' place of residence so including remoteness in the model would mask part of SES's effect. We therefore investigated inequalities in participants living in regional and remote areas separately. For age, we used a combination of statistical adjustment and sub-group analysis.

2.4. Statistical methods – support coordination scenario modelling

We model a range of support coordination scenarios in the most recent financial year to estimate what would have happened to inequalities in spending. We have chosen the most recent year, because it is the closest representation of the NDIS system and market situation going forward, making our results more informative to future policy interventions.

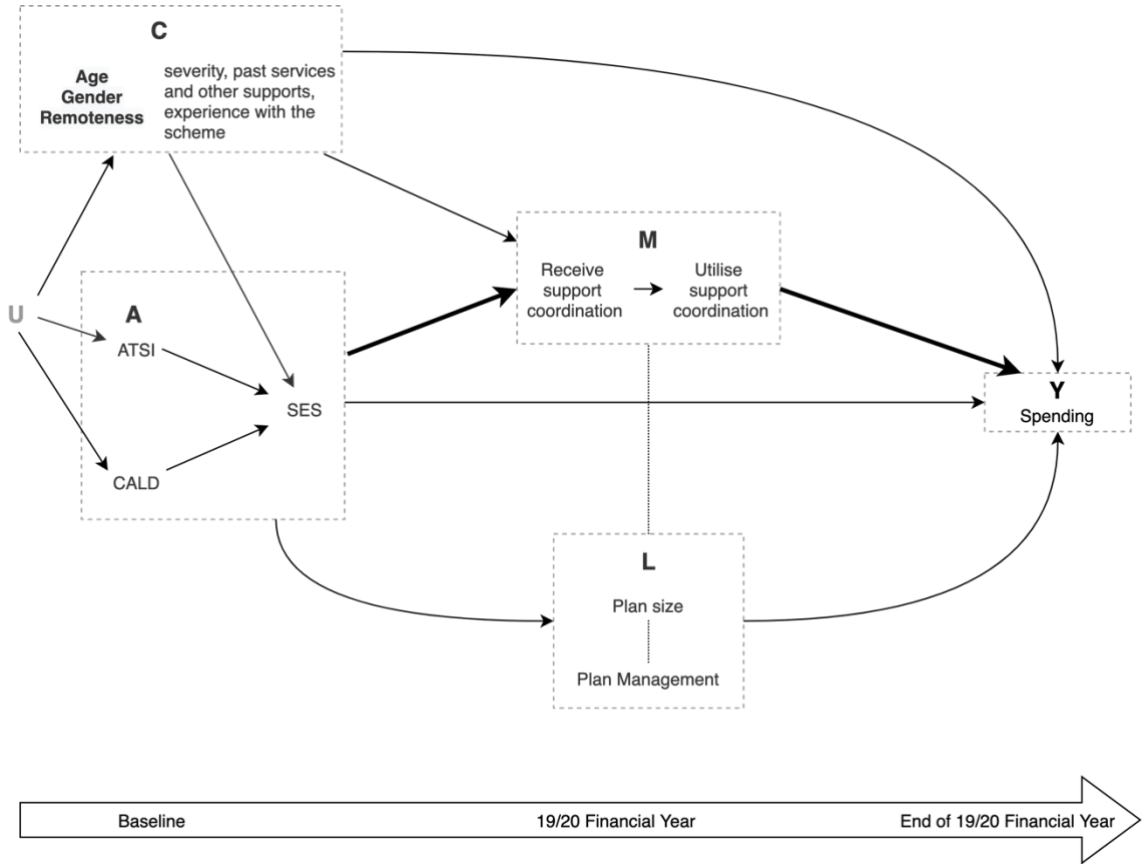


Figure 2.3: Simplified causal diagram depicting the assumed causal relationships between variables for the most recent financial year between the ATSI, CALD and low-SES inequality groups (A), spending (Y), confounders (C), mediators (M and L) and unmeasured factors (U) that link C to A. The causal pathway of the support coordination scenarios (A → M → Y) is bolded.

We have detailed the rationale for focussing on support coordination in section 1.9. As a reminder it is a focus of our modelling because a) we have detailed data on support coordination, b) sufficient subject matter knowledge to identify a causal effect and c) its purpose is to aid planning and increase service use.

That said, we acknowledge that support coordination is not the only potential policy lever available to government. For example, a market intervention designed to strengthen the availability of supports could lead to greater utilisation. After a detailed audit of the data, evidence and canvassing colleagues who have researched “thin markets” it is clear that given current knowledge and data availability it is not possible to conduct causal modelling on a hypothetical market scenario.

Steps to estimate the effect of support coordination scenarios on inequalities

As we did for the inequality analysis, we have pre-specified steps that we will work through to estimate the causal effects of support coordination scenarios on inequalities in spending. Steps 1-3 were largely conducted before we analysed any data. They are based on existing evidence and consultations with colleagues at the University of Adelaide, DSS and the NDIA at workshops conducted as part of this project. Full details are set out in Part 1.

Step 1. Specify the causal questions to be addressed for the following support coordination scenarios that we outlined in our research aims in part 1:

- Support coordination scenario 1: What would happen to spending (and therefore utilisation) in the inequality group if the proportion with support coordination in their plan was set to the level of the comparator group?
- Support coordination scenario 2: Does using at least some support coordination (at least 20%) increase spending (hence utilisation) of core and capacity building supports?
- Support coordination scenario 3: Does using most of planned support coordination (at least 80%) increase spending (hence utilisation) of core and capacity building supports?

Step 2. Convert the causal questions in Step 1 to precise quantities to be estimated (referred to as the causal estimands).

Step 3. State the causal assumptions under which the estimands in Step 2 can be identified from the data at hand.

Step 4. Apply statistical method that is valid for estimating the causal estimands under the assumptions in step 3.

The above steps are conducted for the three inequality groups of interest (i.e., CALD, ATSI, and lower-SES) within target populations: adults with psychosocial disability (target population B), adults with intellectual disability (target population C), and children with autism (target population D).

Technical notes of Steps 2-4 are provided in the *Technical Appendix*.

Table 2.1 | How evidence themes detailed in table 1.2 were included (or not) in inequality and causal analyses.
Green: inequality and/or causal results for that specific domain presented in report
Blue: causal factor controlled for
Orange: causal factor explicitly modelled

DRIVER OF UTILISATION	QUANTITATIVE EVIDENCE	HOW IT WAS ADDRESSED IN INEQUALITY AND CAUSAL ANALYSES	QUALITATIVE EVIDENCE	HOW IT WAS ADDRESSED IN INEQUALITY AND CAUSAL ANALYSIS
Overall utilisation	Financial Year	Inequality: split participants into financial year cohorts Causal: restricted to the most recent financial year	No "ideal" level of utilisation	Compared utilisation between the inequality groups and their comparators (i.e. ATSI and non-ATSI participants; CALD and non-CALD; low SES and high SES)
	Plan number	Causal: controlled for plan number		
	Age	Restricted analysis to adults or children in target populations Controlled for age in all statistical models		
Disability	Disability type	Defined target populations by disability type – psychosocial, intellectual disability and autism	Capacity and support: Mental health recovery to build capacity to use plans; support for co-occurring conditions	Information not available in the data
	Level of functioning	Measure of severity was included as a proxy control for functioning in all statistical models	Pre-NDIS knowledge and expertise	Controlled for a) participants who were part of a trial site and b) whether entered scheme from state, commonwealth services or new to scheme in all statistical models
Type of support	Living in SDA and SIL; Young people in	Controlled for being a Young Person in Residential Aged Care and/or receiving funds for SDA in all statistical models.	Information: communication and decision making from NDIA and	Information not available in the data

	residential aged care	Causal: in analysis of core supports, SIL was removed from plans and spending	providers; clear information across all NDIA processes	
	Support type	Separate analysis for each support class		
Geography	Remoteness	Area-based SES is an inequality of interest in the analysis, remoteness is strongly related to this measure.	Inequity in access; thin market (supply of professionals, services and supports)	Information not available in the data
		Conducted selected inequality analyses for participants in just rural areas.		
	Jurisdiction	Inequality: analysed utilisation for each State/territory		
Inequality	ATSI and CALD	ATSI and CALD status are two inequalities of interest	Cultural competency; inclusion	Information not available in the data
Scheme	Entry cohorts	Inequality: financial year cohorts were analysed separately	Time spent in the scheme	Inequality: summarised inequality over time
				Causal: controlled for years into the scheme
	Plan management option	Causal: plan management option was included in the causal model, but we could not "hypothetically adjust" plan management in the scenario modelling (see part 1.9 for justification and interpretation)	Knowledge: Support coordination: being connected with services/ supports	Causal: modelled different support coordination scenarios as its purpose is to aid planning and increase service use.
			Quality of support; delays in services; flexibility; loss of previous programs	Information not available in the data

Part 3 Inequality Results

What data is used in part 3?

- We excluded the following participants from our description of scheme participants over time.
- Ineligible and/or inactive
- Missing disability type,
- Unknown CALD status,
- Unknown gender,
- Missing data for socio-demographic information.

To provide context for the inequality and causal analysis, we begin Part 3 with a simple but detailed descriptive analysis of NDIS participants and the services they use. To do this we answer the following research questions:

RQ1: How has the composition of scheme participants changed over time?

RQ2: What are the characteristics of scheme participants who have core, capital and capacity building supports included in their plans in financial year 2019/20?

RQ3: What is the median plan and spending value for each support class?

3.1. Scheme participant characteristics – 2016/17 to 2019/20

In section 3.1 we describe how the population of NDIS participants has changed over time (from financial year 2016-2017 to 2019-2020). In this section we pick out findings that are relevant to the target populations of interest and help us understand the characteristics of participants as they enter the scheme. We provide the relevant parts of the main results table. Full results can be found in table D1, *Appendix 1 – Descriptive Tables*.

Each of the tables below provides the count of participants in the category of interest, and the proportion of total scheme participants that category represents. For example, in financial year 2016/17 there are 24,067 participants with Autism, that make up 32.6% of scheme participants.

Disability types

We selected the three main disability groups of interest to present in the main body of the report. People with intellectual disability make up a smaller proportion of participants over time, whereas there is an increasing proportion of people with psychosocial disability.

Table: Number and percentage of disability types over time

	Financial Year			
Disability types, N (%)	**FY1617**	**FY1718**	**FY1819**	**FY1920**
	N=73888	N=161866	N=269437	N=376406
Autism	24067 (32.6)	51406 (31.8)	84050 (31.2)	117638 (31.3)
Intellectual disability	19034 (25.8)	39940 (24.7)	60182 (22.3)	70436 (18.7)
Psychosocial disability	5235 (7.1)	13174 (8.1)	24114 (8.9)	36377 (9.7)
Other disabilities	25552(34.6)	57346 (35.4)	101091 (37.5)	151955 (40.4)

The severity of disability: The percentage of people with severe disability (severity score 11 to 15) decreases over time as the percentage of people with less severe disability (severity score 1 to 5) increases.

Table: Number and percentage of disability severity score categories over time

	Financial Year			
	N=73888	N=161866	N=269437	N=376406
Severity of disability, N (%)	**FY1617**	**FY1718**	**FY1819**	**FY1920**
1 to 5	16210 (21.9)	36737 (22.7)	62495 (23.2)	102111 (27.1)
6 to 10	32269 (43.7)	72068 (44.5)	121713 (45.2)	168664 (44.8)
11 to 15	25409 (34.4)	53061 (32.8)	85229 (31.6)	105631 (28.1)

Previous support: percentage of participants who prior to the NDIS did not receive disability supports or services increases, and percentage of State entry participants decreases over time. This makes sense as people acquire disability, age into the scheme and State government are no longer providing the vast majority of disability supports.

Table: Number and percentage of entry types over time

	Financial Year			
	N=73888	N=161866	N=269437	N=376406
Entry, N (%)	**FY1617**	**FY1718**	**FY1819**	**FY1920**
New	22852 (30.9)	47932 (29.6)	88251 (32.8)	167514 (44.5)
Commonwealth	4951 (6.7)	15435 (9.5)	26746 (9.9)	36342 (9.7)
State	46085 (62.4)	98499 (60.9)	154440 (57.3)	172550 (45.8)

Inequality groups: the proportion of ATSI participants and participants in the lower SES group remain relatively stable over time. The proportion of CALD participants increased over time.

Table: Number and percentage of inequality groups over time

	Financial Year			
	N=73888	N=161866	N=269437	N=376406
Entry, N (%)	**FY1617**	**FY1718**	**FY1819**	**FY1920**
ATSI	4080 (5.5)	9390 (5.8)	15856 (5.9)	23919 (6.4)
CALD	5854 (7.9)	12356 (7.6)	23229 (8.6)	35361 (9.4)
Low SES	28857 (39.1)	66554 (41.1)	108265 (40.2)	149314 (39.7)

3.2. Basic descriptives – by support class

In section 3.2 we describe who has each of the three support classes (core, capacity building and capital supports) included in their plans and the typical planned and spent amount of each support class. We picked out key findings to provide background information on supports participants are receiving, important confounders (age, gender, disability severity and scheme entry) and our main mediator, support coordination. Full results, describing a wide range of participant characteristics can be found in table D2, *Appendix 1 – Descriptive Tables*.

In FY19/20, most participants (89%) had core supports in their plan. Higher percentages of participants with intellectual (95%) or psychosocial disability (98%) received core supports. A lower percentage (84%) of participants with autism had core supports, and for those who were funded, the median plan size was smaller than participants with intellectual and psychosocial disability.

Across all disability types, almost all participants had capacity building supports (99%) in their plans.

Capital supports (31% funded) were not as widely funded as core and capacity building supports. The percentage of participants funded for capital supports was particularly low for participants with autism (9%) and psychosocial disability (9%).

Age: Children were less likely to have core and capital supports. Median core and capital support plan size increased with age. Capacity building support plan size was relatively consistent across age groups.

Table: Percentage of participants who were funded for core supports in each age category, and the median plan size and spending for the funded participants (FY19/20).

Support Class	**Core**		
	N(%)	Median plan size (IQR)	Median spending (IQR)
Age at start of FY			
0 to 6	**51978 (68.6)**	529 (169,1556)	41 (0,703)
07 to 14	**73122 (85.5)**	2224 (655,8370)	527 (0,3413)
15 to 18	**24680 (94.5)**	12525 (4346,35631)	3595 (148,17525)
19 to 24	**28394 (97.2)**	27036 (10046,74647)	13011 (2357,47998)
25 to 34	**32725 (98.2)**	36266 (13356,96659)	18525 (3081,61734)
35 to 44	**32111 (98.7)**	34800 (13961,94568)	16569 (3249,55806)
45 to 54	**40747 (99.2)**	36182 (14600,100134)	16502 (3493,55712)
55 to 64	**46212 (99.6)**	38174 (14957,103370)	15782 (3229,53506)
65+	**6490 (99.6)**	53372 (22162,123647)	25026 (7764,79640)

Gender: A higher percentage of women received core supports than men, with a larger median plan size and spending. The median plan size and spending of capacity building supports were similar for men and women.

Table: Percentage of participants who were funded for core supports by gender, and the median plan size and spending for the funded participants (FY19/20).

Support Class	**Core**		
	N(%)	Median plan size (IQR)	Median spending (IQR)
Gender			
Men	**205975 (87.6)**	10309 (1291,44128)	2727 (0,23049)
Women	**130484 (92.4)**	18523 (2781,58858)	6426 (428,32101)

Severity: the percentage funded, median plan size and spending increased with disability severity score. The gradient is the steepest for core supports.

Table: Percentage of participants who were funded for core supports in each severity score category, and the median plan size and spending for the funded participants (FY19/20).

Support Class	Core		
	N(%)	Median plan size (IQR)	Median spending (IQR)
Severity of disability			
1 to 5	**77777 (76.2)**	1181 (336,6119)	196 (0,1966)
6 to 10	**155539 (92.2)**	12989 (2342,34863)	3679 (263,18093)
11 to 15	**103143 (97.6)**	61095 (16639,144345)	29343 (3949,98005)

Previous support (entry): State entry participants had larger plans for all the support classes. Plan size of core and capacity building supports were the lowest for new entry participants.

Table: Percentage of participants who were funded for core supports for each entry type, and the median plan size and spending for the funded participants (FY19/20).

Support Class	Core		
	N(%) has it	Median plan size (IQR)	Median spending (IQR)
Entry, N (%)			
New	**139151 (83.1)**	3812 (597,18788)	730 (0,6498)
Commonwealth	**33120 (91.1)**	10059 (1524,31483)	2638 (139,14129)
State	**164188 (95.2)**	31651 (7200,97315)	15302 (1750,58157)

Support coordination: Participants with larger plans were more likely to be funded for support coordination. Spending of the three support classes was generally higher when at least 80% of the support coordination in the plan was spent.

Table: Percentage of participants who were funded for core supports in each support coordination category, and the median plan size and spending for the funded participants (FY19/20).

Support Class	**Core**		
	N(%)	Median plan size (IQR)	Median spending (IQR)
Support Coordination, N (%)			
Has no SC	**179490 (83.0)**	2842 (562,15351)	780 (0,6274)
Has SC, used <20%	**35830 (95.7)**	16182 (3901,51253)	2557 (0,22430)
Has SC, used 20 to <80%	**62232 (98.5)**	48418 (19154,129325)	22048 (4946,79226)
Has SC, used ≥80%	**58907 (99.0)**	49603 (20108,134752)	28143 (7885,90909)

3.3. Description of target populations – inequality steps 1-3

In this section, to answer research question 4, we use the same data used for research questions 1-3:

RQ4: How do the characteristics that capture potential drivers of utilisation differ between the CALD, ATSI and SES inequality groups and their respective comparator populations? (e.g., participants from a non-CALD background)

To do this we run through inequality steps 1 – 3 (see section 2.3). Inequality steps 1 and 2 are pre-specified before any analysis is conducted, and descriptive step 3 provides the results to answer RQ4.

Descriptive step 1: Identify a target population

As detailed earlier in the report, we focus our analysis on the following target populations.

A) People with any disability (i.e., all participants)

B) Adults with psychosocial disability

C) Adults with intellectual disability

D) Children with autism

Descriptive step 2: Identify the inequality (and comparator) groups of interest

As detailed in part 1, following the recommendations of the Comparative Analysis, in the absence of a benchmark level of utilisation we compare plan size, spending and utilisation for our three inequality groups. We hypothesise that, due to disadvantage, each of the groups will face barriers to access the supports they need. As a result of this disadvantage, we hypothesise that each inequality group will have lower levels of plan utilisation than their respective comparators. The inequalities we describe in this report are assumed to be avoidable and act as a proxy for a benchmark level of utilisation for each of the inequality groups.

The inequality groups (and comparators) are:

1. Culturally and Linguistically Diverse (in comparison to the rest of the population).
2. Aboriginal and Torres Strait Islander Australians (in comparison to the rest of the population)
3. People who live in areas in the bottom three socio-economic deciles (in comparison to the rest of the population)

Descriptive step 3: Describe key characteristics of the inequality (and comparator) group.

Describing participant characteristics will help us understand the factors which we control for when conducting the inequality analysis. As mentioned in section 1.9, these characteristics are predominantly set prior to people entering the scheme, and to a great extent are not modifiable. To isolate the effect of disadvantage associated with being a member of an inequality group, these are the variables whose effect on utilisation we block in the analysis.

Describing plan characteristics will help us understand plan composition at baseline, as people enter the scheme, and the extent to which this is similar for the inequality and

comparator groups. We also provide a simple description of support coordination and plan management, which we are assuming are on the causal pathway of inequality → plan size and spending, and are set after participant characteristics.

Market drivers are not explicitly captured in the NDIA tailored dataset we have access to. For the purposes of this section of the report, however, we detail the proportion of each inequality group living in urban and rural areas.

3.3.1 People with any type of disability (target population A)

Descriptive tables D3.1, D3.2 and D3.3 detail all the results referred to in this section (see *Appendix 1 – Descriptive Tables*). Below we present the main differences between each of the inequality groups, and their comparator populations.

CALD – participant characteristics

Demographics: 9% of NDIS participants are assigned to the CALD inequality group. The CALD group is older (47% are 35 years and above compared to 35% in the non-CALD group). There is a slightly higher proportion of females in the CALD group (40%) compared to the non-CALD group (37%).

Variable	Category	CALD N (%)	Not CALD N (%)
Gender	F	9810 (39.4%)	95775 (36.9%)
	M	14813 (59.5%)	160870 (62%)
	U	264 (1.1%)	2821 (1.1%)

Disability: Reflecting the differences in age distribution detailed above, there is a higher proportion of people with psychosocial disability in the CALD group (11%) than the non-CALD group (9%). There are also comparatively fewer people with autism and intellectual disability in the CALD group.

Entry to scheme: A higher proportion of the CALD group (40%) did not receive disability services prior to the NDIS compared to the non-CALD group (35%).

Variable	Category	CALD N (%)	Not CALD N (%)
Entry - previous service use	New	9832 (39.5%)	90041 (34.7%)
	Commonwealth	3305 (13.3%)	25219 (9.7%)
	State	11750 (47.2%)	144206 (55.6%)

Urban-rural split: A much higher proportion of the CALD group live in major cities (88% in comparison to 65% in the non-CALD group)

Variable	Category	CALD N (%)	Not CALD N (%)
Remoteness	Major Cities	21953 (88.2%)	167988 (64.7%)
	Population > 50,000	1208 (4.9%)	31016 (12%)
	Population < 50,000	1152 (4.6%)	57597 (22.2%)
	Remote	564 (2.3%)	2815 (1.1%)

CALD – Plan characteristics

Accommodation: A lower proportion of the CALD group have ever lived in supported independent living (4% in comparison to 9% in the non-CALD group) and specialist disability accommodation (3% in comparison to 6% in the non-CALD population).

Plan management and support coordination (plan 1): A higher proportion of people in the CALD group have support coordination in plan 1 (43% in comparison to 40% in the non-CALD group). Whereas the CALD group (56%) is more likely to have agency managed plans, than the non-CALD group (53%).

Aboriginal and Torres Strait Islander Australians – participant characteristics

***Demographics*:** Overall, 6% of NDIS participants are assigned to the Aboriginal and Torres Strait Islander inequality group. They are younger than the non-ATSI group (26% are 35 years and above compared to 37% in the non-ATSI group).

***Disability*:** There is a slightly smaller proportion of people with autism but a higher proportion of people with intellectual disability in the Aboriginal and Torres Strait Islander group (in comparison to the non-ATSI group).

***Entry to scheme*:** A slightly higher proportion of the Aboriginal and Torres Strait Islander group are new users of disability services (38% compared to 35% in the non-ATSI group).

Variable	Category	ATSI N (%)	Not ATSI N (%)
Entry - previous service use	New	6349 (37.5%)	96716 (35.4%)
	Commonwealth	1308 (7.7%)	27290 (10%)
	State	9293 (54.8%)	149191 (54.6%)

Urban-rural split: A smaller proportion of Aboriginal and Torres Strait Islander Australians live in major cities (43%) than the rest of the population (68%). A higher proportion of people in the Aboriginal and Torres Strait Islander group live in remote areas (10% compared to 1% in the non-ATSI group).

Variable	Category	ATSI N (%)	Not ATSI N (%)
Remoteness	Major Cities	7315 (43.2%)	186894 (68.4%)
	Population > 50,000	2836 (16.7%)	29586 (10.8%)
	Population < 50,000	5115 (30.2%)	54583 (20%)
	Remote	1669 (9.8%)	2089 (0.8%)

ATSI – Plan characteristics

Accommodation: A lower proportion of the Aboriginal and Torres Strait Islander group have ever lived in specialist disability accommodation (4% compared to 6% in the non-ATSI group).

Plan management and support coordination (plan 1): A higher proportion of people in the Aboriginal and Torres Strait Islander group have support coordination included in plan 1 (49% compared to 39% in the non-ATSI group) and a higher proportion have agency managed plans (67% compared to 56% in the non-ATSI group).

SES – participant characteristics

Demographics: 36% of NDIS participants are assigned to the low-SES inequality group (note: this is largely determined by how the SES variable was coded, we classified people living in the lowest three SEIFA deciles, as being in the low-SES group). The age profile of the low and high-SES groups is broadly similar.

Disability: there is a smaller proportion of people with autism in the low SES group but a higher proportion of people with intellectual disability (24% compared to 20% in the high-SES group). The proportion of people with a psychosocial disability is similar.

Entry to scheme: Previous service use in the low- and high-SES groups are similar.

Urban/Rural split: A lower proportion of people in the low-SES group live in major cities (52% compared to 75% in the high-SES group).

Variable	Category	Disadvantaged	Not disadvantaged
Remoteness	Major Cities	53937 (52%)	140178 (75.3%)
	Population > 50,000	13423 (12.9%)	18969 (10.2%)
	Population < 50,000	34456 (33.2%)	25221 (13.5%)
	Remote	1948 (1.9%)	1807 (1%)

SES – plan characteristics

***Accommodation*:** Similar proportions of people in the low and high-SES groups have ever lived in supported independent living and specialist disability accommodation.

Plan management and support coordination (plan 1): A similar proportion of people (40%) in the low and high-SES groups have support coordination included in plan 1. A higher proportion of people in the low-SES groups have agency managed plans (64% compared to 52% in the high-SES group)

3.3.2 Adults with psychosocial disability (target population B)

Descriptive tables D4.1, D4.2 and D4.3 detail all the results referred to in this section (see *Appendix 1 – Descriptive Tables*). Below we highlight the main differences between each of the inequality groups, and their comparator populations. Adults with psychosocial disability have been pre-specified as a target population as they have particularly low levels of utilisation in comparison to other disabilities.

CALD, psychosocial disability

Demographics between CALD and non-CALD are similar. A slightly higher proportion of the CALD group has support coordination in their first plan and for both groups this is much higher than for all disabilities. Plan management types are similar in the CALD and non-CALD groups. The CALD group is much more likely to live in major cities.

Variable	Category	CALD	Non-CALD
Support Coordination	Yes	2255 (80%)	17241 (77.4%)
Remoteness	Major Cities	2497 (88.5%)	15328 (68.8%)
	Population > 50,000	114 (4%)	2414 (10.8%)
	Population < 50,000	135 (4.8%)	4372 (19.6%)
	Remote	70 (2.5%)	149 (0.7%)

ATSI, psychosocial disability

The Aboriginal and Torres Strait Islander population is younger than the non-ATSI group. There is a greater proportion of new users in the Aboriginal and Torres Strait Islander group, and they are more likely to have support coordination in their first plan.

Variable	Category	ATSI	Non-ATSI
Support Coordination	Yes	1257 (82.6%)	18512 (77%)

SES, psychosocial disability

Demographics between the low- and high-SES groups are similar. Those in the low-SES are group are more likely to have support coordination in their first plan. A lower proportion of the low-SES group live in major cities.

Variable	Category	Disadvantaged	Not disadvantaged
Support Coordination	Yes	7011 (74%)	12737 (79.3%)
Remoteness	Major Cities	5258 (55.5%)	12903 (80.3%)
	Population > 50,000	1290 (13.6%)	1238 (7.7%)
	Population < 50,000	2776 (29.3%)	1835 (11.4%)
	Remote	150 (1.6%)	81 (0.5%)

3.3.3. Adults with Intellectual Disability (target population C)

Descriptive tables D5.1, D5.2 and D5.3 detail all the results referred to in this section (see *Appendix 1 – Descriptive Tables*). Below we detail the main differences between each of the inequality groups, and their comparator populations. Adults with intellectual disability were pre-specified as a target population as they face high levels of disadvantage and optimising the NDIS for this population could improve outcomes.

CALD, Intellectual Disability

Demographics are similar between the CALD and non-CALD groups. A higher proportion of the CALD group are new users of disability services than the non-CALD group.

Those in the CALD group are more likely than those in the non-CALD group to live in major cities.

Variable	Category	CALD	Non-CALD
Remoteness	Major Cities	2304 (86.8%)	25594 (62.6%)
	Population > 50,000	140 (5.3%)	4794 (11.7%)
	Population < 50,000	122 (4.6%)	10103 (24.7%)
	Remote	87 (3.3%)	401 (1%)

ATSI, Intellectual Disability

Those in the Aboriginal and Torres Strait Islander group are younger than the non-ATSI group and are more likely than the non-ATSI group to be new users of disability services. They are also less likely to live in supported independent living and specialist disability accommodation, but more likely to have support coordination (66%) than the rest of the population (55%).

Those in the Aboriginal and Torres Strait Islander group are less likely to live in major cities.

Variable	Category	ATSI	Non-ATSI
Remoteness	Major Cities	1054 (40.7%)	27521 (65.7%)
	Population > 50,000	431 (16.6%)	4527 (10.8%)
	Population < 50,000	818 (31.6%)	9568 (22.9%)
	Remote	283 (10.9%)	249 (0.6%)

SES, Intellectual Disability

Demographics between the low and high-SES groups are similar. People in the low-SES group are more likely to be agency managed (74% in comparison to 66% in the high-SES group) and less likely to be self-managed than the high-SES group.

3.3.4. Children with autism (target population D)

Children with autism were pre-specified as a target population as they are the largest single disability group.

Descriptive tables D6.1, D6.2 and D6.3 detail all the results referred to in this section (see *Appendix 1 – Descriptive Tables*). Below we detail the main differences between each of the inequality groups, and their comparator populations.

CALD, Autism

The demographics between the CALD and non-CALD are similar. Support coordination for both groups is lower than in the overall population (23% for CALD and 25% for non-CALD). Those in the CALD group (64%) are less likely than those in the non-CALD group (71%) to have core supports in their first plan.

ATSI, Autism

Those in the Aboriginal and Torres Strait Islander group are less likely to live in cities, more likely to be agency managed and are more likely to have support coordination in plan 1 than those in the non-ATSI group.

Variable	Category	ATSI	Non-ATSI
Support Coordination	In Plan	1114 (31.2%)	12804 (22.2%)
Remoteness	Major Cities	1672 (46.9%)	39838 (69.1%)
	Population > 50,000	548 (15.4%)	6340 (11%)
	Population < 50,000	1185 (33.2%)	10898 (18.9%)
	Remote	160 (4.5%)	545 (0.9%)
Plan management	Agency Managed	2018 (56.6%)	25700 (44.6%)
	Plan Managed Partly	724 (20.3%)	9798 (17%)
	Self-Managed Fully	439 (12.3%)	15214 (26.4%)
	Self-Managed Partly	385 (10.8%)	6910 (12%)

SES, Autism

The demographics are similar in the low and high-SES groups. Similar to other target populations, the low-SES group are more likely to be agency managed (57% in comparison to 43% in the high SES group) and less likely to be self-managed.

Variable	Category	Disadvantaged	Not disadvantaged
Plan management	Agency Managed	10927 (54.8%)	16783 (40.7%)
	Plan Managed Partly	3722 (18.7%)	6795 (16.5%)
	Self-Managed Fully	3233 (16.2%)	12415 (30.1%)
	Self-Managed Partly	2044 (10.3%)	5248 .7%)

3.4. Inequalities in plan utilisation – inequality steps 4 - 6

RQ5: Are there inequalities in plan utilisation, comparing CALD, ATSI and SES inequality groups to their respective comparator populations?

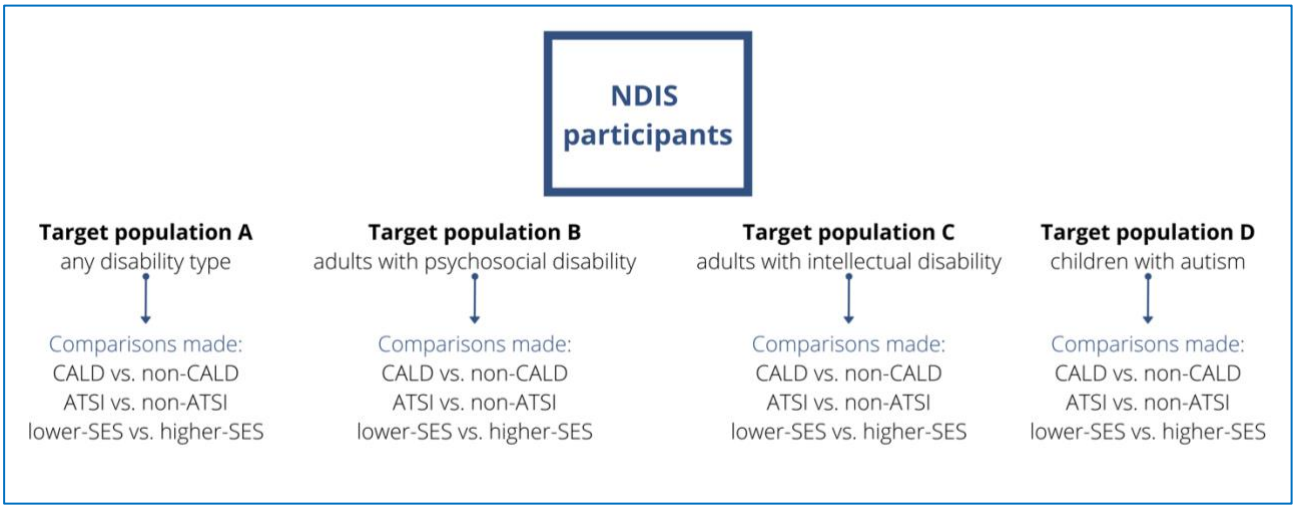
To answer Research Question 5, as detailed in parts 1 and 2 we use statistical adjustment and sub-group analysis to block the effect of participant characteristics (such as age) and thereby isolate the effect of the inequality group on plan utilisation. All the inequalities presented below aim to isolate the effect of membership of the inequality group on utilisation.

To assess whether utilisation is changing at an overall level, as the scheme matures, we have assigned participants into cohorts, based on the year people enter the scheme. To do this we take the start date of the first post-trial plan for each participant and assign them to a financial year cohort.

To obtain a sense of how utilisation changes as participants gain more experience, we then follow each participant over time. Given plans can vary in length, we assign completed plans to 12-month periods based on the start date of participants' first post-trial plan. So, a participant whose first post-trial plan started in October 2016 is assigned to the 2016/2017 cohort, and all plans that were completed before October 2017 are assigned to year 1.

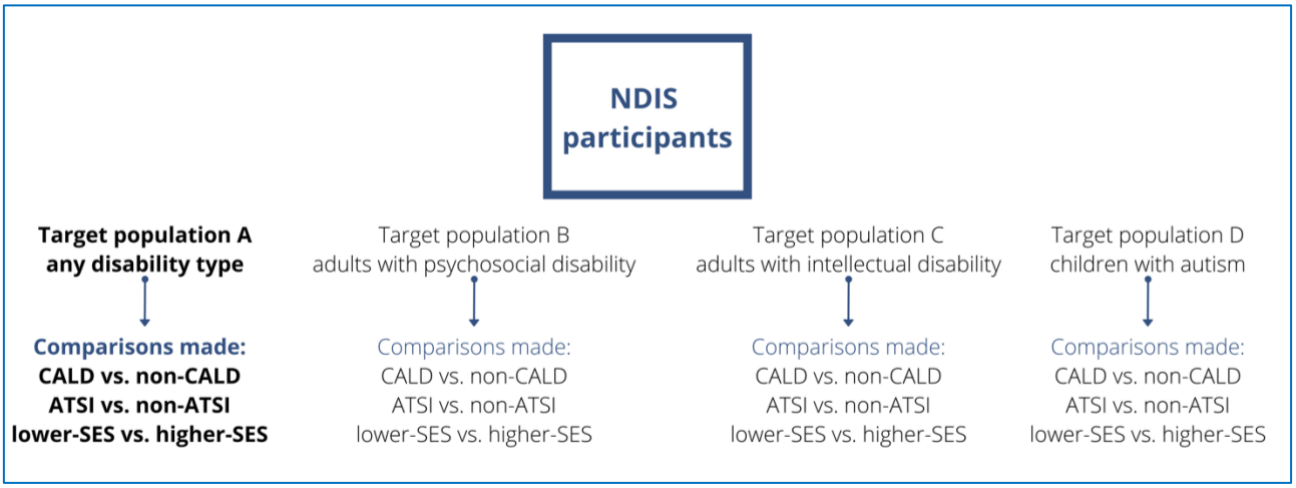
We are presenting selected key findings, that we have deemed illustrative of the key messages coming out of the analysis. For all results for the 2016 entry cohort of participants see *Appendix 2 – Inequality results*. We present full results, with uncertainty estimated, just for the *2016* cohort as computing uncertainty for all combinations of results - inequalities by three inequality groups, four main target populations (and a number of target sub-populations), three main support classes and three outcomes over time (entry and length in the scheme) – was not feasible within the timeline of this project.

The diagram below illustrates how the results are structured. As mentioned in parts 1 and 2, we first select a target population (e.g., Target Population B, adults with psychosocial disability). Then, within that target population we estimate inequalities in utilisation (e.g., comparing utilisation between CALD and non-CALD participants). All results make comparisons in this way – establish the target population and then look at inequalities within the target population.



At the beginning of the results for each target population (3.4.1 to 3.4.1), we re-present the diagram with the relevant target population and inequality comparisons highlighted. This makes it clear which target population and inequality groups given results refer to.

3.4.1 People with any type of disability (target population A)



To start building a picture of how plans, spending and utilisation inequalities are changing over time, we first present selected results for all participants for total support amounts. Detailed results are presented in Tables I, *Appendix 2 – Inequality Results.*

CALD – similar plan sizes, higher spending, higher utilisation.

As outlined in part 1, we hypothesised that the CALD group may face barriers to accessing and using the supports they need, which could lead to lower utilisation.

However, our analysis does not find this. We found similar plan sizes for the CALD and non-CALD populations. This is broadly the case for participants, no matter when they entered the scheme or how long they have been a participant.

There is, though, evidence for higher spending (years 3 and 4 for 2016 entrants) among the CALD population, which has led to higher levels of utilisation for CALD in comparison to non-CALD.

To illustrate this finding see figure 3.1 below. Here we present plan size, spending and utilisation for CALD in comparison to non-CALD.

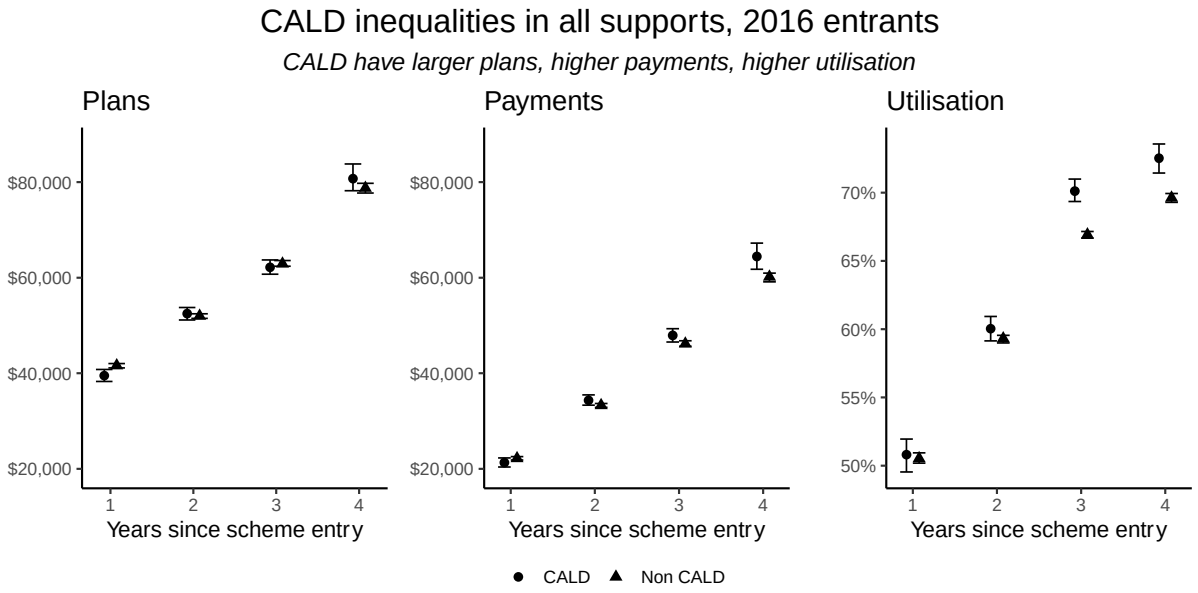


Figure 3.1 CALD inequalities in all supports, 2016 entrants

We have checked whether these findings – higher plans, higher spending and higher utilisation – holds for capital, core and capacity building supports. For core supports and, in particular, for capacity building supports CALD have higher plans, spending and utilisation.

Aboriginal and Torres Strait Islanders – larger plan sizes, similar / higher spending, lower utilisation

We hypothesised that the Aboriginal and Torres Strait Islander population may face barriers to accessing and using the supports they need, which could lead to lower utilisation.

We found some evidence for this. In general, the Aboriginal and Torres Strait Islander group have larger plan sizes, but similar (years 1 and 2) to higher (years 3 and 4) levels of spending to the non-ATSI group. This leads to lower plan utilisation for Aboriginal and Torres Strait Islander Australians, especially in years 3 and 4, in comparison to the rest of the population.

Figure 3.2 shows this for people who entered the scheme in 2016. Utilisation inequalities may even be widening in this group, as people spend longer in the scheme - with a 6% difference in plans that finish in the fourth year since entering the scheme for people who enrolled in 2016.

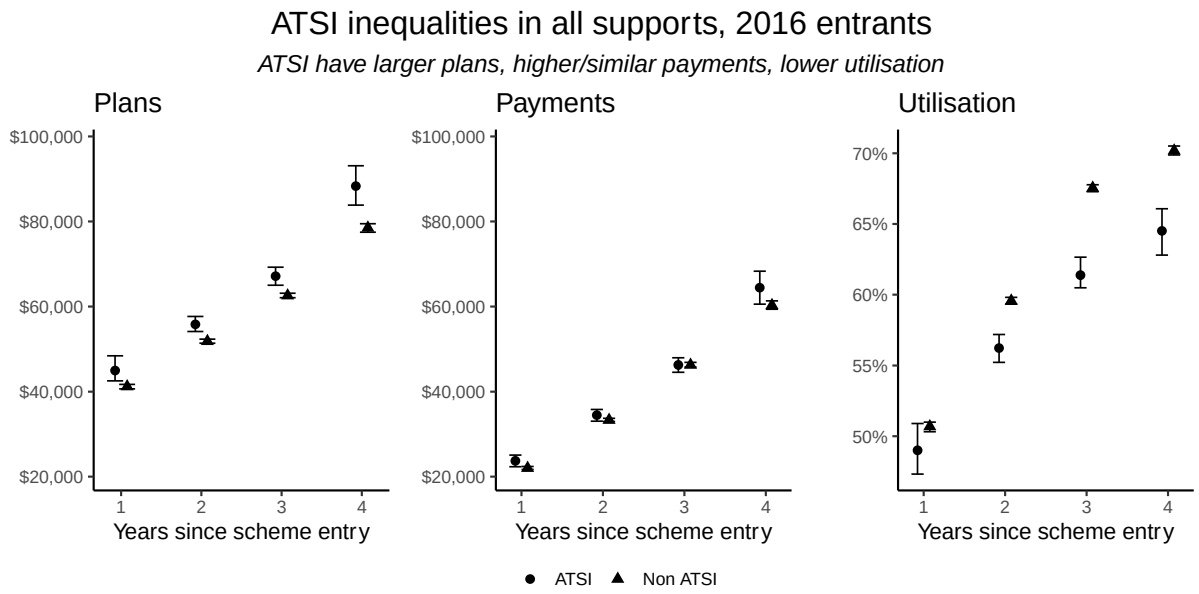


Figure 3.2 ATSI inequalities in all supports, 2016 entrants

We have also looked at inequalities according to support class. The largest inequalities, when comparing proportion utilised, tend to be in the capacity building support class (Figure 3.3). This is largely due to capacity building plans being larger in the ATSI group, and again inequalities in utilisation may be increasing the longer people are in the scheme, with a 9% difference in utilisation for plans that are completed in the fourth year since entering the scheme.

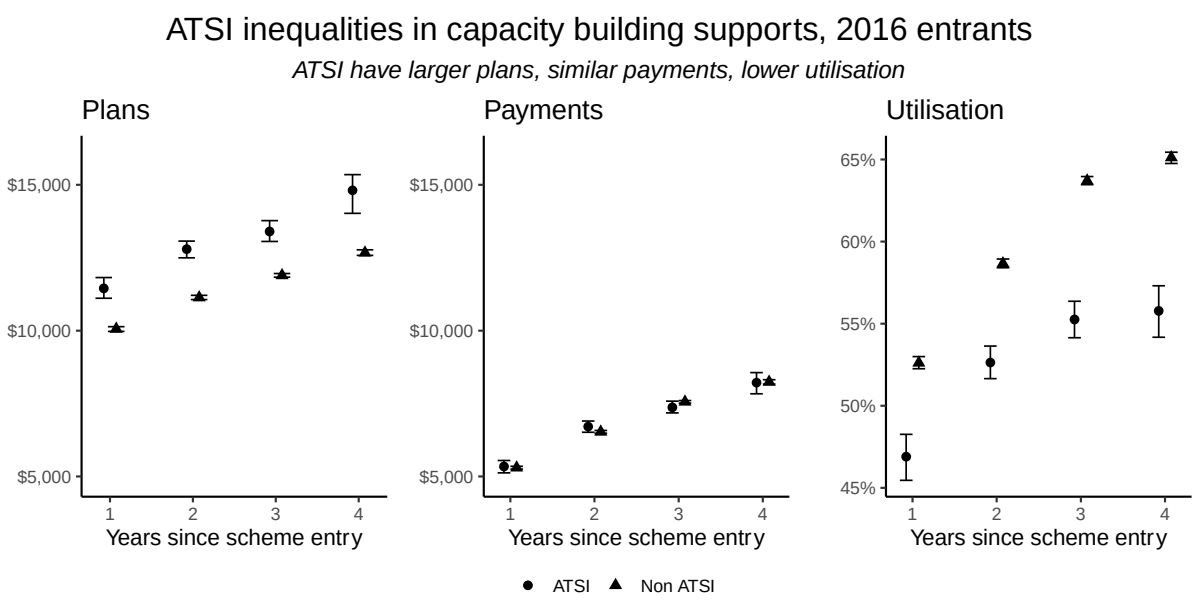


Figure 3.3 ATSI inequalities in capacity building supports, 2016 entrants

Low-SES – smaller plans, lower spending, lower utilisation

We hypothesised that the low-SES group face barriers accessing and using the NDIS, and this is what we predominantly found. The low-SES group have smaller plans and spend less than the high-SES group (see Figure 3.4 below). In terms of differences in utilisation, the utilisation gap is less pronounced when comparing low and high SES than when comparing Aboriginal and Torres Strait Islanders to the rest of the population.

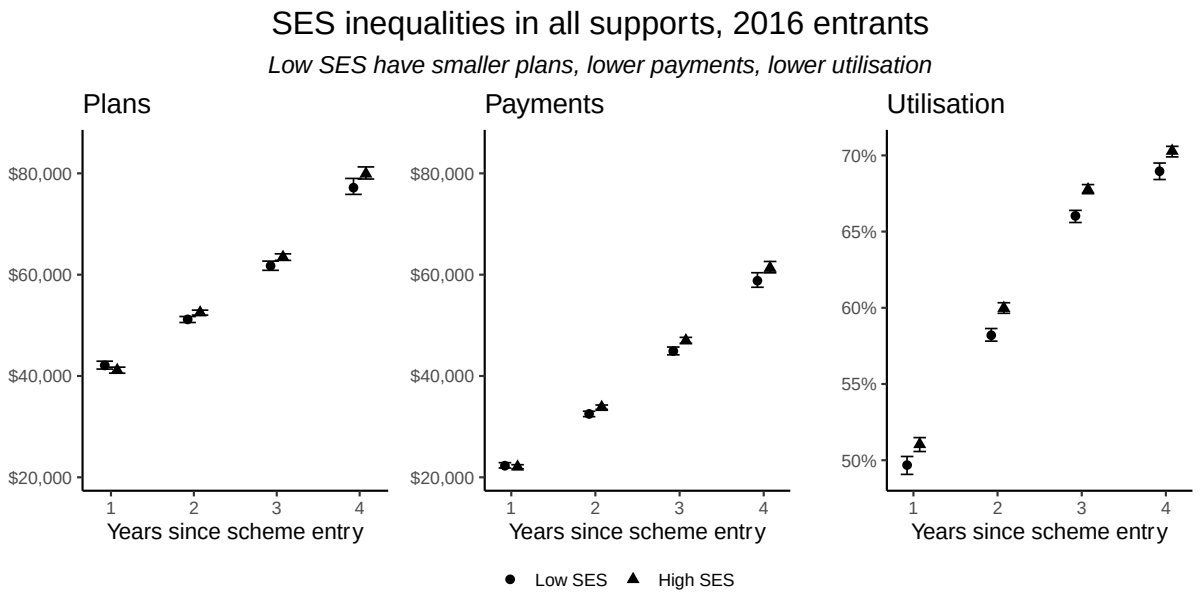


Figure 3.4 SES inequalities in all supports, 2016 entrants

We checked core, capacity building and capital supports. The pattern identified for total supports holds for core and capacity building. However, for capital supports, while the mean estimate of inequality shows lower utilisation for the low-SES group, with the confidence interval extending to values over zero, there is little evidence against the null hypothesis of no inequalities in utilisation.

RQ5.1: Are inequalities different in rural areas?

As previously set out earlier in section 3.3, answering Research Question 4 showed that the CALD population is predominantly based in urban areas and a large proportion of both the Aboriginal and Torres Strait Islander and low-SES groups live in rural areas. It is possible that some of the inequalities identified above are simply a reflection of service provision being qualitatively different in rural areas. (NB we did not control for remoteness in the main inequality analysis, as we did not want to mask the effect of low-SES and disadvantage from living in a rural area).

Consequently, we re-ran analysis for each inequality group, just including participants in rural areas.

The Aboriginal and Torres Strait Island and low-SES inequalities and patterns in plan size and spending are not markedly different in rural areas, than they are for all participants irrespective of the remoteness of where they live.

In rural areas the Aboriginal and Torres Strait Islander group have higher plan sizes, similar (to higher spending), but lower utilisation than the rest of the rural population. And the low SES group have lower / similar plan sizes, lower spending and lower utilisation than the high-SES group in rural areas.

However, **the patterns in inequality for CALD are different in rural areas.**

In rural areas, while the CALD group generally have larger plans, spending is not high enough to avoid lower levels of utilisation. This leads to lower levels of utilisation for the CALD population. Figure 3.5 below illustrates these patterns, note the large uncertainty intervals for the CALD group, reflecting the small number of CALD participants in rural areas.

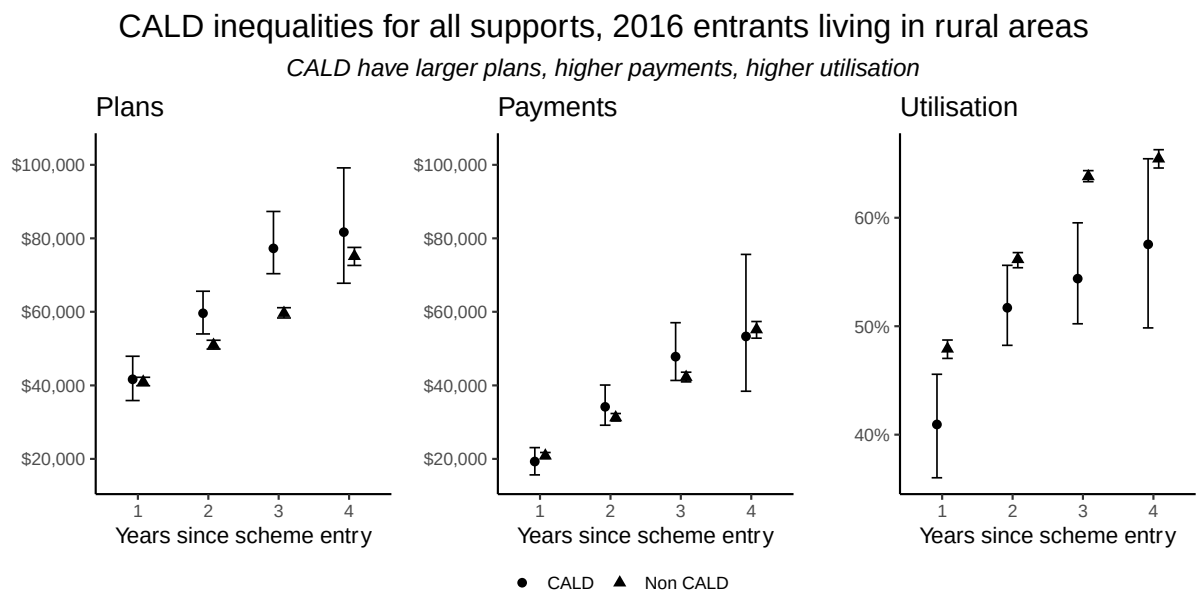


Figure 3.5 CALD inequalities in rural areas for all supports, 2016 entrants

Restricting each analysis to rural areas leads to smaller analytic samples. There is a risk that the patterns identified above (and detailed in *Appendix 2 - Inequality Results*) are driven by sample noise. However, we checked the uncertainty for each inequality estimated (ATSI v non-ATSI; CALD v non-CALD; low-SES v high-SES). The vast majority of the relevant confidence intervals do not contain values greater than zero, so we can reject the null hypothesis that there is no difference in utilisation in the corresponding inequality groups. In other words, we can be confident there is an inequality.

RQ5.2: Are inequalities different at a state level?

Given the phased roll-out, differing disability supports available prior to the NDIS and other State-specific factors, it is plausible that the overall inequalities identified so far in Part 3 vary at the state level.

Splitting the NDIS research data by State does mean that the analytic sample size is reduced markedly. Furthermore, the phased roll out of the NDIS means that participant numbers are limited for certain states in given years. Consequently, we pooled all participants in each state into a single cohort. We then looked at plan size, spending and

utilisation over time, in the same way as the whole-of-country analysis presented above. For some states, there is not enough data to estimate inequalities for the full four years' worth of completed plans.

Furthermore, results in this analysis should be interpreted with caution. While the methods used equalise and block the causal pathways to isolate the effect of membership of the inequality group on utilisation in each State, comparing absolute values between states does not take into account the different socio-demographics present in each State.

We have split States up into two plots, to aid interpretation. There was not sufficient statistical power to carry out this analysis for ACT. We present results comparing Aboriginal and Torres Strait Islander Australians to the rest of the population in each state respectively. Figure 3.6 presents results for QLD, NSW and VIC, Figure 3.7 presents results for TAS, SA and WA and the NT.

In QLD, NSW (Figure 3.6) Aboriginal and Torres Strait Islanders have similar plan sizes and spend a similar amount to the rest of the population in each State respectively. However, in VIC the ATSI group have smaller plans, and spend less than the rest of the population, which leads to 5% lower utilisation for plans completed 12 and 24 months after entering the scheme.

In SA and WA (Figure 3.7) Aboriginal and Torres Strait Islanders have larger plans but spend relatively similar amounts on supports to the rest of the population in each state respectively. This leads to lower utilisation in the Aboriginal and Torres Strait Islander population.

In TAS there are similar levels of planned supports, spending and utilisation between the Aboriginal and Torres Strait Islander population and the rest of the population.

Finally, in the NT, the planned supports amount for the Aboriginal and Torres Strait Islander population and the rest of the population is similar. However, spending is lower in the ATSI group, leading to lower utilisation.

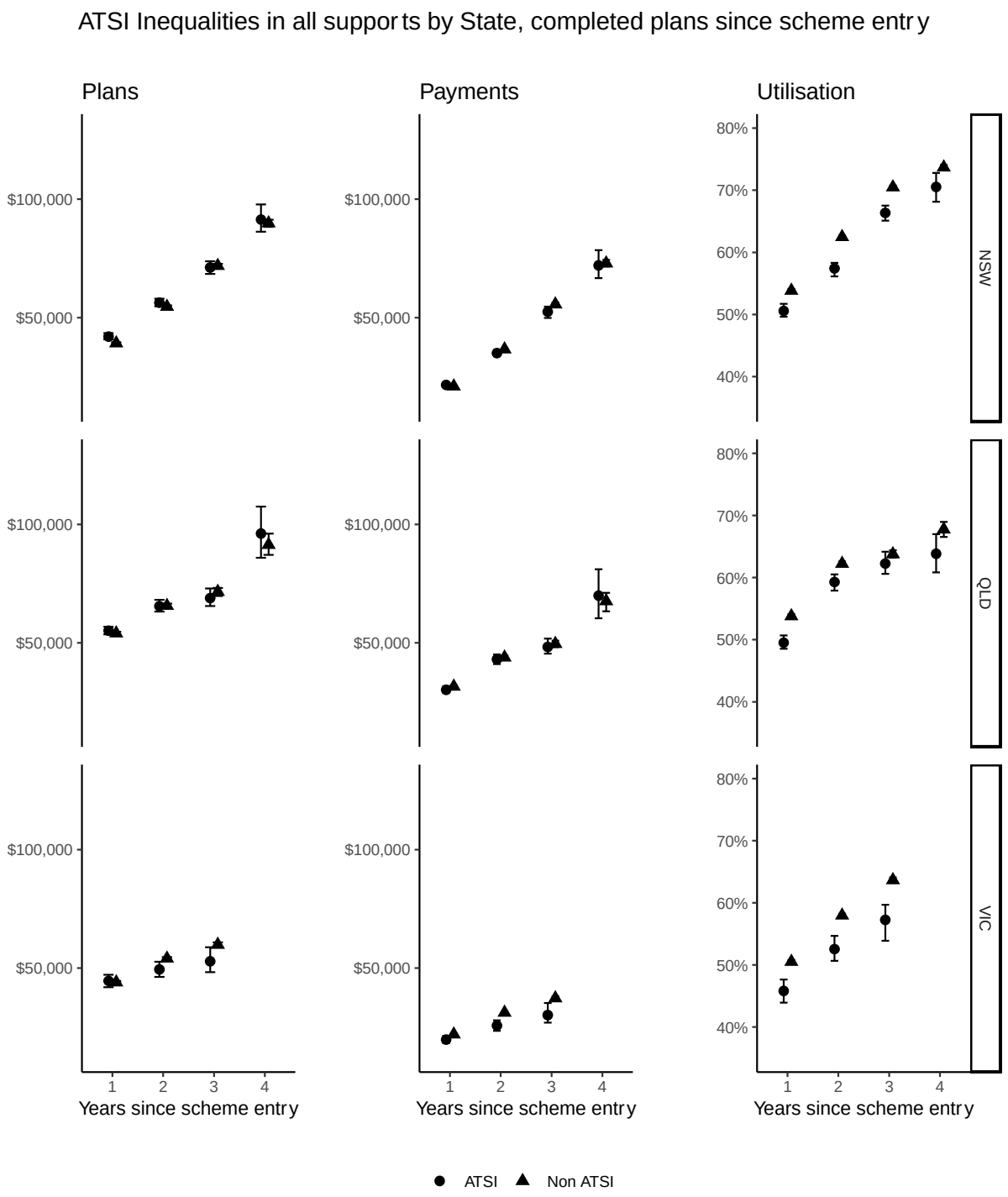


Figure 3.6 ATSI inequalities in all support by State (NSW, QLD, VIC), completed plans since scheme entry

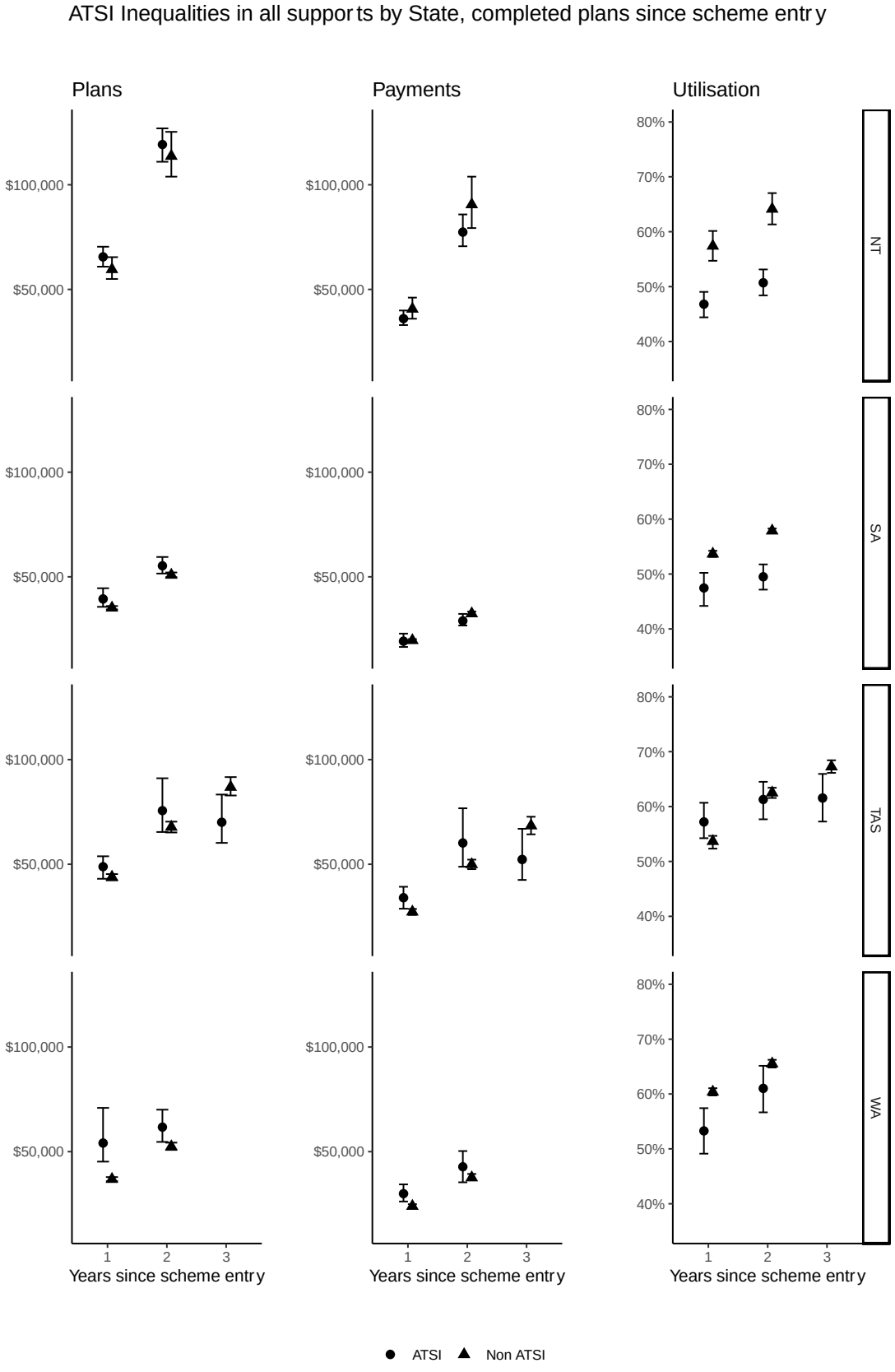


Figure 3.7 ATSI inequalities in all supported by State (NT, SA, TAS, WA), completed plans since scheme entry

Scheme maturity – all supports, people with any type of disability

While plan sizes and spending are increasing as the scheme matures, overall, there is not much change over time in patterns of utilisation inequalities.

To illustrate this, below (figure 3.8) we have presented CALD inequalities in total supports for all disability types. For plans that finish between 12 and 24 months since entry, people who joined the scheme more recently have higher plan and spending values. However, both the level of and inequalities in utilisation do not substantively change.

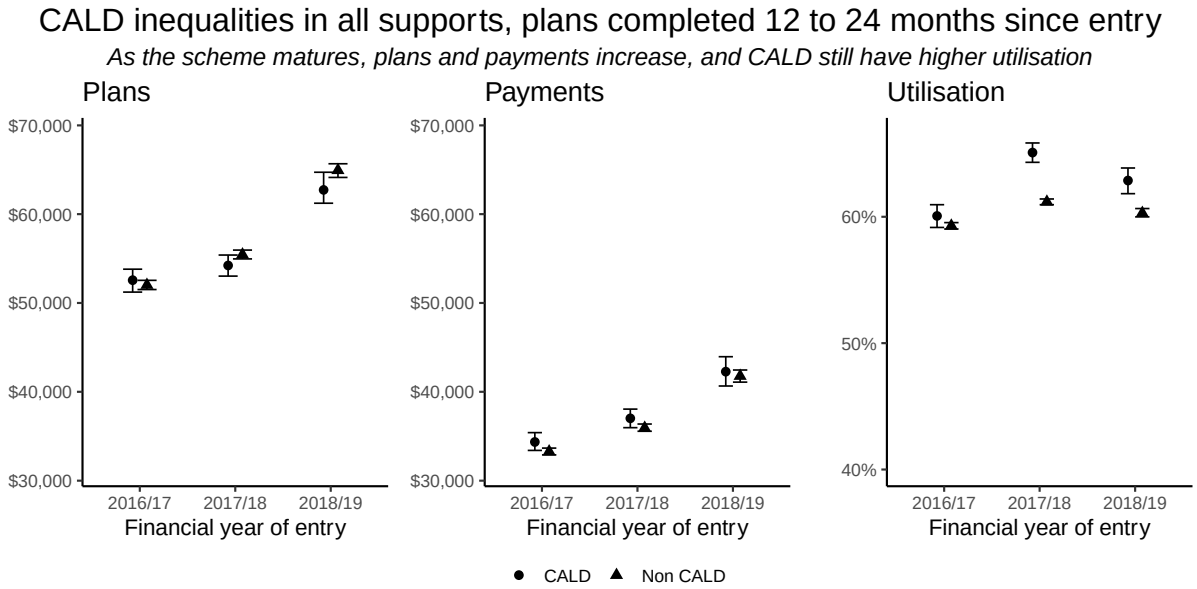
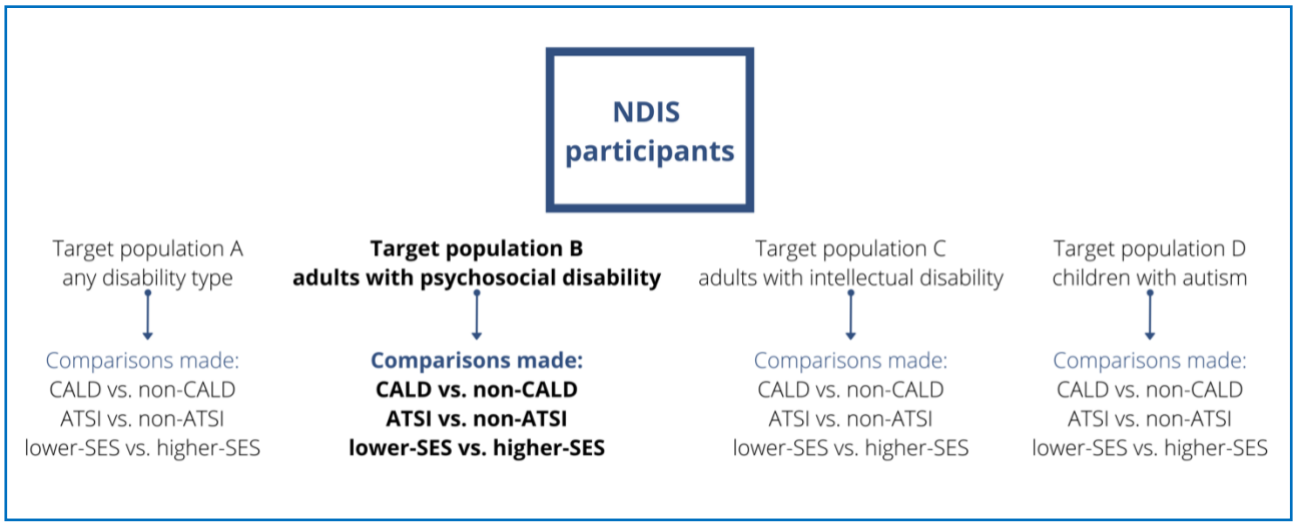


Figure 3.8 CALD inequalities in all supports, plans completed 12 to 24 months since entry

Comment on scale of inequalities – core, capacity building and capital supports

When considering all participants, core supports have much larger plan and spending values than capacity building and capital supports. This means, for Aboriginal and Torres Strait Islanders, for example, while inequalities in utilisation for capacity building supports appear larger (9% for capacity building in comparison to 4% for core supports), there is a larger dollar difference in the core supports utilised.

3.4.2. Adults with psychosocial disability (target population B)



As we expected, given the prior published evidence set out in Part 1, people with psychosocial disability have particularly low levels of utilisation, especially upon entering the scheme. However, both plan size and spending is increasing in the years after scheme entry, which leads to higher utilisation.

Differences in utilisation are relatively narrow for adults with psychosocial disability when we compare the CALD, ATSI and SES groups to their respective comparators. However, due to the smaller analytic sample there is considerable uncertainty in the estimates for this target population. The relatively small numbers funded also meant we were unable to conduct analysis on inequalities in capital supports.

Aboriginal and Torres Strait Islanders – larger plan sizes, high spending, similar utilisation

Figure 3.9 shows differences in plan size, spending and utilisation of total supports for Aboriginal and Torres Strait Islanders with psychosocial disability and the rest of the population. Planned supports and spending are both larger for the ATSI group, but spending less so. This combination of planned supports and spending leads to similar rates of utilisation.

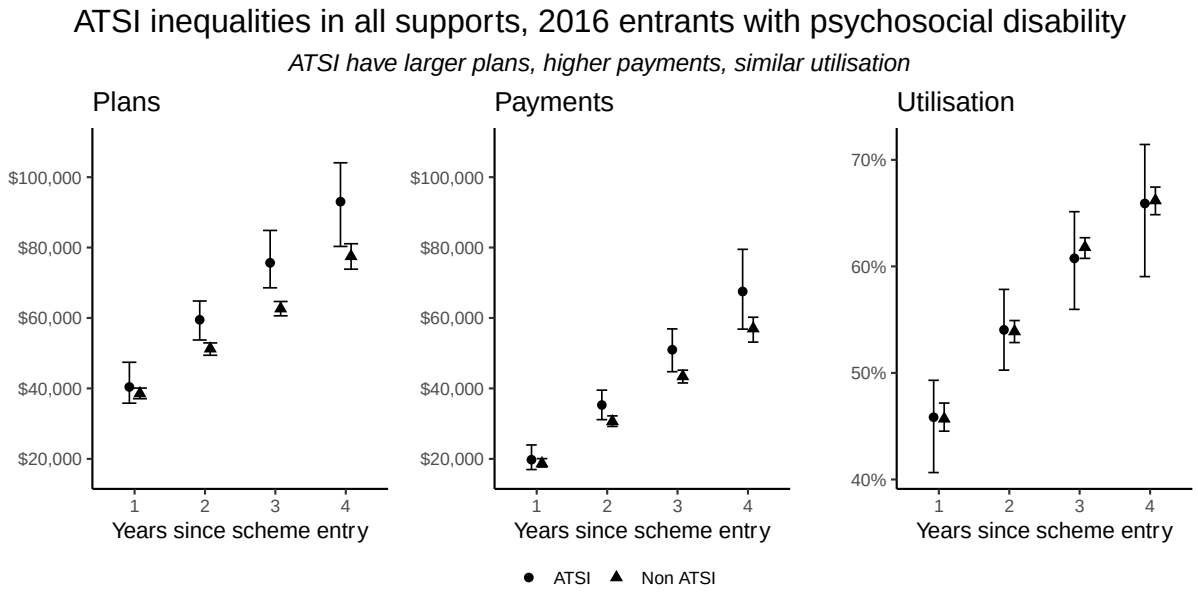
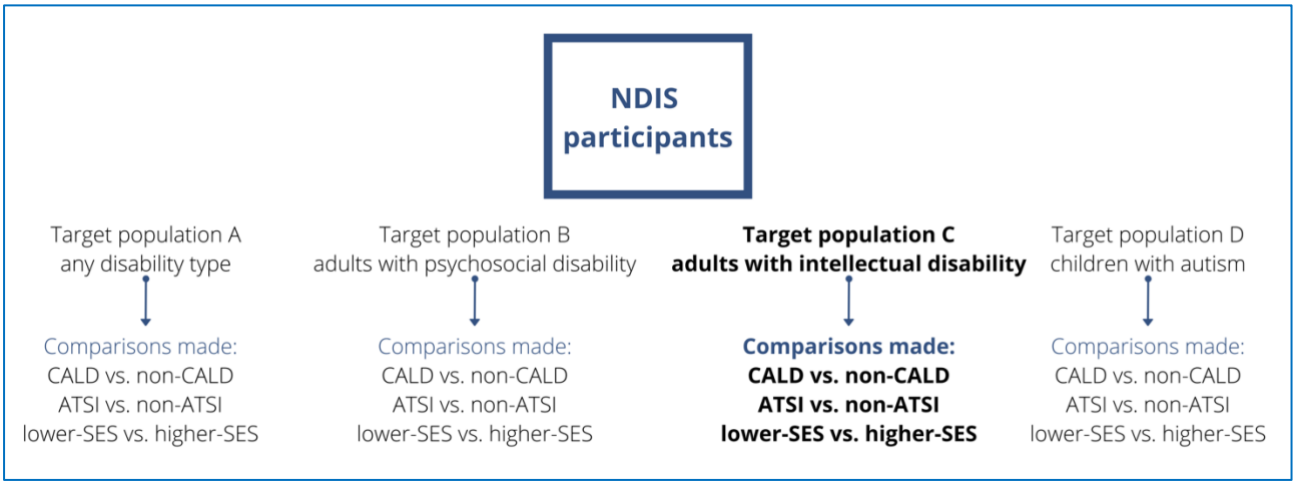


Figure 3.9 ATSI inequalities in all supports, 2016 entrants with psychosocial disability

Comment on the arithmetic of utilisation

When considering the results set out in Figure 3.9 it is worth thinking through one of the ways utilisation appears to be increasing. Just consider the Aboriginal and Torres Strait Islander population, plans and spending appear to be increasing at a similar rate, with similar amounts left unspent as plans are completed. This scenario – linear increases in plans and spending - will always lead to higher utilisation, and whether it is a sign of success, in terms of greater service use, is not clear from just considering the trend above.

3.4.3. Adults with intellectual disability (target population C)



Within this target population, planned core supports are increasing as people spend more time in the scheme. However, for some inequality groups, this is not the case for capacity building supports. This is particularly evident for the **Aboriginal and Torres Strait Islander population.**

As previously established the Aboriginal and Torres Strait Islander population tend to have larger plans. This is the case for capacity building supports for adults with an intellectual disability. However, figure 3.10 below shows that a smaller increase in planned capacity building supports for 2016 entrants than we have found in other target populations and support class outcomes (core supports tend to increase markedly as people spend longer in the scheme). This same trend is evident in spending and has led to clear inequalities in utilisation.

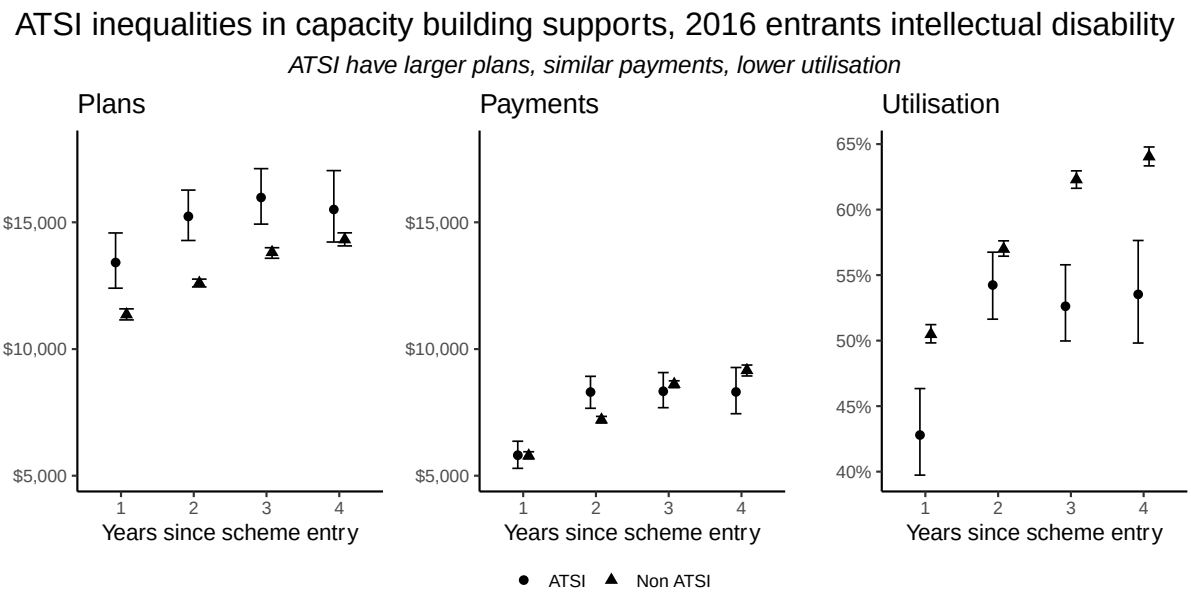
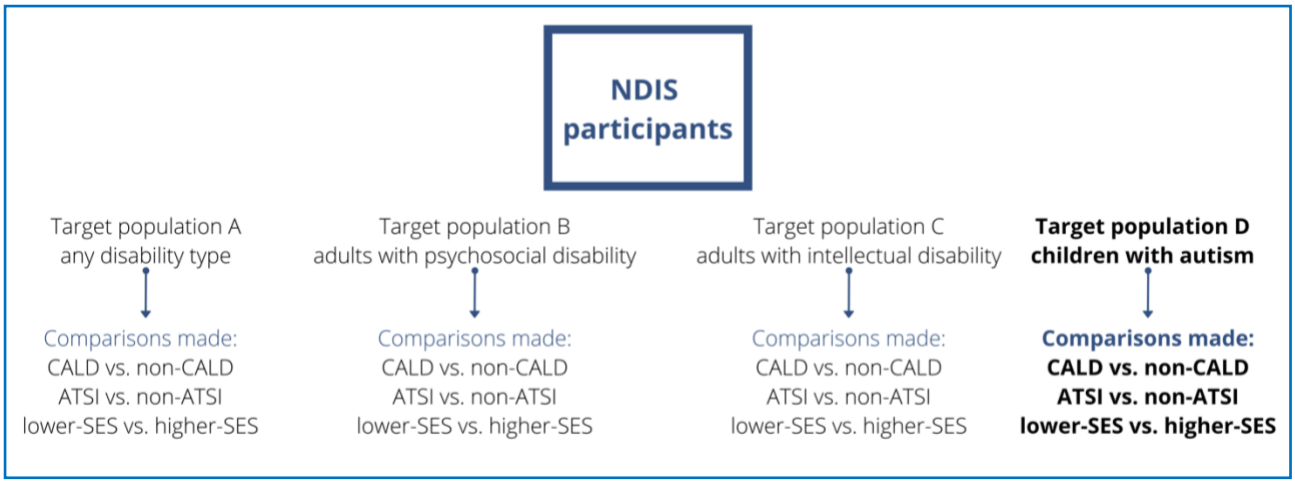


Figure 3.10 ATSI inequalities in capacity building supports, 2016 entrants with intellectual disability

One should not over interpret the apparent trends in Figure 3.10 – there are fewer completed plans in the fourth year after scheme entry. However, we can be confident that planned capacity building supports are increasing at a lower rate than planned core supports and that inequalities in utilisation, for Aboriginal and Torres Strait Islanders at least, are more evident when considering capacity building supports.

3.4.4. Children with Autism (target population D)



Overall, the amount funded for core supports for children with Autism is markedly lower than for target populations A-C. This leads to lower total plan sizes for children with autism.

For each of the inequality groups, the patterns in plan size found in target populations A-C hold (see *Appendix 2 - Inequality Results*). For example, people in the low-SES group (see figure 3.11 below) have smaller / similar plan sizes, spend a smaller amount and have slightly lower utilisation than the high-SES group.

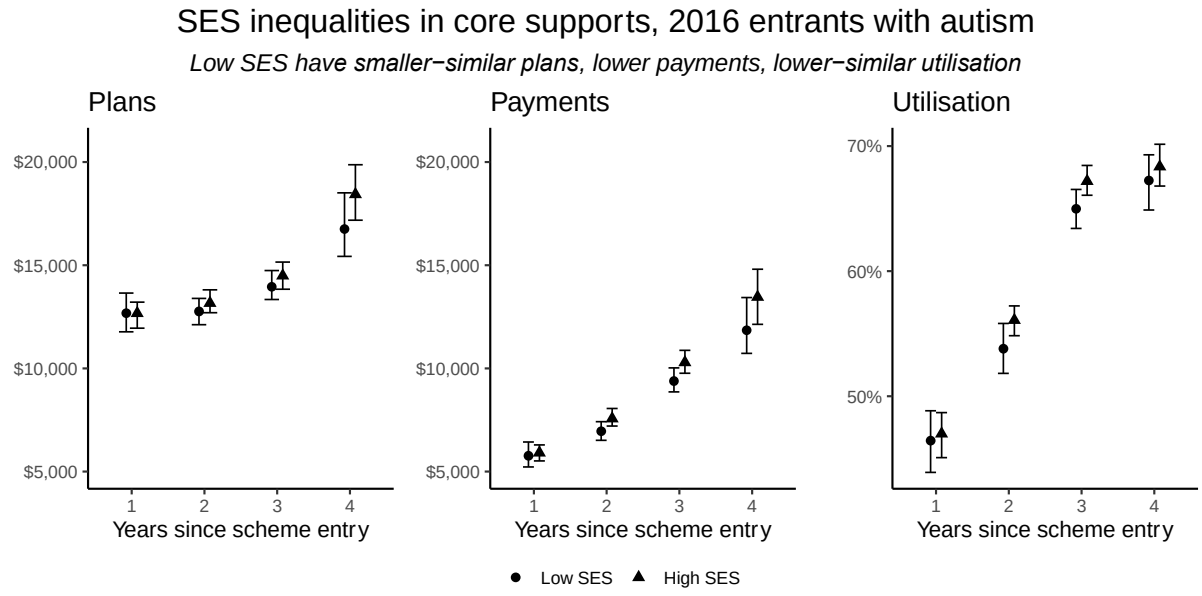


Figure 3.11 SES Inequalities in core supports, 2016 entrants with autism

3.4.5. Summary of results

In part 1 we hypothesised that each of the inequality groups were likely to face barriers to accessing and using the NDIS. The results presented in Part 2 illustrate that, in reality, the inequalities and differences in plan utilisation experienced by Culturally and Linguistically Diverse, Aboriginal and Torres Strait Islander and low-SES participants arise out of different combinations of changing plan size and spending.

In summary we found that each inequality group had its own distinctive combination of plan size, spending and utilisation.

1. The CALD inequality group have higher plans, similar to higher levels of spending and, therefore, higher levels of utilisation than their respective comparator group (the non-CALD population).
2. Aboriginal and Torres Strait Islander Australians, also have higher plans, but similar-lower levels of spending and, therefore, lower levels of utilisation than their respective comparator group (the non-ATSI population).
3. The low-SES group have similar – lower plans and spending and slightly lower utilisation than the high-SES group.

There are examples when these three main findings do not hold – for example, when comparing CALD and non-CALD just in rural areas. But, on the whole, these results are consistently found across the four target populations we have analysed.

The above patterns also hold when the NDIS population is split up into cohorts according to financial year of entry and when we considered plans completed each calendar year after entering the scheme. Recent entrants do have higher plan and spending values at equivalent levels of experience, which leads to broadly similar levels of utilisation.

With regard to the three specific disability groups we analysed – target populations B (adults with psychosocial disability), C (adults with intellectual disability) and D (children with autism), we found some differences in the magnitude of the three combinations of inequalities and differences outlined above. In particular, the differences and inequalities in plans, spending and utilisation, for adults with psychosocial disability (who have low but increasing utilisation) are less marked. But overall, the inequalities we identified for the total population hold for each of the target populations.

In terms of support classes, the most pronounced differences and inequalities were identified for capacity building supports, especially for Aboriginal and Torres Strait Islanders within the adults with intellectual disability target population.

Even though there are inequalities in utilisation, it appears that the scheme, if our assumptions about disadvantage are valid, does recognise that some groups may require more supports in their plans. It does appear that the CALD population are accessing a relatively higher amount of NDIS disability supports and services.

These results make use of comparisons between groups to assess / contextualise plan size, spending and ultimately utilisation and provide a proxy for a benchmark level of plan size, spending and utilisation. We are confident that the methods we have used, within the constraints of the available data, do appropriately isolate the effect of being a member of each respective inequality group. Another advantage of our approach is that our causal assumptions are explicit. The findings can then be interpreted, under these assumptions.

That said, more research is required on whether the supports and services in peoples' plans, and the extent that they are being used, lead to better outcomes – such as employment, health and wellbeing – for people who use the NDIS.

PART 4: Support Coordination Scenario Modelling Results

What data is used in part 4?

We excluded the following participants from our support coordination scenario modelling:

- Ineligible and/or inactive participants
- Participants in financial years other than 2019/20
- Participants with missing disability type
- Unknown CALD status or unknown gender
- Missing information for area-based socio-economic status or remoteness
- Implausible spending values (zero plan size with non-zero spending)

Part 4 addresses Aim B and details results from our support coordination scenario modelling. We focus on three target populations: target population B: adults with psychosocial disability, target population C: adults with intellectual disability, and target population D: children with autism.

We investigate the impact on inequalities in spending of 1) core (excluding supports for transport and supported independent living) and 2) capacity building supports (excluding support coordination) in participants from the three inequality groups of a range of exemplar support coordination scenarios.

All analysis is conducted using data from the most recent financial year (2019/2020) for which we have data.

As set out in section 1.10, our support coordination scenario modelling answered the following research questions for target populations B-D:

RQ6.1: What's the effect of the disadvantage experienced by participants from the inequality group (CALD, ATSI, and low-SES group) on spending in the most recent financial year, defined as the difference between the spending in the inequality group and the comparator group.

In this "business as usual" analysis, in the model, support coordination is set at the "observed level"

Support coordination scenario 1.

RQ6.2: What would happen to spending in the inequality group if the proportion with support coordination in their plan was set to the level of the comparator group?

In running through the four causal steps (see section 2.4) we established that this analysis does not satisfy an important assumption – conditional exchangeability (see *Technical Appendix*, section 3) - for causal inference. In practice, this means that the available data may not contain enough information to isolate the causal effect of "having support

coordination in your plan" on spending on services. This is because we do not have sufficient data to block the effect of "need for support". Therefore, we do not present the results for support coordination scenario 1.

To overcome this limitation, the remaining support coordination scenarios are restricted to people who have support coordination in their plans. This restriction effectively controls for "need for support" as we are focusing just on people who have support coordination in their plans.

Support coordination scenario 2.

RQ6.3: Does using at least some support coordination (at least 20%) increase spending of core and capacity building supports?

In the model, people who use less than 20% of their support coordination have their use of support coordination increased to 20%. Everyone else's support coordination use is set at the "observed level".

Support coordination scenario 3.

RQ6.4: Does using most of planned support coordination (at least 80%) increase spending of core and capacity building supports?

In the model, people who use less than 80% of their support coordination have their use of support coordination increased to 80%. Everyone else's support coordination use is set at the "observed level".

Through comparing scenarios 2 and 3 with "business as usual" we can assess their impact on inequalities in spending. To align with the inequalities rationale detailed in section 1.4 scenarios 2 and 3 were just simulated within inequality groups (i.e. CALD, ATSI and low-SES). Spending in the inequality groups, under these scenarios are compared with the benchmark level of spending – the corresponding comparator group (non-CALD, non-ATSI and higher-SES).

Details of all the models and variables used in the causal analysis can be found in table 2 in the *Technical Appendix.* Full results can be found in *Appendix 3 – Support Coordination Scenario Results*.

4.1. Adults with psychosocial disability (target population B) who have support coordination in their plans

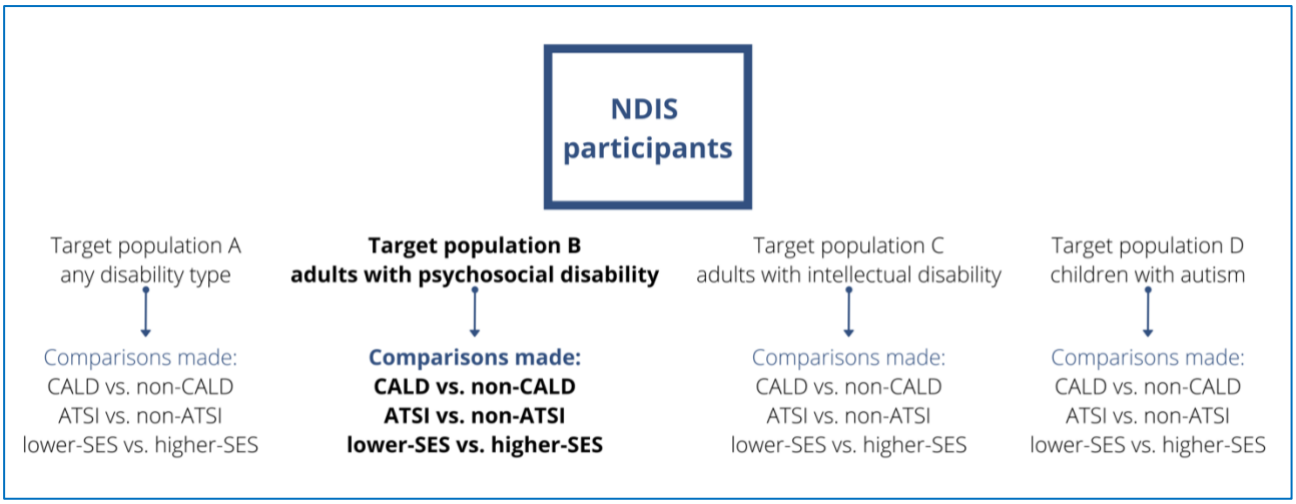


Table 4.1 details the observed values that relate to each support coordination scenario. Please note that these have not been adjusted to take into account the reasons why an individual may have support coordination in their plan and utilise it (or not). Of note, the vast majority of adults with psychosocial disability have support coordination in their plans. CALD and ATSI inequality groups are more likely to have support coordination in their plans. However, they are less likely to use at least 20% and 80% of their planned support coordination.

Table 4.1 percentages of participants receiving and utilising support coordination by inequality status, adults with psychosocial disability

	All n=28961		Funded n=19426*			
	SC*		≥20%		>80%	
	Yes	No	Yes	No	Yes	No
CALD	88	12	81	19	24	76
non-CALD	86	14	84	16	25	75
ATSI	93	7	79	21	22	78
non-ATSI	86	14	84	16	25	75
Low SES	85	15	83	17	24	76
High SES	87	13	84	16	26	74

*SC: has support coordination in the plan. * we excluded participants with implausible plan and spending values due to possible administrative errors.

Full results for adults with psychosocial disability are shown in figure 4.1.

Under "business as usual", participants in the ATSI and low-SES groups have lower capacity building utilisation and similar core spending utilisation than their comparator groups. CALD and non-CALD participants have similar capacity building utilisation, but higher core utilisation.

Increasing support coordination utilisation to at least 20% does not change spending (and therefore utilisation) for the ATSI, CALD and low-SES inequality groups.

Increasing support coordination utilisation to at least 80% spending of capacity building and core supports (and therefore utilisation) increases substantially for all three inequality groups.

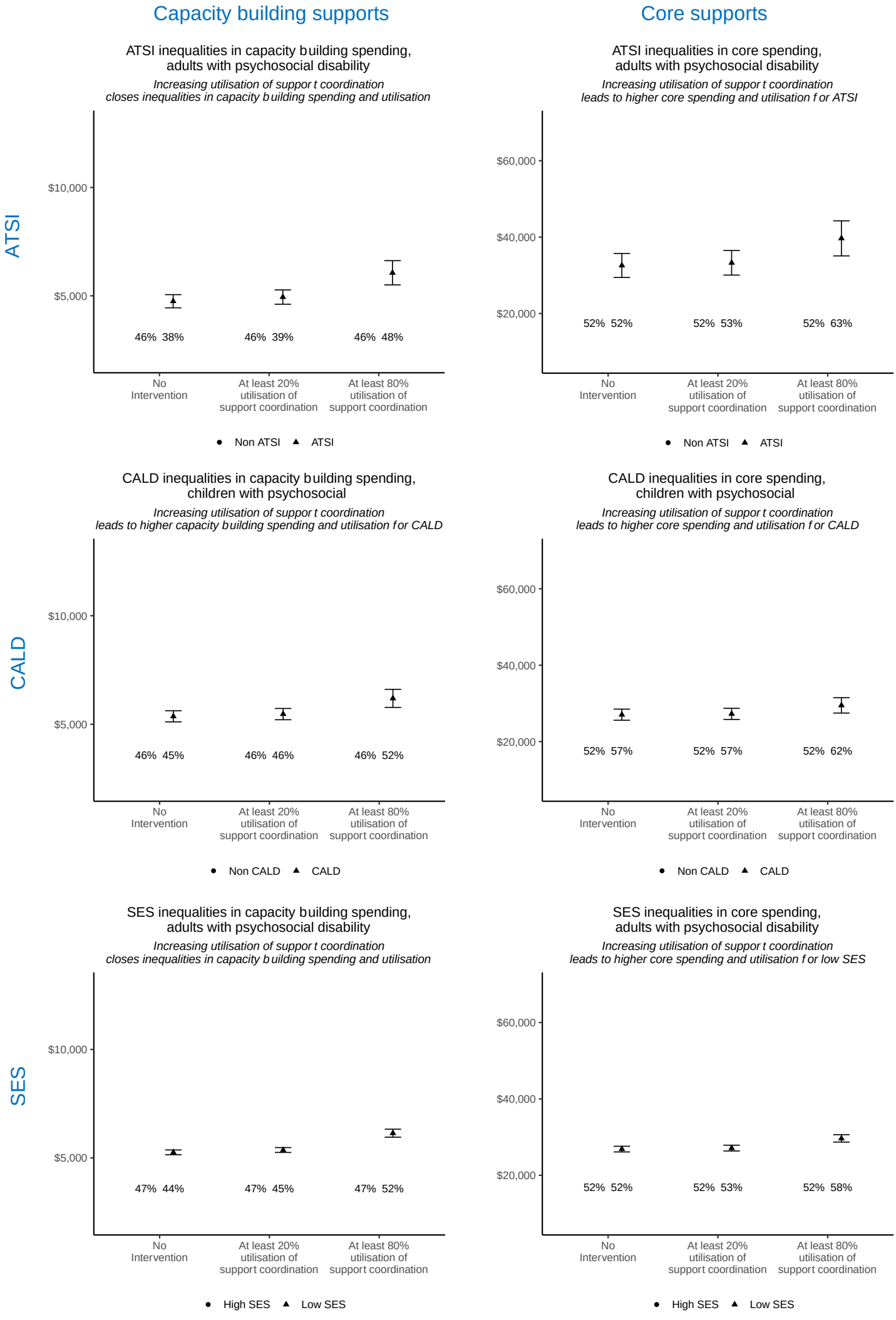


Figure 4.1. Utilisation outcomes under interventions for each inequality group, adults with psychosocial disability.

4.2. Adults with intellectual disability (target population C), who have support coordination in their plans

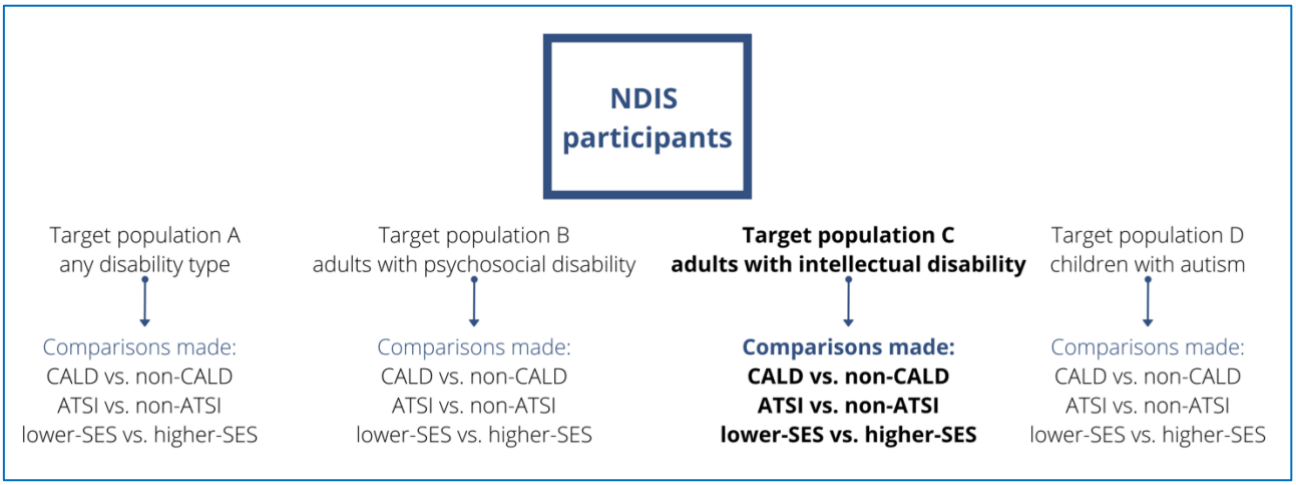


Table 4.2 details the observed values that relate to each support coordination scenario. Again, the values in this table have not been adjusted. Of note, around two thirds of adults with intellectual disability have support coordination in their plans. Aboriginal and Torres Strait Islander Australians are more likely to have support coordination in their plans. However, they are less likely to use at least 20% and 80% of their planned support coordination.

Table 4.2 percentages of participants receiving and utilising support coordination by inequality status, adults with intellectual disability

	All n=45629		Funded n=22918*			
	SC*		≥20%		>80%	
	Yes	No	Yes	No	Yes	No
CALD	65	35	77	23	23	77
non-CALD	65	35	78	22	24	76
ATSI	77	23	73	27	20	80
non-ATSI	64	36	79	21	24	76
Low SES	66	34	77	23	23	77
High SES	64	36	79	21	24	76

*SC: has support coordination in the plan. * we excluded participants with implausible plan and spending values due to possible administrative errors.

Full results for adults with intellectual disability are shown in figure 4.2.

Under "business as usual", participants in the inequality groups (CALD, ATSI and low-SES) have lower capacity building spending than their comparator groups (non-CALD, non-ATSI and higher-SES).

Core support spending is higher in the ATSI and CALD inequality groups (in comparison to non-ATSI and non-CALD respectively). However, in the low-SES group core support spending is similar to the higher-SES group.

Increasing support coordination utilisation to at least 20% does not change capacity building *and* core spending for the ATSI, CALD and low-SES inequality groups.

Increasing support coordination utilisation to at least 80% increases capacity building spending for all three inequality groups. For Aboriginal and Torres Strait Islander Australians, inequalities in capacity building spending are reduced but not eliminated.

For core spending, increasing support coordination utilisation to 80% only increases spending in the ATSI inequality group (spending for the CALD and low-SES groups does not substantively increase).

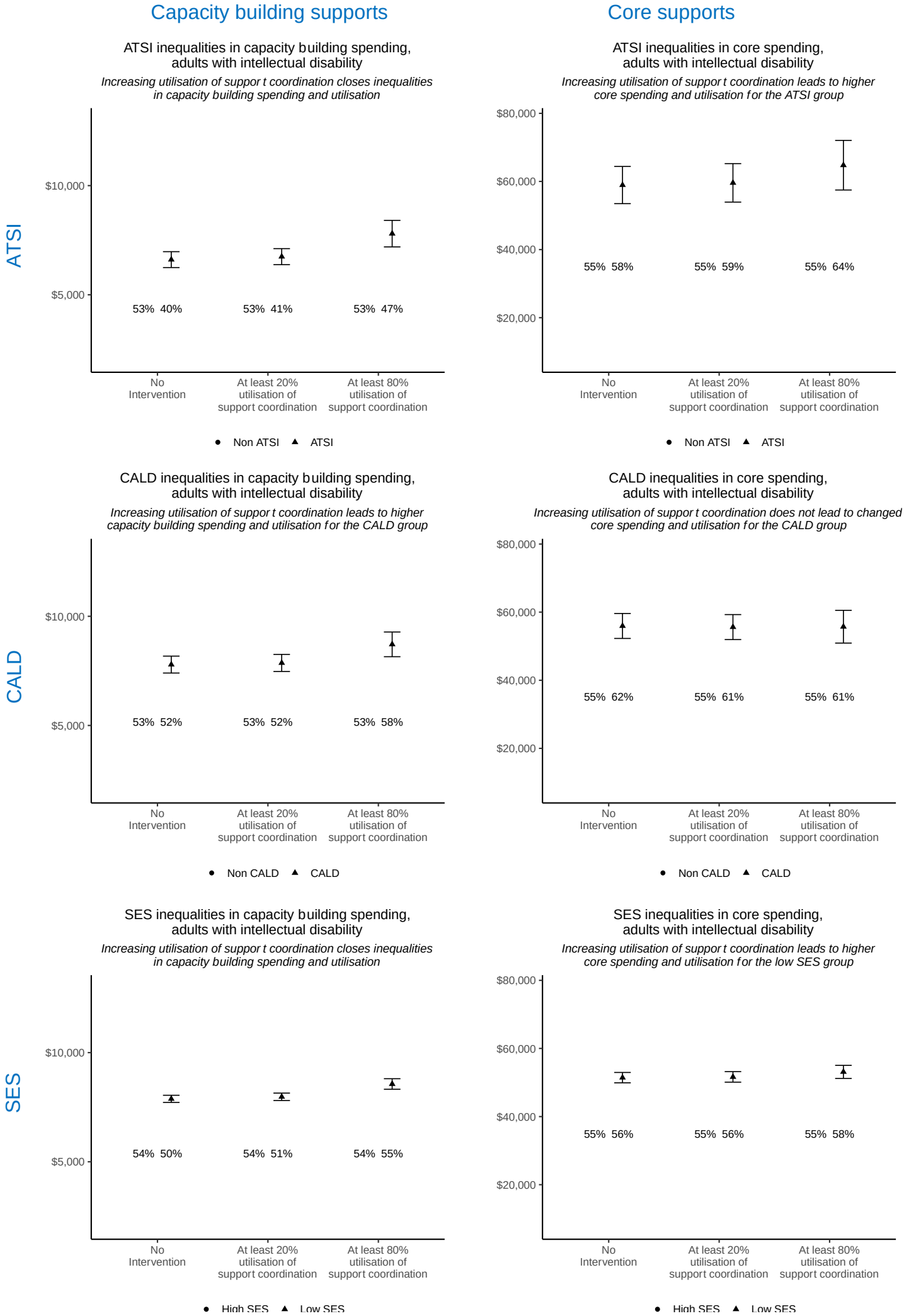


Figure 4.2 Utilisation outcomes under interventions for each inequality group, adults with intellectual disability.

4.3. Children with autism (target population D), who have support coordination in their plans

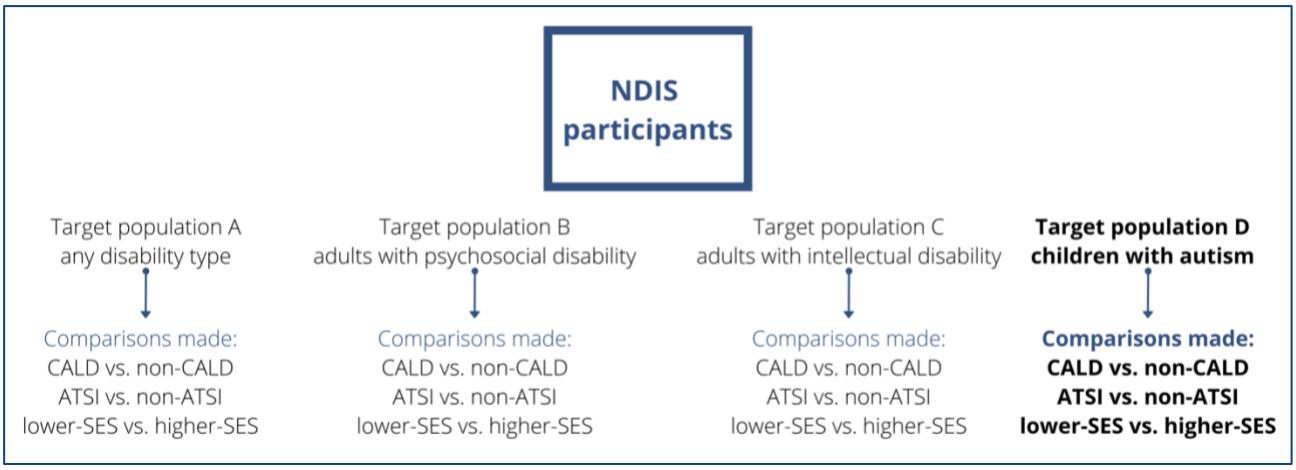


Table 4.3 details the observed values that relate to each support coordination scenario. The values in this table have not been adjusted. Of note, the majority of children with autism do not have support coordination in their plans. Aboriginal and Torres Strait Islanders (in comparison to non-ATSI) are more likely to have support coordination in their plans. For those funded, the low-SES group are more likely to use at least 20% and 80% of their planned support coordination.

Table 4.3 percentages of participants receiving and utilising support coordination by inequality status, adults with children with autism

	All n=81974		Funded n=13464*			
	SC*		≥20%		>80%	
	Yes	No	Yes	No	Yes	No
CALD	20	80	67	33	19	81
non-CALD	21	79	64	36	17	83
ATSI	37	63	66	34	18	82
non-ATSI	20	80	64	36	17	83
Low SES	19	81	68	32	19	81
High SES	25	75	63	37	16	84

*SC: has support coordination in the plan. * we excluded participants with implausible plan and spending values due to possible administrative errors.

Full results for children with autism are shown in figure 4.3.

Under "business as usual", ATSI participants and low-SES participants have lower spending than their comparator groups (non-ATSI and higher-SES respectively) for both capacity building supports and core supports. On the other hand, CALD participants have higher capacity building spending than the non-CALD comparator group.

Increasing support coordination utilisation to at least 20% does not substantively increase core and capacity spending for the three inequality groups.

Increasing support coordination utilisation to at least 80% helps close inequalities in capacity building spending for the ATSI and low-SES groups. Capacity building spending for the CALD group increases and, under this support coordination scenario, is higher than the non-CALD group. This support coordination scenario leads higher spending on core supports, but the impact is relatively limited.

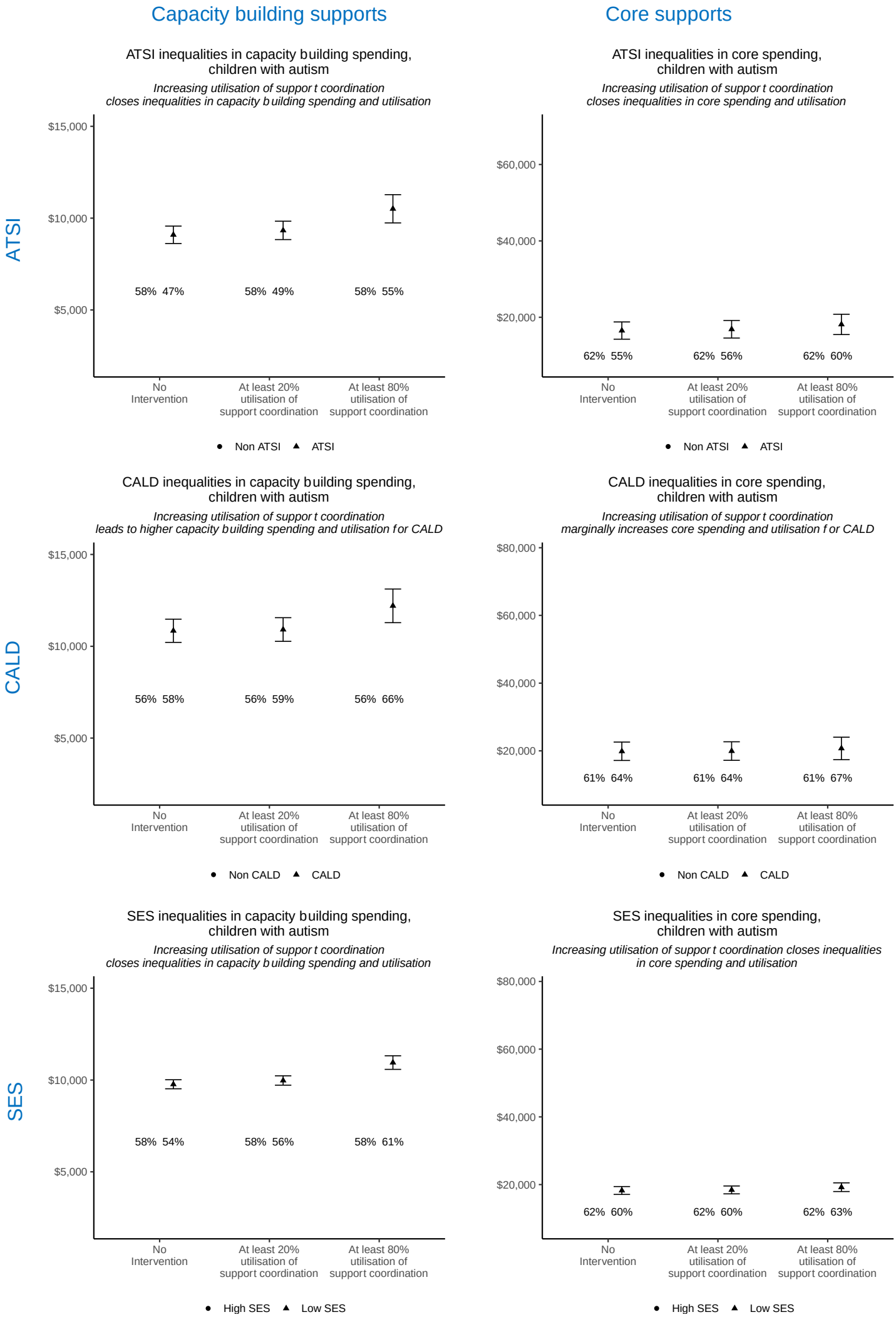


Figure 4.3 Utilisation outcomes under interventions for each inequality group, children with autism.

4.4. Summary

In part 1 we hypothesised that inequalities in utilisation could be modifiable. Part 4 quantifies what would happen to spending inequalities under a series of support coordination scenarios.

In general, we found that a support coordination scenario 2 (increasing support coordination use to at least 20%) was largely ineffective.

Support coordination scenario 3 did result in increases in spending. It was more effective at increasing capacity building spending. Spending increases for the ATSI group led to inequalities in spending being substantively closed.

PART 5: Summary

5.1. Summary of findings

This project has two aims: A) to quantify inequalities in NDIS plan utilisation and B) assess whether exemplar scenarios can close these inequalities in utilisation.

We hypothesised that the following inequality groups were likely to face barriers to accessing and using the NDIS:

• participants who identify as Culturally and Linguistically Diverse (CALD),

• participants who identify as Aboriginal and Torres Strait Islander (ATSI)

• participants who live in an area classified as having a low socio-economic status (low-SES).

We also hypothesised that support coordination scenarios could demonstrate how these inequalities could be modifiable.

Inequalities in plan utilisation

The results presented in Part 3 illustrate that inequalities and differences in plan utilisation experienced by Culturally and Linguistically Diverse, Aboriginal and Torres Strait Islander Australians and low-SES participants arise out of different combinations of changing plan size and spending.

We found that:

- The CALD inequality group have higher plans, similar to higher levels of spending and, therefore, higher levels of utilisation than their respective comparator group (the non-CALD population).
- Aboriginal and Torres Strait Islander Australians, also have higher plans, but similar-lower levels of spending and, therefore, lower levels of utilisation than their respective comparator group (the non-ATSI population).
- The low-SES group have similar – lower plans and spending and slightly lower utilisation than the high-SES group.

These inequalities were broadly evident for the three disability groups we analysed – target populations B (adults with psychosocial disability), C (adults with intellectual disability) and D (children with autism).

In terms of support classes, the most pronounced inequalities were identified for capacity building supports, especially for Aboriginal and Torres Strait Islanders within adults with intellectual disability.

Even though there are inequalities in utilisation, it appears that the scheme, if our assumptions about disadvantage are valid, does recognise that some groups may require more supports in their plans. For example, it does appear that the CALD population are accessing a relatively higher amount of NDIS disability supports and services.

Support coordination scenarios

Part 4 quantified what would happen to spending inequalities under a series of support coordination scenarios.

In general, we found that a support coordination scenario that ensures that participants use at least 20% of their support coordination was largely ineffective. It did not substantively increase capacity building or core spending for the inequality groups.

However, increasing use of support coordination to at least 80% did result in increases in spending for the inequality groups. It was more effective at increasing capacity building spending and spending increases for the ATSI group led to inequalities in spending being substantively closed.

5.2. Limitations

The data at hand limits the causal drivers that could be modelled. For example, we were unable to model the impact of market drivers on plan utilisation. As ever, with causal analysis, there is a risk of bias from unmeasured confounders.

Furthermore, we were unable to directly quantify support need. We attempted to overcome this problem by splitting participants into target populations, consisting of people with the same disability. However, within a given disability type, there is still a broad range of support need. This lack of data limited the support coordination scenarios we could model. Specifically, we could not assess a scenario where support coordination was included in plans for people who currently do not have support coordination.

With regard to the analysis conducted, an ongoing challenge was modelling a proportion (utilisation) of two values (plan size and spending) that are skewed (e.g. there are occasional very large plans and spending amounts that inflate the average). This presented challenges for our statistical tools used in support coordination scenario modelling. There may be residual confounding in the following causal relationships:

- Plan size → Spending
- Support coordination plan size → Spending

That said, we were able to model the above causal relationships by inequality and comparator groups separately. We also conducted a sensitivity analysis that allowed for more adjustment of confounding. It produced support coordination scenario effects that were consistent with our main findings for all groups, apart from core supports for children with autism, where the impact of increasing support coordination utilisation was qualitatively the same (i.e., it increased spending) but quantitatively mis-calibrated (i.e. it marginally overpredicted spending for all support coordination scenarios).

5.3. Strengths

Previous research has shown there are differences in utilisation between groups. However, none of this research has aimed to quantify whether these differences are avoidable and/or modifiable.

Traditional regression approaches, where selection of model predictors are not causally informed, risks masking the true effect of inequalities. The study design decisions made in this report – from our focus on target populations and inequality groups to the causal diagrams – aim to aid quantification of the causal drivers of plan size, spending and

utilisation. We are confident that the methods we have used, within the constraints of the available data, do this.

All causal assumptions in this report are based on the best available evidence and are made explicit. This means all of our findings can be interpreted, and their causal robustness assessed, in line with the assumptions we have made. Future research should be conducted in this way. Furthermore, our causal approach could be extended to build an evidence base on what is driving both the level and effectiveness of NDIS service use.

Appendix 1 – Descriptive Results

D1: Description of scheme participants by financial year

	Financial Year			
	FY1617	**FY1718**	**FY1819**	**FY1920**
	N=73888	N=161866	N=269437	N=376406
Baseline age, mean (SD)	28 (18.7)	29 (19.3)	28 (19.9)	27 (20.3)
Disability types, N (%)				
ABI	2443 (3.3)	5602 (3.5)	9661 (3.6)	12392 (3.3)
Autism	24067 (32.6)	51406 (31.8)	84050 (31.2)	117638 (31.3)
Cerebral Palsy	4370 (5.9)	8635 (5.3)	13160 (4.9)	15150 (4.0)
Developmental delay	1166 (1.6)	3946 (2.4)	9724 (3.6)	25988 (6.9)
Down Syndrome	3261 (4.4)	6442 (4.0)	9660 (3.6)	10743 (2.9)
Global developmental delay	406 (0.5)	1269 (0.8)	3201 (1.2)	7336 (1.9)
Hearing Impairment	1983 (2.7)	4983 (3.1)	10245 (3.8)	18559 (4.9)
Intellectual Disability	19034 (25.8)	39940 (24.7)	60182 (22.3)	70436 (18.7)
Multiple Sclerosis	1626 (2.2)	3463 (2.1)	5721 (2.1)	7206 (1.9)
Other Neurological	3013 (4.1)	6914 (4.3)	12100 (4.5)	16700 (4.4)
Other Physical	2507 (3.4)	5803 (3.6)	10929 (4.1)	16438 (4.4)
Other Sensory/Speech	1115 (1.5)	1909 (1.2)	2439 (0.9)	2731 (0.7)
Psychosocial disability	5235 (7.1)	13174 (8.1)	24114 (8.9)	36377 (9.7)
Spinal Cord Injury	943 (1.3)	2085 (1.3)	3580 (1.3)	4469 (1.2)
Stroke	928 (1.3)	2164 (1.3)	3763 (1.4)	5515 (1.5)
Visual Impairment	1625 (2.2)	3848 (2.4)	6469 (2.4)	8048 (2.1)
Other	166 (0.2)	283 (0.2)	439 (0.2)	680 (0.2)
Age at start of FY				
0 to 6	12995 (17.6)	27736 (17.1)	46939 (17.4)	75734 (20.1)
07 to 14	18464 (25.0)	37910 (23.4)	60625 (22.5)	85486 (22.7)
15 to 18	6907 (9.3)	13559 (8.4)	20047 (7.4)	26123 (6.9)
19 to 24	6403 (8.7)	14209 (8.8)	22765 (8.4)	29225 (7.8)
25 to 34	7051 (9.5)	15739 (9.7)	26068 (9.7)	33308 (8.8)
35 to 44	6757 (9.1)	14998 (9.3)	25224 (9.4)	32523 (8.6)
45 to 54	7857 (10.6)	18238 (11.3)	31383 (11.6)	41079 (10.9)
55 to 64	7208 (9.8)	18309 (11.3)	33203 (12.3)	46415 (12.3)
65+	246 (0.3)	1168 (0.7)	3183 (1.2)	6513 (1.7)
Inequality groups, N (%)				
ATSI	4080 (5.5)	9390 (5.8)	15856 (5.9)	23919 (6.4)
CALD	5854 (7.9)	12356 (7.6)	23229 (8.6)	35361 (9.4)
Low SES	28857 (39.1)	66554 (41.1)	108265 (40.2)	149314 (39.7)
Living in remote areas, N (%)	22077 (29.9)	59210 (36.6)	90203 (33.5)	123184 (32.7)
Women, N (%)	27426 (37.1)	60003 (37.1)	101139 (37.5)	141219 (37.5)
Severity of disability, N (%)				
1 to 5	16210 (21.9)	36737 (22.7)	62495 (23.2)	102111 (27.1)
6 to 10	32269 (43.7)	72068 (44.5)	121713 (45.2)	168664 (44.8)

11 to 15	25409 (34.4)	53061 (32.8)	85229 (31.6)	105631 (28.1)
Entry, N (%)				
New	22852 (30.9)	47932 (29.6)	88251 (32.8)	167514 (44.5)
Commonwealth	4951 (6.7)	15435 (9.5)	26746 (9.9)	36342 (9.7)
State	46085 (62.4)	98499 (60.9)	154440 (57.3)	172550 (45.8)
Plan management option				
Agency Managed	49634 (67.2)	92510 (57.2)	110055 (40.8)	98022 (26.0)
Plan managed partly	5811 (7.9)	20299 (12.5)	56586 (21.0)	116473 (30.9)
Self-managed fully/partly	13738 (18.6)	25642 (15.8)	53475 (19.8)	88640 (23.5)
More than 1 option type	4705 (6.4)	23415 (14.5)	49321 (18.3)	73271 (19.5)
Support Coordination, N (%)				
Has no SC	35926 (48.6)	87613 (54.1)	151784 (56.3)	216316 (57.5)
Has SC, used <20%	19764 (26.7)	30372 (18.8)	39909 (14.8)	37449 (9.9)
Has SC, used 20 to <80%	9974 (13.5)	25332 (15.6)	45034 (16.7)	63157 (16.8)
Has SC, used >=80%	8224 (11.1)	18549 (11.5)	32710 (12.1)	59484 (15.8)
Years into the scheme, N (%)				
1	73888 (100.0)	87122 (53.8)	108386 (40.2)	109543 (29.1)
2	0 (0.0)	74744 (46.2)	87564 (32.5)	108344 (28.8)
3 or more	0 (0.0)	0 (0.0)	73487 (27.3)	158519 (42.1)
Number of plans, N (%)				
1	73835 (99.9)	148446 (91.7)	187529 (69.6)	205968 (54.7)
2	52 (0.1)	11719 (7.2)	58454 (21.7)	77958 (20.7)
3	1 (0.0)	1543 (1.0)	18462 (6.9)	60119 (16.0)
4 or more	0 (0.0)	158 (0.1)	4992 (1.9)	32361 (8.6)
Experience, N (%)				
Been a YPIRAC participant	791 (1.1)	2688 (1.7)	4590 (1.7)	5518 (1.5)
Received funds for SSA	7668 (10.4)	14396 (8.9)	21901 (8.1)	23413 (6.2)
Participated in trial scheme	22816 (30.9)	30794 (19.0)	31744 (11.8)	32015 (8.5)
Plan size and spending, median (IQR)				
Plan size (Total)	10617 (3715,28981)	16959 (7443,44096)	19982 (9272,53943)	23039 (11276,62375)
Plan size (Core)	4129 (364,19874)	7084 (738,30769)	8864 (811,38467)	9058 (665,42456)
Plan size (Capacity building)	4037 (1502,7695)	7351 (3451,12238)	8848 (4788,13888)	11322 (6438,17070)
Plan size (Capital)	0 (0,298)	0 (0,469)	0 (0,349)	0 (0,581)
Plan spending (Total)	2081 (0,8352)	6182 (1063,19180)	8726 (2336,26011)	11409 (3573,34399)
Plan spending (Core)	236 (0,5784)	1033 (0,11557)	1857 (0,16579)	2234 (0,21701)
Plan spending (Capacity building)	992 (0,3958)	2510 (137,6707)	3634 (724,8062)	5505 (1591,10663)
Plan spending (Capital)	0 (0,0)	0 (0,0)	0 (0,0)	0 (0,0)

D2: Description of participants by support class for 2019/20

Support Class	**Core (**N=336459)			**Capacity Building** (N=374294)			**Capital** (N=116835)		
Category	(N)% has it	Median plan size (IQR)	Median spending (IQR)	(N)% has it	Median plan size (IQR)	Median spending (IQR)	(N)% has it	Median plan size (IQR)	Median spending (IQR)
Overall	336459 (89.4)	13309 (1614,50030)	3877 (140,26612)	374294 (99.4)	11379 (6530,17110)	5553 (1651,10701)	116835 (31.0)	3989 (875,10971)	115 (0,5705)
Disability types									
ABI	12260 (98.9)	56582 (22310,127947)	26488 (5098,88953)	12311 (99.3)	13766 (8106,20745)	7020 (2704,12992)	6497 (52.4)	5377 (1656,12815)	422 (0,6520)
Autism	99021 (84.2)	2964 (675,14467)	838 (0,6394)	117340 (99.7)	11501 (7343,16551)	6161 (2249,10907)	9978 (8.5)	1557 (511,5175)	0 (0,1099)
Cerebral Palsy	14679 (96.9)	40578 (4767,164003)	19235 (1411,108527)	15133 (99.9)	14866 (9469,21516)	8279 (3788,14147)	12578 (83.0)	8352 (2734,19444)	2413 (0,12645)
Developmental delay	14540 (55.9)	307 (103,874)	0 (0,317)	25969 (99.9)	9962 (5142,14130)	3494 (538,7900)	1775 (6.8)	1623 (618,3749)	0 (0,1380)
Down Syndrome	10466 (97.4)	52023 (14330,110688)	28403 (4817,70396)	10681 (99.4)	14045 (8843,20235)	7627 (3148,13316)	4359 (40.6)	3042 (811,8544)	0 (0,2320)
Global developmental delay	4638 (63.2)	508 (154,1296)	0 (0,500)	7334 (100.0)	12002 (6785,16096)	5200 (1139,10056)	1076 (14.7)	2101 (776,5925)	0 (0,2339)
Hearing Impairment	18319 (98.7)	1160 (422,6103)	26 (0,1357)	17997 (97.0)	4312 (1873,9023)	686 (0,3610)	12689 (68.4)	330 (41,714)	0 (0,0)
Intellectual Disability	67042 (95.2)	30179 (8422,97504)	15165 (1806,55599)	69938 (99.3)	13156 (7906,19998)	6732 (2298,12544)	21141 (30.0)	5606 (1453,10589)	0 (0,5075)
Multiple Sclerosis	7179 (99.6)	38032 (15409,87508)	13708 (4757,47826)	7172 (99.5)	12564 (7578,18223)	6891 (3027,12025)	5699 (79.1)	6918 (2280,16783)	2075 (0,10759)
Psychosocial disability	35730 (98.2)	26333 (12191,50661)	9858 (1773,27667)	36110 (99.3)	10918 (5865,16932)	4669 (1471,9215)	3306 (9.1)	2092 (574,6393)	0 (0,1586)
Spinal Cord Injury	4463 (99.9)	57730 (22529,143631)	25231 (6509,109580)	4449 (99.6)	11847 (7269,19032)	6222 (2306,11707)	4255 (95.2)	12591 (5046,25217)	6170 (276,19692)
Stroke	5489 (99.5)	47397 (18422,100520)	18422 (3605,62904)	5502 (99.8)	11541 (6726,17634)	6440 (2397,11913)	4257 (77.2)	4906 (1667,11981)	695 (0,6571)
Visual Impairment	7964 (99.0)	15643 (5420,26708)	6593 (1716,17195)	7958 (98.9)	7020 (3890,11739)	2777 (754,6367)	4048 (50.3)	1957 (681,4695)	0 (0,3721)
Other Neurological	16316 (97.7)	46097 (14353,109385)	16580 (2569,61095)	16631 (99.6)	12447 (7241,18978)	6510 (2453,11856)	11064 (66.3)	6474 (2052,16435)	1462 (0,9691)
Other Physical	16109 (98.0)	17361 (4770,46142)	4768 (618,21137)	16375 (99.6)	8690 (4772,14168)	3723 (970,8321)	13517 (82.2)	7217 (2377,18052)	1500 (0,11267)
Other Sensory/Speech	1594 (58.4)	852 (279,2734)	0 (0,851)	2719 (99.6)	9232 (6102,12936)	5088 (2101,8523)	129 (4.7)	741 (314,2083)	0 (0,280)
Other	650 (95.6)	26543 (7933,65650)	8169 (1099,37060)	675 (99.3)	9603 (5047,15716)	4990 (1619,9666)	467 (68.7)	5145 (1838,12069)	1285 (0,7770)

Age at start of FY									
0 to 6	51978 (68.6)	529 (169,1556)	41 (0,703)	75718 (100.0)	12571 (7243,16677)	5615 (1425,10855)	13276 (17.5)	1243 (379,4467)	0 (0,1729)
07 to 14	73122 (85.5)	2224 (655,8370)	527 (0,3413)	85282 (99.8)	10211 (6846,14485)	5781 (2172,9804)	15075 (17.6)	1573 (429,6043)	0 (0,2200)
15 to 18	24680 (94.5)	12525 (4346,35631)	3595 (148,17525)	25971 (99.4)	12672 (7350,20879)	5297 (1329,11037)	5412 (20.7)	2089 (510,8033)	0 (0,2911)
19 to 24	28394 (97.2)	27036 (10046,74647)	13011 (2357,47998)	28873 (98.8)	12690 (6662,21158)	5443 (1290,12238)	7124 (24.4)	3100 (659,10459)	0 (0,4114)
25 to 34	32725 (98.2)	36266 (13356,96659)	18525 (3081,61734)	32995 (99.1)	12158 (6294,19697)	5698 (1494,12016)	11066 (33.2)	5394 (1185,12561)	183 (0,6635)
35 to 44	32111 (98.7)	34800 (13961,94568)	16569 (3249,55806)	32222 (99.1)	11914 (6201,18767)	5668 (1667,11504)	12796 (39.3)	5995 (1559,13014)	480 (0,7430)
45 to 54	40747 (99.2)	36182 (14600,100134)	16502 (3493,55712)	40760 (99.2)	11463 (6055,18137)	5627 (1757,11209)	20291 (49.4)	6098 (1697,13385)	650 (0,7416)
55 to 64	46212 (99.6)	38174 (14957,103370)	15782 (3229,53506)	46040 (99.2)	10267 (5391,16213)	5017 (1600,9912)	27409 (59.1)	5614 (1580,13148)	577 (0,7278)
65+	6490 (99.6)	53372 (22162,123647)	25026 (7764,79640)	6433 (98.8)	10257 (6220,15627)	5256 (2148,9766)	4386 (67.3)	5556 (1651,12641)	819 (0,7406)
Inequality groups									
Non-ATSI	315854 (89.6)	13457 (1637,50440)	4066 (176,27099)	350482 (99.4)	11316 (6497,17017)	5607 (1701,10747)	110921 (31.5)	3989 (875,10945)	145 (0,5756)
ATSI	20605 (86.1)	11013 (1326,44139)	1851 (0,19180)	23812 (99.6)	12351 (7083,18493)	4718 (1030,9958)	5914 (24.7)	3989 (903,11579)	0 (0,4710)
Non-CALD	304735 (89.4)	13095 (1583,50716)	3794 (139,26761)	339147 (99.4)	11435 (6630,17148)	5581 (1684,10698)	104230 (30.6)	4216 (939,11221)	170 (0,5897)
CALD	31724 (89.7)	14892 (2262,44547)	4609 (161,25267)	35147 (99.4)	10792 (5665,16734)	5277 (1380,10733)	12605 (35.6)	2509 (525,9077)	0 (0,4196)
Higher SES	202219 (89.0)	11058 (1338,47214)	3228 (122,24780)	225859 (99.5)	11385 (6527,17090)	5755 (1772,10953)	71997 (31.7)	3805 (819,10957)	142 (0,5610)
Lower SES	134240 (89.9)	16746 (2456,53776)	5148 (180,29179)	148435 (99.4)	11369 (6534,17139)	5255 (1486,10335)	44838 (30.0)	4285 (986,10991)	78 (0,5831)
Remoteness									
Remote areas	110724 (89.9)	14178 (1763,50982)	3865 (92,26026)	122457 (99.4)	11027 (6395,16783)	4853 (1445,9629)	37636 (30.6)	4393 (1041,11675)	55 (0,5820)
Major city	225735 (89.1)	12909 (1576,49507)	3882 (165,26921)	251837 (99.5)	11549 (6610,17252)	5925 (1790,11188)	79199 (31.3)	3782 (808,10659)	147 (0,5641)
Gender									
Men	205975 (87.6)	10309 (1291,44128)	2727 (0,23049)	233897 (99.5)	11517 (6752,17179)	5592 (1653,10767)	63630 (27.1)	4168 (908,11110)	123 (0,5816)
Women	130484 (92.4)	18523 (2781,58858)	6426 (428,32101)	140397 (99.4)	11134 (6196,16987)	5492 (1650,10596)	53205 (37.7)	3813 (838,10814)	105 (0,5581)
Severity of disability									
1 to 5	77777 (76.2)	1181 (336,6119)	196 (0,1966)	101051 (99.0)	8758 (4577,13566)	3553 (534,7865)	24676 (24.2)	849 (272,3069)	0 (0,684)
6 to 10	155539 (92.2)	12989 (2342,34863)	3679 (263,18093)	167789 (99.5)	10829 (6397,16295)	5280 (1643,10167)	36974 (21.9)	3726 (929,10323)	66 (0,5160)
11 to 15	103143 (97.6)	61095 (16639,144345)	29343 (3949,98005)	105454 (99.8)	15301 (9969,21975)	8305 (3728,14114)	55185 (52.2)	7193 (2125,15630)	1085 (0,9047)

Entry, N (%)									
New	139151 (83.1)	3812 (597,18788)	730 (0,6498)	166584 (99.4)	9346 (4801,14592)	4035 (814,8737)	42351 (25.3)	2119 (494,7764)	0 (0,3480)
Commonwealth	33120 (91.1)	10059 (1524,31483)	2638 (139,14129)	36211 (99.6)	11847 (7322,17010)	6424 (2472,11582)	6870 (18.9)	1506 (393,5263)	0 (0,1099)
State	164188 (95.2)	31651 (7200,97315)	15302 (1750,58157)	171499 (99.4)	13296 (8414,19597)	6943 (2745,12344)	67614 (39.2)	5973 (1588,13186)	695 (0,7339)
Plan management option									
Agency Managed	80966 (82.6)	20201 (3574,73469)	7386 (48,40322)	96465 (98.4)	10649 (6016,16125)	4661 (891,9569)	26988 (27.5)	4951 (1061,10607)	0 (0,5332)
Plan managed partly	109310 (93.9)	20160 (3787,59062)	6473 (275,32016)	116473 (100.0)	11833 (6443,18246)	5734 (1778,11147)	37278 (32.0)	4413 (1098,12069)	0 (0,6456)
Self-managed fully/partly	77091 (87.0)	2092 (526,13285)	784 (0,5670)	88156 (99.5)	9751 (5243,14812)	4780 (1146,9705)	23362 (26.4)	2034 (489,8149)	0 (0,3312)
More than 1 option type	69092 (94.3)	17639 (2588,60350)	6348 (518,32732)	73200 (99.9)	13644 (9209,19376)	7345 (3384,12416)	29207 (39.9)	4547 (1040,12045)	587 (0,6946)
Support Coordination, N (%)									
Has no SC	179490 (83.0)	2842 (562,15351)	780 (0,6274)	214204 (99.0)	9356 (5228,14077)	4229 (951,8815)	51816 (24.0)	1821 (453,6667)	0 (0,2941)
Has SC, used <20%	35830 (95.7)	16182 (3901,51253)	2557 (0,22430)	37449 (100.0)	10646 (4910,16952)	1643 (0,6591)	12485 (33.3)	3637 (814,10569)	0 (0,3835)
Has SC, used 20 to <80%	62232 (98.5)	48418 (19154,129325)	22048 (4946,79226)	63157 (100.0)	15902 (10748,22817)	7327 (3870,12443)	26400 (41.8)	7357 (2356,14538)	808 (0,7769)
Has SC, used >=80%	58907 (99.0)	49603 (20108,134752)	28143 (7885,90909)	59484 (100.0)	15764 (10532,22814)	10677 (6478,16548)	26134 (43.9)	7159 (2242,14942)	1500 (0,8970)

D3.1 Description of CALD Inequality for All Participants' First Plans

Variable	Category	CALD N (%)	Not CALD N (%)
All Participants	proportion	24887 (8.6%)	259466 (89.4%)
Age	0 to 6	2862 (11.5%)	27008 (10.4%)
	07 to 14	4837 (19.4%)	69347 (26.7%)
	15 to 18	1403 (5.6%)	20842 (8%)
	19 to 24	1821 (7.3%)	25382 (9.8%)
	25 to 34	2156 (8.7%)	25766 (9.9%)
	35 to 44	2675 (10.7%)	23023 (8.9%)
	45 to 54	3412 (13.7%)	28321 (10.9%)
	55 to 64	4417 (17.7%)	31338 (12.1%)
	65+	1304 (5.2%)	8439 (3.3%)
Gender	F	9810 (39.4%)	95775 (36.9%)
	M	14813 (59.5%)	160870 (62%)
	U	264 (1.1%)	2821 (1.1%)
Normalised Disability Severity	1-5	5748 (23.1%)	61271 (23.6%)
	6-10	10586 (42.5%)	117936 (45.5%)
	11-15	8553 (34.3%)	80259 (30.9%)
Entry - previous service use	New	9832 (39.5%)	90041 (34.7%)
	Commonwealth	3305 (13.3%)	25219 (9.7%)
	State	11750 (47.2%)	144206 (55.6%)
Ever lived in SIL	Yes	992 (4%)	21936 (8.5%)
Ever lived in SDA	Yes	663 (2.7%)	16080 (6.2%)
Remoteness	Major Cities	21953 (88.2%)	167988 (64.7%)
	Population > 50,000	1208 (4.9%)	31016 (12%)
	Population < 50,000	1152 (4.6%)	57597 (22.2%)
	Remote	564 (2.3%)	2815 (1.1%)
Plan management	Agency Managed	13910 (55.9%)	137398 (53%)
	Plan Managed Partly	5577 (22.4%)	56125 (21.6%)
	Self-Managed Fully	3047 (12.2%)	37532 (14.5%)
	Self-Managed Partly	2343 (9.4%)	28333 (10.9%)

Disability	ABI	980 (3.9%)	9082 (3.5%)
	Autism	5466 (22%)	84089 (32.4%)
	Cerebral Palsy	997 (4%)	12449 (4.8%)
	Developmental delay	770 (3.1%)	10172 (3.9%)
	Down Syndrome	643 (2.6%)	9164 (3.5%)
	Global developmental delay	385 (1.5%)	3371 (1.3%)
	Hearing Impairment	2775 (11.2%)	8076 (3.1%)
	Intellectual Disability	4039 (16.2%)	57149 (22%)
	Multiple Sclerosis	601 (2.4%)	5417 (2.1%)
	Psychosocial disability	2834 (11.4%)	22646 (8.7%)
	Spinal Cord Injury	436 (1.8%)	3436 (1.3%)
	Stroke	778 (3.1%)	3408 (1.3%)
	Visual Impairment	992 (4%)	5757 (2.2%)
	Other Neurological	1430 (5.7%)	11688 (4.5%)
	Other Physical	1554 (6.2%)	10712 (4.1%)
	Other Sensory/Speech	141 (0.6%)	2417 (0.9%)
	Other	66 (0.3%)	428 (0.2%)
Support Coordination	Yes	10684 (42.9%)	102721 (39.6%)

D3.2 Description of ATSI Inequality for All Participants' First Plans

Variable	Category	ATSI N (%)	Not ATSI N (%)
All Participants	proportion	16950 (5.8%)	273197 (94.2%)
Age	0 to 6	2020 (11.9%)	28207 (10.3%)
	07 to 14	5194 (30.6%)	70548 (25.8%)
	15 to 18	1751 (10.3%)	21083 (7.7%)
	19 to 24	1909 (11.3%)	25891 (9.5%)
	25 to 34	1717 (10.1%)	26797 (9.8%)
	35 to 44	1429 (8.4%)	24734 (9.1%)
	45 to 54	1487 (8.8%)	30903 (11.3%)
	55 to 64	1200 (7.1%)	35258 (12.9%)
	65+	243 (1.4%)	9776 (3.6%)
Gender	F	5954 (35.1%)	101896 (37.3%)
	M	10883 (64.2%)	168326 (61.6%)
	U	113 (0.7%)	2975 (1.1%)
Normalised Disability Severity	1-5	4364 (25.7%)	63948 (23.4%)
	6-10	7723 (45.6%)	123359 (45.2%)
	11-15	4863 (28.7%)	85890 (31.4%)
Entry - previous service use	New	6349 (37.5%)	96716 (35.4%)
	Commonwealth	1308 (7.7%)	27290 (10%)
	State	9293 (54.8%)	149191 (54.6%)
Ever lived in SIL	Yes	1283 (7.6%)	22051 (8.1%)
Ever lived in SDA	Yes	705 (4.2%)	16194 (5.9%)
Remoteness	Major Cities	7315 (43.2%)	186894 (68.4%)
	Population > 50,000	2836 (16.7%)	29586 (10.8%)
	Population < 50,000	5115 (30.2%)	54583 (20%)
	Remote	1669 (9.8%)	2089 (0.8%)
Plan management	Agency Managed	10970 (64.7%)	144114 (52.8%)
	Plan Managed Partly	3557 (21%)	58312 (21.3%)
	Self-Managed Fully	1035 (6.1%)	39890 (14.6%)
	Self-Managed Partly	1387 (8.2%)	30793 (11.3%)

Disability	ABI	770 (4.5%)	9502 (3.5%)
	Autism	4987 (29.4%)	86444 (31.6%)
	Cerebral Palsy	800 (4.7%)	12890 (4.7%)
	Developmental delay	949 (5.6%)	10047 (3.7%)
	Down Syndrome	312 (1.8%)	9663 (3.5%)
	Global developmental delay	367 (2.2%)	3498 (1.3%)
	Hearing Impairment	424 (2.5%)	10572 (3.9%)
	Intellectual Disability	4537 (26.8%)	58007 (21.2%)
	Multiple Sclerosis	78 (0.5%)	6109 (2.2%)
	Psychosocial disability	1576 (9.3%)	24382 (8.9%)
	Spinal Cord Injury	202 (1.2%)	3774 (1.4%)
	Stroke	256 (1.5%)	3982 (1.5%)
	Visual Impairment	246 (1.5%)	6627 (2.4%)
	Other Neurological	559 (3.3%)	12926 (4.7%)
	Other Physical	645 (3.8%)	11937 (4.4%)
	Other Sensory/Speech	217 (1.3%)	2349 (0.9%)
	Other	24 (0.1%)	484 (0.2%)
Support Coordination	Yes	8349 (49.3%)	106883 (39.1%)

D3.3 Description of low-SES Inequality for All Participants' First Plans

Variable	Category	IRSD N (%)	Not IRSD N (%)
All Participants	proportion	103765 (35.8%)	186198 (64.2%)
Age	0 to 6	10219 (9.8%)	19977 (10.7%)
	07 to 14	25336 (24.4%)	50376 (27.1%)
	15 to 18	7995 (7.7%)	14825 (8%)
	19 to 24	10421 (10%)	17362 (9.3%)
	25 to 34	10669 (10.3%)	17828 (9.6%)
	35 to 44	9838 (9.5%)	16299 (8.8%)
	45 to 54	12119 (11.7%)	20248 (10.9%)
	55 to 64	13670 (13.2%)	22767 (12.2%)
	65+	3498 (3.4%)	6516 (3.5%)
Gender	F	38221 (36.8%)	69566 (37.4%)
	M	64457 (62.1%)	114632 (61.6%)
	U	1087 (1%)	2000 (1.1%)
Normalised Disability Severity	1-5	23446 (22.6%)	44818 (24.1%)
	6-10	48156 (46.4%)	82837 (44.5%)
	11-15	32163 (31%)	58543 (31.4%)
Entry - previous service use	Commonwealth	10188 (9.8%)	18400 (9.9%)
	New	35742 (34.4%)	67226 (36.1%)
	State	57835 (55.7%)	100572 (54%)
Ever lived in SIL	Yes	8586 (8.3%)	14733 (7.9%)
Ever lived in SDA	Yes	6167 (5.9%)	10729 (5.8%)
Remoteness	Major Cities	53937 (52%)	140178 (75.3%)
	Population > 50,000	13423 (12.9%)	18969 (10.2%)
	Population < 50,000	34456 (33.2%)	25221 (13.5%)
	Remote	1948 (1.9%)	1807 (1%)
Plan management	Agency Managed	63742 (61.4%)	91251 (49%)
	Plan Managed Partly	21941 (21.1%)	39886 (21.4%)
	Self-Managed Fully	8721 (8.4%)	32178 (17.3%)
	Self-Managed Partly	9341 (9%)	22814 (12.3%)

Disability	ABI	3927 (3.8%)	6335 (3.4%)
	Autism	30321 (29.2%)	61069 (32.8%)
	Cerebral Palsy	4635 (4.5%)	9052 (4.9%)
	Developmental delay	4201 (4%)	6782 (3.6%)
	Down Syndrome	3233 (3.1%)	6736 (3.6%)
	Global developmental delay	1480 (1.4%)	2380 (1.3%)
	Hearing Impairment	3480 (3.4%)	7510 (4%)
	Intellectual Disability	25241 (24.3%)	37266 (20%)
	Multiple Sclerosis	1730 (1.7%)	4453 (2.4%)
	Psychosocial disability	9628 (9.3%)	16305 (8.8%)
	Spinal Cord Injury	1272 (1.2%)	2700 (1.5%)
	Stroke	1680 (1.6%)	2558 (1.4%)
	Other Neurological	4632 (4.5%)	8841 (4.7%)
	Other Physical	4777 (4.6%)	7794 (4.2%)
	Other Sensory/Speech	934 (0.9%)	1630 (0.9%)
	Other	187 (0.2%)	321 (0.2%)
	Visual Impairment	2405 (2.3%)	4463 (2.4%)
Support Coordination	Yes	41939 (40.4%)	73209 (39.3%)

D4.1 Description of CALD Inequality for Adults with Psychosocial Disability' First Plans

Variable	Category	CALD	Non-CALD
Total	proportion	2820 (11%)	22267 (87.1%)
Age	19 to 24	66 (2.3%)	983 (4.4%)
	25 to 34	322 (11.4%)	3120 (14%)
	35 to 44	606 (21.5%)	5161 (23.2%)
	45 to 54	811 (28.8%)	6446 (28.9%)
	55 to 64	838 (29.7%)	5465 (24.5%)
	65+	177 (6.3%)	1092 (4.9%)
Gender	F	1392 (49.4%)	10662 (47.9%)
	M	1407 (49.9%)	11419 (51.3%)
	U	21 (0.7%)	186 (0.8%)
Normalised Disability Severity	1-5	97 (3.4%)	882 (4%)
	6-10	1774 (62.9%)	14925 (67%)
	11-15	949 (33.7%)	6460 (29%)
Entry - previous service use	New	830 (29.4%)	6180 (27.8%)
	Commonwealth	659 (23.4%)	4550 (20.4%)
	State	1331 (47.2%)	11537 (51.8%)
Ever lived in SIL	yes	210 (7.4%)	1813 (8.1%)
Ever lived in SDA	yes	71 (2.5%)	759 (3.4%)
Remoteness	Major Cities	2497 (88.5%)	15328 (68.8%)
	Population > 50,000	114 (4%)	2414 (10.8%)
	Population < 50,000	135 (4.8%)	4372 (19.6%)
	Remote	70 (2.5%)	149 (0.7%)
Plan management	Agency Managed	1788 (63.4%)	13502 (60.6%)
	Plan Managed Partly	868 (30.8%)	7305 (32.8%)
	Self-Managed Fully	43 (1.5%)	400 (1.8%)
	Self-Managed Partly	120 (4.3%)	1050 (4.7%)
Support Coordination	Yes	2255 (80%)	17241 (77.4%)

D4.2 Description of ATSI Inequality for Adults with Psychosocial Disability' First Plans

Variable	Category	ATSI	Non-ATSI
Total	proportion	1521 (6%)	24040 (94%)
Age	19 to 24	126 (8.3%)	935 (3.9%)
	25 to 34	338 (22.2%)	3164 (13.2%)
	35 to 44	410 (27%)	5442 (22.6%)
	45 to 54	407 (26.8%)	6996 (29.1%)
	55 to 64	213 (14%)	6223 (25.9%)
	65+	27 (1.8%)	1280 (5.3%)
Gender	F	681 (44.8%)	11635 (48.4%)
	M	834 (54.8%)	12204 (50.8%)
	U	DEL (NA%)	201 (0.8%)
Normalised Disability Severity	1-5	66 (4.3%)	929 (3.9%)
	6-10	1019 (67%)	16021 (66.6%)
	11-15	441 (28.7%)	7090 (29.5%)
Entry - previous service use	New	515 (33.9%)	6905 (28.7%)
	Commonwealth	322 (21.2%)	4901 (20.4%)
	State	684 (45%)	12234 (50.9%)
Ever lived in SIL	yes	162 (10.7%)	1875 (7.8%)
Ever lived in SDA	yes	57 (3.7%)	780 (3.2%)
Remoteness	Major Cities	771 (50.7%)	17404 (72.4%)
	Population > 50,000	252 (16.6%)	2282 (9.5%)
	Population < 50,000	359 (23.6%)	4253 (17.7%)
	Remote	139 (9.1%)	93 (0.4%)
Plan management	Agency Managed	1042 (68.5%)	14643 (60.9%)
	Plan Managed Partly	401 (26.4%)	7790 (32.4%)
	Self-Managed Fully	DEL (NA%)	443 (1.8%)
	Self-Managed Partly	64 (4.2%)	1153 (4.8%)
Support Coordination	Yes	1257 (82.6%)	18512 (77%)

D4.3 Description of low-SES Inequality for Adults with Psychosocial Disability' First Plans

Variable	Category	Disadvantaged	Not disadvantaged
Total	proportion	9474 (37.1%)	16062 (62.8%)
Age	19 to 24	427 (4.5%)	631 (3.9%)
	25 to 34	1329 (14%)	2171 (13.5%)
	35 to 44	2203 (23.3%)	3641 (22.7%)
	45 to 54	2747 (29%)	4649 (28.9%)
	55 to 64	2314 (24.4%)	4117 (25.6%)
	65+	454 (4.8%)	853 (5.3%)
Gender	F	4482 (47.3%)	7821 (48.7%)
	M	4908 (51.8%)	8118 (50.5%)
	U	84 (0.9%)	123 (0.8%)
Normalised Disability Severity	1-5	383 (4%)	611 (3.8%)
	6-10	6294 (66.4%)	10729 (66.8%)
	11-15	2797 (29.5%)	4722 (29.4%)
Entry - previous service use	New	2712 (28.6%)	4693 (29.2%)
	Commonwealth	2038 (21.5%)	3183 (19.8%)
	State	4724 (49.9%)	8186 (51%)
Ever lived in SIL	yes	715 (7.5%)	1319 (8.2%)
Ever lived in SDA	yes	326 (3.4%)	511 (3.2%)
Remoteness	Major Cities	5258 (55.5%)	12903 (80.3%)
	Population > 50,000	1290 (13.6%)	1238 (7.7%)
	Population < 50,000	2776 (29.3%)	1835 (11.4%)
	Remote	150 (1.6%)	81 (0.5%)
Plan management	Agency Managed	6267 (66.2%)	9408 (58.6%)
	Plan Managed Partly	2751 (29%)	5427 (33.8%)
	Self-Managed Fully	113 (1.2%)	344 (2.1%)
	Self-Managed Partly	341 (3.6%)	874 (5.4%)
Support Coordination	Yes	7011 (74%)	12737 (79.3%)

D5.1 Description of CALD Inequality for Adults with Intellectual Disability' First Plans

Variable	Category	CALD	Non-CALD
Total	proportion	2655 (6%)	40902 (92%)
Age	19 to 24	744 (28%)	9416 (23%)
	25 to 34	632 (23.8%)	9577 (23.4%)
	35 to 44	495 (18.6%)	7029 (17.2%)
	45 to 54	406 (15.3%)	7178 (17.5%)
	55 to 64	319 (12%)	6303 (15.4%)
	65+	59 (2.2%)	1399 (3.4%)
Gender	F	1198 (45.1%)	17964 (43.9%)
	M	1438 (54.2%)	22625 (55.3%)
	U	19 (0.7%)	313 (0.8%)
Normalised Disability Severity	1-5	212 (8%)	3631 (8.9%)
	6-10	1342 (50.5%)	21987 (53.8%)
	11-15	1101 (41.5%)	15284 (37.4%)
Entry - previous service use	New	602 (22.7%)	5247 (12.8%)
	Commonwealth	260 (9.8%)	4024 (9.8%)
	State	1793 (67.5%)	31631 (77.3%)
Ever lived in SIL	yes	347 (13.1%)	10598 (25.9%)
Ever lived in SDA	yes	260 (9.8%)	8251 (20.2%)
Remoteness	Major Cities	2304 (86.8%)	25594 (62.6%)
	Population > 50,000	140 (5.3%)	4794 (11.7%)
	Population < 50,000	122 (4.6%)	10103 (24.7%)
	Remote	87 (3.3%)	401 (1%)
Plan management	Agency Managed	1878 (70.8%)	28280 (69.2%)
	Plan Managed Partly	518 (19.5%)	8524 (20.8%)
	Self-Managed Fully	100 (3.8%)	1431 (3.5%)
	Self-Managed Partly	156 (5.9%)	2652 (6.5%)

Variable	Category	CALD	Non-CALD
Support Coordination	yes	1467 (55.3%)	22950 (56.1%)

D5.2 Description of ATSI Inequality for Adults with Intellectual Disability' First Plans

Variable	Category	ATSI	Non-ATSI
Total	proportion	2590 (5.8%)	41873 (94.2%)
Age	19 to 24	947 (36.6%)	9448 (22.6%)
	25 to 34	731 (28.2%)	9728 (23.2%)
	35 to 44	386 (14.9%)	7287 (17.4%)
	45 to 54	309 (11.9%)	7422 (17.7%)
	55 to 64	190 (7.3%)	6539 (15.6%)
	65+	27 (1%)	1449 (3.5%)
Gender	F	1092 (42.2%)	18467 (44.1%)
	M	1483 (57.3%)	23089 (55.1%)
	U	DEL (0.6%)	317 (0.8%)
Normalised Disability Severity	1-5	296 (11.4%)	3589 (8.6%)
	6-10	1577 (60.9%)	22230 (53.1%)
	11-15	717 (27.7%)	16054 (38.3%)
Entry - previous service use	New	507 (19.6%)	5495 (13.1%)
	Commonwealth	161 (6.2%)	4127 (9.9%)
	State	1922 (74.2%)	32251 (77%)
Ever lived in SIL	yes	537 (20.7%)	10609 (25.3%)
Ever lived in SDA	yes	307 (11.9%)	8280 (19.8%)
Remoteness	Major Cities	1054 (40.7%)	27521 (65.7%)
	Population > 50,000	431 (16.6%)	4527 (10.8%)
	Population < 50,000	818 (31.6%)	9568 (22.9%)
	Remote	283 (10.9%)	249 (0.6%)
Plan management	Agency Managed	1957 (75.6%)	28890 (69%)
	Plan Managed Partly	476 (18.4%)	8589 (20.5%)
	Self-Managed Fully	41 (1.6%)	1520 (3.6%)
	Self-Managed Partly	115 (4.4%)	2857 (6.8%)
Support Coordination	yes	1721 (66.4%)	23054 (55.1%)

D5.3 Description of low-SES Inequality for Adults with Intellectual Disability' First Plans

Variable	Category	Disadvantaged	Not Disadvantaged
Total	proportion	18285 (41.1%)	26156 (58.8%)
Age	19 to 24	4355 (23.8%)	6035 (23.1%)
	25 to 34	4258 (23.3%)	6194 (23.7%)
	35 to 44	3237 (17.7%)	4432 (16.9%)
	45 to 54	3157 (17.3%)	4570 (17.5%)
	55 to 64	2722 (14.9%)	4006 (15.3%)
	65+	556 (3%)	919 (3.5%)
Gender	F	7942 (43.4%)	11608 (44.4%)
	M	10190 (55.7%)	14369 (54.9%)
	U	153 (0.8%)	179 (0.7%)
Normalised Disability Severity	1-5	1792 (9.8%)	2090 (8%)
	6-10	10288 (56.3%)	13504 (51.6%)
	11-15	6205 (33.9%)	10563 (40.4%)
Entry - previous service use	New	2558 (14%)	3437 (13.1%)
	Commonwealth	1985 (10.9%)	2302 (8.8%)
	State	13742 (75.2%)	20417 (78.1%)
Ever lived in SIL	yes	4231 (23.1%)	6909 (26.4%)
Ever lived in SDA	yes	3184 (17.4%)	5403 (20.7%)
Remoteness	Major Cities	8940 (48.9%)	19623 (75%)
	Population > 50,000	2449 (13.4%)	2507 (9.6%)
	Population < 50,000	6608 (36.1%)	3777 (14.4%)
	Remote	288 (1.6%)	244 (0.9%)
Plan management	Agency Managed	13523 (74%)	17305 (66.2%)
	Plan Managed Partly	3450 (18.9%)	5614 (21.5%)
	Self-Managed Fully	391 (2.1%)	1170 (4.5%)
	Self-Managed Partly	917 (5%)	2053 (7.9%)

Variable	Category	Disadvantaged	Not Disadvantaged
Support Coordination	yes	9921 (54.3%)	14842 (56.7%)

D6.1 Description of CALD Inequality for Children with Autism' First Plans

Variable	Category	CALD	Non-CALD
Total	proportion	3314 (5.4%)	56558 (92.4%)
Age	07 to 14	2767 (83.5%)	45092 (79.7%)
	15 to 18	547 (16.5%)	11466 (20.3%)
Gender	F	633 (19.1%)	13125 (23.2%)
	M	2637 (79.6%)	42431 (75%)
	U	44 (1.3%)	1002 (1.8%)
Normalised Disability Severity	1-5	622 (18.8%)	12946 (22.9%)
	6-10	1480 (44.7%)	30980 (54.8%)
	11-15	1212 (36.6%)	12632 (22.3%)
Entry - previous service use	New	1233 (37.2%)	24584 (43.5%)
	Commonwealth	545 (16.4%)	8483 (15%)
	State	1536 (46.3%)	23491 (41.5%)
Ever lived in SIL	yes	DEL (NA%)	134 (0.2%)
Ever lived in SDA	yes	DEL (NA%)	24 (0%)
Remoteness	Major Cities	3065 (92.5%)	37452 (66.2%)
	Population > 50,000	134 (4%)	6714 (11.9%)
	Population < 50,000	101 (3%)	11803 (20.9%)
	Remote	DEL (NA%)	584 (1%)
Plan management	Agency Managed	1655 (49.9%)	25185 (44.5%)
	Plan Managed Partly	538 (16.2%)	9964 (17.6%)
	Self-Managed Fully	788 (23.8%)	14743 (26.1%)
	Self-Managed Partly	333 (10%)	6661 (11.8%)
Support Coordination	Yes	787 (23.7%)	12919 (22.8%)

D6.2 Description of ATSI Inequality for Children with Autism' First Plans

Variable	Category	ATSI	Non-ATSI
Total	proportion	3566 (5.8%)	57627 (94.2%)
Age	07 to 14	2843 (79.7%)	46007 (79.8%)
	15 to 18	723 (20.3%)	11620 (20.2%)
Gender	F	795 (22.3%)	13251 (23%)
	M	2734 (76.7%)	43367 (75.3%)
	U	37 (1%)	1009 (1.8%)
Normalised Disability Severity	1-5	746 (20.9%)	13228 (23%)
	6-10	1920 (53.8%)	31082 (53.9%)
	11-15	900 (25.2%)	13317 (23.1%)
Ever lived in SIL	yes	DEL (NA%)	135 (0.2%)
Ever lived in SDA	yes	DEL (NA%)	23 (0%)
Entry - previous service use	New	1474 (41.3%)	25219 (43.8%)
	Commonwealth	381 (10.7%)	8673 (15.1%)
	State	1711 (48%)	23735 (41.2%)
Remoteness	Major Cities	1672 (46.9%)	39838 (69.1%)
	Population > 50,000	548 (15.4%)	6340 (11%)
	Population < 50,000	1185 (33.2%)	10898 (18.9%)
	Remote	160 (4.5%)	545 (0.9%)
Plan management	Agency Managed	2018 (56.6%)	25700 (44.6%)
	Plan Managed Partly	724 (20.3%)	9798 (17%)
	Self-Managed Fully	439 (12.3%)	15214 (26.4%)
	Self-Managed Partly	385 (10.8%)	6910 (12%)
Support Coordination	Yes	1114 (31.2%)	12804 (22.2%)

D6.3 Description of low-SES Inequality for Children with Autism' First Plans

Variable	Category	Disadvantaged	Not disadvantaged
Total	proportion	19926 (32.6%)	41246 (67.4%)
Age	07 to 14	15810 (79.3%)	33024 (80.1%)
	15 to 18	4116 (20.7%)	8222 (19.9%)
Gender	F	4512 (22.6%)	9532 (23.1%)
	M	15090 (75.7%)	30992 (75.1%)
	U	324 (1.6%)	722 (1.8%)
Normalised Disability Severity	1-5	4280 (21.5%)	9690 (23.5%)
	6-10	10901 (54.7%)	22089 (53.6%)
	11-15	4745 (23.8%)	9467 (23%)
Entry - previous service use	New	8511 (42.7%)	18170 (44.1%)
	Commonwealth	2724 (13.7%)	6327 (15.3%)
	State	8691 (43.6%)	16749 (40.6%)
Ever lived in SIL	yes	44 (0.2%)	104 (0.3%)
Ever lived in SDA	yes	DEL (NA%)	16 (0%)
Remoteness	Major Cities	10662 (53.5%)	30837 (74.8%)
	Population > 50,000	2390 (12%)	4496 (10.9%)
	Population < 50,000	6566 (33%)	5514 (13.4%)
	Remote	307 (1.5%)	397 (1%)
Plan management	Agency Managed	10927 (54.8%)	16783 (40.7%)
	Plan Managed Partly	3722 (18.7%)	6795 (16.5%)
	Self-Managed Fully	3233 (16.2%)	12415 (30.1%)
	Self-Managed Partly	2044 (10.3%)	5248 (12.7%)
Support Coordination	yes	4728 (23.7%)	9188 (22.3%)

Appendix 2 – Inequality Results

I1.1 CALD inequalities in all supports, all 2016 entrants

Year	Plan (all CALD)	Plan (none CALD)	Paid (all CALD)	Paid (none CALD)	Util (all CALD)	Util (none CALD)
1	$39497 (38276, 40789)	$41600 (41117, 42042)	$21297 (20357, 22265)	$22189 (21838, 22562)	50.8% (49.5, 51.9)	50.5% (50.2, 50.9)
2	$52480 (51159, 53762)	$52004 (51492, 52456)	$34330 (33321, 35469)	$33265 (32865, 33671)	60.0% (59.1, 60.9)	59.3% (59.0, 59.5)
3	$62174 (60737, 63720)	$62905 (62393, 63603)	$47924 (46546, 49333)	$46177 (45655, 46787)	70.1% (69.3, 71.0)	66.9% (66.7, 67.2)
4	$80739 (78222, 83806)	$78787 (77737, 79763)	$64439 (61760, 67238)	$60188 (59143, 60970)	72.5% (71.4, 73.6)	69.6% (69.3, 69.9)

I1.2 ATSI inequalities in all supports, all 2016 entrants

Year	Plan (all ATSI)	Plan (none ATSI)	Paid (all ATSI)	Paid (none ATSI)	Util (all ATSI)	Util (none ATSI)
1	$44959 (42509, 48399)	$41202 (40635, 41680)	$23717 (22343, 25066)	$22007 (21693, 22386)	49.0% (47.3, 50.9)	50.7% (50.3, 51.0)
2	$55813 (54132, 57659)	$51836 (51358, 52329)	$34457 (33051, 35793)	$33295 (32945, 33717)	56.2% (55.2, 57.2)	59.6% (59.3, 59.8)
3	$67149 (65017, 69266)	$62569 (62075, 63134)	$46268 (44525, 47948)	$46269 (45768, 46872)	61.4% (60.5, 62.7)	67.5% (67.3, 67.8)
4	$88319 (83866, 93098)	$78503 (77479, 79466)	$64443 (60581, 68316)	$60300 (59377, 61348)	64.5% (62.8, 66.1)	70.2% (69.9, 70.5)

I1.3 Low-SES inequalities in all supports, all 2016 entrants

Year	Plan (all Low SES)	Plan (none Low SES)	Paid (all Low SES)	Paid (none Low SES)	Util (all Low SES)	Util (none Low SES)
1	$42091 (41364, 42909)	$41117 (40538, 41743)	$22287 (21840, 22897)	$22070 (21666, 22492)	49.7% (49.1, 50.2)	51.0% (50.6, 51.5)
2	$51165 (50554, 51727)	$52507 (52012, 52982)	$32515 (31964, 33037)	$33821 (33403, 34266)	58.2% (57.8, 58.6)	60.0% (59.6, 60.3)
3	$61742 (60843, 62663)	$63446 (62809, 64108)	$44900 (44168, 45715)	$46990 (46455, 47617)	66.0% (65.6, 66.4)	67.8% (67.5, 68.1)
4	$77157 (75845, 78992)	$79895 (78875, 81259)	$58795 (57513, 60379)	$61291 (60346, 62601)	69.0% (68.4, 69.5)	70.3% (69.9, 70.6)

I2.1 CALD inequalities in capacity building supports, all 2016 entrants

Year	Plan (all CALD)	Plan (none CALD)	Paid (all CALD)	Paid (none CALD)	Util (all CALD)	Util (none CALD)

1	$10051 (9757, 10348)	$10139 (10065, 10229)	$5473 (5268, 5682)	$5296 (5248, 5346)	54.2% (52.8, 55.4)	52.2% (51.8, 52.5)
2	$11363 (11172, 11596)	$11201 (11135, 11265)	$6916 (6748, 7053)	$6502 (6456, 6543)	60.8% (59.9, 61.7)	58.2% (57.9, 58.5)
3	$12231 (12034, 12469)	$11948 (11889, 12011)	$8034 (7883, 8209)	$7510 (7457, 7552)	65.8% (64.9, 66.6)	63.0% (62.7, 63.3)
4	$12692 (12342, 12977)	$12786 (12682, 12904)	$8599 (8340, 8827)	$8220 (8136, 8299)	67.5% (66.4, 68.8)	64.5% (64.1, 64.8)

I2.2 ATSI inequalities in capacity building supports, all 2016 entrants

Year	Plan (all ATSI)	Plan (none ATSI)	Paid (all ATSI)	Paid (none ATSI)	Util (all ATSI)	Util (none ATSI)
1	$11450 (11110, 11823)	$10058 (9975, 10135)	$5343 (5126, 5547)	$5303 (5255, 5350)	46.9% (45.5, 48.3)	52.6% (52.3, 53.0)
2	$12794 (12499, 13069)	$11135 (11064, 11209)	$6711 (6514, 6903)	$6530 (6481, 6577)	52.6% (51.7, 53.6)	58.7% (58.4, 58.9)
3	$13400 (13058, 13773)	$11894 (11832, 11959)	$7369 (7179, 7582)	$7561 (7516, 7602)	55.3% (54.1, 56.4)	63.7% (63.5, 64.0)
4	$14811 (14020, 15351)	$12669 (12582, 12773)	$8218 (7837, 8563)	$8239 (8166, 8318)	55.8% (54.2, 57.3)	65.1% (64.8, 65.4)

I2.3 Low-SES inequalities in capacity building supports, all 2016 entrants

Year	Plan (all Low SES)	Plan (none Low SES)	Paid (all Low SES)	Paid (none Low SES)	Util (all Low SES)	Util (none Low SES)
1	$10200 (10091, 10335)	$10096 (9992, 10195)	$5197 (5125, 5281)	$5356 (5295, 5423)	50.9% (50.4, 51.6)	53.0% (52.5, 53.5)
2	$11230 (11128, 11335)	$11206 (11132, 11279)	$6351 (6282, 6428)	$6629 (6566, 6680)	56.7% (56.3, 57.0)	59.2% (58.9, 59.5)
3	$11901 (11828, 12002)	$12005 (11928, 12080)	$7351 (7286, 7422)	$7650 (7592, 7711)	62.0% (61.6, 62.4)	63.9% (63.6, 64.2)
4	$12590 (12438, 12769)	$12871 (12759, 12987)	$7976 (7859, 8109)	$8378 (8294, 8460)	63.5% (63.0, 64.1)	65.2% (64.8, 65.7)

I3.1 CALD inequalities in core supports, all 2016 entrants

Year	Plan (all CALD)	Plan (none CALD)	Paid (all CALD)	Paid (none CALD)	Util (all CALD)	Util (none CALD)
1	$38532 (36977, 40275)	$40803 (40189, 41322)	$22697 (21554, 23914)	$23440 (22959, 23836)	52.1% (50.5, 53.9)	51.8% (51.2, 52.3)
2	$53955 (52199, 55860)	$52351 (51770, 53004)	$38507 (36823, 40166)	$36077 (35580, 36613)	62.3% (61.1, 63.6)	61.6% (61.2, 62.0)
3	$61985 (59852, 63748)	$63110 (62395, 63814)	$51592 (49740, 53264)	$49437 (48752, 50105)	73.4% (72.3, 74.6)	69.8% (69.5, 70.2)
4	$80181 (76709, 83912)	$77348 (76137, 78720)	$67610 (63728, 71078)	$62154 (60839, 63398)	75.0% (73.7, 76.8)	72.8% (72.4, 73.3)

I3.2 ATSI inequalities in core supports, all 2016 entrants

Year	Plan (all ATSI)	Plan (none ATSI)	Paid (all ATSI)	Paid (none ATSI)	Util (all ATSI)	Util (none ATSI)
1	$44829 (41954, 49593)	$40349 (39781, 40887)	$25919 (24271, 27763)	$23167 (22701, 23644)	53.1% (50.5, 55.5)	51.7% (51.2, 52.2)
2	$56949 (54357, 59440)	$52258 (51614, 52880)	$38899 (36788, 40919)	$36115 (35561, 36697)	61.2% (59.7, 62.5)	61.8% (61.4, 62.1)
3	$67225 (64639, 70192)	$62863 (62138, 63612)	$50740 (48064, 53518)	$49565 (48879, 50319)	66.6% (65.1, 68.0)	70.4% (70.0, 70.7)
4	$86884 (81184, 94110)	$77117 (75744, 78409)	$67372 (62177, 74062)	$62258 (61062, 63508)	69.7% (67.6, 71.6)	73.2% (72.8, 73.7)

I3.3 Low-SES inequalities in core supports, all 2016 entrants

Year	Plan (all Low SES)	Plan (none Low SES)	Paid (all Low SES)	Paid (none Low SES)	Util (all Low SES)	Util (none Low SES)
1	$41869 (40960, 42823)	$39951 (39330, 40592)	$24005 (23259, 24733)	$22995 (22466, 23460)	51.6% (50.7, 52.4)	51.8% (51.3, 52.5)
2	$51463 (50633, 52173)	$52927 (52266, 53687)	$35395 (34642, 36115)	$36589 (35974, 37225)	61.3% (60.6, 61.8)	61.9% (61.5, 62.4)
3	$62018 (60983, 63065)	$63687 (62786, 64584)	$48309 (47202, 49273)	$50349 (49542, 51116)	69.4% (68.9, 70.0)	70.5% (70.1, 70.9)
4	$75863 (74014, 77860)	$78331 (76894, 79620)	$61020 (59252, 63143)	$63283 (61954, 64566)	72.3% (71.4, 73.1)	73.4% (72.8, 73.9)

I4.1 CALD inequalities in capital supports, all 2016 entrants

Year	Plan (all CALD)	Plan (none CALD)	Paid (all CALD)	Paid (none CALD)	Util (all CALD)	Util (none CALD)
1	$5600 (5023, 6373)	$6530 (6266, 6801)	$3368 (2849, 4019)	$3985 (3781, 4173)	63.2% (56.6, 68.1)	61.9% (59.8, 63.7)
2	$8521 (8005, 9139)	$9578 (9337, 9755)	$5072 (4712, 5543)	$5888 (5715, 6070)	59.7% (56.2, 62.7)	62.0% (60.9, 63.3)
3	$9632 (8939, 10295)	$10655 (10422, 10848)	$6841 (6242, 7484)	$7597 (7405, 7772)	70.5% (67.7, 73.4)	71.3% (70.4, 72.2)
4	$10987 (9912, 12202)	$11839 (11506, 12188)	$8079 (7200, 8944)	$8744 (8430, 9028)	72.8% (69.6, 76.1)	73.8% (72.5, 74.9)

I4.2 CALD inequalities in capital supports, all 2016 entrants

Year	Plan (all ATSI)	Plan (none ATSI)	Paid (all ATSI)	Paid (none ATSI)	Util (all ATSI)	Util (none ATSI)
1	$6736 (5626, 8033)	$6443 (6215, 6693)	$3977 (3101, 5232)	$3918 (3733, 4128)	62.0% (54.0, 69.2)	61.6% (60.2, 63.5)
2	$8885 (7997, 9704)	$9511 (9287, 9765)	$5572 (4996, 6192)	$5826 (5666, 5996)	62.7% (58.1, 67.5)	61.7% (60.5, 62.8)
3	$11222 (10319, 12439)	$10501 (10277, 10710)	$7551 (6755, 8499)	$7502 (7333, 7668)	68.1% (63.4, 71.8)	71.4% (70.6, 72.3)
4	$12562 (10964, 14271)	$11702 (11383, 12044)	$9279 (7750, 10845)	$8622 (8372, 8927)	72.7% (67.4, 77.4)	73.7% (72.6, 74.7)

I4.3 CALD inequalities in capital supports, all 2016 entrants

Year	Plan (all Low SES)	Plan (none Low SES)	Paid (all Low SES)	Paid (none Low SES)	Util (all Low SES)	Util (none Low SES)
1	$6214 (5827, 6610)	$6540 (6301, 6871)	$3665 (3403, 3971)	$4048 (3844, 4256)	60.6% (57.4, 63.3)	62.4% (60.3, 64.9)
2	$9251 (8916, 9705)	$9563 (9294, 9842)	$5801 (5486, 6184)	$5786 (5626, 5960)	63.0% (60.7, 64.8)	61.2% (59.7, 62.8)
3	$10524 (10169, 10985)	$10570 (10274, 10840)	$7407 (7103, 7797)	$7576 (7328, 7831)	70.5% (69.1, 72.0)	71.7% (70.6, 72.8)
4	$11591 (11028, 12137)	$11825 (11399, 12177)	$8381 (7983, 8870)	$8771 (8426, 9110)	72.6% (70.8, 74.1)	74.1% (72.8, 75.3)

I5.1 CALD inequalities in all supports, 2016 entrants living in rural areas

Year	Plan (all CALD)	Plan (none CALD)	Paid (all CALD)	Paid (none CALD)	Util (all CALD)	Util (none CALD)
1	$41646 (35862, 47939)	$40961 (39900, 42208)	$19274 (15645, 23039)	$20865 (20082, 21746)	40.9% (36.0, 45.6)	47.9% (47.0, 48.7)
2	$59627 (53985, 65621)	$50968 (49878, 52286)	$34157 (29145, 40100)	$31247 (30296, 32353)	51.7% (48.2, 55.6)	56.2% (55.4, 56.8)
3	$77276 (70392, 87330)	$59679 (58332, 61129)	$47808 (41343, 57062)	$42248 (40934, 43573)	54.4% (50.2, 59.5)	63.8% (63.3, 64.4)
4	$81688 (67800, 99176)	$75152 (72625, 77536)	$53320 (38409, 75643)	$55180 (52848, 57387)	57.5% (49.8, 65.4)	65.4% (64.6, 66.3)

I5.1 ATSI inequalities in all supports, 2016 entrants living in rural areas

Year	Plan (all ATSI)	Plan (none ATSI)	Paid (all ATSI)	Paid (none ATSI)	Util (all ATSI)	Util (none ATSI)
1	$45871 (40451, 52603)	$40580 (39356, 41482)	$21121 (19051, 23523)	$20854 (19948, 21574)	43.7% (40.7, 46.3)	48.3% (47.4, 49.1)
2	$52506 (49764, 55746)	$51000 (49709, 52040)	$29925 (27829, 32614)	$31473 (30378, 32326)	50.9% (49.2, 52.7)	56.7% (56.0, 57.3)
3	$59837 (56513, 63289)	$60132 (58735, 61502)	$38130 (35309, 41406)	$42751 (41652, 43967)	55.4% (53.3, 57.4)	64.5% (63.9, 65.1)
4	$80730 (74100, 90257)	$74789 (72369, 77469)	$54140 (47398, 64319)	$55224 (53075, 57916)	57.3% (53.7, 60.8)	66.2% (65.4, 67.0)

I5.1 Low-SES inequalities in all supports, 2016 entrants living in rural areas

Year	Plan (all Low SES)	Plan (none Low SES)	Paid (all Low SES)	Paid (none Low SES)	Util (all Low SES)	Util (none Low SES)
1	$41621 (40395, 43113)	$39925 (38638, 41526)	$20992 (20150, 21805)	$20586 (19473, 21788)	47.4% (46.4, 48.4)	48.3% (46.9, 49.5)
2	$49859 (48570, 50773)	$53117 (51659, 54803)	$29799 (28871, 30726)	$33395 (31964, 34719)	54.4% (53.6, 55.2)	58.1% (57.2, 59.0)
3	$59103 (57587, 60556)	$61609 (59695, 63502)	$41082 (39806, 42578)	$44013 (42543, 45731)	62.5% (61.8, 63.3)	64.9% (63.9, 65.8)
4	$73808 (70932, 77218)	$77335 (73326, 81042)	$53723 (50937, 56706)	$57177 (53783, 60435)	64.1% (63.1, 65.3)	66.7% (65.3, 67.9)

I6.1 CALD inequalities in all supports, by State, completed plans since scheme entry

State	Year	Plan (all CALD)	Plan (none CALD)	Paid (all CALD)	Paid (none CALD)	Util (all CALD)	Util (none CALD)
NSW	1	$36094 (35180, 36905)	$39697 (39282, 40079)	$20675 (20142, 21311)	$21037 (20745, 21298)	57.2% (56.2, 57.9)	53.2% (52.9, 53.5)
NT	1	$65017 (58831, 71349)	$61770 (58082, 66227)	$34782 (29372, 40544)	$37537 (34435, 41307)	45.9% (42.6, 50.2)	53.1% (51.3, 55.0)
QLD	1	$52783 (50919, 54569)	$54141 (53539, 54733)	$31395 (30013, 33261)	$31405 (30911, 31862)	54.7% (53.3, 56.1)	53.3% (53.0, 53.6)
SA	1	$34379 (32358, 36921)	$35254 (34370, 36111)	$18824 (17047, 21100)	$19564 (18842, 20308)	53.2% (50.7, 55.8)	53.5% (52.8, 54.1)
VIC	1	$43137 (42086, 44455)	$44188 (43696, 44594)	$23644 (22958, 24459)	$21843 (21538, 22143)	55.3% (54.5, 56.3)	49.9% (49.6, 50.2)
WA	1	$37417 (34984, 40376)	$37789 (36702, 38822)	$23984 (21940, 26463)	$24361 (23491, 25088)	60.7% (58.4, 63.2)	60.1% (59.4, 60.8)
NSW	2	$52977 (52049, 53892)	$54827 (54344, 55314)	$37460 (36569, 38359)	$36425 (36014, 36900)	65.8% (65.0, 66.5)	61.8% (61.5, 62.0)
NT	2	$120137 (109396, 133378)	$116516 (108541, 125761)	$81726 (70704, 96484)	$82916 (75995, 91228)	54.1% (50.3, 58.5)	57.6% (55.3, 59.6)
QLD	2	$62732 (59602, 66058)	$65687 (64779, 66606)	$42599 (40148, 45519)	$43763 (43072, 44533)	62.4% (60.3, 64.2)	61.9% (61.5, 62.2)
SA	2	$52272 (49690, 54815)	$50905 (49801, 51973)	$31933 (29879, 34130)	$32192 (31297, 33146)	56.8% (54.9, 58.3)	57.5% (57.0, 58.0)
VIC	2	$54998 (53418, 56684)	$53906 (53253, 54533)	$33666 (32415, 34989)	$30907 (30380, 31388)	61.2% (60.2, 62.0)	57.6% (57.3, 57.9)
WA	2	$53160 (48919, 58173)	$53048 (51281, 54764)	$38148 (34349, 43142)	$37950 (36347, 39527)	66.0% (63.4, 68.4)	65.2% (64.5, 66.2)
NSW	3	$69438 (67976, 71157)	$72098 (71228, 72903)	$56640 (54992, 58405)	$55419 (54643, 56065)	74.6% (73.8, 75.3)	69.8% (69.6, 70.1)
NT	3	$172885 (153598, 198866)	$157730 (145358, 173087)	$126985 (102931, 157417)	$116601 (104849, 132316)	57.9% (51.5, 63.8)	58.3% (55.1, 62.1)
QLD	3	$64978 (57624, 73232)	$71464 (69832, 72787)	$45826 (39536, 53937)	$49484 (47973, 50844)	64.2% (60.2, 68.0)	63.5% (62.9, 64.2)
SA	3	$29569 (27672, 31517)	$29502 (28731, 30290)	$18937 (17526, 20449)	$18579 (17934, 19287)	64.4% (61.8, 66.5)	61.9% (61.2, 62.5)
VIC	3	$60396 (57202, 63802)	$59727 (58710, 60747)	$39698 (37466, 42374)	$36954 (36226, 37793)	67.6% (65.9, 68.9)	63.2% (62.8, 63.6)
WA	3	$55167 (48749, 61808)	$58364 (55530, 61706)	$40343 (34453, 47305)	$43144 (40856, 45981)	68.5% (64.3, 72.1)	67.5% (66.0, 68.9)
NSW	4	$93049 (88850, 96561)	$89747 (87903, 91391)	$78872 (74524, 82506)	$72537 (70940, 74121)	77.0% (75.4, 78.4)	73.1% (72.7, 73.5)
SA	4	$25542 (22347, 29272)	$26288 (25195, 27554)	$16521 (14476, 19218)	$16537 (15721, 17496)	66.8% (62.9, 70.5)	63.0% (62.2, 64.3)
VIC	4	$73210 (66884, 79249)	$73934 (71360, 76484)	$47092 (42481, 52471)	$46667 (44808, 48944)	67.8% (65.2, 70.5)	65.2% (64.2, 65.9)

I6.2 ATSI inequalities in all supports, by State, completed plans since scheme entry

State	Year	Plan (all ATSI)	Plan (none ATSI)	Paid (all ATSI)	Paid (none ATSI)	Util (all ATSI)	Util (none ATSI)
NSW	1	$42015 (40807, 43480)	$39219 (38867, 39630)	$21614 (20759, 22520)	$21008 (20716, 21271)	50.6% (49.6, 51.7)	53.9% (53.6, 54.1)
NT	1	$65543 (60865, 70389)	$59537 (54946, 65373)	$36019 (32968, 39916)	$40644 (35963, 46044)	46.8% (44.4, 49.0)	57.4% (54.7, 60.1)
QLD	1	$55145 (53607, 56816)	$54074 (53443, 54725)	$30191 (28917, 31715)	$31566 (31062, 32083)	49.5% (48.6, 50.7)	53.8% (53.5, 54.1)
SA	1	$39428 (35617, 44557)	$35129 (34426, 36031)	$19233 (16456, 22850)	$19613 (19009, 20212)	47.5% (44.2, 50.2)	53.7% (53.1, 54.2)
TAS	1	$48800 (43033, 53792)	$43920 (42336, 45270)	$33975 (28744, 39230)	$27267 (25792, 28656)	57.2% (54.2, 60.7)	53.7% (52.3, 54.7)
VIC	1	$44598 (41936, 47186)	$44029 (43559, 44563)	$19826 (18287, 21386)	$22023 (21725, 22373)	45.8% (43.9, 47.7)	50.5% (50.2, 50.8)
WA	1	$54109 (45221, 70907)	$36863 (35888, 37855)	$29933 (26187, 34384)	$23953 (23118, 24895)	53.3% (49.1, 57.4)	60.4% (59.7, 61.1)
NSW	2	$56288 (54757, 58018)	$54637 (54127, 55160)	$35033 (33764, 36348)	$36639 (36234, 37092)	57.4% (56.1, 58.3)	62.5% (62.3, 62.7)
NT	2	$119208 (110950, 126928)	$113683 (103862, 125282)	$77359 (70633, 85824)	$90549 (79289, 103865)	50.7% (48.4, 53.1)	64.1% (61.3, 67.0)
QLD	2	$65496 (63229, 68154)	$65655 (64779, 66577)	$43073 (41073, 45121)	$43861 (43114, 44655)	59.3% (57.9, 60.5)	62.2% (61.9, 62.6)
SA	2	$55252 (51574, 59450)	$50830 (49826, 52061)	$28977 (26716, 32289)	$32402 (31505, 33397)	49.5% (47.2, 51.7)	57.9% (57.4, 58.3)
TAS	2	$75612 (65394, 91087)	$67789 (65164, 70324)	$60152 (48812, 76707)	$49883 (47630, 52172)	61.3% (57.7, 64.5)	62.5% (61.6, 63.4)
VIC	2	$49443 (46313, 52698)	$54068 (53557, 54639)	$25738 (23498, 27950)	$31239 (30826, 31650)	52.5% (50.7, 54.7)	58.0% (57.6, 58.2)
WA	2	$61719 (54657, 70076)	$52400 (50804, 54312)	$42754 (35371, 50250)	$37548 (36294, 39347)	61.0% (56.6, 65.1)	65.5% (64.8, 66.2)
NSW	3	$71171 (68482, 73822)	$71880 (71044, 72693)	$52482 (49896, 54634)	$55632 (54914, 56400)	66.4% (65.1, 67.5)	70.5% (70.2, 70.7)
QLD	3	$68890 (65533, 72964)	$71575 (69785, 73157)	$48282 (45461, 51783)	$49610 (48217, 50891)	62.3% (60.6, 64.2)	63.8% (63.2, 64.4)
SA	3	$31697 (29280, 34980)	$29451 (28554, 30119)	$17362 (15633, 19504)	$18699 (17955, 19209)	54.4% (51.6, 57.0)	62.3% (61.7, 62.8)
TAS	3	$70054 (60179, 83282)	$86842 (82812, 91651)	$52259 (42483, 66940)	$68387 (64277, 72707)	61.6% (57.3, 65.9)	67.3% (66.1, 68.4)
VIC	3	$52870 (48265, 58785)	$59907 (58947, 60883)	$30180 (26973, 35251)	$37299 (36536, 38079)	57.3% (53.9, 59.7)	63.7% (63.2, 64.1)
NSW	4	$91380 (86277, 97767)	$89842 (88338, 91354)	$72053 (66688, 78487)	$72927 (71594, 74371)	70.5% (68.1, 72.8)	73.7% (73.2, 74.1)
QLD	4	$96139 (85915, 107499)	$91410 (87129, 96108)	$69931 (60363, 81080)	$67637 (63342, 71130)	63.8% (60.8, 67.0)	67.8% (66.6, 69.0)
SA	4	$31952 (27599, 37345)	$25823 (24741, 27048)	$17033 (14261, 20232)	$16433 (15604, 17302)	55.4% (50.4, 59.8)	63.6% (62.5, 64.6)

I6.3 Low-SES inequalities in all supports, by State, completed plans since scheme entry

State	Year	Plan (all Low SES)	Plan (none Low SES)	Paid (all Low SES)	Paid (none Low SES)	Util (all Low SES)	Util (none Low SES)
NSW	1	$40680 (40254, 41170)	$38606 (38159, 38974)	$21768 (21510, 22154)	$20587 (20317, 20925)	52.8% (52.4, 53.2)	54.1% (53.7, 54.4)
NT	1	$69301 (61281, 78922)	$61042 (57674, 64707)	$32780 (26483, 39891)	$37766 (34708, 40819)	42.7% (38.9, 47.2)	54.0% (52.2, 55.9)
QLD	1	$53047 (52184, 53825)	$54629 (54012, 55494)	$29733 (29154, 30359)	$32478 (31926, 33182)	51.4% (50.9, 51.8)	54.6% (54.2, 55.0)
SA	1	$35027 (34035, 36133)	$35440 (34461, 36362)	$18748 (17970, 19507)	$20184 (19406, 21039)	51.3% (50.4, 52.2)	55.1% (54.4, 55.9)
TAS	1	$42986 (41256, 44737)	$45479 (43268, 47944)	$26824 (25367, 28413)	$28413 (26404, 30416)	53.6% (52.3, 54.8)	54.2% (52.4, 55.7)
VIC	1	$43052 (42363, 43693)	$44544 (44063, 44994)	$20861 (20435, 21317)	$22461 (22177, 22818)	48.8% (48.3, 49.4)	51.0% (50.7, 51.3)
WA	1	$37059 (35237, 39162)	$37817 (36589, 39084)	$22787 (21385, 24365)	$24601 (23764, 25730)	57.9% (56.4, 60.0)	60.6% (59.7, 61.3)
NSW	2	$54060 (53452, 54714)	$55045 (54541, 55545)	$36111 (35593, 36657)	$36843 (36352, 37324)	61.6% (61.2, 62.0)	62.6% (62.2, 62.8)
NT	2	$106229 (93192, 120438)	$121110 (112660, 129935)	$67549 (54970, 84050)	$84772 (78204, 91378)	50.8% (46.5, 54.9)	58.6% (56.1, 61.0)
QLD	2	$65238 (64118, 66253)	$65900 (64855, 66915)	$43244 (42276, 44306)	$44095 (43286, 44937)	61.2% (60.7, 61.8)	62.4% (61.9, 62.8)
SA	2	$50899 (49466, 52204)	$51104 (49931, 52325)	$31012 (30013, 32111)	$33238 (32173, 34332)	54.8% (54.1, 55.4)	59.6% (59.2, 60.2)
TAS	2	$69936 (67070, 72883)	$65485 (62679, 68782)	$51826 (49302, 54398)	$48023 (44886, 51280)	62.3% (61.1, 63.3)	62.7% (61.3, 64.1)
VIC	2	$50564 (49672, 51465)	$55420 (54800, 56123)	$28421 (27808, 29076)	$32231 (31774, 32764)	56.3% (55.7, 56.8)	58.4% (58.1, 58.7)
WA	2	$53714 (50478, 57682)	$53124 (51192, 54796)	$38363 (34950, 41996)	$38103 (36512, 39724)	64.5% (62.6, 66.7)	65.5% (64.7, 66.4)
NSW	3	$70361 (69367, 71347)	$72776 (71891, 73636)	$54238 (53261, 55112)	$56262 (55407, 57024)	69.6% (69.2, 70.0)	70.6% (70.3, 70.9)
NT	3	$161857 (135873, 198920)	$164626 (150515, 183723)	$98252 (75649, 136449)	$128076 (115892, 145284)	47.8% (42.4, 55.0)	64.1% (60.0, 67.9)
QLD	3	$72487 (70856, 74544)	$69702 (67928, 71574)	$50194 (48723, 52038)	$48225 (46485, 49824)	63.5% (62.6, 64.4)	63.4% (62.7, 64.3)
SA	3	$29056 (28079, 29786)	$30058 (29216, 31067)	$17644 (16917, 18270)	$19555 (18740, 20352)	59.3% (58.5, 60.2)	64.1% (63.3, 64.7)
TAS	3	$87375 (82080, 92081)	$86440 (81491, 91636)	$69593 (64446, 74343)	$66982 (62027, 72011)	67.5% (65.9, 69.0)	66.3% (64.6, 68.0)
VIC	3	$55279 (53917, 57084)	$61847 (60488, 63088)	$33842 (32716, 35090)	$38661 (37603, 39504)	62.0% (61.3, 62.9)	64.0% (63.4, 64.5)
WA	3	$51559 (47975, 55867)	$59722 (57053, 62666)	$38343 (35150, 42916)	$44203 (41674, 46511)	67.8% (65.1, 71.5)	67.4% (65.9, 69.1)
NSW	4	$87118 (84870, 89161)	$91442 (89534, 93263)	$71429 (69247, 73440)	$73906 (72016, 75644)	73.9% (73.4, 74.6)	73.2% (72.7, 73.7)
QLD	4	$94297 (89494, 100946)	$88685 (83405, 93811)	$69033 (64909, 74594)	$65799 (60661, 70534)	67.0% (65.2, 68.8)	67.5% (65.9, 69.0)
SA	4	$25526 (24062, 26894)	$26839 (25474, 28269)	$15141 (14060, 16343)	$17617 (16604, 18721)	60.1% (58.7, 61.6)	65.4% (64.1, 66.7)
TAS	4	$100619 (92356, 110184)	$103475 (92823, 115671)	$83148 (74001, 93020)	$87005 (75749, 101048)	68.7% (66.2, 71.6)	69.1% (66.4, 72.2)
VIC	4	$71729 (68597, 75372)	$75239 (71935, 77760)	$44828 (42281, 47473)	$47795 (45661, 49908)	63.4% (61.7, 65.2)	66.1% (65.2, 67.1)

I7.1 CALD inequalities in all supports, 2016 entrants with psychosocial disability

Year	Plan (all CALD)	Plan (none CALD)	Paid (all CALD)	Paid (none CALD)	Util (all CALD)	Util (none CALD)
1	$33634 (30630, 37110)	$39463 (37984, 40958)	$15225 (13196, 17503)	$19289 (18375, 20475)	42.5% (38.7, 47.4)	46.0% (44.9, 47.2)
2	$49862 (43957, 57173)	$52148 (50455, 54068)	$29002 (25562, 33510)	$31102 (29735, 32552)	53.8% (50.5, 57.1)	53.7% (52.7, 54.7)
3	$58924 (54023, 64395)	$63942 (61955, 66179)	$41414 (37496, 45279)	$44034 (42176, 45971)	62.7% (60.0, 65.2)	61.4% (60.5, 62.4)
4	$81850 (67841, 98939)	$78000 (73621, 82176)	$63940 (51199, 81543)	$56878 (53679, 60608)	70.7% (64.7, 75.1)	65.7% (64.2, 67.1)

I7.2 ATSI inequalities in all supports, 2016 entrants with psychosocial disability

Year	Plan (all ATSI)	Plan (none ATSI)	Paid (all ATSI)	Paid (none ATSI)	Util (all ATSI)	Util (none ATSI)
1	$40403 (35788, 47407)	$38555 (37081, 40089)	$19745 (16962, 23940)	$18700 (17695, 20057)	45.8% (40.7, 49.3)	45.7% (44.5, 47.2)
2	$59488 (53744, 64836)	$51296 (49418, 52934)	$35283 (31122, 39518)	$30612 (29215, 32191)	54.0% (50.3, 57.8)	53.9% (52.8, 54.9)
3	$75668 (68576, 84866)	$62649 (60616, 64672)	$50977 (44728, 56897)	$43407 (41552, 45181)	60.8% (56.0, 65.1)	61.8% (60.7, 62.7)
4	$93030 (80325, 104077)	$77510 (73869, 81090)	$67523 (56830, 79512)	$56986 (53158, 60217)	65.9% (59.0, 71.4)	66.2% (64.9, 67.4)

I7.3 Low-SES inequalities in all supports, 2016 entrants with psychosocial disability

Year	Plan (all Low SES)	Plan (none Low SES)	Paid (all Low SES)	Paid (none Low SES)	Util (all Low SES)	Util (none Low SES)
1	$40453 (38217, 43141)	$37990 (36337, 39860)	$20250 (18619, 21958)	$18149 (16999, 19498)	47.2% (45.3, 49.0)	44.6% (43.0, 46.2)
2	$52697 (50246, 55596)	$51435 (49441, 53515)	$32436 (30256, 34366)	$30189 (28692, 31937)	55.6% (53.8, 57.0)	52.9% (51.8, 54.3)
3	$66203 (63363, 70726)	$62429 (59983, 64656)	$45806 (43319, 48509)	$43053 (41098, 45133)	61.7% (60.1, 63.2)	61.7% (60.6, 62.9)
4	$77321 (71979, 83704)	$78549 (73921, 83031)	$58788 (53995, 65737)	$56130 (52348, 60083)	68.0% (65.7, 70.2)	64.7% (62.9, 66.4)

I8.1 CALD inequalities in core supports, 2016 entrants with psychosocial disability

Year	Plan (all CALD)	Plan (none CALD)	Paid (all CALD)	Paid (none CALD)	Util (all CALD)	Util (none CALD)
1	$24515 (21245, 28051)	$31278 (29621, 32880)	$12936 (10746, 15494)	$17460 (16085, 18764)	48.4% (41.6, 53.4)	50.2% (48.2, 51.9)
2	$41604 (35505, 48152)	$43957 (42110, 45567)	$27354 (23004, 34591)	$29764 (27865, 31127)	59.3% (54.3, 65.3)	58.6% (57.2, 59.9)
3	$48949 (44482, 53924)	$55516 (53478, 57893)	$37836 (33900, 41983)	$41234 (39089, 43192)	67.2% (63.2, 70.6)	65.0% (63.7, 66.0)
4	$75862 (58736, 91151)	$67956 (64042, 72165)	$64360 (45215, 77478)	$52170 (48384, 56103)	73.2% (67.2, 77.9)	68.3% (66.8, 70.0)

I8.2 ATSI inequalities in core supports, 2016 entrants with psychosocial disability

Year	Plan (all ATSI)	Plan (none ATSI)	Paid (all ATSI)	Paid (none ATSI)	Util (all ATSI)	Util (none ATSI)
1	$32297 (28016, 38271)	$30328 (28726, 31889)	$19020 (15371, 23984)	$16937 (15612, 18160)	51.4% (45.4, 57.6)	50.0% (48.2, 51.8)
2	$51169 (45787, 57745)	$43003 (41447, 44908)	$35062 (30390, 41053)	$29055 (27708, 30773)	62.3% (57.9, 67.6)	58.6% (57.0, 60.1)
3	$65509 (58206, 74743)	$54227 (52437, 56610)	$47787 (40348, 55322)	$40503 (38830, 42524)	65.1% (59.7, 70.2)	65.4% (64.3, 66.4)
4	$84162 (73353, 98456)	$66853 (63336, 70387)	$67903 (54579, 81459)	$51655 (48023, 55874)	69.4% (63.0, 75.3)	68.5% (66.9, 70.7)

I8.3 Low-SES inequalities in core supports, 2016 entrants with psychosocial disability

Year	Plan (all Low SES)	Plan (none Low SES)	Paid (all Low SES)	Paid (none Low SES)	Util (all Low SES)	Util (none Low SES)
1	$32527 (30338, 35300)	$29424 (27688, 31166)	$18503 (16573, 20603)	$16158 (14719, 17541)	50.9% (48.3, 53.8)	49.0% (46.8, 50.9)
2	$44783 (42162, 47566)	$42698 (40817, 45009)	$31565 (29142, 33861)	$28248 (26711, 30374)	61.1% (59.0, 63.6)	57.2% (55.5, 58.7)
3	$57229 (54145, 60636)	$53814 (51455, 56370)	$42748 (39691, 45601)	$39971 (37749, 42395)	65.5% (63.5, 67.5)	65.0% (63.8, 66.2)
4	$67265 (61379, 73805)	$67725 (64159, 72165)	$54541 (48558, 61506)	$50909 (47558, 54726)	71.7% (69.0, 74.6)	66.9% (64.7, 69.0)

I9.1 CALD inequalities in capacity building supports, 2016 entrants with psychosocial disability

Year	Plan (all CALD)	Plan (none CALD)	Paid (all CALD)	Paid (none CALD)	Util (all CALD)	Util (none CALD)
1	$12546 (11408, 13869)	$11538 (11220, 11900)	$5507 (4874, 6160)	$5147 (4970, 5331)	43.3% (39.4, 47.3)	44.6% (43.1, 45.7)
2	$12999 (12057, 14121)	$12083 (11749, 12323)	$6663 (5961, 7703)	$5971 (5802, 6143)	50.5% (47.6, 53.8)	49.7% (48.7, 50.8)
3	$13808 (12923, 14851)	$12164 (11911, 12360)	$7498 (6958, 8190)	$6780 (6599, 6941)	54.9% (52.2, 57.9)	55.8% (54.8, 56.8)
4	$14845 (12448, 18654)	$12866 (12426, 13334)	$9032 (7279, 11616)	$7557 (7212, 7859)	59.7% (54.8, 64.6)	59.2% (57.9, 60.5)

I9.2 ATSI inequalities in capacity building supports, 2016 entrants with psychosocial disability

Year	Plan (all ATSI)	Plan (none ATSI)	Paid (all ATSI)	Paid (none ATSI)	Util (all ATSI)	Util (none ATSI)
1	$11318 (10274, 12625)	$11632 (11251, 11962)	$5054 (4322, 5693)	$5191 (4996, 5381)	45.3% (40.1, 50.9)	44.6% (43.4, 45.8)
2	$13294 (12295, 14442)	$12078 (11828, 12371)	$6270 (5498, 7133)	$6015 (5853, 6206)	47.4% (43.1, 52.9)	49.8% (48.9, 50.7)
3	$13841 (12562, 15251)	$12131 (11886, 12425)	$7097 (6241, 8040)	$6794 (6614, 6982)	51.6% (47.3, 56.6)	56.0% (54.8, 56.9)
4	$14935 (12564, 18124)	$12816 (12419, 13262)	$7464 (6477, 8726)	$7630 (7404, 7959)	50.9% (45.5, 56.8)	59.8% (58.4, 61.1)

I9.3 Low-SES inequalities in capacity building supports, 2016 entrants with psychosocial disability

Year	Plan (all Low SES)	Plan (none Low SES)	Paid (all Low SES)	Paid (none Low SES)	Util (all Low SES)	Util (none Low SES)
1	$11043 (10553, 11593)	$11946 (11549, 12360)	$5021 (4751, 5364)	$5247 (5006, 5503)	45.6% (43.9, 47.8)	43.9% (42.3, 45.5)
2	$11721 (11340, 12178)	$12410 (12103, 12805)	$5767 (5534, 6075)	$6165 (5946, 6393)	49.6% (48.0, 51.1)	49.7% (48.4, 51.1)
3	$11896 (11554, 12267)	$12483 (12193, 12777)	$6610 (6377, 6890)	$6956 (6759, 7164)	55.6% (54.2, 57.1)	55.8% (54.6, 56.9)
4	$12962 (12206, 13749)	$12999 (12436, 13632)	$7413 (6999, 7874)	$7721 (7379, 8102)	58.1% (56.1, 60.1)	59.7% (57.9, 61.3)

I10.1 CALD inequalities in all supports, 2016 entrants with intellectual disability

Year	Plan (all CALD)	Plan (none CALD)	Paid (all CALD)	Paid (none CALD)	Util (all CALD)	Util (none CALD)
1	$11136 (10223, 12194)	$11520 (11324, 11757)	$5819 (5282, 6389)	$5810 (5653, 5945)	52.5% (49.4, 55.3)	50.0% (49.3, 50.8)
2	$13279 (12574, 13972)	$12683 (12526, 12877)	$7893 (7379, 8345)	$7200 (7091, 7352)	58.7% (56.5, 61.2)	56.6% (56.0, 57.3)
3	$14329 (13651, 15149)	$13894 (13713, 14122)	$9136 (8555, 9715)	$8548 (8421, 8687)	63.4% (61.5, 65.5)	61.6% (61.0, 62.3)
4	$14315 (13359, 15320)	$14401 (14162, 14649)	$9538 (8827, 10355)	$9111 (8930, 9312)	66.5% (63.6, 69.1)	63.4% (62.6, 64.1)

I10.2 ATSI inequalities in all supports, 2016 entrants with intellectual disability

Year	Plan (all ATSI)	Plan (none ATSI)	Paid (all ATSI)	Paid (none ATSI)	Util (all ATSI)	Util (none ATSI)
1	$13414 (12399, 14582)	$11363 (11149, 11586)	$5809 (5290, 6363)	$5789 (5669, 5949)	42.8% (39.7, 46.3)	50.5% (49.8, 51.2)
2	$15233 (14286, 16270)	$12604 (12448, 12758)	$8301 (7663, 8924)	$7209 (7086, 7343)	54.2% (51.6, 56.7)	57.0% (56.4, 57.6)
3	$15981 (14930, 17118)	$13819 (13583, 13997)	$8332 (7686, 9071)	$8613 (8475, 8748)	52.6% (50.0, 55.8)	62.3% (61.6, 63.0)
4	$15508 (14221, 17039)	$14317 (14067, 14582)	$8307 (7447, 9272)	$9158 (8936, 9367)	53.5% (49.8, 57.6)	64.0% (63.3, 64.8)

I10.3 Low-SES inequalities in all supports, 2016 entrants with intellectual disability

Year	Plan (all Low SES)	Plan (none Low SES)	Paid (all Low SES)	Paid (none Low SES)	Util (all Low SES)	Util (none Low SES)
1	$11430 (11144, 11806)	$11576 (11253, 11819)	$5698 (5500, 5902)	$5856 (5672, 6026)	49.3% (48.1, 50.5)	50.3% (49.2, 51.4)
2	$13119 (12871, 13379)	$12461 (12262, 12676)	$7320 (7113, 7524)	$7195 (7043, 7327)	55.6% (54.7, 56.5)	57.6% (56.8, 58.2)
3	$14159 (13895, 14431)	$13793 (13571, 14028)	$8511 (8333, 8710)	$8623 (8495, 8795)	60.2% (59.3, 61.1)	62.6% (61.9, 63.5)
4	$14326 (13958, 14663)	$14454 (14160, 14740)	$8988 (8715, 9276)	$9272 (9058, 9476)	62.9% (61.7, 64.1)	64.2% (63.4, 65.1)

I11.1 CALD inequalities in core supports, 2016 entrants with intellectual disability

Year	Plan (all CALD)	Plan (none CALD)	Paid (all CALD)	Paid (none CALD)	Util (all CALD)	Util (none CALD)
1	$56589 (51914, 63020)	$57991 (56685, 59365)	$34520 (30415, 38344)	$33309 (32235, 34417)	58.6% (54.9, 62.3)	56.0% (55.1, 57.0)
2	$77734 (74100, 83061)	$77647 (76125, 79094)	$55777 (51709, 60767)	$53615 (52380, 55036)	67.4% (64.7, 70.0)	65.9% (65.2, 66.5)
3	$100048 (93633, 105443)	$98476 (96626, 100545)	$86163 (80111, 91827)	$78644 (76911, 80211)	79.2% (77.1, 81.2)	73.6% (72.8, 74.2)
4	$125779 (115897, 135418)	$119227 (116333, 122401)	$109879 (98649, 121095)	$97475 (94549, 100590)	80.3% (75.8, 83.5)	76.6% (75.8, 77.3)

I11.2 ATSI inequalities in core supports, 2016 entrants with intellectual disability

Year	Plan (all ATSI)	Plan (none ATSI)	Paid (all ATSI)	Paid (none ATSI)	Util (all ATSI)	Util (none ATSI)
1	$65172 (55624, 80734)	$57340 (55911, 58640)	$40540 (35343, 47356)	$32903 (31870, 34129)	62.0% (57.0, 67.4)	55.9% (54.9, 56.9)
2	$87523 (80143, 96086)	$77172 (75726, 78690)	$61465 (55705, 69325)	$53323 (52011, 54452)	68.1% (64.8, 71.4)	65.8% (65.2, 66.5)
3	$106243 (98377, 115241)	$98074 (96333, 99703)	$85610 (76985, 94156)	$78649 (77075, 80530)	73.6% (71.2, 76.4)	74.1% (73.2, 74.8)
4	$141127 (125559, 157987)	$118917 (116207, 121472)	$107502 (94241, 123457)	$97728 (95097, 100422)	73.1% (68.5, 78.2)	77.0% (76.3, 77.8)

I11.3 Low-SES inequalities in core supports, 2016 entrants with intellectual disability

Year	Plan (all Low SES)	Plan (none Low SES)	Paid (all Low SES)	Paid (none Low SES)	Util (all Low SES)	Util (none Low SES)
1	$57939 (55649, 59945)	$57709 (56138, 59317)	$34279 (32669, 35847)	$32854 (31732, 34203)	57.3% (55.7, 58.7)	55.6% (54.4, 56.7)
2	$77320 (75378, 79413)	$77588 (75840, 78960)	$54395 (52304, 56346)	$53448 (51853, 54655)	66.7% (65.5, 67.6)	65.6% (64.8, 66.4)
3	$97943 (95522, 100618)	$98764 (96743, 101277)	$78250 (75769, 80701)	$79444 (77599, 81524)	73.8% (72.7, 74.7)	73.9% (72.9, 74.9)
4	$120021 (116218, 123904)	$119666 (116571, 122633)	$98395 (94349, 102749)	$98421 (95383, 101500)	77.1% (75.7, 78.2)	76.6% (75.6, 77.6)

I12.1 CALD inequalities in capacity building supports, 2016 entrants with intellectual disability

Year	Plan (all CALD)	Plan (none CALD)	Paid (all CALD)	Paid (none CALD)	Util (all CALD)	Util (none CALD)
1	$11136 (10223, 12194)	$11520 (11324, 11757)	$5819 (5282, 6389)	$5810 (5653, 5945)	52.5% (49.4, 55.3)	50.0% (49.3, 50.8)
2	$13279 (12574, 13972)	$12683 (12526, 12877)	$7893 (7379, 8345)	$7200 (7091, 7352)	58.7% (56.5, 61.2)	56.6% (56.0, 57.3)
3	$14329 (13651, 15149)	$13894 (13713, 14122)	$9136 (8555, 9715)	$8548 (8421, 8687)	63.4% (61.5, 65.5)	61.6% (61.0, 62.3)
4	$14315 (13359, 15320)	$14401 (14162, 14649)	$9538 (8827, 10355)	$9111 (8930, 9312)	66.5% (63.6, 69.1)	63.4% (62.6, 64.1)

I12.2 ATSI inequalities in capacity building supports, 2016 entrants with intellectual disability

Year	Plan (all ATSI)	Plan (none ATSI)	Paid (all ATSI)	Paid (none ATSI)	Util (all ATSI)	Util (none ATSI)
1	$13414 (12399, 14582)	$11363 (11149, 11586)	$5809 (5290, 6363)	$5789 (5669, 5949)	42.8% (39.7, 46.3)	50.5% (49.8, 51.2)
2	$15233 (14286, 16270)	$12604 (12448, 12758)	$8301 (7663, 8924)	$7209 (7086, 7343)	54.2% (51.6, 56.7)	57.0% (56.4, 57.6)
3	$15981 (14930, 17118)	$13819 (13583, 13997)	$8332 (7686, 9071)	$8613 (8475, 8748)	52.6% (50.0, 55.8)	62.3% (61.6, 63.0)
4	$15508 (14221, 17039)	$14317 (14067, 14582)	$8307 (7447, 9272)	$9158 (8936, 9367)	53.5% (49.8, 57.6)	64.0% (63.3, 64.8)

I12.3 Low-SES inequalities in capacity building supports, 2016 entrants with intellectual disability

Year	Plan (all Low SES)	Plan (none Low SES)	Paid (all Low SES)	Paid (none Low SES)	Util (all Low SES)	Util (none Low SES)
1	$11430 (11144, 11806)	$11576 (11253, 11819)	$5698 (5500, 5902)	$5856 (5672, 6026)	49.3% (48.1, 50.5)	50.3% (49.2, 51.4)
2	$13119 (12871, 13379)	$12461 (12262, 12676)	$7320 (7113, 7524)	$7195 (7043, 7327)	55.6% (54.7, 56.5)	57.6% (56.8, 58.2)
3	$14159 (13895, 14431)	$13793 (13571, 14028)	$8511 (8333, 8710)	$8623 (8495, 8795)	60.2% (59.3, 61.1)	62.6% (61.9, 63.5)
4	$14326 (13958, 14663)	$14454 (14160, 14740)	$8988 (8715, 9276)	$9272 (9058, 9476)	62.9% (61.7, 64.1)	64.2% (63.4, 65.1)

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I13.1 CALD inequalities in all supports, 2016 entrants with autism

Year	Plan (all CALD)	Plan (none CALD)	Paid (all CALD)	Paid (none CALD)	Util (all CALD)	Util (none CALD)
1	$16252 (15403, 17137)	$16920 (16583, 17234)	$8443 (7842, 9012)	$8378 (8126, 8591)	53.1% (49.9, 56.4)	50.5% (49.8, 51.2)
2	$17832 (16933, 18737)	$17776 (17510, 18030)	$10165 (9595, 10813)	$10120 (9941, 10297)	59.3% (57.3, 61.2)	57.1% (56.6, 57.6)
3	$18077 (16838, 19357)	$19291 (18927, 19631)	$12763 (11931, 13711)	$12568 (12289, 12821)	71.6% (69.9, 73.4)	64.3% (63.8, 64.8)
4	$21421 (19412, 24207)	$22963 (22157, 23743)	$15334 (13635, 17184)	$15342 (14741, 15965)	71.4% (68.8, 73.7)	65.5% (64.7, 66.3)

I13.2 ATSI inequalities in all supports, 2016 entrants with autism

Year	Plan (all ATSI)	Plan (none ATSI)	Paid (all ATSI)	Paid (none ATSI)	Util (all ATSI)	Util (none ATSI)
1	$17795 (16686, 19114)	$16824 (16513, 17206)	$8335 (7588, 9176)	$8387 (8178, 8584)	47.9% (44.9, 50.9)	50.8% (50.1, 51.4)
2	$19200 (17961, 20282)	$17685 (17420, 17963)	$10036 (9396, 10809)	$10112 (9923, 10321)	53.5% (51.5, 55.6)	57.3% (56.9, 57.7)
3	$20316 (18963, 21670)	$19136 (18744, 19512)	$12243 (11132, 13252)	$12591 (12292, 12934)	60.0% (57.9, 62.5)	65.0% (64.5, 65.4)
4	$25485 (23210, 27725)	$22699 (21896, 23446)	$15867 (14027, 17745)	$15266 (14683, 15831)	61.4% (58.1, 64.7)	66.0% (65.4, 66.7)

I13.3 Low-SES inequalities in all supports, 2016 entrants with autism

Year	Plan (all Low SES)	Plan (none Low SES)	Paid (all Low SES)	Paid (none Low SES)	Util (all Low SES)	Util (none Low SES)
1	$16791 (16180, 17308)	$16890 (16533, 17275)	$7964 (7630, 8356)	$8573 (8338, 8809)	48.5% (47.4, 49.5)	51.7% (51.0, 52.5)
2	$17464 (17045, 17799)	$17914 (17610, 18243)	$9426 (9137, 9728)	$10449 (10230, 10687)	54.3% (53.5, 55.1)	58.5% (57.9, 59.1)
3	$18890 (18347, 19447)	$19327 (18935, 19761)	$11872 (11489, 12281)	$12917 (12577, 13267)	62.4% (61.4, 63.2)	65.8% (65.2, 66.4)
4	$21864 (20898, 22809)	$23332 (22412, 24161)	$14332 (13547, 15203)	$15810 (15115, 16563)	64.8% (63.6, 66.0)	66.4% (65.6, 67.3)

I14.1 CALD inequalities in all supports, 2016 entrants with autism

Year	Plan (all CALD)	Plan (none CALD)	Paid (all CALD)	Paid (none CALD)	Util (all CALD)	Util (none CALD)
1	$11785 (10359, 13306)	$12762 (12203, 13313)	$5158 (4309, 5957)	$5923 (5600, 6239)	45.3% (38.2, 53.8)	46.7% (45.4, 48.3)
2	$13359 (11974, 14678)	$12986 (12567, 13438)	$6749 (5968, 7629)	$7379 (7067, 7729)	49.7% (44.9, 54.4)	55.6% (54.5, 56.7)
3	$12939 (11272, 15031)	$14428 (13735, 14959)	$9400 (8104, 11389)	$9989 (9450, 10447)	72.0% (68.1, 74.7)	66.2% (65.2, 67.1)
4	$17180 (13791, 21334)	$17921 (16730, 19227)	$12666 (10029, 16391)	$12953 (11941, 14195)	70.2% (64.5, 74.7)	68.0% (66.7, 69.4)

I14.2 ATSI inequalities in all supports, 2016 entrants with autism

Year	Plan (all ATSI)	Plan (none ATSI)	Paid (all ATSI)	Paid (none ATSI)	Util (all ATSI)	Util (none ATSI)
1	$13543 (12087, 15392)	$12582 (11970, 13127)	$6714 (5600, 8223)	$5826 (5426, 6179)	49.6% (43.9, 56.1)	46.5% (44.6, 47.8)
2	$14109 (12412, 15541)	$12959 (12561, 13361)	$7505 (6291, 8535)	$7345 (7067, 7629)	53.9% (50.1, 58.0)	55.4% (54.3, 56.5)
3	$15156 (12880, 17262)	$14235 (13658, 14800)	$9922 (8288, 11348)	$9944 (9440, 10354)	67.0% (63.0, 70.6)	66.5% (65.5, 67.4)
4	$20130 (16726, 23392)	$17833 (16724, 19291)	$13388 (10513, 16333)	$12962 (11951, 14571)	65.9% (59.6, 71.0)	68.2% (66.7, 69.6)

I14.3 Low-SES inequalities in all supports, 2016 entrants with autism

Year	Plan (all Low SES)	Plan (none Low SES)	Paid (all Low SES)	Paid (none Low SES)	Util (all Low SES)	Util (none Low SES)
1	$12678 (11774, 13650)	$12675 (11948, 13212)	$5765 (5222, 6434)	$5911 (5514, 6289)	46.4% (43.9, 48.8)	47.0% (45.1, 48.7)
2	$12764 (12121, 13396)	$13165 (12701, 13812)	$6955 (6514, 7419)	$7568 (7205, 8057)	53.8% (51.8, 55.8)	56.1% (54.8, 57.2)
3	$13956 (13343, 14744)	$14491 (13842, 15152)	$9386 (8860, 10024)	$10288 (9765, 10873)	65.0% (63.4, 66.5)	67.2% (66.1, 68.5)
4	$16757 (15428, 18509)	$18436 (17186, 19873)	$11849 (10731, 13433)	$13462 (12139, 14806)	67.2% (64.9, 69.3)	68.4% (66.8, 70.1)

I15.1 CALD inequalities in capacity building supports, 2016 entrants with autism

Year	Plan (all CALD)	Plan (none CALD)	Paid (all CALD)	Paid (none CALD)	Util (all CALD)	Util (none CALD)
1	$9992 (9554, 10380)	$9928 (9794, 10059)	$6440 (6039, 6808)	$5696 (5608, 5784)	64.3% (60.9, 66.9)	57.2% (56.7, 57.9)
2	$10628 (10202, 11046)	$10506 (10398, 10605)	$7215 (6889, 7595)	$6548 (6476, 6625)	68.3% (66.5, 70.3)	62.2% (61.8, 62.7)
3	$10905 (10480, 11285)	$10976 (10888, 11088)	$7952 (7659, 8245)	$7227 (7155, 7305)	73.5% (71.8, 75.2)	65.9% (65.4, 66.3)
4	$11409 (10874, 12025)	$11837 (11653, 12004)	$8367 (7847, 8881)	$7807 (7652, 7948)	73.4% (71.0, 76.5)	66.2% (65.5, 66.9)

I15.2 ATSI inequalities in capacity building supports, 2016 entrants with autism

Year	Plan (all ATSI)	Plan (none ATSI)	Paid (all ATSI)	Paid (none ATSI)	Util (all ATSI)	Util (none ATSI)
1	$10387 (9881, 10868)	$9925 (9799, 10057)	$5524 (5142, 5875)	$5761 (5663, 5846)	53.4% (50.4, 55.7)	57.9% (57.1, 58.4)
2	$11508 (11053, 11997)	$10463 (10367, 10542)	$6619 (6289, 6966)	$6579 (6507, 6663)	57.9% (55.8, 59.7)	62.7% (62.3, 63.2)
3	$11648 (11243, 12143)	$10936 (10840, 11040)	$7106 (6792, 7403)	$7284 (7199, 7365)	61.2% (59.2, 63.2)	66.5% (66.1, 67.0)
4	$12921 (12229, 13751)	$11746 (11587, 11918)	$8000 (7395, 8572)	$7836 (7711, 7967)	62.2% (59.2, 65.3)	66.8% (66.1, 67.4)

I15.1 Low-SES inequalities in capacity building supports, 2016 entrants with autism

Year	Plan (all Low SES)	Plan (none Low SES)	Paid (all Low SES)	Paid (none Low SES)	Util (all Low SES)	Util (none Low SES)
1	$9926 (9700, 10173)	$9952 (9791, 10092)	$5485 (5330, 5661)	$5863 (5752, 5958)	55.1% (53.9, 56.2)	58.7% (57.9, 59.5)
2	$10427 (10290, 10599)	$10559 (10429, 10670)	$6227 (6119, 6358)	$6760 (6661, 6851)	59.6% (58.9, 60.3)	63.9% (63.4, 64.4)
3	$10870 (10699, 11062)	$11008 (10894, 11123)	$6987 (6852, 7131)	$7409 (7314, 7502)	64.4% (63.7, 65.1)	67.2% (66.8, 67.7)
4	$11514 (11258, 11812)	$11946 (11744, 12170)	$7533 (7361, 7757)	$7995 (7845, 8163)	65.8% (64.7, 66.9)	67.0% (66.1, 67.8)

Appendix 3 – Support coordination scenario modelling results

C4.1 Effect of ATSI on Capacity for adults with psychosocial disability

Outcome	BAU	20%	80%
Spending			
non-ATSI	$5375 (5299, 5452)		
ATSI	$4741 (4474, 5008)	$4932 (4640, 5224)	$6056 (5560, 6553)
Effect on Spending		$191 (127, 255)	$1315 (956, 1675)
Utilisation			
non-ATSI	46% (45, 46)		
ATSI	38% (36, 40)	39% (37, 41)	48% (45, 52)
Inequality	-$634 (-914, -353)		

Effect of ATSI on Core for adults with psychosocial disability

Outcome	BAU	20%	80%
Spending			
non-ATSI	$25457 (24951, 25964)		
ATSI	$32656 (29487, 35824)	$33277 (30054, 36500)	$39677 (35092, 44261)
Effect on Spending		$622 (225, 1019)	$7092 (4255, 9928)
Utilisation			
non-ATSI	52% (52, 53)		
ATSI	52% (49, 54)	53% (50, 55)	63% (58, 68)
Inequality	$7198 (4006, 10390)		

Effect of CALD on Capacity for adults with psychosocial disability

Outcome	BAU	20%	80%
Spending			
non-CALD	$5345 (5264, 5426)		
CALD	$5309 (5081, 5537)	$5441 (5205, 5677)	$6130 (5731, 6528)
Effect on Spending		$132 (81, 183)	$793 (507, 1079)
Utilisation			
non-CALD	46% (45, 46)		
CALD	45% (43, 46)	46% (44, 47)	51% (48, 54)
Inequality	-$36 (-287, 216)		

Effect of CALD on Core for adults with psychosocial disability

Outcome	BAU	20%	80%
Spending			
non-CALD	$25768 (25207, 26329)		
CALD	$27056 (25612, 28500)	$27257 (25795, 28718)	$29486 (27469, 31503)
Effect on Spending		$201 (-58, 460)	$2435 (1094, 3775)
Utilisation			

non-CALD	52% (51, 52)		
CALD	57% (55, 59)	57% (55, 59)	62% (59, 65)
Inequality	$1288 (-278, 2854)		

Effect of Low SES on Capacity for adults with psychosocial disability

Outcome	**BAU**	**20%**	**80%**
Spending			
non-LowSES	$5466 (5363, 5569)		
LowSES	$5211 (5105, 5316)	$5343 (5234, 5451)	$6109 (5916, 6302)
Effect on Spending		$132 (108, 156)	$886 (740, 1032)
Utilisation			
non-LowSES	47% (46, 47)		
LowSES	44% (44, 45)	45% (45, 46)	52% (50, 53)
Inequality	-$255 (-404, -107)		

Effect of Low SES on Core for adults with psychosocial disability

Outcome	**BAU**	**20%**	**80%**
Spending			
non-LowSES	$24287 (23625, 24950)		
LowSES	$26297 (25620, 26974)	$26632 (25935, 27329)	$29357 (28295, 30420)
Effect on Spending		$335 (205, 465)	$2835 (2099, 3570)
Utilisation			
non-LowSES	51% (50, 52)		
LowSES	52% (51, 53)	52% (52, 53)	58% (56, 59)
Inequality	$2010 (1119, 2900)		

C4.2 Effect of ATSI on Capacity for adults with intellectual disability

Outcome	BAU	20%	80%
Spending			
non-ATSI	$8192 (8076, 8308)		
ATSI	$6497 (6098, 6897)	$6702 (6282, 7121)	$7728 (7074, 8382)
Effect on Spending		$204 (117, 291)	$1233 (780, 1686)
Utilisation			
non-ATSI	53% (52, 53)		
ATSI	40% (38, 42)	41% (39, 43)	47% (44, 51)
Inequality	-$1695 (-2107, -1282)		

Effect of ATSI on Core for adults with intellectual disability

Outcome	BAU	20%	80%
Spending			
non-ATSI	$49037 (48195, 49879)		
ATSI	$56597 (51740, 61454)	$58086 (52961, 63210)	$63214 (56552, 69875)
Effect on Spending		$1489 (441, 2537)	$5752 (1133, 10371)
Utilisation			
non-ATSI	55% (54, 55)		
ATSI	57% (55, 60)	58% (55, 61)	63% (58, 68)
Inequality	$7560 (2548, 12572)		

Effect of CALD on Capacity for adults with intellectual disability

Outcome	BAU	20%	80%
Spending			
non-CALD	$8120 (8003, 8237)		
CALD	$7637 (7239, 8034)	$7805 (7392, 8218)	$8634 (8071, 9196)
Effect on Spending		$168 (85, 252)	$966 (554, 1378)
Utilisation			
non-CALD	52% (52, 53)		
CALD	52% (50, 53)	52% (51, 54)	58% (55, 61)
Inequality	-$483 (-898, -68)		

Effect of CALD on Core for adults with intellectual disability

Outcome	BAU	20%	80%
Spending			
non-CALD	$49168 (48343, 49994)		
CALD	$52930 (49675, 56185)	$53745 (50305, 57185)	$53994 (49475, 58513)
Effect on Spending		$815 (62, 1568)	$90 (-3002, 3183)
Utilisation			
non-CALD	54% (54, 55)		
CALD	60% (58, 63)	61% (58, 63)	61% (57, 65)
Inequality	$3761 (498, 7025)		

Effect of LowSES on Capacity for adults with intellectual disability

Outcome	BAU	20%	80%
Spending			
non-LowSES	$8454 (8307, 8600)		
LowSES	$7685 (7527, 7844)	$7911 (7745, 8078)	$8462 (8244, 8681)
Effect on Spending		$226 (191, 262)	$761 (610, 913)
Utilisation			
non-LowSES	54% (53, 55)		
LowSES	50% (49, 51)	51% (50, 52)	55% (53, 56)
Inequality	-$768 (-976, -561)		

Effect of LowSES on Core for adults with intellectual disability

Outcome	BAU	20%	80%
Spending			
non-LowSES	$49482 (48291, 50674)		
LowSES	$49160 (48024, 50296)	$50246 (48979, 51513)	$51524 (49762, 53285)
Effect on Spending		$1086 (747, 1425)	$1896 (707, 3084)
Utilisation			
non-LowSES	55% (54, 56)		
LowSES	55% (54, 56)	55% (54, 56)	57% (55, 58)
Inequality	-$322 (-1971, 1326)		

C4.3 Effect of ATSI on Capacity for children with autism

Outcome	BAU	20%	80%
Spending			
non-ATSI	$10228 (10062, 10395)		
ATSI	$8686 (8290, 9082)	$9013 (8577, 9449)	$10076 (9414, 10739)
Effect on Spending		$328 (177, 478)	$1314 (803, 1824)
Utilisation			
non-ATSI	57% (57, 58)		
ATSI	48% (46, 49)	49% (47, 51)	55% (52, 58)
Inequality	-$1542 (-1967, -1118)		

Effect of ATSI on Core for children with autism

Outcome	BAU	20%	80%
Spending			
non-ATSI	$16937 (16289, 17584)		
ATSI	$13667 (12022, 15311)	$14354 (12516, 16192)	$15207 (13168, 17246)
Effect on Spending		$687 (267, 1108)	$1019 (-204, 2243)
Utilisation			
non-ATSI	59% (58, 60)		
ATSI	54% (51, 57)	54% (51, 57)	57% (52, 62)
Inequality	-$3270 (-4975, -1565)		

Effect of CALD on Capacity for children with autism

Outcome	BAU	20%	80%
Spending			
non-CALD	$10048 (9889, 10207)		
CALD	$10363 (9751, 10976)	$10654 (10014, 11295)	$11904 (10989, 12820)
Effect on Spending		$291 (113, 470)	$1514 (786, 2242)
Utilisation			
non-CALD	56% (56, 57)		
CALD	59% (56, 61)	60% (57, 62)	67% (62, 71)
Inequality	$315 (-308, 938)		

Effect of CALD on Core for children with autism

Outcome	BAU	20%	80%
Spending			
non-CALD	$16774 (16127, 17422)		
CALD	$16077 (13887, 18266)	$16541 (14220, 18862)	$17309 (14650, 19968)
Effect on Spending		$465 (-45, 974)	$946 (-794, 2687)
Utilisation			
non-CALD	59% (58, 60)		
CALD	61% (57, 64)	61% (57, 64)	63% (57, 70)
Inequality	-$698 (-2973, 1578)		

Effect of LowSES on Capacity for children with autism

Outcome	BAU	20%	80%
Spending			
non-LowSES	$10572 (10368, 10776)		
LowSES	$9331 (9119, 9544)	$9744 (9524, 9964)	$10655 (10311, 10999)
Effect on Spending		$413 (334, 491)	$1274 (1005, 1544)
Utilisation			
non-LowSES	58% (57, 59)		
LowSES	54% (53, 55)	56% (55, 57)	61% (60, 63)
Inequality	-$1241 (-1520, -962)		

Effect of LowSES on Core for children with autism

Outcome	BAU	20%	80%
Spending			
non-LowSES	$18035 (17291, 18779)		
LowSES	$14634 (13745, 15523)	$15523 (14535, 16510)	$16285 (15140, 17429)
Effect on Spending		$889 (665, 1112)	$1178 (529, 1826)
Utilisation			
non-LowSES	60% (59, 61)		
LowSES	56% (55, 58)	57% (56, 59)	60% (57, 63)
Inequality	-$3401 (-4462, -2340)		