NDIS Participant Outcomes

30 June 2019

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Executive summary

Background

Fundamentally, the National Disability Insurance Scheme (NDIS) was set up to allow people with disability to live “an ordinary life”: to fully realise their potential, to participate in and contribute to society, and to have a say in their own present and future – just as other members of Australian society do.

These aims are embedded in the legislation which established the Scheme, the National Disability Insurance Scheme Act 2013[1] (the NDIS Act), and included in the National Disability Insurance Agency (NDIA) Corporate Plan 2019-2023[2].

The NDIS Act underscores the Scheme objectives:

- To support the independence and social and economic participation of people with disability;
- To enable people with disability to exercise choice and control in the pursuit of their goals and the planning and delivery of their supports;
- To maximise independent lifestyles and full inclusion in the community; and
- To facilitate greater community inclusion of people with disability.

The NDIS Outcomes Framework questionnaires

The NDIS Act further indicates that the Scheme adopts an insurance-based approach. An insurance-based approach considers the lifetime cost of participants (including early investment), and the outcomes achieved across participants’ lifetimes. Measurement of outcomes and costs (both to the NDIS and other mainstream service systems) is critical in understanding the success of the NDIS and is a legislative requirement.[3]

Measurement of outcomes encompasses a wide range of areas, ranging from participants’ progress towards achievement of their own individual goals, to the broad economic and societal benefits that are expected to emerge from the Scheme in the longer term.

The NDIS Outcomes Framework questionnaires have been developed to measure progress towards a common set of accepted goals for each participant, so that the results can be aggregated to provide a picture of how and where the Scheme is making a difference. In addition, a common set of goals allows benchmarking to Australians without disability and to other OECD countries.

This report is the second annual report on participant outcomes, and analyses:

- The results of the baseline outcomes framework questionnaires for people who entered the Scheme in 2016-17, 2017-18 and 2018-19 (referred to as “baseline” as the NDIS has not influenced the outcomes of participants at this point).

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[1] http://www.comlaw.gov.au/Details/C2019C00332/Download

[2] https://www.ndis.gov.au/about-us/publications/corporate-plan#corporate-plan-2019-2023

[3] Further, the National Disability Insurance Scheme forms part of the broader National Disability Strategy 2010-2020. The strategy is a commitment from all governments to a shared vision of an inclusive Australian society that enables people with disability to fulfil their potential as equal citizens. In particular, the strategy emphasises the need for improved performance of mainstream services in delivering outcomes for people with disability.

- One year longitudinal changes in outcomes for people who entered in 2016-17 and 2017-18 (have been in the Scheme for at least one year).
- Two year longitudinal changes in outcomes for people who entered in 2016-17 (have been in the Scheme for two years).

This year's report adds a second year of longitudinal experience to the analysis, compared to last year's report. Two years is still not a lot of time to measure success – however, importantly this report builds on last year's analysis and continues the conversation on what factors are driving good outcomes, and indicates that the NDIS is continuing to improve many participants' lives.

Baseline versus progress

It is important to recognise that, with respect to how they are going in different areas of their lives, participants do not enter the Scheme on an equal footing. A whole range of individual and external factors will impact on the experiences of participants at baseline, including the nature and severity of their disability, the extent of support they receive from family and friends, how inclusive their community is, their general health, and even their own inherent resilience.

A stark example of this baseline variability is provided by young adult participants with a psychosocial disability. These participants were found to have consistently poorer baseline outcomes, across all life domains. On the other hand, participants with a hearing impairment generally experience better baseline outcomes.

Consequently, the success of the Scheme should be judged not on baseline outcomes, but on how far participants have come since they entered the Scheme, acknowledging their different starting points.

It is also important to note that whilst some of the benefits of the Scheme should be quick to emerge (for example, assistance with daily living), others are much more long-term in nature (for example, employment), and measurable progress may take some years to emerge.

Finally, it should be recognised that some of the domains included in the outcomes framework (for example, home, education, and health) are not the primary responsibility of the NDIS, but are nevertheless included in order to provide a fuller picture of participants' circumstances.

A lifespan approach

Leveraging research conducted by the NDIS Independent Advisory Council (IAC), the outcomes framework takes a lifespan approach to the measurement of outcomes, recognising that different milestones are important for different age groups.

Reflecting this lifespan approach, the report is organised with a separate chapter for each participant age cohort[4], synthesising analyses from all data sources[5].

High level summaries of results for all questions are included in separate volumes of Appendices.

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[4] Participants from birth to before starting school, participants from starting school to age 14, participants aged 15 to 24, and participants aged 25 and over.

[5] The Short Form (SF) outcomes framework and the Long Form (LF) outcomes framework, baseline and longitudinal information.

Participants from birth to before starting school

Outcome indicators for children in the birth to before starting school age group measure the extent to which participants are gaining functional, developmental and coping skills appropriate to their ability and circumstances; showing evidence of autonomy in their everyday lives; accessing early intervention specialist services; and participating meaningfully in family and community life.

Overall results

- In the longitudinal analysis, significant **improvements** were observed across a number of indicators, both from baseline to first review, and from baseline to second review, particularly in the areas of:
  - ***Social, community and civic participation***:
    - For participants who joined the Scheme in 2016-17, the percentage of parents/carers who say their child feels welcomed or actively included when they participate in age appropriate community, cultural or religious activities increased by 6.4% between baseline and second review, from 64.4% to 70.8%. The improvement was slightly stronger on an age-adjusted basis (8.6%).
    - For participants entering in 2017-18, there was a one year improvement of 4.3% in the percentage of parents/carers who say their child feels welcomed or actively included when they participate in age appropriate community, cultural or religious activities, from 64.1% to 68.4%.
  - ***Specialist services***:
    - For participants entering in 2016-17, the use of specialist services increased by 23.3% between baseline and second review, from 73.6% to 96.9%. The percentage of parents/carers who say specialist services support them in assisting their child increased by 9.7%, from 86.7% to 97.1%. Furthermore, the percentage of parents/carers who say specialist services help their child gain the skills they need to participate in everyday life increased by 11.0% (6.0% age adjusted) between baseline second review, from 86.8% to 97.9%.
    - For participants entering in 2017-18, use of specialist services increased by 15.0% in the year following Scheme entry. The percentage of parents/carers who say specialist services support them in assisting their child increased by 2.9%, from 94.2% to 97.0%, and the percentage who say specialist services help their child gain the skills they need to participate in everyday life increased by 3.6%, from 93.6% to 97.2%. Further, the percentage who say the services they use assist staff at their child's day care, pre-school, or community activities to support their child has increased by 15.7% over one year in the Scheme, from 52.9% to 68.6%.
  - ***Participating in family life***:
    - For participants entering in 2016-17, the percentage of parents/carers who say their child fits in with the everyday life of the family increased by 7.1% between baseline and second review, from 67.1% to 74.2%. On an age-adjusted basis the improvement was slightly stronger (8.2%). In addition, the percentage who say that their child gets along with his or her brothers or sisters increased by 2.1% (7.7% on an age-adjusted basis), from 85.3% at baseline to 87.4% at second review.

- For participants entering in 2017-18, the percentage of parents/carers who say their child fits in with the everyday life of the family increased by 4.6% between baseline and first review, from 68.5% to 73.1%. On an age-adjusted basis the improvement was slightly stronger (6.9%). In addition, the percentage who say that their child gets along with his or her brothers or sisters has increased by 2.3% (3.3% on an age-adjusted basis), from 80.9% to 83.2%.

Figure 1 Changes in indicators over two years for birth to starting school participants who entered the Scheme in 2016-17

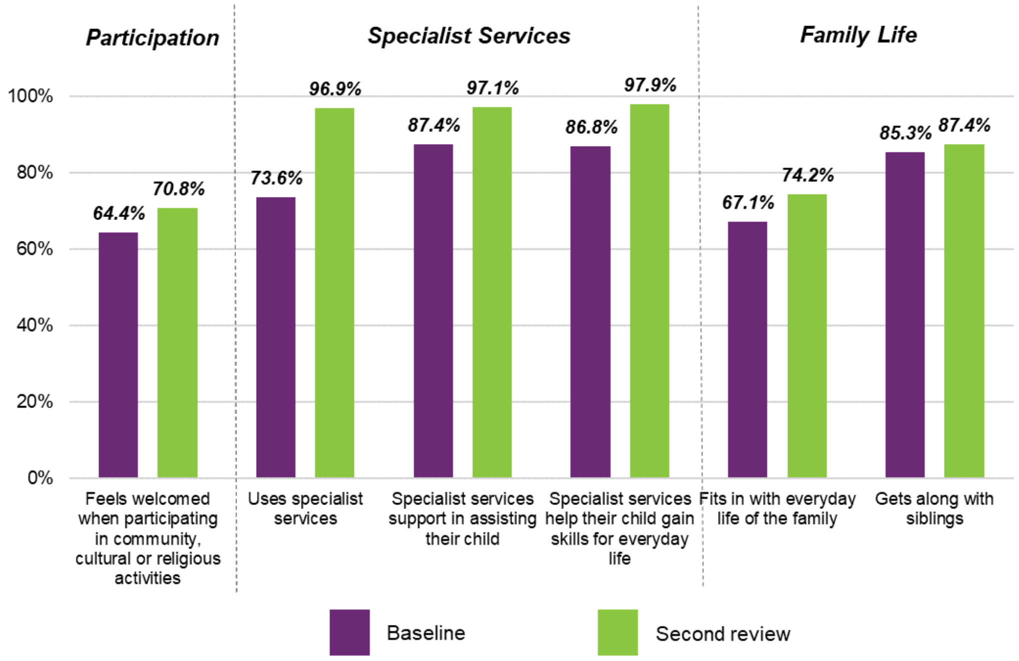
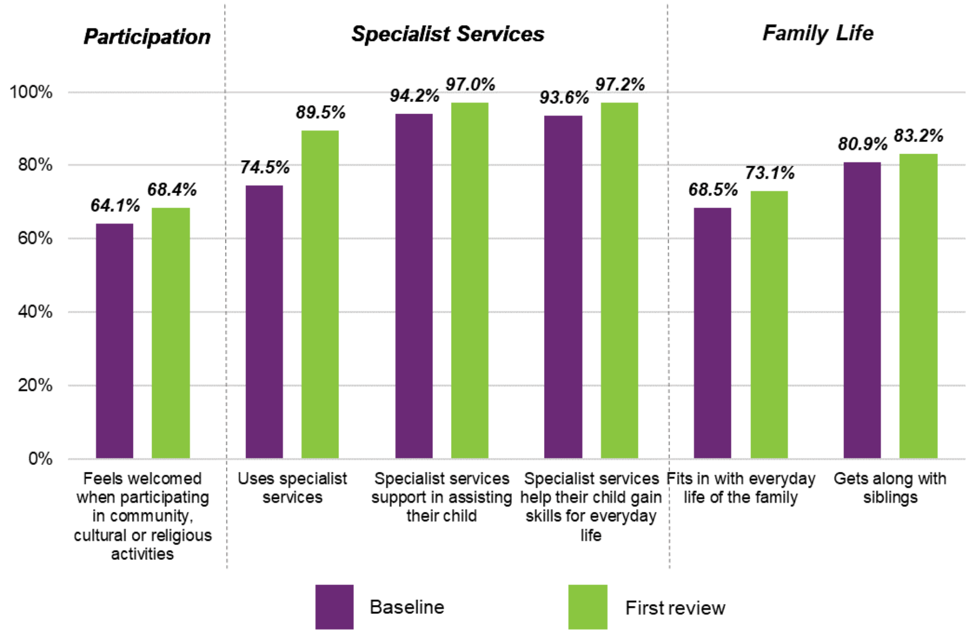
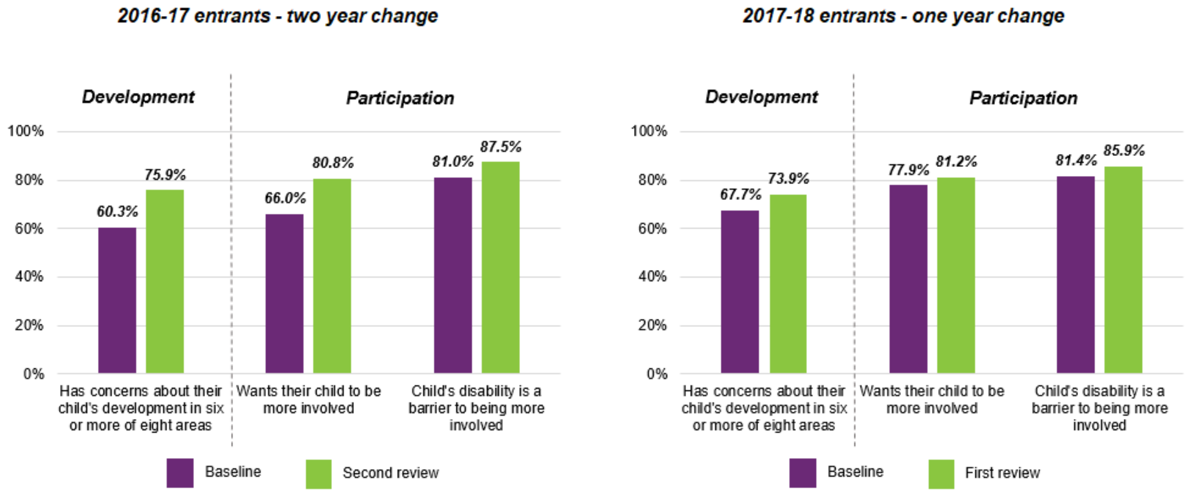


Figure 2 Changes in indicators over one year for birth to starting school participants who entered the Scheme in 2017-18



- Improved access to specialist services improves families' knowledge about their child's disability or developmental delay, which can lead to increased concerns and expectations for their child, particularly for families who have had little or no access to services prior to the Scheme.
    - Understandably, their ***child's progress in major developmental areas*** is a key concern of parents and carers. From the longitudinal analysis, the proportion of parents/carers expressing concern about their child's development in six or more of eight areas surveyed has increased:
        - For participants entering in 2016-17, by 15.6% between baseline and second review, from 60.3% to 75.9%. However, on an age-adjusted basis, the increase was lower (7.2%).
        - For participants entering in 2017-18, by 6.2% between baseline and first review, from 67.7% to 73.9%. However, on an age-adjusted basis, the increase was slightly lower (5.3%).
    - ***Social inclusion and interaction*** for children with a disability is another key concern, and the proportion of parents/carers who wanted their child to be more involved in community activities has increased:
        - For participants entering in 2016-17, by 14.7% between baseline and second review, from 66.0% to 80.8%. There was also a 6.4% increase in the percentage of parents/carers who say their child's disability is one of the barriers to being involved in community activities, from 81.0% at baseline to 87.5% at second review. On an age-adjusted basis, the increase was lower (5.7%).
        - For participants entering in 2017-18, by 3.3% between baseline and first review, from 77.9% to 81.2%. There was also a 4.4% increase in the percentage of parents/carers who say their child's disability is one of the barriers to being involved in community activities, from 81.4% at baseline to 85.9% at first review.

Figure 3 Changes in indicators for birth to starting school participants



- Participants' baseline and longitudinal outcomes vary significantly with their level of function, primary disability, geographic remoteness, cultural background and plan utilisation:
  - Baseline and longitudinal outcomes vary with participant level of function. Participants with higher level of function tend to have better baseline outcomes and exhibit higher rates of improvement than those with a lower level of function.
  - Participants with a hearing impairment generally experience better outcomes than those with other disabilities, both baseline and longitudinal.
  - Participants from regional and remote locations, compared to those from major cities, show more positive results on some indicators – both at baseline and for longitudinal change. For example, parents/carers of children in regional or remote areas are less likely to have concerns in six or more developmental areas, and are more likely to improve on this indicator, than children living in major cities.
  - Many baseline indicators are similar for Indigenous participants compared to non-Indigenous participants. However, non-Indigenous participants are more likely to live with their parents than Indigenous children, and less likely to live in public housing. Non-indigenous participants are also more likely to use specialist services. One-way analyses suggest that Indigenous children are more likely to be able to make friends outside the family and to have friends they enjoy playing with, but less likely to participate in community, cultural or religious activities. For longitudinal change, Indigenous status was not identified as a significant predictor in multiple regression models for transitions from baseline (possibly due to small numbers).
  - Some baseline indicators tend to be better for participants from a non-CALD background compared to those who are from a CALD background. Children from a non-CALD background are more likely to be able to tell their parents what they want, and more likely to be welcomed or actively included when they participate in community, cultural or religious activities. Parents/carers of participants from a CALD background are more likely to want their children to become more involved in community, cultural or religious activities. However, CALD participants are more likely to live with their parents. For longitudinal change, CALD participants were less likely to improve in their ability to make friends outside the family.
- Opinions on whether the NDIS has helped are generally positive for this cohort:
  - There is widespread agreement that the NDIS has helped in areas related to the child's development (91.5% after one year in the Scheme, increasing to 93.7% after two years in the Scheme) and access to specialist services (89.4% after one year in the Scheme, increasing to 91.2% after two years in the Scheme). Higher plan utilisation is strongly associated with a positive response after one year in the Scheme, and also after two years in the Scheme, across all five areas surveyed. Participants entering the Scheme for early intervention[6] are more likely to think that the NDIS had helped after one year in the Scheme than those entering due to disability.

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[6] Participants accessing the Scheme under Section 25 of the NDIS Act 2013 enter the Scheme due to early intervention, whereas participants accessing the Scheme under Section 24 of the Act enter the Scheme due to disability.

    - The percentage who think that the NDIS has helped increased slightly (by 1.5-2.1%) between first and second review across all domains. The likelihood of improvement/ deterioration varied by some participant characteristics: participants with higher level of function and those living in higher socioeconomic areas were more likely to improve (change their answer from “No” to “Yes”), and new participants (not previously receiving services from State/Territory or Commonwealth programs) were more likely to maintain a positive answer.

Participants from starting school to age 14

This age group includes children who are commencing school, up to the early teenage years. Typically these years of a child's life are characterised by increasing independence and development of relationships inside and outside the family.

Overall results

- In the longitudinal analysis, significant ***improvements*** were observed in the area of independence in the Daily Living and Relationships domains.
    - ***Daily living***:
        - For participants who entered the Scheme in 2016-17, there has been a 7.0% increase in the percentage of families who say their child is becoming more independent, from 43.5% at baseline to 50.5% at second review. The improvement was stronger on an age-adjusted basis (13.2%). The percentage of children who spend time away from parents/carers other than at school increased in the year following Scheme entry by 2.3%, with a further increase of 1.2% for the second year in the Scheme.
        - For participants entering in 2017-18, the percentage of parents/carers who say their child is becoming more independent increased by 4.6% between baseline and first review, from 42.0% to 46.5%. The percentage of children who manage the demands of their world increased by 9.8%, from 41.0% at baseline to 50.8% at first review.[7]
    - ***Relationships***:
        - For participants entering in 2016-17, the percentage of children who have friends they enjoy spending time with has increased by 2.4% between baseline and second review (4.6% on an age-adjusted basis), from 46.5% 48.9%.
        - For participants entering in 2017-18, there was no material change in the percentage who have friends they enjoy spending time with over one year, on an unadjusted basis. However, after adjusting for age, there was an improvement of 6.3%.

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[7] This is a long form indicator and numbers are too small to report the two year change for the 2016-17 cohort.

Figure 4 Changes in indicators for starting school to age 14 participants who entered the Scheme in 2016-17

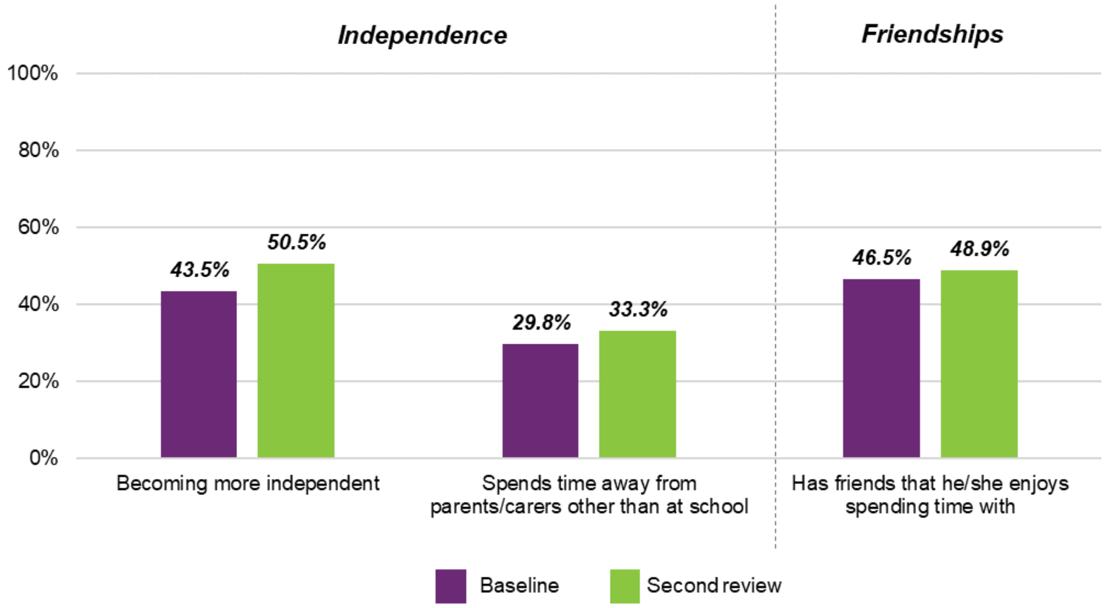
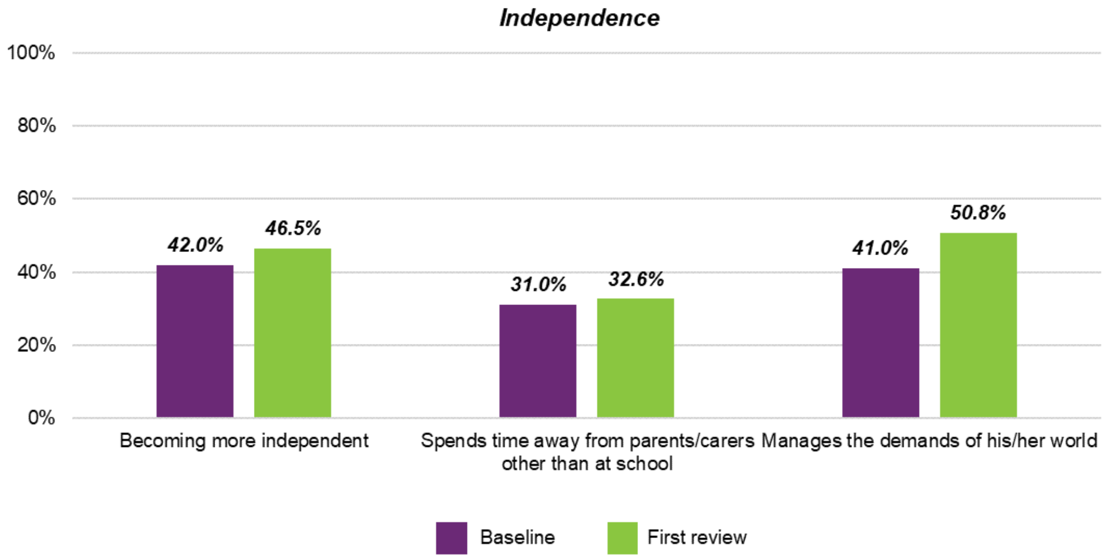


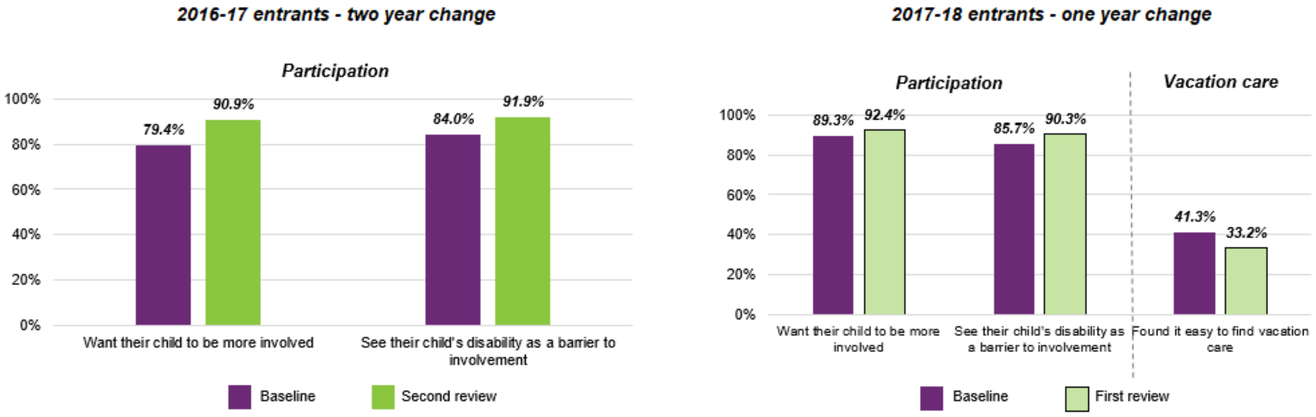
Figure 5 Changes in indicators for starting school to age 14 participants who entered the Scheme in 2017-18



- Children in this age group typically are developing a wider range of social skills and have moved from the home environment into school. For indicators of ***social interaction and inclusion***, observed changes include:
    - For participants entering in 2016-17, there has been an 11.4% (8.4% age adjusted) increase in the percentage of parents/carers who said they would like their child to have more opportunity to be involved in activities with other children, from 79.4% at baseline to 90.9% at second review. Of the parents/carers who would like their child to have more involvement, the percentage who see their child's disability as a barrier increased by 7.9% (7.0% age adjusted) from 84.0% at baseline to 91.9% at second review.

  - For participants entering in 2017-18, the percentage of parents/carers who say they would like their child to have more opportunities to be involved in activities with other children increased by 3.1% between baseline and first review, from 89.3% to 92.4%. Of those who would like their child to be more involved in activities with other children, the percentage who say their child's disability as a barrier increased by 4.6% between baseline and the first review, from 85.7% to 90.3%. Furthermore, the percentage of parents/carers who found it easy to find vacation care decreased by 8.0%, from 41.3% at baseline to 33.2% at first review.

Figure 6 Changes in indicators for starting school to age 14 participants



- Participants' baseline and longitudinal outcomes vary significantly with their level of function, primary disability, geographic remoteness and cultural background:
  - Participants with higher level of function tend to have better baseline outcomes and exhibit higher rates of improvement than those with lower level of function.
  - Participants with a sensory disability generally experience better outcomes than those with other disabilities, both baseline and longitudinal.
  - Participants from regional and remote locations, compared to those from major cities, show more positive results on some indicators – both at baseline and for longitudinal change. For example, they are more likely to be gaining in independence, and are less likely to move out of a mainstream class.
  - Children from a CALD background have worse outcomes on most baseline indicators. Longitudinally, CALD participants are less likely to improve with regard to having a genuine say in decisions about themselves, making friends outside the family, and having friends they enjoy playing with.
  - Differences between baseline outcomes for Indigenous and non-Indigenous participants tend to be smaller than for CALD versus non-CALD participants, and results are mixed. Indigenous children are more likely to spend time with friends without an adult present, but are less likely to be becoming more independent (and are more likely to deteriorate on this indicator, longitudinally). As for the younger cohort, Indigenous children are less likely to live with their parents, and more likely to live in public housing.
- Opinions on whether the NDIS has helped vary by domain for the starting school to 14 cohort:
  - The percentage responding positively was lowest for access to education (32.8% after one year in the Scheme and unchanged after two years in the Scheme) and highest

for independence (53.3% after one year in the Scheme, increasing to 59.3% after two years in the Scheme). For education, however, the mainstream education system has a much bigger role in ensuring successful outcomes than the NDIS.

- Higher plan utilisation is a strong predictor of a positive response across all four areas surveyed, after both one and two years in the Scheme. The fact that utilisation tends to be lowest for the starting school to 14 cohort may contribute to the observed lower levels of satisfaction across all domains, compared to participants in other age groups.
- Self-managing (either fully or partly) also tends to be associated with more positive responses. Participants entering the Scheme for early intervention are more likely to think that the NDIS has helped than those entering due to disability, across all domains.
- The percentage who think that the NDIS has helped increased slightly (by 3-7%) between first and second review across all domains except for access to education, where there was no change. The likelihood of improvement/deterioration varied by some participant characteristics, with improvement being more likely for participants who self-manage, younger participants, and those living in QLD.

Participants aged 15 to 24

Participants aged 15 to 24, the young adult cohort, are characterised by increasing levels of independence and participation in community. They are also likely to be impacted by major life events such as moving out of the family home, and transitioning from school to employment or further study.

Overall results

- Overall, significant ***improvements*** were observed across a number of indicators, particularly in the areas of Choice and Control, Work, and Social, Community and Civic Participation.
  - ***Choice and control***:
    - For participants entering the Scheme in 2016-17, the percentage of participants who make more decisions in their life than they did 2 years ago increased by 6.4%, from 57.2% at baseline to 63.7% at second review. The percentage of participants who choose how they spend their free time also increased between baseline and second review, by 11.3%.
    - For participants entering in 2017-18, the percentage of participants who make more decisions in their life than they did 2 years ago increased by 3.8%, from 57.2% at baseline to 60.9% at first review. The percentage who choose how they spend their free time increased by 12.4%, from 50.4% to 62.8%.
  - ***Work***:
    - For participants entering the Scheme in 2016-17, the percentage of participants in a paid job increased by 8.7%, from 13.3% at baseline to 22.0% at second review.
    - For participants entering in 2017-18, the percentage of participants in a paid job increased by 2.8%, from 17.6% at baseline to 20.4% at first review.
  - ***Lifelong learning***:
    - For participants entering the Scheme in 2016-17, the percentage who get opportunities to learn new things increased by 2.3%, from 62.5% at baseline to 64.7% at second review.
    - For participants entering in 2017-18, the percentage who get opportunities to learn new things increased by 2.6%, from 59.6% at baseline to 62.1% at first review.
  - ***Social, community and civic participation***:
    - For participants entering in 2016-17, the percentage actively involved in a community, cultural or religious group in the previous 12 months increased by 12.2%, from 31.1% at baseline to 43.3% at second review. The percentage of participants who get opportunities to try new things increased by 13.8%, from 77.5% at baseline to 91.3% at second review.
    - For participants entering in 2017-18, the percentage participating in a community group in the last 12 months increased by 6.3%, from 32.8% at baseline to 39.1% at first review. There were also significant increases in the percentage who spend their free time doing activities that interest them (from 75.8% to 79.5%), the percentage who know people in their community (57.2% to 59.9%), and the percentage who have the opportunity to try new things and have new experiences (77.6% to 84.4%).

Figure 7 Changes in indicators over two years for participants aged 15-24 who entered the Scheme in 2016-17

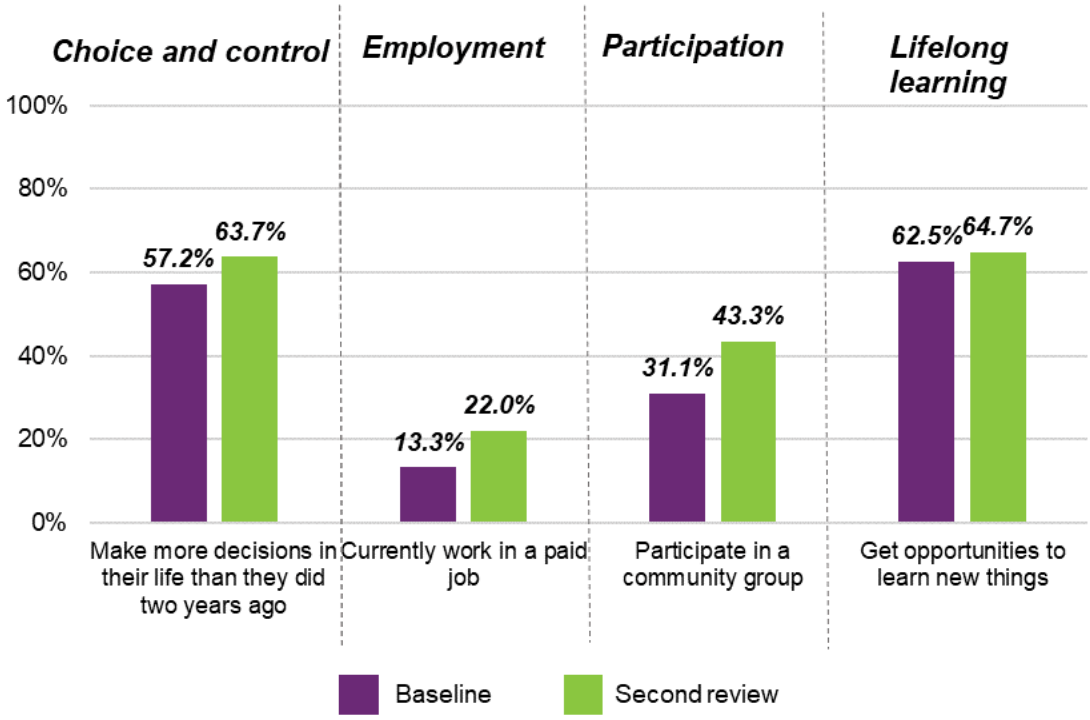
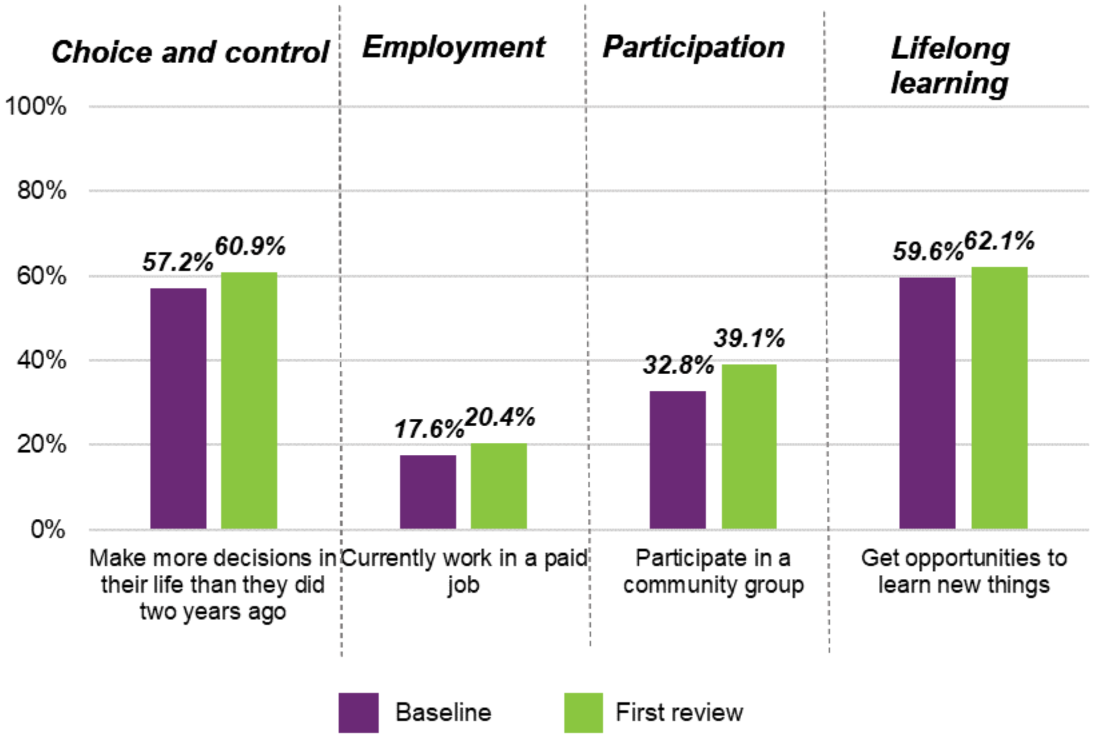


Figure 8 Changes in indicators over one year for participants aged 15-24 who entered the Scheme in 2017-18



- ***Other significant changes*** have been observed for some indicators in the Choice and Control, Home, Health and Wellbeing and Lifelong Learning domains.
    - ***Choice and control***: While improvements were observed for some choice and control indicators, more participants also expressed a desire for greater choice and control, with the percentage seeking more choice and control increasing:
        - By 14.9% over two years for participants entering in 2016-17, from 71.8% at baseline to 86.8% at second review.
        - By 4.6% over one year for participants entering in 2017-18, from 83.3% at baseline to 87.9% at second review.
    - ***Home***: There have been small but significant reductions in the percentages of participants who are happy with their home and who felt safe or very safe in their home:
        - For participants entering in 2016-17, the percentage happy with their home decreased by 3.1%, from 85.0% to 82.0% over two years. The percentage feeling safe or very safe in their home decreased by 2.5%, by 87.9% to 85.4%.
        - For participants entering in 2017-18, reductions over one year were smaller: a 0.9% decrease for the percentage happy with their home, and a 0.6% decrease for the percentage feeling safe or very safe in their home.
    - ***Health and wellbeing***: The percentage of participants who rated their health as excellent, very good or good has declined:
        - For participants entering in 2016-17, by 2.9% between baseline (71.0%) and second review (68.0%).
        - For participants entering in 2017-18, by 1.3% between baseline (67.8%) and second review (66.4%).
    - ***Lifelong learning***: There has been a reduction in the percentage of participants who participate in education, training or skill development, possibly reflecting the transition from study to work:
        - For participants entering in 2016-17, a decrease of 5.6% was observed, from 46.8% at baseline to 41.2% at second review.
        - For participants entering in 2017-18, a decrease of 2.3% was observed, from 45.0% at baseline to 42.7% at first review.

Figure 9 Changes in indicators over two years for participants aged 15-24 who entered the Scheme in 2016-17

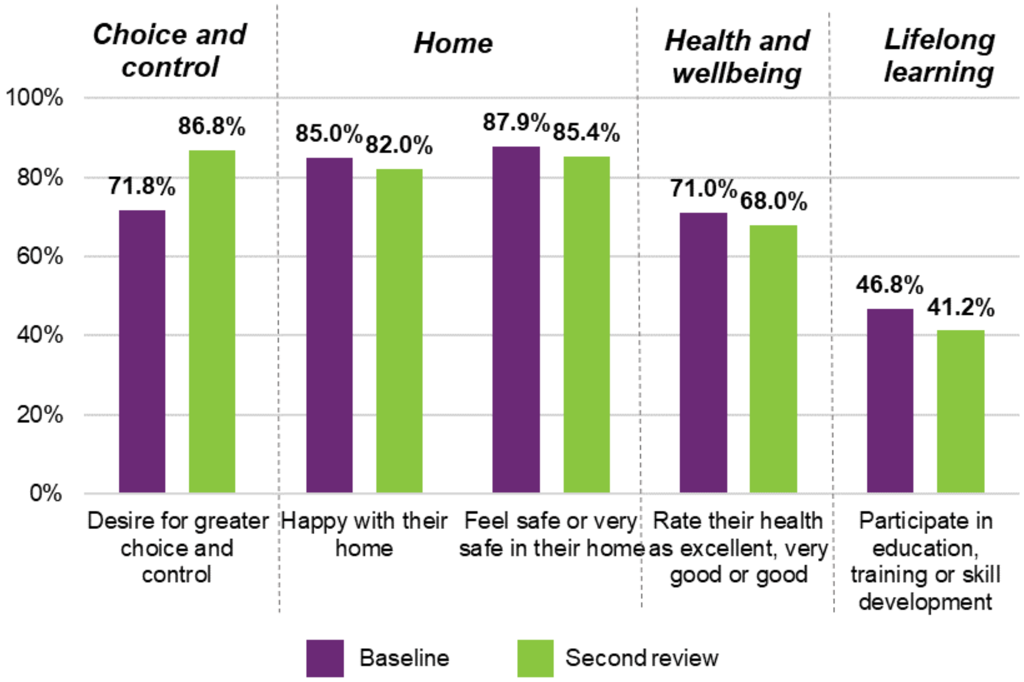
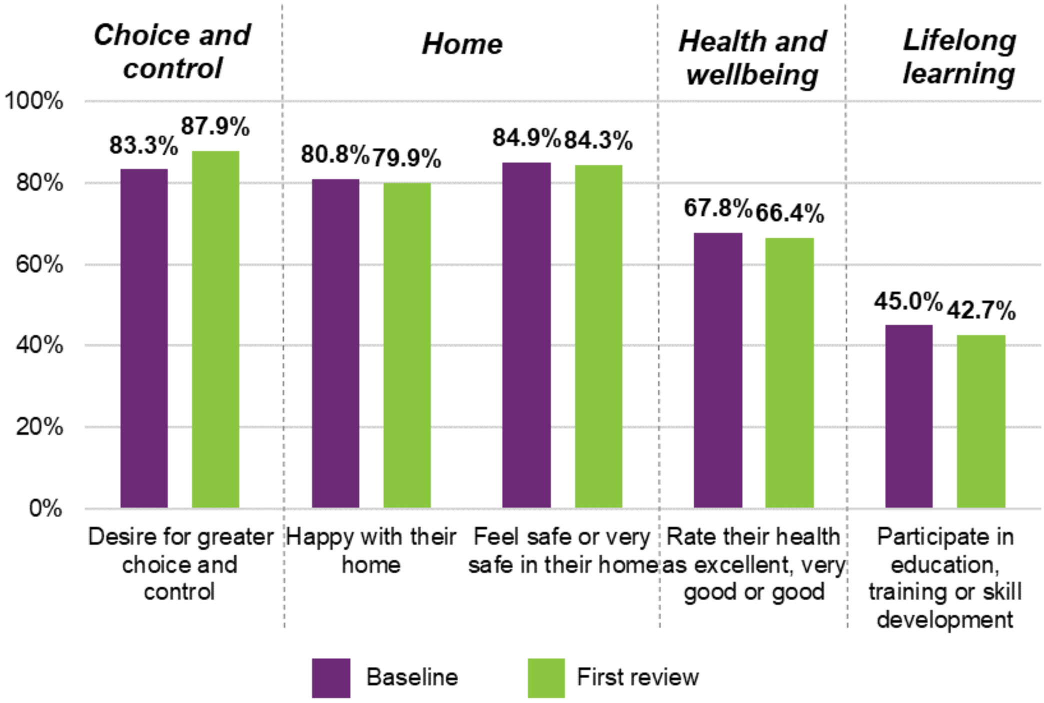


Figure 10 Changes in indicators over one year for participants aged 15-24 who entered the Scheme in 2017-18



- Outcomes for the 15 to 24 age group, both baseline and longitudinal, vary significantly with participants' level of function, primary disability, geographic remoteness, and cultural background:

    - Baseline and longitudinal outcomes vary with participant level of function. Participants with a higher level of function tend to have better baseline outcomes and also exhibit higher rates of improvement than those with a lower level of function.
    - Participants with a sensory disability generally experience better outcomes. At baseline, participants with a psychosocial disability do not do as well as participants with other disabilities, and this is observed across all domains. In longitudinal analyses, participants with a psychosocial disability are more likely to deteriorate with regard to seeing a regular doctor, saying that there were certain things they wanted to do in the last 12 months but could not, and knowing people in their community. Controlling for other factors, participants with ABI/stroke are more likely to volunteer and those with a psychosocial disability are less likely. Also of note is the considerable variation in smoking rates by disability, ranging from 0% for participants with Down syndrome to 46.4% for participants with a psychosocial disability (the overall rate is 6.8%).
    - Participants from regional and remote locations tend to experience higher levels of choice and control. They are much more likely to know people in their community than those living in major cities at baseline, and more likely to improve over time. However they are less likely to have a regular doctor and more likely to have difficulty accessing health services. They are also less likely to be happy with their home.
    - Participants from a CALD background tend to have lower baseline levels of choice and control. In longitudinal analyses, they are more likely to deteriorate over time with respect to knowing people in their community.
    - At baseline, Indigenous participants have slightly higher levels of choice and control than non-Indigenous participants. However, Indigenous participants were almost twice as likely to say they often felt lonely, were less happy with their home, and had poorer health outcomes. Indigenous participants were almost three times as likely to smoke (16.3% compared to 5.5% for non-Indigenous participants). In longitudinal analyses, Indigenous participants were more likely to start wanting more choice and control, and more likely to improve with respect to knowing people in their community.
- Opinions on whether the NDIS has helped vary considerably by domain for the young adult cohort:
    - The percentage who think that the NDIS has helped is lowest for work (20.5% after one year in the Scheme, increasing slightly to 21.4% after two years in the Scheme) and home (21.9% after one year decreasing slightly to 21.2% after two years), and highest for choice and control (61.2% after one year increasing to 68.0% after two years) and daily activities (59.3% after one year increasing to 67.0% after two years). Higher plan utilisation is strongly associated with a positive response across all eight domains, after both one and two years in the Scheme. Perceptions also tended to improve with increasing plan budget. Participants from WA tended to be more positive, and those from TAS less positive.
    - The percentage who think that the NDIS has helped increased between first and second review across all domains except home. The likelihood of improvement/ deterioration varied by participant characteristics:
        - Participants from QLD tended to be more likely to improve.
        - Female participants were more likely to improve in the relationships, health and wellbeing, and lifelong learning domains.

- For daily living, larger increases in plan utilisation over the period, and higher annualised plan budget at the start of the period, were associated with a higher likelihood of improvement.
- SIL participants were more likely to improve in the home, health and wellbeing, lifelong learning, and community participation domains, but more likely to deteriorate with regard to relationships.
- Participants with more complex needs (lower level of function, higher annualised plan budget, higher level of NDIA support through the participant pathway) tended to be more likely to improve and/or less likely to deteriorate in their opinions about whether the NDIS had helped. However for the work domain, participants with lower level of function were less likely to improve, and for lifelong learning, participants with lower level of NDIA support were more likely to improve.

Participants aged 25 and over

Overall results

- In the longitudinal analysis, significant ***improvements*** have been observed for indicators across the relationships, health and wellbeing, lifelong learning, and social, community and civic participation domains.
    - ***Social, community and civic participation***:
        - For participants entering the Scheme in 2016-17, the percentage actively involved in a community, cultural or religious group in the last 12 months increased by 10.3% between baseline and second review, from 36.5% to 46.8%. The percentage of participants who spend their free time doing activities that interest them increased by 7.5%, from 68.3% at baseline to 76.8% in second review, and the percentage who know people in their community increased by 7.3%, from 51.0% to 58.3%.
        - For participants entering in 2017-18, the percentage actively involved in a community, cultural or religious group in the last 12 months increased by 5.2% between baseline and the first review, from 36.2% to 41.4%. Further, the percentage of participants who spend their free time doing activities that interest them increased by 4.0% between baseline and the first review, from 66.2% to 70.2%.
    - ***Health and wellbeing***: health indicators suggest an improvement in accessing care, lower rates of hospitalisation, and a more positive outlook on life:
        - For participants entering in 2016-17, the percentage of participants who had been to the hospital in the last 12 months decreased by 5.8% between baseline and the second review, from 40.6% to 34.8%, the percentage who had no difficulties accessing health services increased by 3.1%, from 68.5% to 71.6%, and the percentage who have a doctor they see on a regular basis increased by 6.8%, from 87.9% to 94.7%. The percentage who feel delighted, pleased, or mostly satisfied with their life increased by 12.8% between baseline and second review, from 38.9% to 51.7%.
        - For participants entering in 2017-18, improvements over one year were also observed for these indicators: hospitalisations declined by 4.0%, the percentage who had no difficulties accessing health services increased by 1.7%, the percentage with a regular doctor increased by 2.6%, and the percentage who feel delighted, pleased, or mostly satisfied with their life increased by 11.8%.
    - ***Relationships***: More participants said they have someone outside their home to call on for practical help:
        - For participants entering in 2016-17, an increase of 8.7% was observed between baseline (81.2%) and second review (89.9%).
        - For participants entering in 2017-18, an increase of 6.1% was observed between baseline (76.1%) and first review (82.2%).
    - ***Lifelong Learning***: More participants are getting opportunities to learn new things, with increases of 4.6% between baseline (46.6%) and second review (51.2%) for the cohort entering in 2016-17; and 3.0% between baseline (41.9%) and first review (45.0%) for those entering in 2017-18.

Figure 11 Changes in indicators over two years for participants aged 25 and over entering in 2016-17

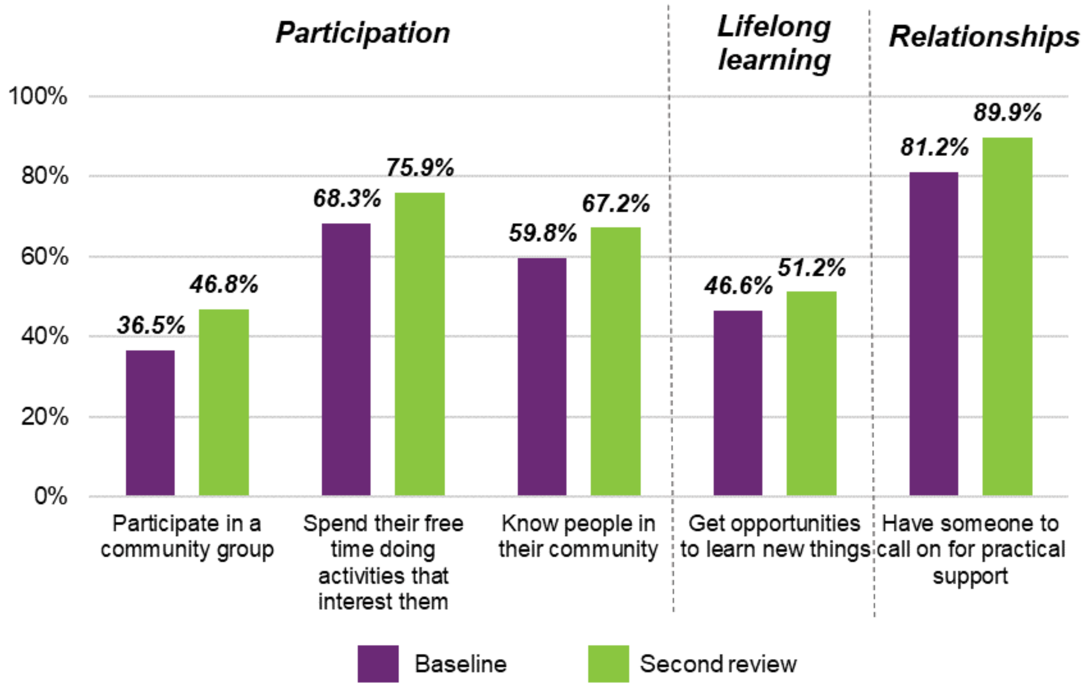


Figure 12 Changes in indicators over one year for participants aged 25 and over entering in 2017-18

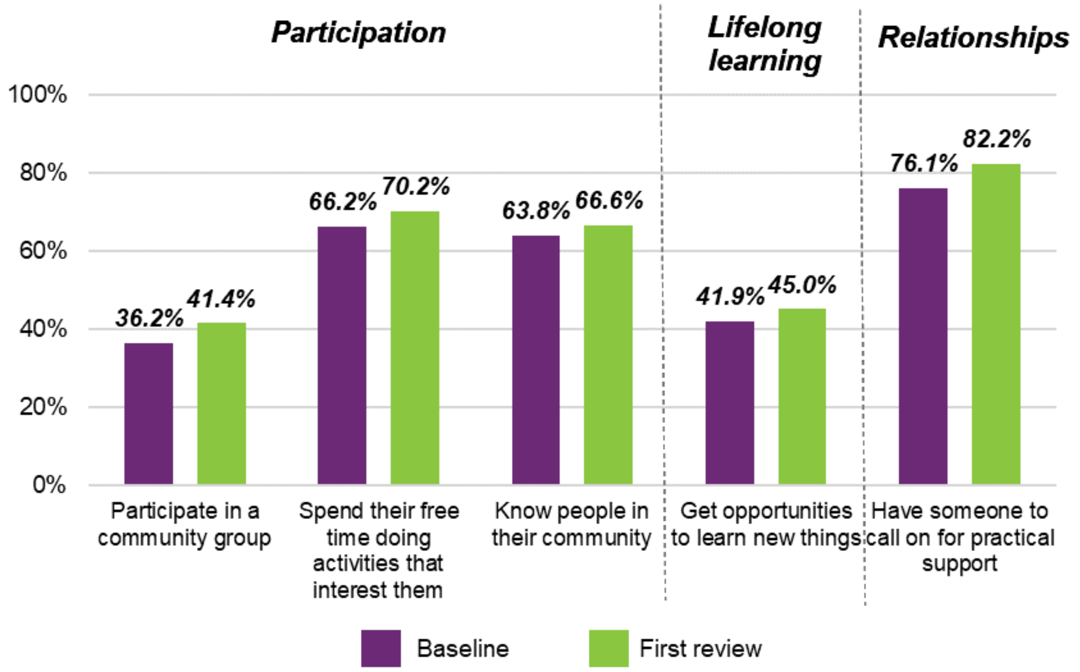
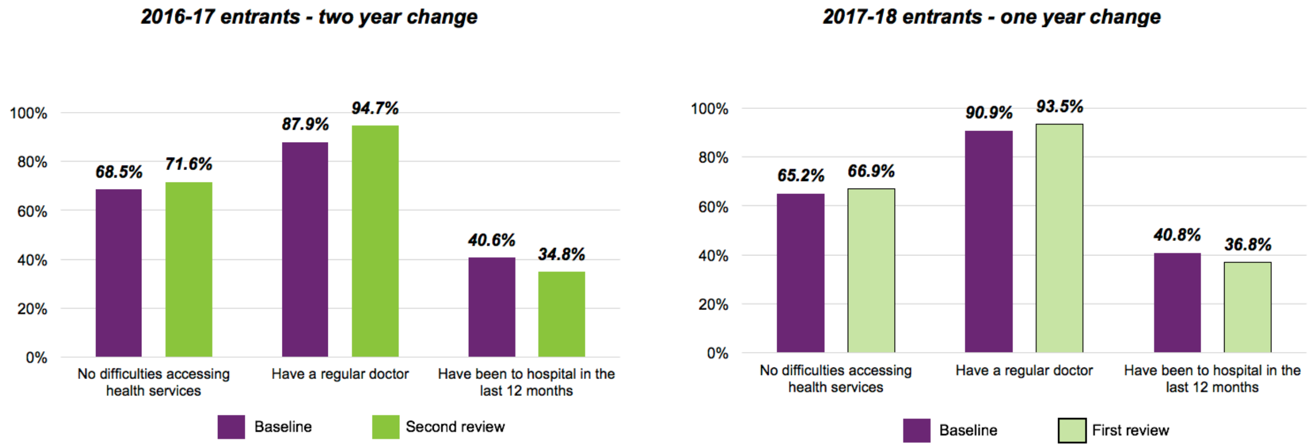


Figure 13 Changes in health outcome indicators for participants aged 25 and over



2016-17 entrants - two year change

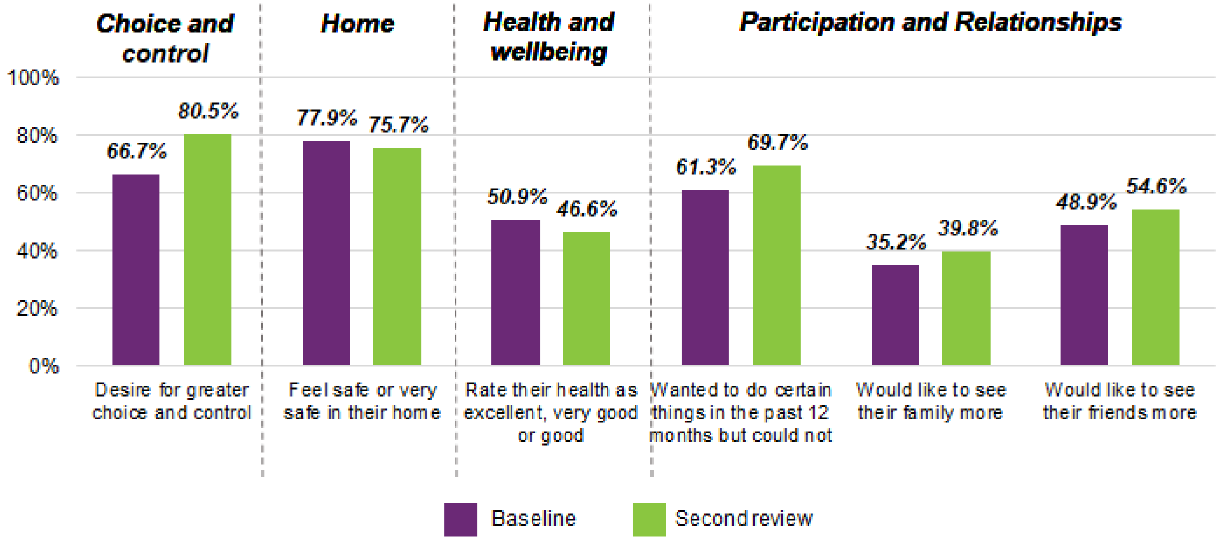
2017-18 entrants - one year change

- ***Other significant changes*** have been observed in some indicators across choice and control, home, health and wellbeing, and social, community and civic participation domains.
    - ***Choice and control***:
        - For participants entering the Scheme in 2016-17, the percentage wanting more choice and control in their life has increased by 13.8% between baseline and second review, from 66.7% to 80.5%.
        - For participants entering in 2017-18, the percentage wanting more choice and control in their life has increased by 4.3% between baseline and first review, from 79.3% to 83.6%.
    - ***Home***:
        - For participants entering the Scheme in 2016-17, the percentage who feel safe or very safe at home has reduced by 2.3% from 77.9% at baseline to 75.7% at second review.
        - For participants entering in 2017-18, the percentage who feel safe or very safe at home has reduced by 1.0% from 75.7% at baseline to 74.7% at first review.
    - ***Health and wellbeing***: Fewer participants rated their health as excellent, very good or good:
        - For the cohort entering in 2016-17, the percentage reduced by 4.4%, from 50.9% at baseline to 46.6% at second review.
        - For the cohort entering in 2017-18, the percentage reduced by 1.5%, from 47.8% at baseline to 46.3% at first review.
    - ***Social, community and civic participation***:
        - For participants entering in 2016-17, there was an increase of 8.4% in the percentage of participants who wanted to do certain things in the last 12 months but could not. There was also a 4.5% increase in the percentage of participants who would like to see their family more, from 35.2% at baseline to 39.8% at second review, and an increase of 5.7% in the percentage of participants who

would like to see their friends more, from 48.9% at baseline to 54.6% at second review.

- For participants entering in 2017-18, there was a one year increase of 2.9% in the percentage of participants who wanted to do certain things in the last 12 months but could not. There were also slight increases in the percentage who would like to see their family (1.2%) and friends (1.8%).

Figure 14 Changes in indicators over two years for participants aged 25 and over entering in 2016-17



- Baseline and longitudinal changes in outcomes vary significantly with participants' level of function, primary disability, geographic remoteness and cultural background:
  - The impact of disability type on other outcomes varies by domain. At baseline, participants with intellectual disability or autism experience lower levels of choice and control, and those with a sensory disability or multiple sclerosis experience higher levels. However, participants with multiple sclerosis have the poorest self-rated health and are more likely to go to hospital. Controlling for other factors, participants with cerebral palsy, another physical disability, or a visual impairment are more likely to volunteer, whereas those with a psychosocial disability or stroke are less likely to volunteer. In longitudinal analyses, participants with a psychosocial disability were less likely to improve and more likely to deteriorate with regard to knowing people in their community.
  - Baseline and longitudinal outcomes vary with participant level of function. Participants with higher level of function tend to have better baseline outcomes and exhibit higher rates of improvement than those with lower level of function.
  - Results by remoteness were mixed. Levels of volunteering were higher in more remote areas. The likelihood of knowing people in the community was higher at baseline for participants in more remote areas, and also improved more over time. However, difficulties in accessing health services tended to increase with remoteness, and participants in major cities were more likely to have a paid job.
  - Results by CALD status were also mixed, being slightly better for some baseline choice and control indicators but poorer on some health and wellbeing indicators. CALD participants were less likely to smoke. In longitudinal analyses, CALD participants were more likely to improve and less likely to deteriorate when asked

    whether there were certain things they wanted to do in the last 12 months, but could not.

  - At baseline, SF choice and control indicators for Indigenous participants tend to be slightly worse than non-Indigenous participants. Indigenous participants are slightly less likely to have someone outside their home to call on for help. Indigenous participants were less happy with their home, less likely to feel safe at home and in their community, and had poorer health outcomes. Indigenous participants were more likely to smoke (30.9% compared to 18.7% overall).

- Opinions on whether the NDIS has helped tend to be slightly more optimistic than the young adult cohort, but generally reflect a similar pattern by domain (apart from lifelong learning and work):

  - The percentage who think the NDIS has helped is highest for daily activities (70.7% after one year in the Scheme, increasing to 79.3% after two years in the Scheme), followed by choice and control (66.8% after one year in the Scheme, increasing to 74.0% after two years in the Scheme). Percentages are lowest for home (28.4% after one year and 29.4% after two years) and work (19.4% after one year and 18.7% after two years).

  - Higher plan utilisation is strongly associated with a positive response across all eight domains, after both one and two years in the Scheme. Perceptions also tended to improve with plan budget. Participants from WA tended to be more positive, and those from VIC less positive.

  - The percentage who think that the NDIS has helped increased by 1% to 9% between first and second review across all domains except work, where there was a 1% decrease. The likelihood of improvement/ deterioration varied by some participant characteristics:

    - SIL participants were more likely to improve and less likely to deteriorate across all domains.
    - Female participants were more likely to improve in the choice and control and daily living domains.
    - Participants who self-manage were more likely to improve and/or less likely to deteriorate in the choice and control, daily living, and health and wellbeing domains.
    - Older participants were less likely to deteriorate for daily living, home, health and wellbeing, but less likely to improve for lifelong learning and work (possibly reflecting older participants attaching less importance to these domains).
    - CALD participants were more likely to deteriorate for health and wellbeing and community participation.

1. Introduction

1.1 Background

This report is the second annual report on outcomes for NDIS participants, including baseline and longitudinal change up to 30 June 2019 for participants entering the Scheme since 1 July 2016. The previous report summarised experience to 30 June 2018.[8]

The purpose of the report is to provide a picture of how participants are progressing under the NDIS, based on information provided by them in interviews conducted using the NDIS outcomes framework questionnaires. The results are intended to provide insight into how the Scheme is making a difference, and point to any areas where improvements may be required.

The present report focusses on results. Readers requiring further background should refer to the previous report, which contains additional information regarding the broader scope of outcomes measurement within the NDIA, and the development and implementation of the outcomes framework questionnaires.

1.2 Overview

The remaining sections of the report present results from analysing the outcomes framework data available as at 30 June 2019. Results are organised with separate sections for each questionnaire version, synthesising analyses from all data sources (SF and LF, baseline and longitudinal).

High level summaries of results for all questions are included in separate volumes of Appendices.

The remainder of the report is organised as follows:

- Sections 2 and 3 contain results for participants from birth to before start school.
- Sections 4 and 5 contain results for participants from starting school to age 14.
- Sections 6 and 7 contain results for young adult participants aged 15 to 24.
- Sections 8 and 9 contain results for adult participants aged 25 and over.

More detailed results contained in the Appendices include:

- Appendix A: Numbers of questionnaires
- Appendix B: LF participation and representativeness analysis
- Appendix C: Age adjustment methodology
- Appendix D: Participants from birth to before starting school
- Appendix E: Participants from starting school to age 14
- Appendix F: Participants aged 15 to 24
- Appendix G: Participants aged 25 and over

Appendices D to G contain the following information:

1. Baseline indicators – aggregate
2. Baseline indicators – by participant characteristics

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[8] https://data.ndis.gov.au/reports-and-analyses/participant-outcomes-report

3. Longitudinal change in indicators over one year for participants entering the Scheme in 2017-18 – aggregate
4. Longitudinal change in indicators over one year for participants entering the Scheme in 2017-18 – by participant characteristics
5. Longitudinal change in indicators over one and two years for participants entering the Scheme in 2016-17 – aggregate
6. Longitudinal change in indicators over two years for participants entering the Scheme in 2016-17 – by participant characteristics
7. Perceptions of whether the NDIS has helped after one year in the Scheme – aggregate
8. Perceptions of whether the NDIS has helped after one year in the Scheme – by participant characteristics
9. Perceptions of whether the NDIS has helped after two years in the Scheme – aggregate
10. Perceptions of whether the NDIS has helped after two years in the Scheme – by participant characteristics.

1.3 Questionnaires and domains

Table 1.1 sets out the questionnaire versions, and domains, including letter codes used in the report.

Table 1.1 Participant outcomes framework questionnaire versions and domains

Domain	Children: 0 to before starting school	Children: starting school to age 14	Young adults: 15 to 24	Adults: 25 and over
Daily living (DL)	✓	✓	✓	✓
Choice and control (CC)	✓	✓	✓	✓
Relationships (REL)	✓	✓	✓	✓
Social, community and civic participation (S/CP)	✓	✓	✓	✓
Lifelong learning (LL)		✓	✓	✓
Health and wellbeing (HW)			✓	✓
Home (HM)			✓	✓
Work (WK)			✓	✓

Domain	Children: 0 to before starting school	Children: starting school to age 14	Young adults: 15 to 24	Adults: 25 and over
Specialist services assist children to be included in families and community (SPL)	✓			

1.4 Cohorts used in the longitudinal analysis

Longitudinal results for outcome indicators are considered separately for two cohorts of participants:

- Participants entering the Scheme in the first year of transition (1 July 2016 to 30 June 2017), for whom a record of outcomes is available at Scheme entry (baseline), and approximately two years after Scheme entry (second review). The large majority of these participants also responded at one year after Scheme entry (first review). This cohort is referred to as the “B,R1,R2” cohort.
- Participants entering the Scheme in the second year of transition (1 July 2017 to 30 June 2018), for whom a record of outcomes is available at Scheme entry (baseline), and approximately one year after Scheme entry (first review). This cohort is referred to as the “B,R1” cohort.

These two cohorts are distinct (that is, a participant contributing to the longitudinal analysis belongs to one cohort only).

2. Participants from birth to before starting school: overview of results

2.1 Key findings

Box 2.1: Overall findings for participants from birth to before starting school who joined the Scheme between 1 July 2016 and 30 June 2017

- For participants entering the Scheme in 2016-17, the longitudinal analysis revealed significant improvements across a number of indicators, with improvements in the first year generally continuing into the second year of Scheme experience. Improvements were seen particularly in the areas of:

- Social, community and civic participation: the percentage of parents/carers who say their child feels welcomed or actively included when they participate in age appropriate community, cultural or religious activities increased by 6.4% between baseline and second review, from 64.4% to 70.8%. The improvement was slightly stronger on an age-adjusted basis (8.6%).

- Specialist services: use of specialist services increased in the year following Scheme entry, by 19% for the cohort entering in 2016-17, with a further increase of 4% for the second year in the Scheme. The percentage of parents/carers who say specialist services support them in assisting their child increased by 9.7% between baseline and second review, from 86.7% to 97.1%. Further, the percentage of parents/carers who say specialist services help their child gain the skills they need to participate in everyday life increased by 11.0% between baseline and second review, from 86.8% to 97.9%.

- Participating in family life: the percentage of parents/carers who say their child fits in with the everyday life of the family increased by 7.1% between baseline and second review, from 67.1% to 74.2%. On an age-adjusted basis the improvement was slightly stronger (8.2%). In addition, the percentage who say that their child gets along with his or her brothers or sisters has increased by 2.1% (7.7% on an age-adjusted basis) between baseline and second review, from 85.3% at baseline to 87.4% at second review.

- Understandably, their child's progress in major developmental areas is a key concern of parents and carers. From the longitudinal analysis, the proportion of parents/carers expressing concern about their child's development in six or more of eight areas surveyed increased by 15.6% between baseline and second review, from 60.3% to 75.9%. However, on an age-adjusted basis, the increase was lower (7.2%).

- Social inclusion and interaction for children with a disability is another key concern, and the proportion of parents/carers who wanted their child to be more involved in community activities increased by 14.7% between baseline and second review, from 66.0% to 80.8%. However, there was also a 6.4% increase in the percentage of parents/carers who say their child's disability is one of the barriers to being involved in community activities, from 81.0% at baseline to 87.5% at second review.

Box 2.2 Overall findings for participants from birth to before starting school who joined the Scheme between 1 July 2017 and 30 June 2018

- For participants entering the Scheme in 2017-18, many indicators also showed significant longitudinal improvement over one year, for example:

- Social, community and civic participation: the percentage of parents/carers who say their child feels welcomed or actively included when they participate in age appropriate community, cultural or religious activities increased by 4.3% between baseline and first review, from 64.1% to 68.4%. For those who use specialist services and childcare, the percentage who say they are assisted by their child's early intervention service to know how to support their child has increased by 34.6% over one year in the Scheme, from 50.0% to 84.6%.

- Specialist services: use of specialist services increased in the year following Scheme entry, by 15.0% for the cohort entering in 2017-18. The percentage of parents/carers who say specialist services support them in assisting their child increased by 2.9% between baseline and first review, from 94.2% to 97.0%. The percentage who say specialist services help their child gain the skills they need to participate in everyday life increased by 3.6% between baseline and first review, from 93.6% to 97.2%. Further, the percentage who say the services they use assist staff at their child's day care, pre-school, or community activities to support their child has increased by 15.7% over one year in the Scheme, from 52.9% to 68.6%.

- Participating in family life: the percentage of parents/carers who say their child fits in with the everyday life of the family increased by 4.6% between baseline and first review, from 68.5% to 73.1%. On an age-adjusted basis the improvement was slightly stronger (6.9%). In addition, the percentage who say that their child gets along with his or her brothers or sisters has increased by 2.3% (3.3% on an age-adjusted basis) between baseline and first review, from 80.9% to 83.2%.

- As for parents/carers of participants entering in 2016-17, progress of their children in major developmental areas is a key concern. The proportion of parents/carers expressing concern about their child's development in six or more of eight areas surveyed increased by 6.2% between baseline and first review, from 67.7% to 73.9%. However, on an age-adjusted basis, the increase was slightly lower (5.3%).

- Social inclusion and interaction for children with a disability is another key concern, and the proportion of parents/carers who wanted their child to be more involved in community activities increased by 3.3% between baseline and first review, from 77.9% to 81.2%. However, there was also a 4.4% increase in the percentage of parents/carers who say their child's disability is one of the barriers to being involved in community activities, from 81.4% at baseline to 85.9% at first review.

- Families who use childcare found it increasingly difficult to find childcare at short notice: the percentage who have no difficulties in finding childcare at short notice has decreased by 22.4%, from 57.1% at baseline to 34.7% at first review.

Box 2.3: Outcomes by key characteristics for participants from birth to before starting school

- Baseline and longitudinal outcomes vary with participant level of function. Participants with higher level of function tend to have better baseline outcomes and exhibit higher rates of improvement than those with a lower level of function.
- Participants with a hearing impairment generally experience better outcomes than those with other disabilities, both baseline and longitudinal.
- Participants from regional and remote locations, compared to those from major cities, show more positive results on some indicators – both at baseline and for longitudinal change. For example, parents/carers of children in regional or remote areas are less likely to have concerns in six or more developmental areas, and are more likely to improve on this indicator, than children living in major cities.
- Many baseline indicators are similar for Indigenous compared to non-Indigenous participants. However, Indigenous children are less likely to live with their parents than non-Indigenous children, and more likely to live in public housing. They are also less likely to use specialist services. One-way analyses suggest that Indigenous children are more likely to be able to make friends outside the family and to have friends they enjoy playing with, but less likely to participate in community, cultural or religious activities. For longitudinal change, Indigenous status was not identified as a significant predictor in multiple regression models for transitions from baseline (possibly due to small numbers).
- Some baseline indicators tend to be better for participants who are not from a CALD background compared to those who are from a CALD background. In baseline regression models, CALD participants are less likely to be able to tell their parents what they want, less likely to be welcomed or actively included when they participate in community, cultural or religious activities, and their parents/carers are more likely to want them to become more involved. However, CALD participants are more likely to live with their parents. For longitudinal change, CALD participants were less likely to improve in their ability to make friends outside the family.

Box 2.4: Has the NDIS helped? – participants from birth to before starting school

- Opinions on whether the NDIS has helped tend to be positive for this cohort. In particular, there is widespread agreement that the NDIS has helped in areas related to the child's development (91.5% after one year in the Scheme, increasing to 93.7% after two years in the Scheme) and access to specialist services (89.4% after one year in the Scheme, increasing to 91.2% after two years in the Scheme). Higher plan utilisation is strongly associated with a positive response after one year in the Scheme, and also after two years in the Scheme, across all five areas surveyed. Participants entering the Scheme for early intervention are more likely to think that the NDIS had helped after one year in the Scheme than those entering due to disability.[9]
- The percentage who think that the NDIS has helped increased slightly (by 1.5-2.1%) between first and second review across all domains. The likelihood of improvement/ deterioration varied by some participant characteristics: participants with higher level of function and those living in higher socioeconomic areas (as measured by ABS SEIFA[10]) were more likely to improve (change their answer from "No" to "Yes"), and new participants (not previously receiving services from State/Territory or Commonwealth programs) were more likely to maintain a positive answer.

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[9] Participants accessing the Scheme under Section 25 of the NDIS Act 2013 enter the Scheme due to early intervention, whereas participants accessing the Scheme under Section 24 of the Act enter the Scheme due to disability.

[10] The ABS Socio-Economic Indexes for Areas (SEIFA) ranks areas in Australia according to relative socio-economic advantage and disadvantage. The two SEIFA indices used were the Index of Education and Occupation (IEO) and the Index of Economic Resources (IER).

2.2 Results overview

2.2.1 Outcomes framework questionnaire domains

For children in the birth to before starting school cohort, the outcomes framework seeks to measure the extent to which participants are:

- Gaining functional, developmental and coping skills appropriate to their ability and circumstances (domain DL, daily living)
- Showing evidence of autonomy in their everyday lives (domain CC, choice and control)
- Using specialist services that assist them to be included in families and communities (domain SPL, use of specialist services)
- Participating meaningfully in family life (domain REL, relationships)
- Participating meaningfully in community life (domain S/CP, social, community and civic participation).

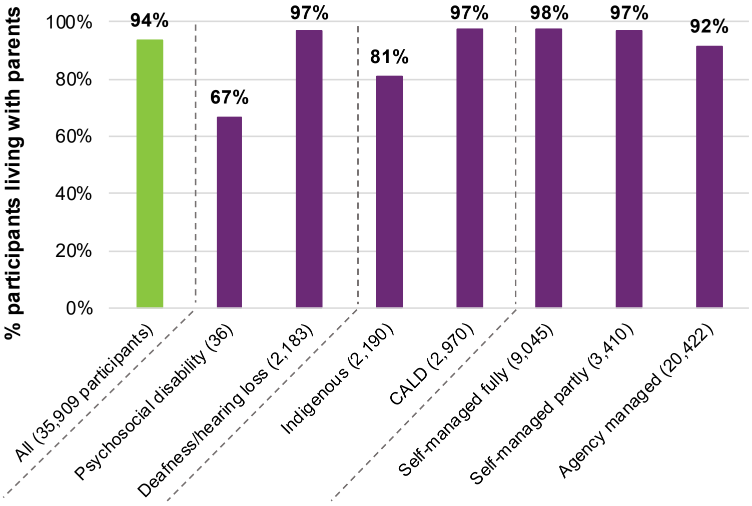
The LF includes 11 extra questions related to childcare, four related to specialist services, three about developmental/coping skills, two about effects on family, and one about developing autonomy.

2.2.2 Participant living arrangements

At baseline, 93.6% of children live with their parents. 2.4% live with other family members and 1.7% with non-relatives, such as foster carers. These percentages have not changed materially in the one and two year longitudinal analysis.

The percentage living with their parents at baseline is much lower for the small number of participants with a psychosocial disability (66.7% of the 36 participants) and higher for those with deafness/hearing loss (97.2%). Indigenous children are less likely to live with their parents (80.8%), however children from a culturally and linguistically diverse background are more likely to do so (97.5%). Children whose plan is self-managed, either partly or fully, are more likely to live with their parents (96.7% for partly self-managed and 97.7% for fully self-managed compared to 91.6% for agency-managed).

Figure 2.1 Proportion of participants living with parents at baseline



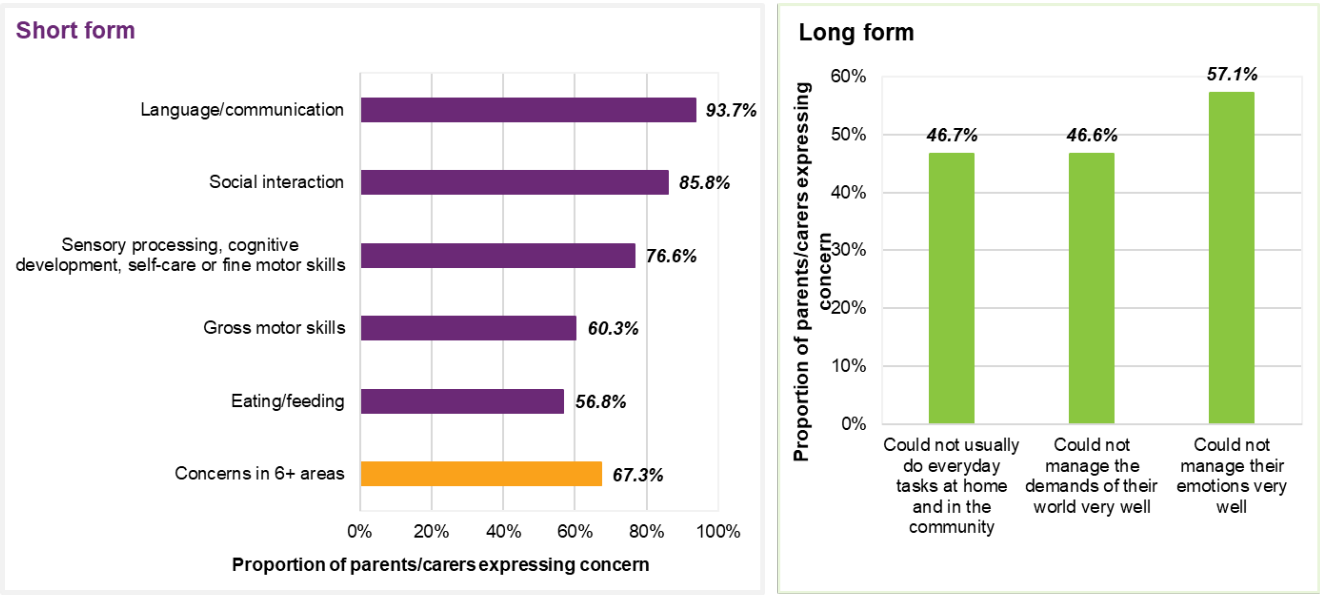
Most participants (89.8%) are in a private home either owned or rented from a private landlord. 8.0% of participants live in a private home rented from a public authority, but this percentage is much higher for Indigenous participants (27.6%) and for participants living in the Northern Territory (28.0%).

2.2.3 Baseline indicators – across all participants[11]

Areas of development

The SF asks parents/carers whether they have concerns about their child's development in eight different areas (multiple areas can be chosen). For each of the eight areas surveyed, more than half of parents/carers expressed concerns at baseline. The area with the highest level of concern was language/communication, where 93.7% of parents/carers had concerns, followed by social interaction (85.8%). Similar percentages of parents/carers had concerns related to the four areas sensory processing, cognitive development, self-care and fine motor skills (74.5% to 78.8%). A smaller percentage had concerns regarding gross motor skills (60.3%) or eating/feeding (56.8%). Most parents/carers had concerns in multiple areas, with 67.3% expressing concerns in six or more of the eight areas.

Figure 2.2 Proportion of parents/carers expressing concern



The LF asks parents/carers whether their child can usually manage their emotions, and the demands of their world. At baseline, 57.1% thought that their child could not manage their emotions very well, and 46.6% thought that they could not manage the demands of their world very well. 46.7% thought that their child could not usually do everyday tasks at home and in the community.

Autonomy

Most children exhibited evidence of growing autonomy, with 70.6% of SF respondents saying that their child was able to tell them what they want, and 91.0% of LF respondents saying that their child takes action once they have decided to do something.

In relation to family life, 51.0% of parents/carers think there is enough time to meet the needs of all family members. Of those with more than one child, 59.1% expressed some

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[11] The baseline aggregate results consider all participants in the appropriate age group with valid baseline plan responses. The combined baseline for participants entering in 2016-17 and 2017-18 is shown.

concern about the effect of having a sibling with disability on their other children, however 80% say that their child with disability gets along with their siblings. Overall, 66.5% say that their child fits into everyday family life. Evidence of integration into family life is provided by children assisting their parents/carers with tasks at home (72.9%) and outside the home (80.8%). 61.4% of children are able to make friends with people outside the family.

Childcare

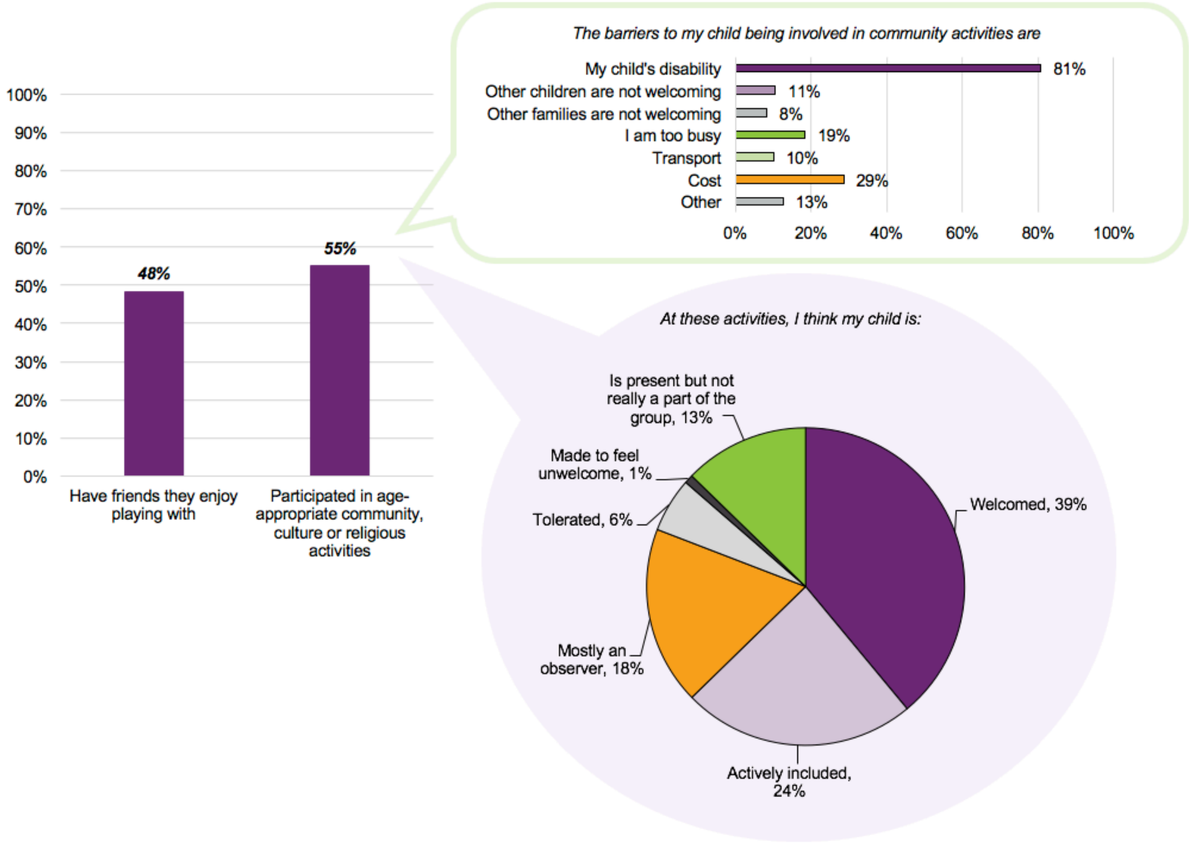
The LF includes a number of extra questions related to childcare. For this relatively small sample of 791 participants, 53.7% used some form of childcare. It was not uncommon for parents/carers to experience a lot of difficulty in finding good quality childcare (16.5%), finding the right person to take care of their child (15.1%), and finding childcare at short notice (24.3%). The most common form of childcare used was centre-based, including family day care, long day care, or any other care at a childcare centre. 64.4% of parents/carers used this form of childcare either while at work or while not at work, with a higher proportion using it while at work (44.1%) than while not at work (31.8%).

Children's experiences at childcare were generally positive. Of those using group childcare, 93.6% said that other children were welcoming and 94.6% said that other families were welcoming. 90.1% of those using childcare thought that their child was asked to do tasks at an appropriate level, and 97.5% felt that their cultural heritage was respected (where applicable). Evidence of childcare services working together with the parent/carer to support the child was less strong, with 79.6% thinking the childcare helped them assist their child, 64.8% thinking the childcare involves them in planning for their child, and 59.6% saying the childcare helped them to plan for the future. 55.0% thought their childcare service was being assisted by their early intervention service (where applicable) to support their child.

Participation

Evidence of social and community participation outside childcare comes from the SF. 48.3% of children have friends they enjoy playing with, most often at social or family gatherings (55.0%) or pre-school (56.2%). 51.7% of children participated in age-appropriate community, cultural or religious activities, with 62.7% of parents/carers feeling that their child was welcomed or actively included in these activities. 75.0% of parents wanted their child to be more involved in community activities, with 80.9% perceiving their child's disability as a barrier to being more involved. Community activities appear less welcoming than childcare, with other barriers to greater involvement including non-welcoming behaviour of other children (10.7%) or other families (8.4%). Cost is also a considerable barrier (28.7%).

Figure 2.3 Social and community participation, barriers and inclusion



Specialist services

71.2% of participants aged 0 to before starting school use specialist services (such as speech pathology, occupational therapy) to assist their learning and development. From the SF, 91.0% of parents/carers thought that these services helped their child's skill development and 91.6% thought they supported them to assist their child. From the LF, 95.2% thought that the services involved them, 92.6% that they respected the family/carer's cultural heritage, and 89.2% that they helped plan for the future. However the percentage thinking that the services assisted staff at their child's other activities (such as childcare/pre-school) to support their child was lower, at 60.9%.

2.2.4 Baseline indicators – participant characteristics

Baseline indicators have been analysed by participant characteristics using one-way analyses and multiple regression modelling. Multiple regression modelling was performed for the following indicators:

- The percentage of parents/carers with concerns in six or more of the areas: gross motor skills, fine motor skills, self-care, eating/feeding, social interaction, language/ communication, cognitive development, sensory processing
- The percentage of parents/carers who say their child is able to tell them what he/she wants
- The percentage of children who participate in age appropriate community, cultural or religious activities
- Of those who participate, the percentage who feel welcomed or actively included

- The percentage of parents/carers who would like their child to be more involved in community activities
- The percentage of parents/carers who say their child's disability is one of the barriers to being involved in community activities.

Key findings from the one-way analyses and regression modelling include:

- **Level of function**

  Baseline indicators are generally better for participants with higher level of function, particularly those related to family life and developmental concerns.

  Level of function was a significant predictor in all six multiple regression models considered for baseline indicators. Controlling for other variables, a higher level of function is significantly associated with:

  - A lower likelihood of the parent/carer: having concerns in six or more areas of development (on a one-way basis, the percentages are 58.4%, 77.8% and 87.2% for participants with high, medium and low level of function, respectively), wanting their child to be more involved in community activities, and saying their child's disability is one of the barriers to being more involved.
  - A higher likelihood that the child: is able to tell their parent/carer what they want (77.2%, 70.0% and 42.3% for participants with high, medium and low level of function, respectively), participates in age-appropriate community, cultural or religious activities, and is welcomed or actively included when they do participate.

  In one-way analyses for SF indicators not modelled, the largest differences occur for the percentage of parents/carers who say:

  - Their child can make friends with people outside the family (70.7%, 54.0% and 33.9% for participants with high, medium and low level of function, respectively)
  - Their child joins them when they complete tasks at home (81.0%, 67.1% and 47.5%), and to a lesser extent, outside the home (86.6%, 76.3% and 63.4%).

  Several LF indicators also differ significantly with level of function, particularly the percentage of parents/carers who say:

  - Their child is able to do everyday tasks at home/in the park/at childcare (59.2%, 45.2% and 19.0% for participants with high, medium and low level of function, respectively).
  - Their child manages the demands of his/her world most of the time (58.7%, 41.4% and 31.7%).
  - There is enough time each week for all members of their family to get their needs met (55.9%, 41.7% and 27.0%).

  Use of specialist services is more prevalent amongst children with low levels of function (76.8% compared to 74.6% and 68.5% for medium and high levels of function, respectively). However, there is less variation by level of function for the percentage who say the services help their child gain the skills needed to participate in everyday life (89.2%-91.6%), and the percentage who say the services support them in assisting their child (90.7%-92.0%).

- **Disability**

Baseline indicators are often considerably better for participants with hearing loss compared to participants with other disabilities.

Disability was a significant predictor in all six baseline regression models. Controlling for other variables:

- Participants with hearing loss fared the best on four of the six indicators.
- Participants with visual impairment were the most likely to participate in age-appropriate community, cultural or religious activities, and their parents/carers were the least likely to perceived their child's disability as a barrier to being more involved.
- Parents/carers of children with global developmental delay were the most likely to have concerns in six or more developmental areas, followed by parents/carers of participants with Down syndrome. Parents/carers of children with a hearing impairment were the least likely (by a considerable margin) to have concerns in six or more developmental areas (15.7% on a one-way basis, compared to 67.3% overall).
- Participants with global developmental delay were the least likely to participate in age-appropriate community, cultural or religious activities, and less likely to be welcomed or actively included than participants with all other disabilities except autism.
- Participants with autism were less likely to participate in age-appropriate community, cultural or religious activities than participants with all other disabilities apart from global developmental delay, and less likely to be welcomed or actively included than participants with all other disabilities. Parents/carers of children were also the most likely to perceived their child's disability as a barrier to being more involved.

In one-way analyses for SF indicators not modelled, the largest differences occur for:

- The percentage of parents/carers who say their child fits in with the everyday life of the family: the percentage is lowest for the small number of children with a psychosocial disability (42.9%), followed by children with autism (52.8%), and is highest for children with a hearing impairment (87.0%).
- The percentage of parents/carers who say their child can make friends with people outside the family: the percentage is lowest for children with autism (50.2%) and highest for children with another sensory/speech disability (77.4%).
- The percentage of children who use specialist services that assist with their learning and development: the percentage is lowest for children with a hearing impairment (61.6%) and highest for those with cerebral palsy or another neurological disorder (86.4%).

There are also some significant differences for LF indicators. For example:

- Participants with autism are less likely to be able to manage their emotions (31.7% compared to 42.9% overall) and the demands of their world (43.8% compared to 53.4% overall).
- Participants with intellectual disability/Down syndrome are less likely to be able to do everyday tasks at home/in the park/at childcare (27.9% compared to 53.3% overall).

- **Culturally and linguistically diverse backgrounds**

  Baseline indicators tend to be better for non-CALD compared to CALD participants.

  CALD status was a significant predictor in three of the six baseline regression models. Controlling for other factors:

  - Parents/carers of children from a CALD background are much less likely to say that their child is able to tell them what they want (57.8% compared with 71.9% for non-CALD participants, on a one-way basis).
  - Participants from a CALD background who participate in community activities are less likely to be welcomed or actively included (52.2% compared with 63.6% for non-CALD participants, on a one-way basis). However, the percentage participating in community activities did not differ significantly between CALD and non-CALD participants.
  - Parents/carers of children from a CALD background are more likely to want their child to be more involved in community activities (79.8% compared with 74.6% for non-CALD participants, on a one-way basis). However, the percentage of parents/carers who perceive their child's disability as a barrier to being more involved did not differ significantly between CALD and non-CALD participants.

  Strong differences on a one-way basis also occurred for several other relationship indicators, with CALD participants being less likely to be able to make friends outside the family (43.2% compared to 63.0% for non-CALD participants), less likely to have friends they enjoy playing with (32.1% versus 49.8%), and less likely to join in tasks within the home (57.4% versus 74.4%) and outside the home (71.5% versus 81.7%).

  However, the percentage of parents/carers who have concerns in six or more developmental areas did not differ significantly between CALD (67.5%) and non-CALD (67.2%) participants.

- **Indigenous**

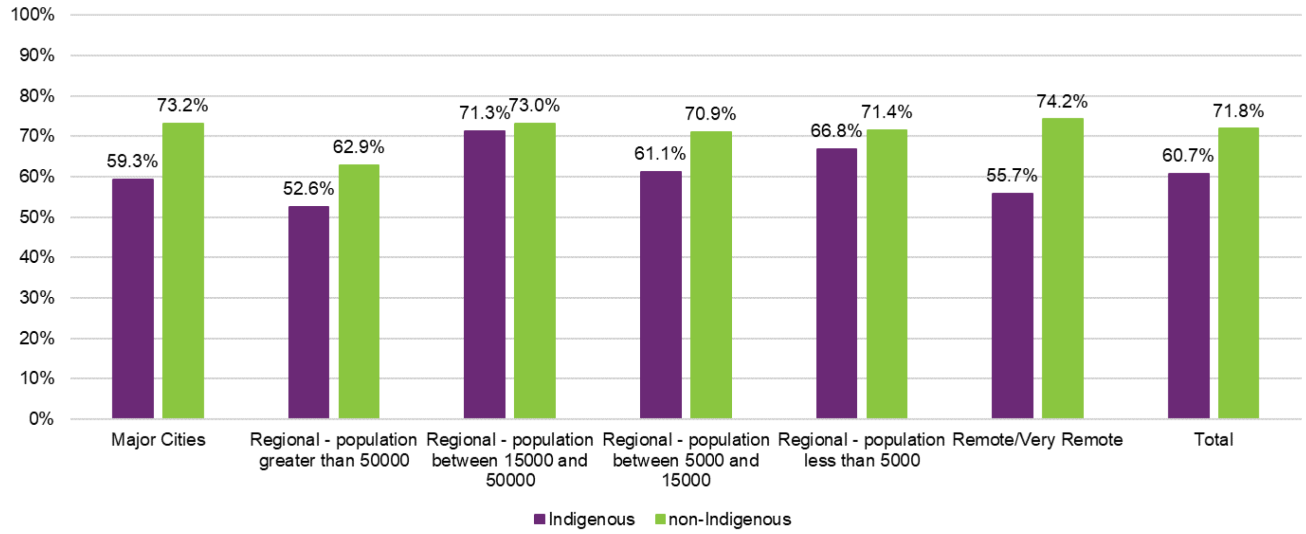
  Many baseline indicators do not differ a great deal for Indigenous compared to non-Indigenous participants.

  Indigenous status is not a significant predictor in any of the six baseline regression models considered.

  From the one-way analyses, use of specialist services is an exception, with Indigenous participants being significantly less likely to use specialist services (60.8%) than non-Indigenous participants (70.2%). This does not seem to be driven by remoteness, as usage is lower for Indigenous participants at every level of remoteness (Figure 2.4) (but could be due to other factors not controlled for). Parents/carers of Indigenous participants who use specialist services are also less likely to think that the services involve them (90.9% versus 95.1%).

  Also on a one-way basis, Indigenous children are significantly more likely to be able to make friends with people outside the family (64.9% versus 60.7% for non-Indigenous children) and to have friends they enjoy playing with (52.0% versus 47.4% for non-Indigenous children). However, they are less likely to participate in community, cultural or religious activities (47.3% versus 51.5%).

Figure 2.4 Use of specialist services at baseline by Indigenous status and remoteness



- **Age**

  There are some significant trends with baseline age, however some of these reflect normal childhood development. Some baseline indicators related to participation and developmental concerns appear to be better for younger children than for older children.

  Age appears as a significant predictor in all six baseline regression models considered. Controlling for other factors:

  - The percentage of parents/carers who say that their child is able to tell them what they want increases with baseline age, however this reflects normal childhood development.
  - Participation in community, cultural or religious activities also increases with baseline age, and this is also likely to be related to normal childhood development.
  - Parents/carers of older children are more likely to have concerns in six or more developmental areas.
  - Older children are less likely to be welcomed or actively included in community, cultural or religious activities.
  - Parents/carers of older children are more likely to want them to be more involved in community activities, and more likely to perceive their child's disability as a barrier to being more involved.

  From the one-way analyses, older children are more likely to make friends outside the family, and to have friends they enjoy playing with, however these indicators are likely to reflect normal age-related development. Use of specialist services tends to increase with the child's age at baseline (from 66.0% for children aged 2 or younger to 75.5% for those aged 5 or older).

- **Gender**

  Female participants have more positive baseline outcomes on some indicators.

  Controlling for other factors in the baseline regression models, parents/carers of girls are less likely to have concerns in six or more of the eight areas surveyed (69.0% versus 62.9% on a one-way basis). Girls are more likely to participate in community, cultural or religious activities (53.9% versus 50.7% on a one-way basis) and are more likely to feel welcomed or actively included when they do (66.5% versus 61.1%).

- **Geography**

  Compared to children from major cities, children from regional and remote locations show more positive results on some indicators.

  Remoteness[12] was a significant predictor in three of the baseline regression models considered. Controlling for other factors:

  - Compared to parents/carers of participants living in major cities, parents/carers of participants living in regional areas with population less than 5000, or in remote/very remote locations, were significantly less likely to have concerns in six or more developmental areas (61.9%-63.0% on a one-way basis, compared to 68.7% for participants living in major cities).
  - Compared to parents/carers of participants living in major cities, parents/carers of participants living in regional and remote areas were more likely to say that their child is able to tell them what he/she wants (68.8% for major cities compared to 74.3% for more remote areas combined).
  - Compared to parents/carers of participants living in major cities, parents/carers of participants living in regional areas were less likely to want their child to be more involved in community activities. However, parents/carers of participants living in remote/very remote areas were significantly more likely to want their child to be more involved.

  One-way analyses suggest that participants living in regional areas are more likely to make friends with people outside the family than participants living in either major cities or remote/very remote locations. However, one-way analyses for remoteness should be interpreted with care due to the potential for confounding (for example, participants in remote/very remote areas are more likely to be Indigenous, and to be younger).

- **Plan management type**

  There were significant differences by plan management type for five of the baseline regression models. Children whose plan is self-managed, either partly or fully, were more likely to participate in community activities, but less likely to be welcomed or actively included in these activities. Parents/carers who self manage, either partly or fully, were more likely to want their child to be more involved in community activities, and more likely to perceive their child's disability as a barrier to being more involved. They were also more likely to have concerns in six or more developmental areas.

  Note that these baseline differences reflect characteristics of participants whose parents/carers choose to self manage, rather than the self-management process itself (since the results are at the start of the participant's first plan).

- **Relationships**

  Having friends they enjoy playing with was a significant positive factor in all six baseline regression models considered. Participation in community activities was also a positive factor, associated with a lower likelihood of parents/carers having concerns

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[12] Modified Monash Model: https://www.health.gov.au/health-workforce/health-workforce-classifications/modified-monash-model

in six or more developmental areas, and a higher likelihood of the child being able to tell parents/carers what they want.

- **Use of childcare and specialist services**
  In multiple regression models, children who used specialist services were more likely to be involved in community activities, and their parents/carers were more likely to say that they wanted their child to be more involved. However, parents/carers of children who use specialist services were more likely to perceive their child's disability as a barrier to being more involved, and considerably more likely to have concerns in six or more developmental areas.
  Use of childcare was generally a positive factor in the multiple regression models. Children of parents/carers who use childcare were more likely to be involved in community activities and more likely to be welcomed or actively included in these activities, and more likely to be able to tell their parent/carer what they want.

2.2.5 Longitudinal indicators – across all participants

Longitudinal analysis describes how outcomes have changed for participants during the time they have been in the Scheme. Included here are participants who entered the Scheme between 1 July 2016 and 30 June 2018, for whom a record of outcomes is available at scheme entry (baseline) and at one or more of the two time points: approximately one year following scheme entry (first review), and approximately two years following scheme entry (second review). The analysis considers how outcomes have changed between baseline and first review, between baseline and second review and between first review and second review for the short form and long form questionnaires[13].

There have been a number of improvements across all domains for the three periods being considered. The greatest changes occurred when considering a participant's responses from baseline to their second review.

As discussed in Section 4.2, changes over time for children will include an element of normal age-related development. Age-adjusted changes have been used to guide selection of indicators presented in this section.

Table 2.1 summarises changes for selected indicators across different time periods. In Table 2.1, cohort "B,R1,R2" includes participants responding at baseline, first review and second review.[14] Cohort "B,R1" includes participants responding at both baseline and first review (but not at second review, so the cohorts do not overlap). Indicators were selected for the tables if the change was statistically significant[15], had an absolute magnitude greater than 0.02[16], and was confirmed by the age-adjusted analysis.

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[13] Due to an insufficient number of respondents, the change between baseline and second review was omitted for certain long form questions.

[14] A small number may be missing a response at the first review.

[15] McNemar's test at the 0.05 level.

[16] Between baseline and second review for the "B,R1,R2" cohort, and between baseline and first review for the "B,R1" cohort.

Table 2.1 Selected longitudinal indicators for participants from birth to before starting school

Domain (Form)	Indicator	Cohort	Baseline	Review 1	Review 2	Change B-R1	Change R1-R2	Change B-R2	Improvement/ Deterioration
REL (SF)	% of children who get along with his/her brother(s)/sister(s)	B,R1,R2	85.3%	86.8%	87.4%	1.5%	0.6%	2.1%	**Improvement**
		B,R1	80.9%	83.2%		2.3%			
REL (SF)	% of parents/carers who say their child fits in with the everyday life of the family	B,R1,R2	67.1%	73.5%	74.2%	6.4%	0.7%	7.1%	**Improvement**
		B,R1	68.5%	73.1%		4.6%			
S/CP (SF)	Of those who participate in community, cultural or religious activities, % who feel welcomed or actively included	B,R1,R2	64.4%	69.7%	70.8%	5.3%	1.1%	6.4%	**Improvement**
		B,R1	64.1%	68.4%		4.3%			
S/CP (LF)	For families who use childcare and early intervention services, % who say their childcare is assisted by their early intervention services to know how to support their child	B,R1	50.0%	84.6%		34.6%			**Improvement**
SPL (SF)	% of parents/carers who say that specialist services help their child gain skills she/he needs to participate in everyday life	B,R1,R2	86.8%	95.0%	97.9%	8.2%	2.9%	11.0%	**Improvement**
		B,R1	93.6%	97.2%		3.6%			
SPL (SF)	% of parents/carers who say that specialist services support them in assisting their child	B,R1,R2	87.4%	96.1%	97.1%	8.7%	1.0%	9.7%	**Improvement**
		B,R1	94.2%	97.0%		2.9%			
SPL (LF)	For children who receive specialist services, % whose services assist staff at the child's daycare/ preschool/ community activities to support the child	B,R1	52.9%	68.6%		15.7%			**Improvement**
S/CP (SF)	% of parents/carers who would like their child to be more involved in community activities	B,R1,R2	66.0%	76.1%	80.8%	10.1%	4.6%	14.7%	**Context Dependent**
		B,R1	77.9%	81.2%		3.3%			

Domain (Form)	Indicator	Cohort	Baseline	Review 1	Review 2	Change B R1	Change R1 R2	Change B R2	Improvement/ Deterioration
SPL (SF)	% who say their child uses specialist services that assist with their learning and development	B,R1,R2	73.6%	92.7%	96.9%	19.1%	4.2%	23.3%	**Context dependent**
		B,R1	74.5%	89.5%		15.0%			
DL (SF)	% of parents/carers with concerns in 6 or more areas	B,R1,R2	60.3%	70.2%	75.9%	9.9%	5.7%	15.6%	**Deterioration**
		B,R1	67.7%	73.9%		6.2%			
REL (LF)	% of parents/carers who believe there is enough time each week for all members of their family to get their needs met	B,R1,R2	63.3%	50.0%	40.0%	-13.3%	-10.0%	-23.3%	**Deterioration**
		B,R1	55.3%	44.7%		-10.6%			
S/CP (SF)	% of parents/carers who say their child's disability is one of the barriers to being involved in community activities	B,R1,R2	81.0%	84.4%	87.5%	3.4%	3.1%	6.4%	**Deterioration**
		B,R1	81.4%	85.9%		4.4%			
S/CP (LF)	For families who use childcare, % who have no difficulties in finding childcare at short notice	B,R1	57.1%	34.7%		-22.4%			**Deterioration**

Key findings from Table 2.1 include:

- Use of specialist services has increased, along with the percentage of parents/carers who say that these services help their child gain the skills they need to participate in everyday life.
- There have been improvements across the social, community and civic participation domain, with a higher percentage of parents/carers saying their child is welcomed or actively included when they participate in community, cultural or religious activities.
- Participation in family life has also improved, with more parents/carers saying that their child fits in with the everyday life of the family, and that they get along with their siblings. The percentage of parents/carers who would like their child to be more involved in community activities increased across all time points.
- Further deterioration was observed for three of the indicators highlighted in last year’s report: more parents/carers have concerns about their child’s development in six or more of the eight areas surveyed, fewer feel there is enough time to meet the needs of all family members, and more see their child’s disability as a barrier to greater involvement in community activities.
- Families who use childcare are finding it increasingly difficult to find childcare at short notice.

2.2.6 Longitudinal indicators – participant characteristics

Analysis by participant characteristics has been examined in two ways:

1. A simple comparison of the percentage meeting the indicator at first or second review with the percentage meeting the indicator at baseline. The difference (review-baseline) is compared for different subgroups.
2. Multiple regression analyses with separate models for improvement and deterioration in the indicator. That is, for the subset without/with the indicator at baseline, the probability of meeting/not meeting the indicator at first or second review is modelled as a function of participant characteristics.[17,18] Multiple regression analyses were performed for the same six indicators as considered for baseline.

It should be noted that these two analyses can produce different results, particularly where there is a large difference in the indicator at baseline between subgroups.

Some key features of the analyses for selected indicators are summarised below. For each indicator, a table summarising the direction of the effect for each significant predictor in the regression models is included. Table 2.2 provides a key to aid interpretation of the arrow symbols used in these tables, including some examples.

Table 2.2 Definition of symbols used in key driver tables

Symbol	Meaning	Impact	Example
⬆	More likely to improve	Positive	Participants who have friends are more likely to improve in relation to being able to communicate what they want
⬇	Less likely to improve	Negative	Children with autism are less likely to start feeling welcomed or actively included in community, cultural or religious activities
⬆	More likely to deteriorate	Negative	Children with autism are more likely to stop feeling welcomed or actively included in community, cultural or religious activities
⬇	Less likely to deteriorate	Positive	Participants who have friends are less likely to deteriorate in relation to being able to communicate what they want
⬆	More likely to change from "No" to "Yes"	Depends on context	Parents/carers of participants with lower level of function were more likely to change from not wanting their child to be more involved in community activities, to wanting them to be more involved

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[17] Modelling of baseline to second review transitions is based on a smaller amount of data, hence these models tend to identify a smaller number of significant predictors.

[18] Note that these models are used to investigate factors associated with a higher or lower likelihood of change, rather than whether there has been a change overall, which was the purpose of the analysis summarised in the previous subsection. Considering the role of age, the models can identify whether younger or older participants are more likely to improve. Including age in the model also means that age is controlled for when interpreting the effect of other factors in the model. This is different to the concept of age adjustment that was used in the overall analysis. In the overall analysis, age-adjustment was used to remove the portion of change attributable to normal age-related development. The overall analysis does not say anything about differential rates of improvement by age (or any other factor).

Symbol	Meaning	Impact	Example
⇩	Less likely to change from "No" to "Yes"	Depends on context	Parents/carers of participants who have friends were less likely to change from not wanting their child to be more involved in community activities, to wanting them to be more involved
⇧	More likely to change from "Yes" to "No"	Depends on context	Parents/carers of participants in more remote areas were more likely to change from wanting their child to be more involved in community activities, to not wanting them to be more involved
⬇	Less likely to change from "Yes" to "No"	Depends on context	Parents/carers of participants with a lower level of function were less likely to change from wanting their child to be more involved in community activities, to not wanting them to be more involved

My child participates in age-appropriate community, cultural or religious activities

The percentage of parents/carers reporting that their child participates in age-appropriate community, cultural or religious activities increased slightly between baseline and the first review (1.3%) and did not change significantly between baseline and the second review. This was a result of improvements offset by deteriorations as set out in Table 2.3 below.

Table 2.3 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort[1]		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	3,582	4,113	685	19.1%	584	14.2%	+1.3%
Baseline to Review 2	384	528	127	33.1%	124	23.5%	+0.3%

[1] The cohort is selected as all those with non-missing responses at the relevant surveys.

Participant characteristics that had a statistically significant effect (p<0.05) on the likelihood of improvement or deterioration in the outcome are set out in Table 2.4 below.

Table 2.4 Key drivers of likelihood of transitions in *"my child participates in age-appropriate community, cultural or religious activities"* response

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	Improvement	Deterioration	Improvement	Deterioration
Participant lives in Victoria	⬇	⬇	⬇	
Participant lives in Queensland		⬇	⬆	
Participant lives in South Australia			⬆	
Participant is female		⬇		
Entered the Scheme in 2016/17	⬆			
Lower level of function	⬇	⬆	⬇	⬆
Higher annualised plan budget	⬇			
Plan is fully self-managed	⬆			
More than 5% of supports are capital supports			⬇	
Lower level of NDIA support[19]		⬇		
Participant received services from Commonwealth programs before entering the NDIS				⬇
Participant has friends	⬆	⬇		
Uses specialist services		⬇		
Higher Index of Education and Occupation (IEO)		⬇		
Higher Index of Economic Resources (IER)			⬆	

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[19] The level of NDIA support a participant requires as they move along the participant pathway, having regard to the complexity of their situation.

Key findings from Table 2.4 include:

- Participants with higher level of function were more likely to start participating in community, cultural or religious activities and less likely to stop participating. From one-way analyses, the percentage of children participating increased by 3.1% between baseline and second review for those with a high level of function, whereas there was little change (0.5%) for participants with medium level of function, and a 9.5% decrease for participants with low level of function.
- Participant disability type was not significant in any of the four models for this indicator.
- Participants who have friends they enjoy playing with are more likely to improve and less likely to deteriorate between baseline and first review.
- Higher socioeconomic status (as measured by SEIFA indices) tends to be associated with a higher likelihood of improvement and lower likelihood of deterioration.
- There were some differences by State/Territory. For example, participants living in Victoria were less likely to transition (either improve or deteriorate) between baseline and first review, and were less likely to improve between baseline and second review.

At these activities I think my child feels welcomed or actively included

The percentage of parents/carers reporting that their child feels welcomed or actively included increased 4.6% between baseline and first review and increased 6.4% between baseline and second review. This was a result of improvements offset by deteriorations as set out in Table 2.5 below.

Table 2.5 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	1,245	2,204	306	24.6%	149	6.8%	+4.6%
Baseline to Review 2	139	251	53	38.1%	28	11.2%	+6.4%

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of improvement or deterioration in the outcome are set out in Table 2.6 below.

Table 2.6 Key drivers of likelihood of transitions of *"at these activities I think my child feels welcomed or actively included"* response

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	Improvement	Deterioration	Improvement	Deterioration
Participant lives in Victoria	⬇	⬇	Numbers are too small	
Participant lives in Queensland	⬇			
Participant lives in South Australia		⬇		
Disability is autism	⬇	⬆		
Disability is Down syndrome or an intellectual disability	⬆			
Disability is a sensory disability	⬆			
Lower level of function	⬇			
Higher annualised plan budget		⬆		
Plan is agency-managed		⬇		
Higher Index of Economic Resources (IER)	⬆			

Key findings from Table 2.6, regarding transitions from baseline to first review, include:

- Children with autism are less likely to start feeling welcomed or actively included in community, cultural or religious activities than children with other disabilities, and more likely to stop feeling welcomed or actively included. Children with Down syndrome or an intellectual disability, and those with a sensory disability, are more likely to start feeling welcomed or actively included.
- Participants with higher level of function were more likely to improve. Likely related to level of function, participants with lower annualised plan budget were less likely to deteriorate.

My child's disability is one of the barriers to being involved in community activities

The percentage of parents/carers reporting that their child's disability is one of the barriers to being involved in community activities increased 4.3% between baseline and first review and by 6.4% between baseline and second review. This was a result of improvements offset by deteriorations[20] as set out in Table 2.7 below.

Table 2.7 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort		Improvements: Yes to No		Deteriorations: No to Yes		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	1,052	4,589	155	3.4%	398	37.8%	+4.3%
Baseline to Review 2	109	465	29	6.2%	66	60.6%	+6.4%

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of improvement or deterioration in the outcome are set out in Table 2.8 below.

Table 2.8 Key drivers of likelihood of transitions of *"my child's disability is one of the barriers to being involved in community activities"* response

Variable	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
	Improvement	Deterioration	Improvement	Deterioration
Participant lives in Victoria	⬇			
Participant lives in South Australia	⬇			
Disability is autism	⬇	⬆		
Entered the Scheme in 2016/17	⬆			
Lower level of function	⬇	⬆		⬆
Higher annualised plan budget	⬇	⬆		
More than 5% of supports are capital supports		⬆		
Lower level of NDIA support		⬆		

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[20] Note that a decrease in this indicator represents an improvement, and an increase represents a deterioration.

Variable	Baseline to First Review Relationship with likelihood of		Baseline to Second Review Relationship with likelihood of	
	Improvement	Deterioration	Improvement	Deterioration
Uses child-care		⬇		
Higher Index of Economic Resources (IER)		⬆		

Key findings from Table 2.8, regarding transitions between baseline and first review, include:

- Parents/carers of children with autism were more likely to start perceiving, and less likely to stop perceiving, their child's disability as a barrier to being more involved in community activities.
- Lower level of function and higher plan budget were both associated with a lower likelihood of improvement and a higher likelihood of deterioration. Lower level of function was also associated with a higher likelihood of deterioration between baseline and second review.
- Improvement was less likely for participants living in Victoria and South Australia.
- Deterioration was more likely for participants whose plans consisted of more than 5% capital supports, and for participants requiring lower levels of NDIA support through the participant pathway.
- Deterioration was less likely for participants who use child care.
- Parents/carers of participants living in areas with higher economic resources were more likely to start perceiving their child's disability as a barrier to being more involved.

I would like my child to be more involved in community, cultural or religious activities

The percentage of parents/carers reporting that they would like their child to be more involved in age-appropriate community, cultural or religious activities increased between baseline and the first review (4.1%) and between baseline and the second review (14.7%). This was a result of improvements offset by deteriorations as set out in Table 2.9 below.

Table 2.9 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort		Context dependent: No to Yes		Context dependent: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	1,834	5,976	655	35.7%	335	5.6%	+4.1%
Baseline to Review 2	325	632	199	61.2%	58	9.2%	+14.7%

Participant characteristics that had a statistically significant effect (p<0.05) on the likelihood of improvement or deterioration in the outcome are set out in Table 2.10 below.

Table 2.10 Key drivers of likelihood of transitions in *"I would like my child to be more involved in community, cultural or religious activities"* response

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	No to Yes	Yes to No	No to Yes	Yes to No
Participant lives in New South Wales	⬆		⬆	
Participant lives in Victoria	⇩	⬇		
Participant lives in Queensland				⇧
Participant lives in South Australia	⬆			
Participant lives in NT, TAS, WA or ACT		⬇		
Disability is autism	⬆	⬇		
Disability is cerebral palsy, another neurological disability, a sensory disability, Down syndrome or an intellectual disability		⇧		
Participant is CALD		⬇		
Entered the Scheme in 2016/17	⬆			
Lower level of function	⬆	⬇		⬇
Participant lives in a more remote area		⇧		
Higher annualised plan budget		⬇		
Plan is fully self-managed	⬆			
Less than 75% of supports are capacity building supports			⬆	
Participant has not received services from Commonwealth or state systems before entering the NDIS			⇩	
Participant has friends	⇩		⇩	

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	No to Yes	Yes to No	No to Yes	Yes to No
Higher Index of Economic Resources (IER)	⬆		⬆	

Key findings from Table 2.10 include:

- Given a ‘No’ response at baseline, parents/carers of participants with a lower level of function were more likely to want their child to be more involved, at the first review. Given a ‘Yes’ response at baseline, parents/carers of participants with a lower level of function were more likely to want their child to be more involved, at both first and second reviews.
- Parents/carers of participants who have friends they enjoy playing with are less likely to change their response from ‘No’ to ‘Yes’, between both baseline and the first review, and baseline and the second review.
- Higher economic resources (as measured by the IER) is associated with a higher likelihood of a parent/carer’s response changing from ‘No’ to ‘Yes’.
- Participants living in NSW were more likely to change their response from ‘No’ to ‘Yes’, between both baseline and the first review, and baseline and the second review.

My child is able to tell me what he/she wants

The percentage of parents/carers reporting that their child is able to tell them what he/she wants increased by 12.3% between baseline and first review and by 19.7% between baseline and second review. This was a result of improvements offset by deteriorations as set out in Table 2.11 below.

Table 2.11 Breakdown of net movement in longitudinal responses

	Number of Baseline Responses in cohort		Improvements: No to Yes		Deteriorations: Yes to No		
Longitudinal Period	No	Yes	Number	%	Number	%	Net Movement
Baseline to Review 1	2,838	5,011	1,129	39.8%	165	3.3%	+12.3%
Baseline to Review 2	390	548	220	56.4%	35	6.4%	+19.7%

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of improvement or deterioration in the outcome are set out in Table 2.12 below.

Table 2.12 Key drivers of likelihood of transitions of *“my child is able to tell me what he/she wants”* response

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	Improvement	Deterioration	Improvement	Deterioration
Participant lives in Victoria	⬇	⬇		
Participant lives in Queensland		⬇		
Participant lives in South Australia	⬆		⬆	
Disability is autism	⬆			
Disability is a sensory disability	⬆			
Participant is older	⬆	⬇		⬇
Participant is female				⬆
Participant lives in a more remote location				⬇
Lower level of function	⬇	⬆	⬇	⬆
Higher annualised plan budget	⬇	⬆		⬆
Plan is self-managed		⬇	⬇	
Participant uses child-care		⬇	⬆	
Participant participates in the community	⬆		⬆	
Participant has friends	⬆	⬇		⬇
Higher Index of Education and Occupation (IEO)	⬆			
Participants lives in an area with a higher unemployment rate		⬆		

Key findings from Table 2.12 include:

- Participants with autism and those with a sensory disability were more likely to transition from not being able to communicate what they want, to being able to communicate what they want, between baseline and first review.
- Older participants were more likely to experience positive transitions in being able to tell their parents/carers what they want.
- Participants with higher level of function were more likely to improve, and less likely to deteriorate, in their ability to communicate what they want.
- Participants living in more remote locations were less likely to deteriorate over two years.
- Use of child care, having friends, and participating in the community were associated with positive transitions.
- Participants living in areas with higher education and occupation opportunities were more likely to improve over one year, whereas participants living in higher unemployment areas were more likely to deteriorate.

Percentage with concerns in six or more areas

The percentage of parents/carers with concerns in six or more areas increased by 6.7% between baseline and first review and by 15.6% between baseline and second review. This was a result of improvements offset by deteriorations as set out in Table 2.13 below.

Table 2.13 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort		Improvements: Yes to No		Deteriorations: No to Yes		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	2,644	5,332	397	7.4%	928	35.1%	+6.7%
Baseline to Review 2	380	577	46	8.0%	195	51.3%	+15.6%

Participant characteristics that had a statistically significant effect (p<0.05) on the likelihood of improvement or deterioration in the outcome are set out in Table 2.14 below.

Table 2.14 Key drivers of likelihood of transitions of *"concerns in six or more areas"* response

Variable	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
	Improvement	Deterioration	Improvement	Deterioration
Participant lives in Victoria	↓			
Disability is Down syndrome or an intellectual disability	↓	↑		
Disability is a sensory disability	↑	↓		↓
Disability is developmental delay or global developmental delay			↑	
Participant is older	↓			
Participant is female		↓		↓
Participant entered the Scheme in 2016/17	↑	↓		
Lower level of function	↓	↑		↑
Participant lives in more remote area	↑		↑	
Higher annualised plan budget	↓	↑		↑
Participant received services from Commonwealth programs before entering the NDIS	↑			
Participant received State/ Territory supports before entering the NDIS				↑
Higher level of NDIA support	↓			
Plan is plan managed/Agency managed				↑
Participant participates in the community		↓		
Participant has friends		↓		

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	Improvement	Deterioration	Improvement	Deterioration
Higher unemployment area				⬆

Key findings from Table 2.14 include:

- Parents/carers of participants with a sensory disability who had concerns in six or more developmental areas at baseline were more likely to say they did not have concerns in six or more areas at first review, compared to parents/carers of participants with other disabilities. Similarly, parents/carers of participants with a sensory disability who did not have concerns in six or more developmental areas at baseline were less likely to say they had concerns in six or more areas at first review, and at second review, compared to parents/carers of participants with other disabilities. However, improvement was less likely, and deterioration more likely, for parents/carers of participants with Down syndrome or an intellectual disability.
- Deterioration was less likely for female participants, at both first and second review.
- Higher level of function, and lower plan budget, were associated with a higher likelihood of improvement and a lower likelihood of deterioration.
- Improvement was more likely for participants living in more remote areas, at both first and second review.
- Having friends and participating in community was associated with a lower likelihood of deterioration after one year.

My child can make friends with people outside the family

The percentage of parents/carers reporting that their child can make friends with people outside the family increased by 5.4% between baseline and first review and by 7.6% between baseline and second review. This was a result of improvements offset by deteriorations as set out in Table 2.15 below.

Table 2.15 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	3,187	4,678	810	25.4%	388	8.3%	+5.4%
Baseline to Review 2	398	548	143	35.9%	71	13.0%	+7.6%

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of improvement or deterioration in the outcome are set out in Table 2.16 below.

Table 2.16 Key drivers of likelihood of transitions of *"my child can make friends with people outside the family"* response

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	Improvement	Deterioration	Improvement	Deterioration
Participant lives in Victoria	⬇	⬇		
Participant lives in Queensland		⬇		
Participant lives in South Australia	⬆		⬆	
Disability is autism		⬆		⬆
Disability is a cerebral palsy or another neurological disability		⬇		
Disability is a sensory disability		⬇	⬆	
Participant is CALD	⬇		⬇	
Participant is older		⬇		
Entered the Scheme in 2016/17	⬆			
Lower level of function	⬇	⬆	⬇	⬆
Higher annualised plan budget	⬇	⬆		
Plan is agency managed				⬆
Higher level of NDIA support				⬆
Access type is early intervention	⬇			
Participant uses child-care		⬇		
Participant participates in the community		⬇		
Participants lives in an area with a higher unemployment rate	⬇			

Key findings from Table 2.16 include:

- Participants with autism were more likely to deteriorate, and those with cerebral palsy, another neurological disability or a sensory disability were less likely.
- Older participants were less likely to experience deterioration in their ability to make friends outside the family.
- Participants with higher level of function were more likely to improve, and less likely to deteriorate, in their ability to make friends outside the family.
- Participants with a higher annualised plan budget were less likely to improve, and were more likely to deteriorate, between baseline and first review.
- Use of child care and participation in the community are associated with a lower likelihood of deterioration.
- Participants living in areas with higher unemployment rates were less likely to improve between baseline and first review.

3. Participants from birth to before starting school: Has the NDIS helped?

3.1 Results across all participants

For participants who have been in the Scheme for approximately one or two years as at 30 June 2019, Figure 3.1 shows the percentage of parents/carers who reported that the NDIS has helped with outcomes related to each of the four domains, after one year in the scheme (first review) and after two years in the scheme (second review).

Figure 3.1 Percentage who think that the NDIS has helped with outcomes related to each domain

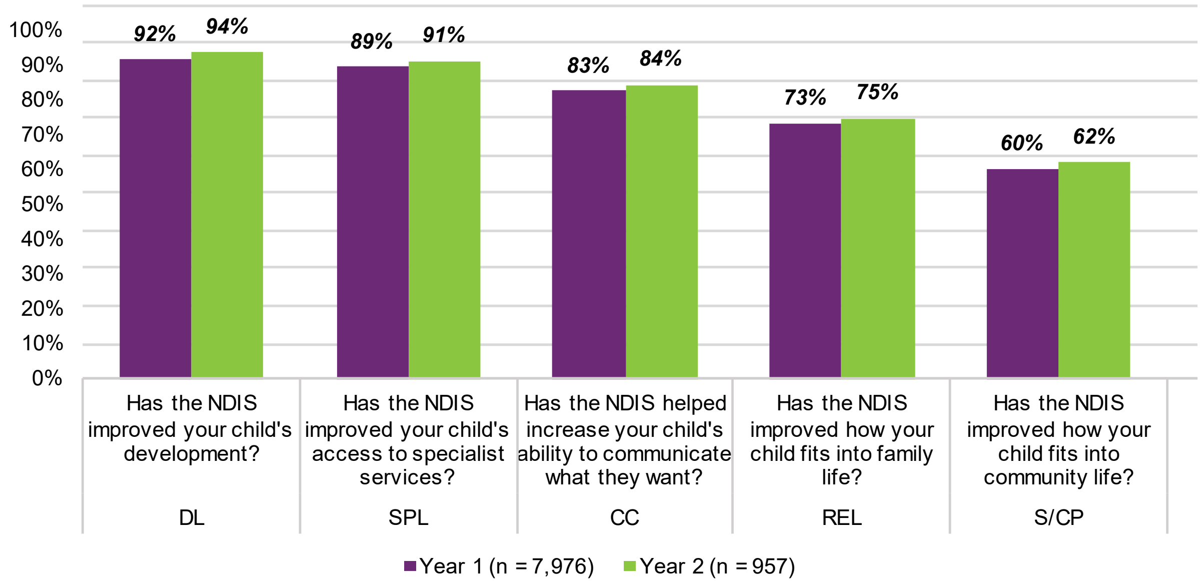

Figure 3.1 shows that opinions on whether the NDIS has helped vary considerably by domain for the youngest cohort of participants. After approximately one year in the Scheme, there is widespread agreement that the NDIS has helped in areas related to the child's development (91.5%) and access to specialist services (89.4%). A slightly smaller percentage (82.5%) feel that the NDIS has helped improve their child's ability to communicate what they want. Percentages are lower for integration into family and community, with 73.3% thinking that the NDIS has helped with how their child fits into family life, and 60.2% thinking that the NDIS has helped with fitting into community life.

Across all domains, the percentage who think the NDIS has helped is slightly higher for participants who have been in the Scheme for two years, compared to those who have been in the Scheme for one year.

3.2 Results by participant characteristics

3.2.1 Year 1 ‘Has the NDIS Helped?’ indicators – participant characteristics

Year 1[21] (first review) indicators have been analysed by participant characteristics using one-way analyses, revealing the following key findings:

- For all five domains, participants with higher baseline plan utilisation are significantly more likely to give a positive response. The likelihood of a positive response starts out low for those with less than 20% utilisation. It increases strongly as utilisation increases from 0-20% to 20-40%, and at a more modest rate as utilisation increases above 40%.
- The likelihood of a positive response also varied by disability. Parents/carers of children with another sensory/speech disability[22] were much more likely to say that the NDIS had helped after one year in the Scheme, across all domains but particularly community participation (73.6% compared to 60.2% overall) and communication (90.9% compared to 82.5%). Parents/carers of participants with a hearing impairment, developmental delay/global developmental delay, or autism also had slightly more positive opinions. On the other hand, participants with visual impairment were much less likely to think that the NDIS had helped after one year in the Scheme (13.5-18.1% lower than overall for the five questions). Parents/carers of participants with a physical disability, cerebral palsy or another neurological disorder were also slightly less likely to think that the NDIS had helped.
- Participants entering the Scheme for early intervention were slightly more likely to think that the NDIS had helped than those entering due to disability.
- Parents/carers tend to be more positive where the participant’s plan is self-managed.
- For areas related to communication, fitting into family life, and fitting into community life, parents/carers of participants with low level of function tended to respond less positively than parents/carers of participants with either medium or high level of function. For these areas, the likelihood of a positive response also decreased with annualised baseline plan budget.
- The percentage of positive responses tended to higher for participants living in major cities, and to decrease with increasing remoteness.
- Respondents from SA, NSW and ACT tended to be more optimistic that the NDIS had helped, and those from NT and TAS less positive.
- Responses also varied according to other measured outcomes. For example, parents/carers of children who have friends they enjoy playing with are more likely to respond positively.

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[21] This includes participants with a baseline and first review only.

[22] The “Other sensory/speech” category includes sensory disabilities not included in other categories (hearing impairment, visual impairment), for example sensory processing difficulties, as well as disabilities related to speech or language disorders.

3.2.2 Longitudinal ‘Has the NDIS Helped?’ indicators – participant characteristics

Analysis of longitudinal indicators by participant characteristics has been examined in two ways:

1. A comparison of the percentage reporting that the NDIS had helped after two years in the Scheme with the percentage reporting that the NDIS had helped after one year in the Scheme. The difference (percentage after two years minus percentage after one year) is compared for different subgroups.
2. Multiple regression analyses modelling the probability of improvement / deterioration over the participant’s second year in the Scheme.[23]

Some key features of the analyses are summarised below.

The NDIS has improved my child’s development

The percentage of parents/carers reporting that the NDIS improved their child’s development increased 4.8%, from 89.6% to 94.4%, between the first review and the second review. Of those who responded negatively at the first review, 60.2% responded positively at the second review (improvement). Table 3.1 sets out the breakdown of the movements.

Table 3.1 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	88	758	53	60.2%	12	1.6%	+4.8%

While modelling was performed for this question, due to the small sample sizes, no factors were found to be significant predictors of improvement or deterioration.

The NDIS has improved my child’s access to specialist services

The percentage of parents/carers reporting that the NDIS improved their child’s access to specialist services increased 3.8% from 87.9% to 91.7% between the first review and the second review. **Table 3.2** sets out the breakdown of the movements in responses between first review and second review.

Table 3.2 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	102	739	52	51.0%	20	2.7%	+3.8%

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[23] Regression models for improvement include all participants who answered “No” at review 1 and model the probability of answering “Yes” at review 2 (between 88 and 363 participants, depending on the domain). Models for deterioration include all participants who answered “Yes” at review 1 and model the probability of answering “No” at review 2 (between 457 and 758 participants).

The main drivers of the likelihood of improvement of deterioration are as follows:

- Participants living in an area with a higher Index of Education and Occupation (IEO) were more likely to improve.
- Participants who were not receiving disability supports prior to entering the NDIS (were not a part of an existing State or Commonwealth scheme upon entry to the NDIS) were less likely to deteriorate.

The NDIS has increased my child's ability to communicate what they want

The percentage of parents/carers reporting that the NDIS increased their child's ability to communicate what they want increased 5.6% from 79.9% to 85.6% between the first review and the second review.Table 3.3 sets out the breakdown of the movements in responses between first review and second review.

Table 3.3 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	167	665	76	45.5%	29	4.4%	+5.6%

While modelling was performed for this question, due to the small sample sizes, no factors were found to be significant predictors of improvement or deterioration.

The NDIS has improved how my child fits into family life

The percentage of parents/carers reporting that the NDIS improved how their child fits into family life increased 5.9% from 69.4% to 75.3% between the first review and the second review. Table 3.4 sets out the breakdown of the movements in responses between first review and second review.

Table 3.4 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	254	575	87	34.3%	38	6.6%	+5.9%

The main drivers of the likelihood of improvement or deterioration are as follows:

- Participants with a higher level of function were more likely to improve.
- Participants living in NT, TAS, WA or ACT were less likely to improve.
- Participants living in an area with a higher Index of Economic Resources (IER) were more likely to improve.

The NDIS has improved how my child fits into community life

The percentage of parents/carers reporting that the NDIS improved how their child fits into community life increased 7.7% from 55.7% to 63.4% between the first review and the second review. Table 3.5 sets out the breakdown of the movements in responses between first review and second review.

Table 3.5 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	363	457	109	30.0%	46	10.1%	+7.7%

The main drivers of the likelihood of improvement or deterioration are as follows:

- Participants with a higher level of function were more likely to improve.
- Participants living in New South Wales or Queensland were more likely to improve.
- Participants living in an area with a higher Index of Education and Occupation (IEO) were more likely to improve.
- Participants with a higher level of NDIA support through the participant pathway were more likely to deteriorate.
- Participants who were not receiving disability supports prior to entering the NDIS (were not a part of an existing State or Commonwealth scheme upon entry to the NDIS) were less likely to deteriorate.

4. Participants from starting school to age 14: overview of results

4.1 Key findings

Box 4.1: Overall findings for participants from starting school to age 14 who joined the Scheme between 1 July 2016 and 30 June 2017

- For participants entering the Scheme in 2016-17, longitudinal analysis revealed improvements and deteriorations in outcomes across a number of indicators. In particular, significant changes were observed in the following domains:

- Daily living: The percentage of parents/carers who say their child is becoming more independent increased by 7.0% between baseline and second review, from 43.5% to 50.5%. On an age-adjusted basis the improvement was stronger (13.2%). The percentage of children who spend time away from parents/carers other than at school increased in the year following Scheme entry by 2.3%, with a further increase of 1.2% for the second year in the Scheme. On an age-adjusted basis, the two-year improvement was 2.7%.

- Relationships: The percentage of parents/carers who say their child has friends that they enjoy spending time with increased by 2.4% in the year following Scheme entry. However, no further change was observed between first and second review.

- Social, community and civic participation: The percentage of parents/carers who say they would like their child to have more opportunities to be involved in activities with other children increased by 11.5% between baseline (79.4%) and second review (90.9%). Of those who would like their child to be more involved in activities with other children, the percentage who say their child's disability as a barrier increased from 84.0% at baseline to 91.9% at second review.

Box 4.2: Overall findings for participants from starting school to age 14 who joined the Scheme between 1 July 2017 and 30 June 2018

- For participants entering the Scheme in 2017-18, longitudinal analysis revealed improvements and deteriorations in outcomes that were largely in line with the cohort of participants entering the Scheme in 2016-17. Specifically, the following changes were observed:

- Daily living: The percentage of parents/carers who say their child is becoming more independent increased by 4.6% between baseline and first review (8.0% after adjusting for age), from 42.0% to 46.5%, while the percentage of children who spend time away from parents/carers other than at school increased by 1.7% (3.4% age-adjusted), from 31.0% to 32.6%. Additionally, the percentage of parents/carers who say their child manages the demands of their world pretty well or very well increased by 9.8% between baseline and first review, from 41.0% to 50.8%.

- Social, community and civic participation: The percentage of parents/carers who say they would like their child to have more opportunities to be involved in activities with other children increased by 3.1% between baseline and first review, from 89.3% to 92.4%. Of those who would like their child to be more involved in activities with other children, the percentage who say their child's disability as a barrier increased by 4.6% between baseline and the first review, from 85.7% to 90.3%. Furthermore, the percentage of parents/carers who found it easy to find vacation care decreased 8.0% from 41.3% at baseline to 33.2% at first review.

Box 4.3: Outcomes by key characteristics for participants from starting school to age 14

- Baseline and longitudinal outcomes vary with participant level of function. Participants with higher level of function tend to have better baseline outcomes and exhibit higher rates of improvement than those with lower level of function.

- Participants with a sensory disability generally experience better outcomes than those with other disabilities, both baseline and longitudinal.

- Participants from regional and remote locations, show more positive results on some indicators – both at baseline and for longitudinal change, compared to those from major cities. For example, they are more likely to be gaining in independence, and are less likely to move out of a mainstream class at school.

- Children from a CALD background have worse outcomes on most baseline indicators. Compared to non-CALD participants, CALD participants are also less likely to improve with regard to having a genuine say in decisions about themselves, making friends outside the family, and having friends they enjoy playing with.

- Differences between baseline outcomes for Indigenous and non-Indigenous participants tend to be smaller than for CALD and non-CALD participants, and results are mixed. Indigenous children are more likely to spend time with friends without an adult present, but are less likely to be becoming more independent (and are more likely to deteriorate on this indicator, longitudinally), and their school experiences tend to be worse than non-Indigenous children. As with the younger cohort, Indigenous participants from starting school to age 14 are less likely to live with their parents, and more likely to live in public housing. Longitudinal analysis also shows that Indigenous participants are also less likely to improve with regard to making friends outside the family.

Box 4.4: Has the NDIS helped? – participants from starting school to age 14

- Opinions on whether the NDIS has helped vary by domain for the starting school to 14 cohort, with the percentage responding positively being lowest for access to education (32.8% after one year in the Scheme and 33.2% after two years in the Scheme) and highest for independence (53.3% after one year in the Scheme, increasing to 59.4% after two years in the Scheme). For education, however, the mainstream education system has a much bigger role in ensuring successful outcomes than the NDIS.

- Higher plan utilisation is a strong predictor of a positive response across all four areas surveyed, after both one and two years in the Scheme. The fact that utilisation tends to be lowest for the starting school to 14 cohort may contribute to the observed lower levels of satisfaction across all domains, compared to participants in other age groups.

- The percentage who think that the NDIS has helped increased slightly (by 2.7%-6.1%) between first and second review across all domains except for access to education, where there was no change. The likelihood of improvement/deterioration varied by some participant characteristics:

- Improvement was more likely for participants who self-manage (either fully or partly), younger participants, and those living in QLD.

- For access to education, improvement was more likely for CALD participants, and those with a sensory disability, developmental delay or global developmental delay. Improvement was also more likely for the relationships domain for participants with developmental delay or global developmental delay.

- Participants entering the Scheme for early intervention are more likely to think that the NDIS has helped than those entering due to disability, across all domains.

4.2 Results overview

4.2.1 Outcomes framework questionnaire domains

Starting with the milestone of school commencement, this life stage follows children through to the early teenage years. Typically these years are characterised by increasing independence and development of relationships inside and outside the family. Hence the outcomes framework seeks to measure the extent to which participants:

- Grow in independence (domain DL, daily living)
- Are welcomed and educated in their local school (domain LL, lifelong learning)
- Form friendships with peers and have positive relationships with family (domain REL, relationships)
- Participate in local social and recreational activities (domain S/CP, social, community and civic participation).

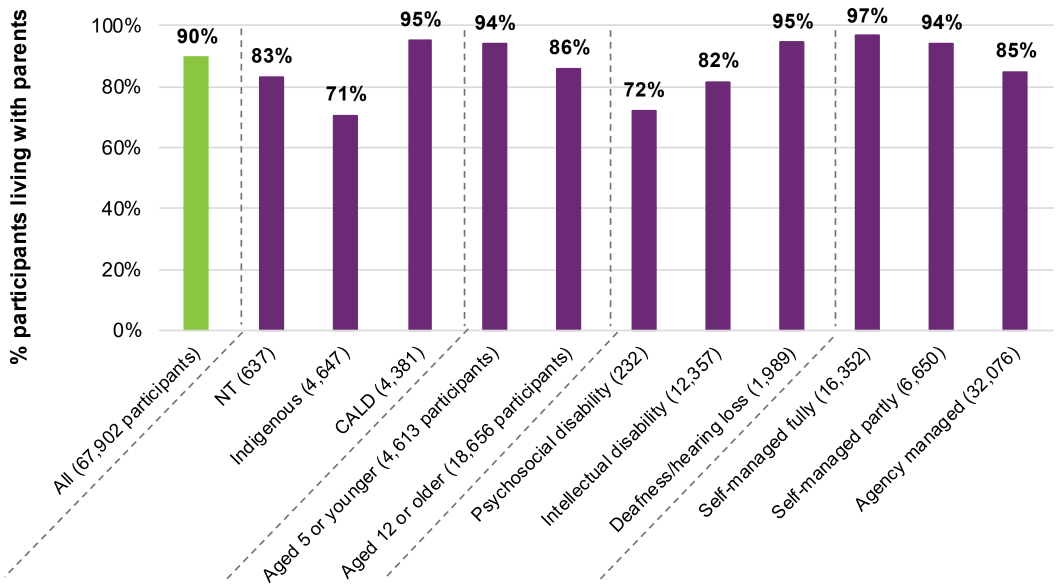
The LF questions for participants in the starting school to age 14 cohort allow a deeper investigation into the experiences of participants in educational and school settings, with eight extra questions devoted to these areas. There are also three extra questions about developing independence (on managing the demands of the world and becoming more independent), one on relationships (about the effect on siblings), and four on social participation (about vacation care and after school activities).

4.2.2 Participant living arrangements

At baseline, 89.6% of children live with their parents. The percentage is lower in NT (83.2%) and for Indigenous participants (70.7%), but higher for CALD participants (95.2%). There is a declining trend with age, from 94.0% for children aged 5 or younger to 85.9% for children aged 12 or older. Participants with psychosocial disability (72.0%) or an intellectual disability (81.7%) are less likely to live with their parents, and those with deafness/hearing loss (94.5%) are more likely to live with their parents. The percentage is higher for participants whose plan is self-managed (96.7%) compared to agency-managed (85.0%).

At baseline, 8.3% of participants live in a private home rented from a public authority. The percentage is much higher in NT (24.7%) and for Indigenous participants (26.0%).

Figure 4.1 Proportion of participants living with parents at baseline



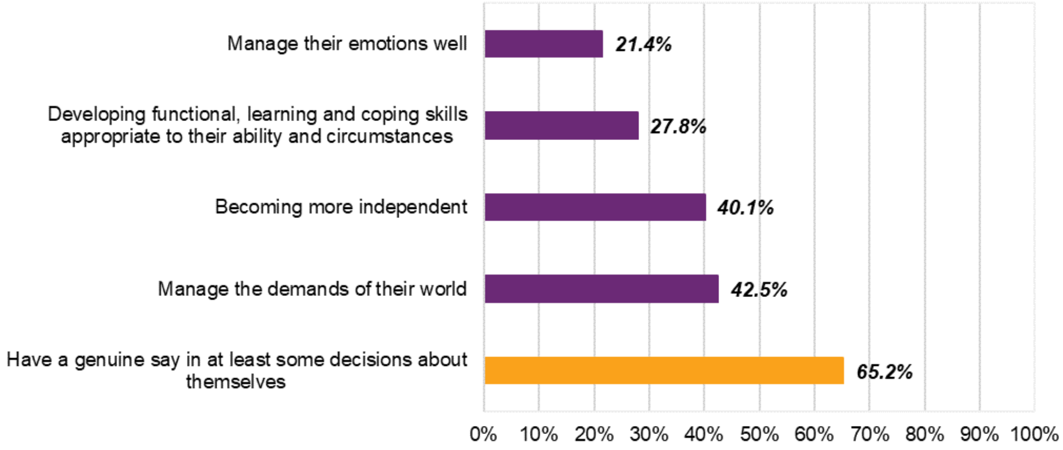
Participant living and housing arrangements have not changed materially in the longitudinal analysis.

4.2.3 Baseline indicators – across all participants

Independence

Baseline levels of independence are generally low for this cohort. For example, only 21.4% of parents/carers say their child manages their emotions well, and only 27.8% think their child is developing functional, learning and coping skills appropriate to their ability and circumstances. Based on SF answers, 40.1% think their child is becoming more independent, and in the LF, 42.5% think their child manages the demands of their world. The most positive result is that 65.2% of children have a genuine say in at least some decisions about themselves.

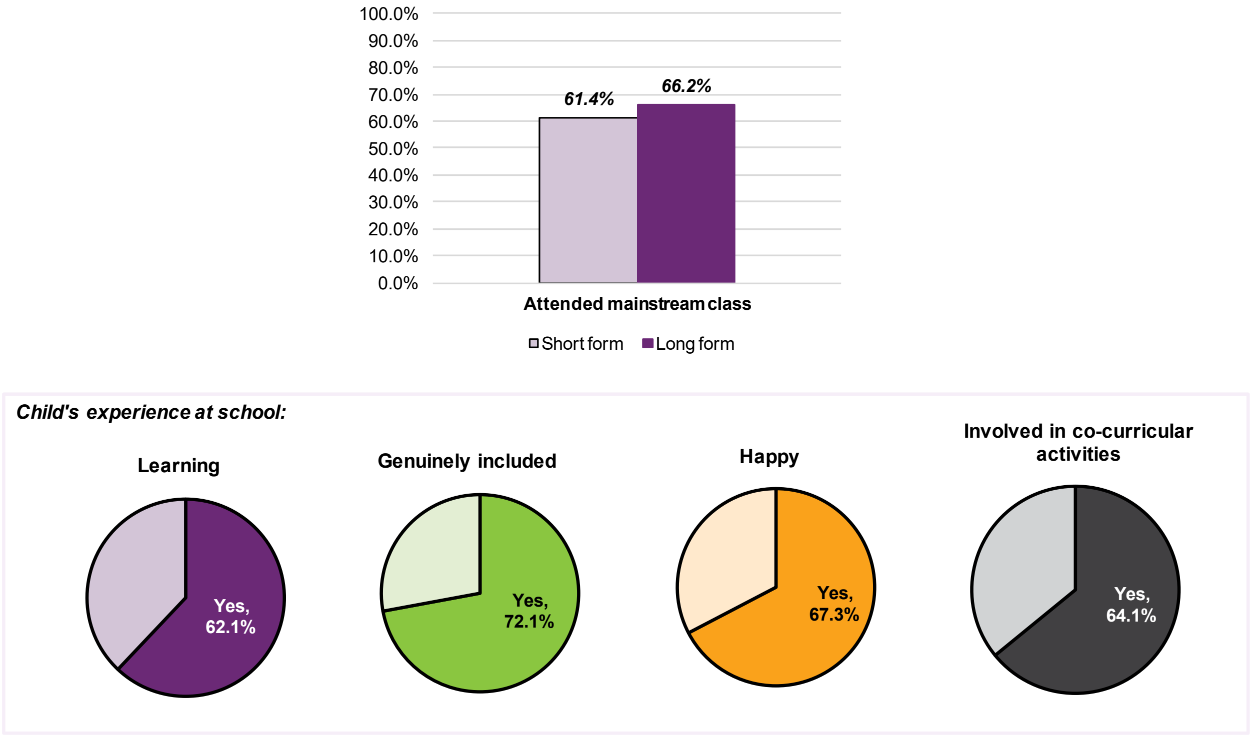
Figure 4.2 Independence indicators



School

61.4% of children responding to the SF attended school in a mainstream class (66.2% of those responding to the LF). Involvement of families and carers in their child's education was reasonably high: based on the LF, 73.2% were satisfied that their child's school listens to them in relation to their child's education, 76.3% knew their child's goals at school, and 68.0% thought their child's education was matched to those goals. Regarding the child's experience at school, 62.1% thought that their child was learning at school, 72.1% thought that their child was genuinely included and 67.3% thought that they were happy at school. 64.1% of children had been involved in co-curricular activities at school, most commonly in school plays or concerts. Only 50.2% of children who were not exempt had sat a NAPLAN test. A relatively high proportion of children (15.6%) had ever been suspended from school.

Figure 4.3 School experiences[24]



Relationships

In relation to family life, only 26.8% of parents/carers think there is enough time to meet the needs of all family members (lower than the 51.0% for the pre-school cohort). 62.3% of those with more than one child expressed some concern about the effect of having a sibling with disability on their other children. However, 73.0% say that their child with disability gets along with their siblings. At baseline, 86.9% say that their child fits into everyday family life (often or sometimes). Of those who go out without their child, 50.4% use informal care (the child stays with siblings, extended family, family friends or by themselves), although only 44.2% say they are happy with their childcare arrangements. 46.7% of the children have friends they enjoy spending time with, and 61.5% are able to make friends with people outside the family.

Participation

Overall, participation in mainstream activities tends to be low for this cohort. Only 10.3% of parents/carers use a mainstream school holiday program and only 35.6% of children spend time after school and on weekends with friends or in mainstream group activities. A high proportion (81.4%) of parents/carers expressed a wish for their child to be more involved, and 84.4% of these perceived their child's disability as a barrier to being more involved. 62.0% of parents/carers had some difficulty in finding vacation care.

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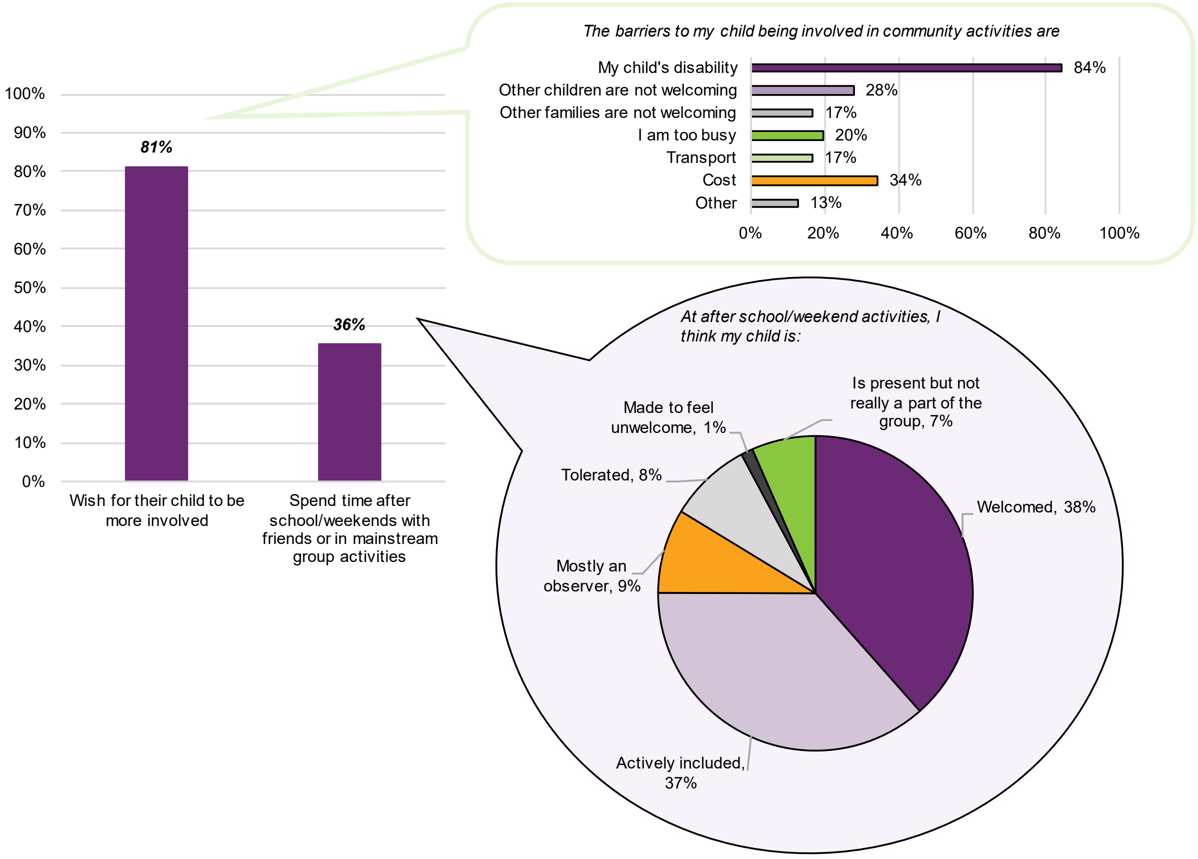
[24] In the top graph, differences between LF and SF results arise because only a subset of participants respond to the LF. The bottom graph shows results for LF participants.

Figure 4.4 Involvement in community activities



4.2.4 Baseline indicators – participant characteristics

Baseline indicators have been analysed by participant characteristics using one-way analyses and multiple logistic regression modelling. Multiple regression modelling was performed for the following indicators:

- The percentage of children developing functional, learning and coping skills appropriate to their ability and circumstances
- The percentage of children becoming more independent
- The percentage of children who spend time with friends without an adult present
- The percentage of children who have a genuine say in decisions about themselves
- The percentage of children attending school in a mainstream class
- The percentage of children who can make friends with people outside the family.

Key findings from the one-way analyses and regression modelling include:

- **Level of function**

  Baseline indicators tend to be better for participants with higher level of function, particularly those relating to the daily living and relationships domains.

  In all six regression models considered for baseline indicators, level of function was a significant predictor. Controlling for other variables:

  - Parents/carers of participants with a higher level of function are more likely to report that their child is becoming more independent (53.5%, 37.9%, and 23.7% for children with high, medium and low level of function, on a one-way basis)

- Participants with a higher level of function are more likely to be able to make friends with people outside the family (74.1%, 59.9%, and 45.1%).
- Participants with a higher level of function are also significantly more likely to attend school in a mainstream class (76.7%, 66.4%, and 29.5%).

In one-way analyses for SF indicators, other large differences occur for the percentage of parents/carers who say:

- Their child spends time after school and on weekends with friends and/or in mainstream programs (46.3%, 36.9% and 17.1% for participants with high, medium and low level of function, respectively)
- Their child has friends that he/she enjoys spending time with (58.5%, 45.7% and 30.4%).

Several LF indicators also differ significantly with level of function, particularly the percentage of parents/carers who say:

- They found it easy to find vacation care (48.7%, 34.5% and 27.4% for participants with high, medium and low level of function, respectively).
- Their child manages the demands of his/her world most of the time (53.7%, 43.1% and 22.0%).

- **Disability**

Baseline indicators differ considerably by disability type, and are often considerably better for participants with a sensory disability (hearing loss, visual impairment or another sensory/speech disability) or a physical disability compared to participants with other disabilities.

Disability was a significant predictor in all six baseline regression models. Controlling for other variables:

- Participants with a sensory disability are more likely to be developing functional, learning and coping skills appropriate to their ability and circumstances, to be gaining in independence, and to be able to make friends outside the family. These participants, and those with a physical disability, are more likely to have a genuine say in decisions about themselves, and more likely to spend time with friends without an adult present.
- Participants with developmental delay, global developmental delay or autism are least likely to spend time with friends without an adult present.
- Participants with autism are least likely to be developing functional, learning and coping skills appropriate to their ability and circumstances, to be gaining in independence, and to be able to make friends outside the family.
- Participants with visual impairment or a physical disability are the most likely to attend school in a mainstream class (in terms of estimated odds ratios, more than three times the odds for participants with autism (the reference category, comprising 60% of participants)), and those with Down syndrome, intellectual disability, or global developmental delay are the least likely (estimated odds ratios of 0.36, 0.43, and 0.54, respectively).

In one-way analyses for SF indicators, other large differences occur for the percentage of parents/carers who say their child:

- Manages their emotions well: parents/carers of children with a hearing or visual impairment respond most positively (57.8% and 56.9%, respectively), and parents/carers of children with autism respond least positively (13.5%).

  - Gets along with their siblings: parents/carers of children with a hearing or visual impairment respond most positively (91.5% and 91.4%, respectively), and parents/carers of children with autism respond least positively (67.1%).

  There are also differences for LF indicators. For example:

  - Parents/carers of participants with a sensory disability are the least likely to be worried about the effect of their child's disability on their other children (39.8%) whereas parents/carers of participants with autism are the most likely to be worried (67.0%).
  - This is also the case for the percentage who report that their child manages the demands of their world (66.1% for participants with a sensory disability compared to 38.0% for those with autism).

- **Culturally and linguistically diverse backgrounds**

  Children from a non-CALD background tend to have better baseline outcomes across most indicators.

  CALD status was a significant predictor in five of the six baseline regression models. Controlling for other factors:

  - Parents/carers of children from a CALD background are much less likely to report that their child has a genuine say in decisions about themselves (50.5% compared with 66.0% for non-CALD participants, on a one-way basis).

  - Parents/carers of children from a CALD background are less likely to report that their child is becoming more independent (31.8% compared with 40.2% for non-CALD participants, on a one-way basis) or that their child is able to make friends outside the family (50.9% compared with 61.6%).

  - CALD participants are less likely to attend school in a mainstream class (48.0% compared with 62.3% for non-CALD participants).

  On the other hand, one-way analysis suggests that CALD participants are more likely to manage their emotions well (26.7% compared to 20.8% for non-CALD participants).

  Parents/carers of CALD participants are much less likely to use informal care for their child when they need to go out (34.1% versus 51.5% for non-CALD participants).

  However, differences were less apparent for the percentage of parents/carers who reported that they would like their child to be more involved in activities (80.0% for CALD participants and 82.1% for non-CALD participants) and who see their child's disability as a barrier to involvement (86.5% for CALD participants and 84.4% for non-CALD participants).

- **Indigenous**

  Differences in baseline outcomes for Indigenous participants compared to non-Indigenous participants vary with indicator, but are generally small in comparison to differences observed for other participant characteristics.

  Indigenous status was a significant predictor in four out of the six baseline regression models considered, in contrast to the lack of significance found for the age 0 to starting school participant cohort. Controlling for other factors:

- Parents/carers of Indigenous children are less likely to report that their child is becoming more independent (37.8% compared with 40.3% for non-Indigenous participants, on a one-way basis), and less likely to say their child is developing functional, learning and coping skills appropriate to their ability and circumstances (25.2% versus 27.9%).
- Parents/carers of Indigenous children are more likely to report that their child spends time with friends without an adult present (13.8% compared with 11.4% for non-Indigenous participants, on a one-way basis).
- Indigenous participants are less likely to attend school in a mainstream class (56.3% compared with 62.7% for non-Indigenous participants, on a one-way basis).

From the one-way analyses, Indigenous children are less likely to spend time after school and on weekends with friends and/or in mainstream programs (31.7% compared to 36.0% for non-Indigenous participants).

For the LF indicators, Indigenous participants are much less likely to have sat a NAPLAN test (23.6% compared to 51.2% for non-Indigenous participants), and their parents/carers are less likely to say that their child's school was their first choice (49.5% compared to 63.6% for non-Indigenous participants).

- **Age**

Age appears as a significant predictor in all six baseline regression models considered, however in most cases this reflects normal childhood development, with older children exhibiting more independence and having a greater say in decisions. The percentage of participants in a mainstream class decreases significantly with age, from 77.6% for children aged under 5 to 43.4% for children aged 12 or over.

- **Type of school**

While not used as a predictor in the multiple regression models, one-way analyses show that:

- From the LF, children attending a special school are more likely to feel genuinely included at school (84.6% compared to 66.9% for participants in a mainstream class) and to feel happy at school (79.8% compared to 62.8% for participants in a mainstream class). Parents/carers of children at special schools also have better knowledge of their child's goals at school (84.2% compared to 76.1% for participants in a mainstream class) and tend to be more satisfied that the school listens to them in relation to their child's education.
- Children enrolled in a support class or special school are less likely to be developing independence (26.5% compared to 47.0% for participants in a mainstream class), to have a genuine say in decisions about themselves, to make friends outside the family (44.0% compared to 69.6% for participants in a mainstream class), and to spend time with friends without an adult present.

- **Geography**

Children from regional and remote locations tend to show more positive baseline results than those from major cities, across many indicators.

Remoteness was a significant predictor in five of the six multiple regression models considered. Controlling for other factors:

- Children living in remote and very remote regions are significantly more likely to spend time with friends without an adult present (21.5% compared to 11.0% for major cities and 12.0-13.9% for regional, on a one-way basis).
- Parents/carers of children living in major cities are less likely to say their child is becoming more independent (38.5% compared to 41.0-45.7% for regional, remote and very remote regions).
- Children living in regional areas (population between 5,000 and 50,000), are more likely to have a genuine say in decisions about themselves (70.9%), compared to 65.7% in remote or very remote areas and 62.7% in major cities.
- Children living in major cities are less likely to attend school in a mainstream class (59.2%) than those living in regional areas with population 5000 to 50,000 (61.5-65.1%), regional areas with population less than 5000 (71.1%) and remote/very remote areas (69.1%). This may be partly due to the lack of availability of special schools in more remote locations.

Based on one-way analyses, parents/carers of children living in remote and very remote regions are more likely to report wanting their child to have more opportunity to be involved in activities with other children (73.1% compared to 80.9% in major cities), but are less likely to see their child's disability as a barrier to involvement (78.9% compared to 85.1% in major cities).

- **Gender**

Female participants have more positive baseline outcomes on some indicators. Controlling for other factors in the baseline regression models, female participants are slightly more likely to have a genuine say in decisions about themselves (66.2% compared to 64.7% on a one-way basis), are more likely to make friends with people outside the family (65.3% versus 59.8% on a one-way basis), and are more likely to attend school in a mainstream class (62.5% versus 60.7% on a one-way basis).

4.2.5 Longitudinal indicators – across all participants

Longitudinal analysis describes how outcomes have changed for participants during the time they have been in the Scheme. Included here are participants who entered the Scheme between 1 July 2016 and 30 June 2018, for whom a record of outcomes is available at scheme entry (baseline) and at one or more of the two time points: approximately one year following scheme entry (first review), and approximately two years following scheme entry (second review). The analysis considers how outcomes have changed between baseline and first review, between baseline and second review and between first review and second review.

There have been a number of improvements across all domains for the three periods being considered. The greatest changes occurred when considering a participant's responses from baseline to their second review.

As discussed in Section 4.2, changes over time for children will include an element of normal age-related development. Age-adjusted changes have been used to guide selection of indicators presented in this section.

Table 4.1 summarises changes for selected indicators across different time periods. In Table 4.1, cohort "B,R1,R2" includes participants responding at baseline, first review and second review.[25] Cohort “B,R1” includes participants responding at both baseline and first review (but not at second review, so the cohorts do not overlap). Indicators were selected for the tables if the change was statistically significant[26], had an absolute magnitude greater than 0.02[27], and was confirmed by the age-adjusted analysis.

Table 4.1 Selected longitudinal indicators for participants from starting school to age 14

Domain (Form)	Indicator	Cohort	Baseline	Review 1	Review 2	Change B-R1	Change R1-R2	Change B-R2	Improvement/ Deterioration
DL (SF)	% who say their child is becoming more independent	B,R1,R2	43.5%	46.5%	50.5%	3.0%	4.0%	7.0%	**Improvement**
		B,R1	42.0%	46.5%		4.6%			
DL (SF)	% of children who spend time away from parents/carers other than at school	B,R1,R2	29.8%	32.1%	33.3%	2.3%	1.2%	3.5%	**Improvement**
		B,R1	31.0%	32.6%		1.7%			
DL (LF)	% of children who manage the demands of their world (pretty well or very well)	B,R1	41.0%	50.8%		9.8%			**Improvement**
REL (SF)	% of children who have friends that he/she enjoys spending time with	B,R1,R2	46.5%	48.9%	48.9%	2.4%	0.0%	2.4%	**Improvement**
		B,R1	52.1%	51.9%		-0.2%			
LL (LF)	% who think their child is learning at school	B,R1,R2	59.8%	65.4%	68.5%	5.6%	3.1%	8.7%	**Improvement**
		B,R1	62.2%	64.5%		2.3%			
S/CP (SF)	% who say they would like their child to have more opportunity to be involved in activities with other children	B,R1,R2	79.4%	88.0%	90.9%	8.6%	2.9%	11.5%	**Context Dependent**
		B,R1	89.3%	92.4%		3.1%			

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[25] A small number may be missing a response at the first review.

[26] McNemar’s test at the 0.05 level.

[27] Between baseline and second review for the “B,R1,R2” cohort, and between baseline and first review for the “B,R1” cohort.

Domain (Form)	Indicator	Cohort	Baseline	Review 1	Review 2	Change B-R1	Change R1-R2	Change B-R2	Improvement/ Deterioration
S/CP (SF)	Of those who would like their child to be more involved in activities with other children, % who see their child's disability as a barrier	B,R1,R2	84.0%	89.6%	91.9%	5.6%	2.3%	7.9%	**Deterioration**
		B,R1	85.7%	90.3%		4.6%			
S/CP (LF)	% of parents/carers who found it easy to find vacation care	B,R1	41.3%	33.2%		-8.0%			**Deterioration**

Key findings from Table 4.1 include:

- For the daily living domain, more children are becoming independent, spending time away from parents/carers other than at school, and managing the demands of their world. These results are consistent on an age-adjusted basis.
- More children have friends they enjoy spending time with, and this improvement is stronger on an age-adjusted basis.
- Two of the social and community participation indicators have exhibited further deterioration since last year's report, with more parents and carers seeing their child's disability as a barrier to greater involvement, and fewer finding it easy to find vacation care. The percentage of parents/carers who would like their child to have opportunities for greater involvement with other children has increased.

4.2.6 Longitudinal indicators – participant characteristics

Analysis by participant characteristics has been examined in two ways:

1. A simple comparison of the percentage meeting the indicator at first or second review with the percentage meeting the indicator at baseline. The difference (review-baseline) is compared for different subgroups.
2. Multiple regression analyses with separate models for improvement and deterioration in the indicator. That is, for the subset without/with the indicator at baseline, the probability of meeting/not meeting the indicator at first or second review is modelled as a function of participant characteristics.[28,29] Multiple regression analyses were performed for four indicators.

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[28] Modelling of baseline to second review transitions is based on a smaller amount of data, hence these models tend to identify a smaller number of significant predictors.

[29] Note that these models are used to investigate factors associated with a higher or lower likelihood of change, rather than whether there has been a change overall, which was the purpose of the analysis summarised in the previous subsection. Considering the role of age, the models can identify whether younger or older participants are more likely to improve. Including age in the model also means that age is controlled for when interpreting the effect of other factors in the model. This is different to the concept of age adjustment that was used in the overall analysis. In the overall analysis, age-adjustment was used to remove the portion of change attributable to normal age-related development. The overall analysis does not say anything about differential rates of improvement by age (or any other factor).

It should be noted that these two analyses can produce different results, particularly where there is a large difference in the indicator at baseline between subgroups.

Some key features of the analyses for selected indicators are summarised below.

My child is becoming more independent

The percentage of parents/carers reporting that their child is becoming more independent increased by 4.1% between baseline and first review, and by 7.0% between baseline and second review. This was a result of improvements offset by deteriorations as set out in Table 4.2 below.

Table 4.2 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort[1]		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	14,368	10,605	2,888	20.1%	1,873	17.7%	+4.1%
Baseline to Review 2	3,778	2,909	1,229	32.5%	759	26.1%	+7.0%

[1]The cohort is selected as all those with non-missing responses at the relevant surveys.

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of improvement or deterioration in the outcome are set out in Table 4.3 below.

Table 4.3 Key drivers of likelihood of transitions of *"my child is becoming more independent"* response[30]

Variable	Baseline to First Review Relationship with likelihood of		Baseline to Second Review Relationship with likelihood of	
	Improvement	Deterioration	Improvement	Deterioration
Participant lives in Victoria	⬇	⬇		
Participant lives in Queensland	⬆		⬆	⬇
Participant lives in South Australia	⬆		⬆	
Participant lives in NT, TAS, WA or ACT		⬇	⬆	⬇
Disability is cerebral palsy or another neurological disability	⬇			
Disability is global developmental delay/ developmental delay	⬆	⬇	⬆	

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[30] See Table 2.2 for definition of arrow symbols in this and similar tables.

Variable	Baseline to First Review Relationship with likelihood of		Baseline to Second Review Relationship with likelihood of	
	Improvement	Deterioration	Improvement	Deterioration
Disability is a sensory disability		⬇		
Participant is female	⬆			
Participant is Indigenous		⬆		⬆
Participant is older		⬇		
Participant entered the Scheme in 2016/17	⬆	⬆		
Lower level of function	⬇	⬆	⬇	⬆
Higher annualised plan budget	⬇	⬆	⬇	⬆
More than 95% of supports are capacity building supports	⬆	⬇		
Plan is self-managed	⬆			
Participant received services from Commonwealth systems before entering the NDIS	⬆		⬆	
Higher level of NDIA support	⬇	⬇		
Higher Index of Economic Resources (IER)	⬆		⬆	
Higher Index of Education and Occupation (IEO)		⬇		⬇

Key findings from Table 4.3 are as follows:

- Children with lower level of function, and those with a higher annualised plan budget, were less likely to improve, and more likely to deteriorate.
- Participants who previously received services from Commonwealth systems before entering the NDIS were more likely to improve.
- Children with developmental delay or global developmental delay were more likely to improve and less likely to deteriorate.
- Participants living in Queensland and South Australia were more likely to improve.
- Participants living in areas with a higher IER were more likely to improve and those living in areas with a higher IEO were less likely to deteriorate, at both time points.

My child has a genuine say in decisions about themselves

The percentage of parents/carers reporting that their child has a genuine say in decisions about themselves increased slightly between both baseline and first review, and baseline and second review. This was a result of improvements offsetting deteriorations as set out in **Table 4.4** below.

Table 4.4 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort[1]		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	9,183	15,617	1,222	13.3%	866	5.5%	+1.4%
Baseline to Review 2	2,438	4,150	586	24.0%	398	9.6%	+2.9%

[1] The cohort is selected as all those with non-missing responses at the relevant surveys.

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of improvement or deterioration in the outcome are set out in Table 4.5 below.

Table 4.5 Key drivers of likelihood of transitions of *"my child has a genuine say in decisions about themselves"* response

Variable	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
	Improvement	Deterioration	Improvement	Deterioration
Participant lives in Queensland or South Australia	⬆		⬆	
Disability is Down syndrome or an intellectual disability		⬆		
Disability is a sensory disability		⬇		
Participant is CALD	⬇			⬆
Participant is older	⬆	⬇	⬆	⬇
Participant entered the Scheme in 2016/17		⬆		
Lower level of function	⬇	⬆	⬇	⬆
Participant lives in a more remote area			⬆	⬇
Higher annualised plan budget	⬇		⬇	

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	**Improvement**	**Deterioration**	**Improvement**	**Deterioration**
Between 75% and 95% of supports are capacity building supports			⬆	
More than 95% of supports are capacity building supports	⬆		⬆	
More than 5% of supports are capital supports			⬆	
Plan is self-managed				⬇
Participant has not received services from Commonwealth or state systems before entering the NDIS				⬇
Higher Index of Economic Resources (IER)	⬆		⬆	
Higher Index of Economic Opportunity (IEO)			⬇	

Key findings from Table 4.5 are as follows:

- Participants with lower levels of function and CALD participants have a lower chance of improvement and a higher chance of deterioration.
- Older participants and those from remote areas are more likely to improve and less likely to deteriorate.
- Participants with higher plan budgets are less like to improve.
- Participants with more than 75% of supports being capacity building supports are more likely to improve.
- Participants living in QLD or SA are more likely to improve.

Attending school in a mainstream class

The percentage of children attending school in a mainstream class decreased by 2.0% between baseline and first review, and decreased by 4.1% between baseline and second review. This was a result of improvements offset by deteriorations as set out in Table 4.6 below.

Table 4.6 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort[1]		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	9,274	14,118	599	6.5%	1,076	7.6%	-2.0%
Baseline to Review 2	2,661	3,355	249	9.4%	498	14.8%	-4.1%

[1] The cohort is selected as all those with non-missing responses at the relevant surveys.

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of improvement or deterioration in the outcome are set out in Table 4.7 below.

Table 4.7 Key drivers of likelihood of transitions of *"attending school in a mainstream class"* response

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	Improvement	Deterioration	Improvement	Deterioration
Participant lives in New South Wales	⬇	⬆	⬇	⬆
Disability is cerebral palsy or another neurological disability		⬇		
Disability is a sensory disability	⬆	⬇	⬆	⬇
Disability is Down syndrome or an intellectual disability	⬇	⬆	⬇	⬆
Participant is female		⬇		
Participant is older	⬇	⬆		⬆
Participant is CALD				⬆
Entered the Scheme in 2016/17	⬆			
Lower level of function	⬇	⬆	⬇	⬆
Participant has SIL supports in their plan			⬆	
Participant lives in a more remote area	⬆	⬇	⬆	⬇
Higher annualised plan budget	⬇	⬆	⬇	
Between 75% and 95% of supports are capacity building supports	⬆			
More than 95% of supports are capacity building supports	⬆	⬇	⬆	⬇
More than 5% of supports are capital supports		⬇		⬇
Plan is self-managed	⬆	⬇		

Variable	Baseline to First Review Relationship with likelihood of Improvement	 Deterioration	Baseline to Second Review Relationship with likelihood of Improvement	 Deterioration
Plan is partly self-managed	↑		↑	
Plan is agency managed		↓		
Participant received services from Commonwealth systems before entering the NDIS			↑	
Participant has not received services from Commonwealth or state systems before entering the NDIS	↑		↑	
Higher level of NDIA support		↑		↑
Access type is early intervention				↓
Higher Index of Economic Resources (IER)		↓		
Higher Index of Economic Opportunity (IEO)				↓

Key findings from Table 4.7 are as follows:

- Children with a lower level of function, older children, those with a higher plan budget and children with Down syndrome or an intellectual disability were more likely to move out of a mainstream class, and less likely to move into one.
- Participants in more remote areas are less likely to move out of a mainstream class, and are more likely to move into a mainstream class.
- Participants living in NSW are more likely to move out of a mainstream class, and less likely to move into one.
- Children with a sensory disability are less likely to move out of a mainstream class, and are more likely to move into one.
- Participants with a self-managed plan are less likely to move out of a mainstream class, and are more likely to move into one, while those having a higher level of NDIA support through the participant pathway are less likely to move into a mainstream class.
- Participants with more than 95% capacity building supports in their plan are more likely to move into a mainstream class, and less likely to move out of one.

My child’s disability is a barrier to being more involved

The percentage of parents/carers reporting that their child’s disability is a barrier to being more involved increased significantly between baseline and first review, and between baseline and second review. This was a result of improvements offset by deteriorations as set out in **Table 4.8** below.

Table 4.8 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort[1]		Improvements: Yes to No		Deteriorations: No to Yes		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	3,078	17,874	193	1.1%	1,195	38.8%	+4.8%
Baseline to Review 2	831	4,369	81	1.9%	491	59.1%	+7.9%

[1] The cohort is selected as all those with non-missing responses at the relevant surveys.

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of improvement or deterioration in the outcome are set out in Table 4.9 below.

Table 4.9 Key drivers of likelihood of transitions of *“my child’s disability is a barrier to being more involved”* response

Variable	Baseline to First Review Relationship with likelihood of Improvement	Baseline to First Review Relationship with likelihood of Deterioration	Baseline to Second Review Relationship with likelihood of Improvement	Baseline to Second Review Relationship with likelihood of Deterioration
Participant lives in Victoria		⬇		⬇
Disability is cerebral palsy, another neurological disability, Down syndrome, an intellectual disability or a sensory disability		⬇		⬇
Disability is global developmental delay/ developmental delay	⬆			
Participant is older	⬆	⬇	⬆	
Participant entered the Scheme in 2016/17	⬆			
Lower level of function	⬇	⬆	⬇	⬆
Higher annualised plan budget		⬆		
Between 75% and 95% of supports are capacity building supports		⬆		

Variable	Baseline to First Review Relationship with likelihood of Improvement	 Deterioration	Baseline to Second Review Relationship with likelihood of Improvement	 Deterioration
More than 5% of supports are capital supports	⬆		⬆	
Higher level of NDIA support		⬇		
Higher Index of Economic Resources (IER)		⬆		
Higher Index of Economic Opportunity (IEO)				⬆

Key findings from Table 4.9 are as follows:

- Parents/carers of children with lower level of function are more likely to start perceiving their child's disability as a barrier after spending time in the Scheme, and are less likely to stop perceiving it as a barrier.
- Parents/carers of older participants are more likely to improve (stop seeing their child's disability as a barrier to involvement), as are those with more than 5% of the supports in their plan being capital supports.
- Parents/carers of participants with a higher level of NDIA support are less likely to start perceiving their child's disability as a barrier, as are participants living in Victoria.

My child can make friends with people outside the family

The percentage of parents/carers reporting that their child can make friends with people outside the family decreased slightly between both baseline and first review, and baseline and second review. This was a result of deteriorations offsetting improvements as set out in Table 4.10 below.

Table 4.10 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort[1] No	 Yes	Improvements: No to Yes Number	 %	Deteriorations: Yes to No Number	 %	Net Movement
Baseline to Review 1	9,305	15,593	1345	14.5%	1,489	9.5%	-0.6%
Baseline to Review 2	2,518	4,089	572	22.7%	637	15.6%	-1.0%

[1] The cohort is selected as all those with non-missing responses at the relevant surveys.

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of improvement or deterioration in the outcome are set out in Table 4.11 below.

Table 4.11 Key drivers of likelihood of transitions of *"my child can make friends with people outside the family"* response

Variable	Baseline to First Review Relationship with likelihood of Improvement	 Deterioration	Baseline to Second Review Relationship with likelihood of Improvement	 Deterioration
Participant lives in Victoria	↓	↓		
Participant lives in Queensland	↑	↑	↑	
Participant lives in South Australia	↑		↑	
Disability is cerebral palsy, another neurological disability, Down syndrome or an intellectual disability	↑	↓		↓
Disability is a sensory disability		↓		↓
Participant is CALD	↓		↓	↑
Participant is Indigenous	↓			
Participant is older		↓		
Participant entered the Scheme in 2016/17	↑			
Lower level of function	↓	↑	↓	↑
Participant lives in a more remote area		↑		
Higher annualised plan budget	↓		↓	
Between 75% and 95% of supports are capacity building supports		↓		
More than 95% of supports are capacity building supports	↑	↓	↑	
More than 5% of supports are capital supports	↑	↓		
Participant received services from Commonwealth systems before entering the NDIS				↓

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	Improvement	Deterioration	Improvement	Deterioration
Participant is new (hasn't received services from State or Commonwealth systems before entering the NDIS)			⬆	⬇
Higher Index of Economic Resources (IER)	⬆	⬇		

Key findings from Table 4.11 are as follows:

- Participants with cerebral palsy, another neurological disability, Down syndrome, an intellectual disability or a sensory disability were more likely to improve and less likely to deteriorate.
- CALD participants were less likely to improve, and were more likely to deteriorate between baseline and the second review.
- Participants with a lower level of function were less likely to improve and more likely to deteriorate. Participants with a higher annualised plan budget were also less likely to improve.

My child has friends that he/she enjoys spending time with

The percentage of parents/carers reporting that their child has friends that he/she enjoys spending time with increased slightly between both baseline and first review, and baseline and second review. This was a result of improvements offsetting deteriorations as set out in Table 4.12 below.

Table 4.12 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort[1]		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	12,195	12,510	1,373	11.3%	1,256	10.0%	+0.5%
Baseline to Review 2	3,578	3,108	718	20.1%	559	18.0%	+2.4%

[1] The cohort is selected as all those with non-missing responses at the relevant surveys.

Participant characteristics that had a statistically significant effect (p<0.05) on the likelihood of improvement or deterioration in the outcome are set out in Table 4.13 below.

Table 4.13 Key drivers of likelihood of transitions of *"my child has friends that he/she enjoys spending time with"* response

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	**Improvement**	**Deterioration**	**Improvement**	**Deterioration**
Participant lives in Queensland	⬆	⬆	⬆	
Participant lives in South Australia	⬆		⬆	
Participant lives in NT, TAS, WA or ACT			⬆	
Disability is cerebral palsy, another neurological disability, Down syndrome or an intellectual disability	⬆	⬇	⬆	⬇
Disability is global developmental delay/ developmental delay		⬇		
Disability is a sensory disability		⬇	⬆	⬇
Participant is female	⬆		⬆	
Participant is CALD	⬇		⬇	
Participant entered the Scheme in 2016/17	⬆	⬆		
Lower level of function	⬇	⬆	⬇	⬆
Participant lives in a more remote area	⬆			
Higher annualised plan budget	⬇	⬆	⬇	⬆
Between 75% and 95% of supports are capacity building supports	⬆		⬆	
More than 95% of supports are capacity building supports	⬆		⬆	⬇
More than 5% of supports are capital supports	⬆	⬇	⬆	
Participant hasn't received services from State or Commonwealth systems before entering the NDIS			⬆	

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	**Improvement**	**Deterioration**	**Improvement**	**Deterioration**
Higher level of NDIA support	⬇			
Access type is early intervention	⬆			
Higher Index of Economic Resources (IER)			⬆	
Higher Index of Economic Opportunity (IEO)	⬆			

Key findings from Table 4.13 are as follows:

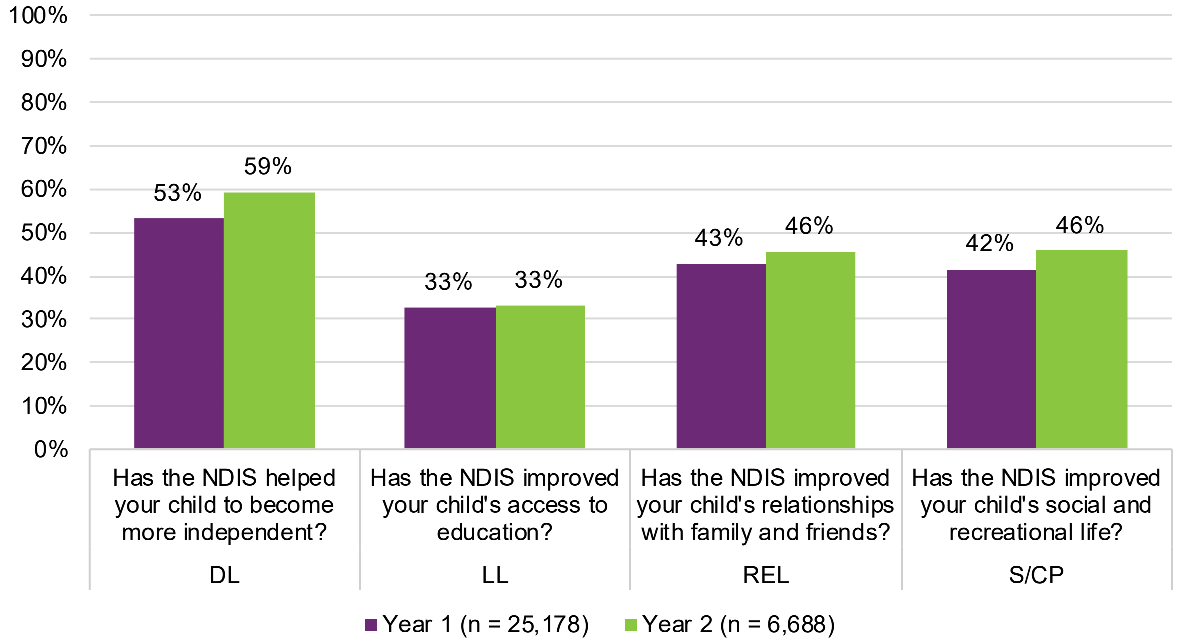
- Female participants were more likely to improve.
- Participants with a lower level of function and participants with a higher annualised plan budget were less likely to improve and more likely to deteriorate.
- Participants with cerebral palsy, another neurological disability, Down syndrome, an intellectual disability or a sensory disability were more likely to improve and less likely to deteriorate.

5. Participants from starting school to age 14: Has the NDIS helped?

5.1 Results across all participants

For participants who have been in the Scheme for approximately one or two years as at 30 June 2019, Figure 5.1 shows the percentage of parents/carers who reported that the NDIS has helped with outcomes related to each of the four domains, after one year in the scheme (first review) and after two years in the scheme (second review).

Figure 5.1 Percentage who think that the NDIS has helped with outcomes related to each domain



For participants who have been in the Scheme for approximately one or two years as at 30 June 2019, Figure 5.1 shows the percentage of parents/carers who reported that the NDIS has helped with outcomes related to each of the four domains, after one year in the scheme (first review) and after two years in the scheme (second review).

Figure 5.1 shows that, after one year in the Scheme, opinions on whether the NDIS has helped range from 32.8% to 53.3% for the starting school to 14 cohort. The highest percentage of positive responses was for the first domain, where 53.3% think that the NDIS has helped their child to become more independent. The largest improvement in the percentage of positive responses between the first and second years in the Scheme was also seen for domain 1 (from 53.3% to 59.3%).

For domain 2, only 32.8% thought that the NDIS had helped with their child's access to education after one year in the Scheme, and this has not changed after a further year in the Scheme. However, to a large extent this is the responsibility of the education system, which has a bigger role in ensuring successful education outcomes than the NDIS.

Perceptions for domains 3 and 4 are similar, with 42.9% saying that the NDIS has improved their child's relationships with family and friends at the end of year 1, and 41.6% saying that the NDIS has improved their child's social and recreational life. For both of these domains, the percentage reporting that the NDIS had helped increased to approximately 46% after a further year in the Scheme.

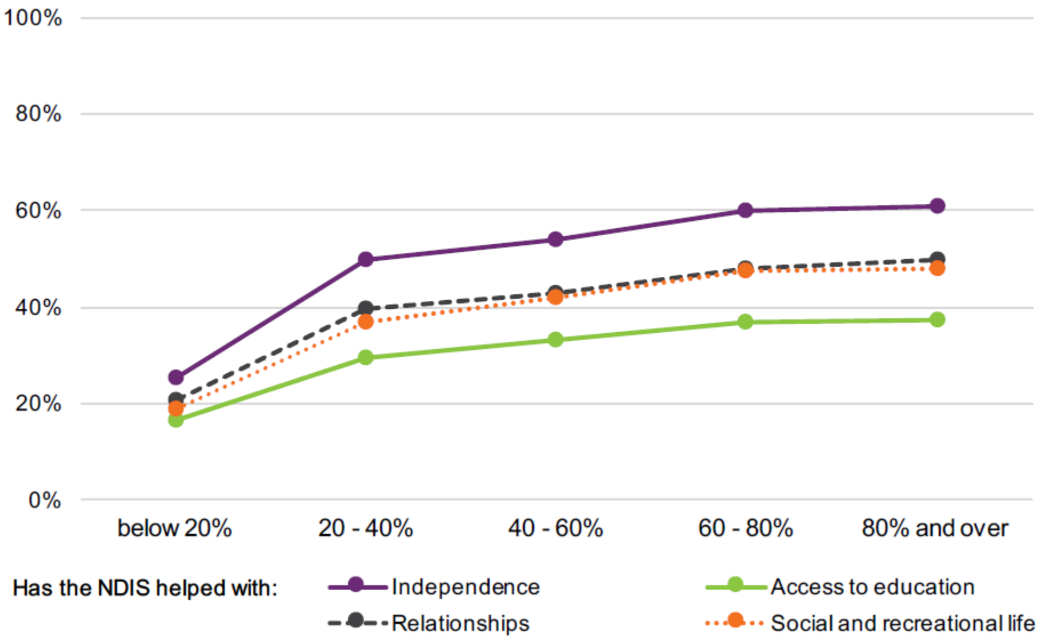
5.2 Results by participant characteristics

5.2.1 Year 1 'Has the NDIS Helped?' indicators – participant characteristics

Year 1 (first review) indicators have been analysed by participant characteristics using one-way analyses, revealing the following key findings:

- Participants with higher baseline plan utilisation tend to respond more positively across all four domains. In particular, those with very low utilisation (below 20%) are much less likely to say that the NDIS has helped. The likelihood of a positive response increases sharply from 0-20% utilisation to 20-40% utilisation (by 13 to 24 percentage points across the four domains) and continues to increase above 40% (by an average of 4 percentage points as utilisation increases to 40-60%, a further 5 percentage points as utilisation increases to 60-80%, and a further 1 percentage point for utilisation over 80%). These results are illustrated in Figure 5.2.

Figure 5.2 Trend by utilisation



- The percentage of parents/carers who say that the NDIS has helped also varies by the participant's disability. Parents/carers of children with developmental delay or global developmental delay respond more positively, consistently across all domains, whereas parents/carers of children with visual impairment respond consistently less positively. Parents/carers of children with cerebral palsy, another neurological disorder, or a physical disability also tend to be less likely to have a positive opinion.
- Parents/carers of older participants tend to respond less positively, particularly for the first three domains (independence, access to education, and relationships). For domain 4 (social, community and civic participation), parents/carers of participants aged 5 and under tend to answer more positively, but the positive response rate does not vary greatly for participants older than 5.

- The percentage of parents/carers who think that the NDIS has helped is highest for participants who fully self-manage, across all domains, followed by those who partly self-manage.
- The percentage of positive responses tended to higher for participants living in major cities, and lower for those living in remote/very remote areas.
- On a one-way basis, participants from WA, ACT and SA tend to be more likely, and those from NT and TAS less likely, to think that the NDIS has helped.
- Participants entering the Scheme for early intervention are more likely to think that the NDIS had helped with outcomes across all domains compared to those entering due to disability.
- Parents/carers of children from a CALD background are more likely to say that the NDIS had helped with their child's access to education.
- Parents/carers of Indigenous children are less likely to say that the NDIS had helped across all outcome domains, with the largest difference observed for whether the NDIS had helped their child to become more independent.
- The percentage responding positively declined with decreasing level of function across all domains except domain 4 (social, community and civic participation).
- Responses also varied according to other measured outcomes. For example, the likelihood of a positive response in all four domains was positively associated with frequency of happiness at school, and for the first three domains, enrolment in a special school was negatively associated with a positive response. Parents/carers who use a formal school holiday program (whether mainstream or for children with disability) rather than informal care or an NDIS funded support, answered more positively across all domains.

5.2.2 Longitudinal 'Has the NDIS Helped?' indicators – participant characteristics

Analysis of longitudinal indicators by participant characteristics has been examined in two ways:

1. A simple comparison of the percentage reporting that the NDIS had helped after two years in the Scheme with the percentage reporting that the NDIS had helped after one year in the Scheme. The difference (percentage after two years minus percentage after one year) is compared for different subgroups.
2. Multiple regression analyses modelling the probability of improvement / deterioration over the participant's second year in the Scheme.[31]

Some key features of the analyses are summarised below.

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[31] Regression models for improvement include all participants who answered "No" at review 1 and model the probability of answering "Yes" at review 2 (between 2913 and 4119 participants, depending on the domain). Models for deterioration include all participants who answered "Yes" at review 1 and model the probability of answering "No" at review 2 (between 2011 and 3215 participants).

The NDIS has helped my child become more independent

The percentage of parents/carers reporting that the NDIS helped their child become more independent increased 7.2% from 52.5% to 59.6% between the first review and the second review. Of those who responded negatively at the first review, 25.8% responded positively at the second review (improvement). Table 5.1 sets out the breakdown of the movements.

Table 5.1 – Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	2,913	3,215	753	25.8%	314	9.8%	+7.2%

The main drivers of the likelihood of improvement or deterioration are as follows:

- Participants with a higher level of function were more likely to improve, and less likely to deteriorate. Overall net improvement for participants with a lower level of function is significantly lower than that for other participants (3.4%, compared to 6.0% overall), on a one-way basis.
- Participants with self-managed plans were more likely to improve.
- Older participants were less likely to improve.
- Participants living in Queensland and South Australia were more likely to improve.

The NDIS has improved my child's access to education

The percentage of parents/carers reporting that the NDIS improved their child's access to education was 32.8% at the first review and not materially different (33.4%) at the second review. Table 5.2 sets out the breakdown of the movements in responses between first review and second review.

Table 5.2 – Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	4,119	2,011	408	9.9%	372	18.5%	0.6%

The main drivers of the likelihood of improvement or deterioration are as follows:

- CALD participants were more likely to improve.
- Participants with self-managed plans were more likely to improve.
- Participants with a larger increase in plan utilisation between the first review and the second review were more likely to improve.
- Participants living in Queensland and South Australia were more likely to improve, and those living in Victoria were less likely.
- Older participants were less likely to improve.
- Participants with a sensory disability, developmental delay or global developmental delay were more likely to improve.
- Participants having a high level of NDIA support were less likely to deteriorate.

The NDIS has improved my child's relationships with family and friends

The percentage of parents/carers reporting that the NDIS improved their child's relationships with family and friends increased 3.1% from 42.5% to 45.7% between the first review and the second review. Table 5.3 sets out the breakdown of the movements in responses between first review and second review.

Table 5.3 – Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	3,525	2,607	557	15.8%	364	14.0%	+3.1%

The main drivers of the likelihood of improvement or deterioration are as follows:

- Participants with a lower level of function were less likely to improve.
- Participants living in Queensland were more likely to improve, and those living in Victoria are less likely.
- Participants with self-managed plans were more likely to improve and less likely to deteriorate.
- Participants with a developmental delay or global developmental delay were more likely to improve.
- Older participants were less likely to improve.

The NDIS has improved my child's social and recreational life

The percentage of parents/carers reporting that the NDIS improved their child's social and recreational life increased 3.7% from 42.3% to 46.0% between the first review and the second review. Table 5.4 sets out the breakdown of the movements in responses between first review and second review.

Table 5.4 – Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	3,517	2,583	552	15.7%	328	12.7%	+3.7%

The main drivers of the likelihood of improvement or deterioration are as follows:

- Participants requiring a medium level of NDIA support were less likely to improve.
- Participants with self-managed plans were more likely to improve.
- Participants living in NSW were more likely to deteriorate.

6. Participants aged 15 to 24: overview of results

6.1 Key findings

Box 6.1: Overall findings for participants aged 15 to 24 who joined the Scheme between 1 July 2016 and 30 June 2017

- For participants entering the Scheme in 2016-17, the longitudinal analysis revealed significant improvements across a number of indicators, with the trend between baseline and first review generally continuing to the second review. Improvements were observed particularly in the areas of:

- Choice and control: The percentage of participants who make more decisions in their life than they did 2 years ago increased by 6.4%, from 57.2% at baseline to 63.7% at second review. The percentage who choose who supports them increased by 2.8%, from 30.6% to 33.5%, and the percentage who make most decisions in their life also increased by 3.1%, from 25.5% to 28.6%. However, the percentage of participants who expressed a desire for greater choice and control increased by 14.9%, from 71.8% to 86.8%.

- Health and wellbeing: the percentage who did not have any difficulty accessing health services increased by 3%, from 70% to 74%, and the percentage who had been to hospital in the last 12 months decreased by 5%, from 27% to 22%.

- Work: The percentage of participants in a paid job increased by 9%, from 13% at baseline to 22% at second review.

- Community participation: The percentage participating in a community group in the last 12 months increased by 12.2%, from 31.1% at baseline to 43.3% at second review. There were also significant increases in the percentage who spend their free time doing activities that interest them (from 75.7% to 81.5%), the percentage who know people in their community (51.0% to 58.3%), and the percentage who have the opportunity to try new things and have new experiences (77.5% to 91.3%).

Box 6.2: Overall findings for participants aged 15 to 24 who joined the Scheme between 1 July 2017 and 30 June 2018

- For participants entering the Scheme in 2017-18, results of the longitudinal analysis were generally consistent with the findings for the cohort entering in 2016-17. Improvements over the first year in the Scheme were observed in the areas of:

- Choice and control: The percentage of participants who make more decisions in their life than they did 2 years ago increased by 3.8%, from 57.2% at baseline to 60.9% at first review. The percentage who choose how they spend their free time increased by 12.4%, from 50.4% to 62.8%. However, the percentage of participants who expressed a desire for greater choice and control increased by 4.6%, from 83.3% to 87.9%.

- Health and wellbeing: the percentage who had been to hospital in the last 12 months decreased by 5.0%, from 28.7% to 23.7%.

- Work: The percentage of participants in a paid job increased by 2.8%, from 17.6% at baseline to 20.4% at first review.

Box 6.2: Overall findings for participants aged 15 to 24 who joined the Scheme between 1 July 2017 and 30 June 2018 (continued)

- Lifelong learning: the percentage who get the opportunity to learn new things increased by 2.6%, from 59.6% to 62.1%.
- Community participation: The percentage participating in a community group in the last 12 months increased by 6.3%, from 32.8% at baseline to 39.1% at first review. There were also significant increases in the percentage who spend their free time doing activities that interest them (from 75.8% to 79.5%), the percentage who know people in their community (57.2% to 59.9%), and the percentage who have the opportunity to try new things and have new experiences (77.6% to 84.4%).

Box 6.3: Outcomes by key characteristics for participants aged 15 to 24

- Baseline and longitudinal outcomes vary with participant level of function. Participants with a higher level of function tend to have better baseline outcomes and exhibit higher rates of improvement than those with a lower level of function.
- Participants with a sensory disability generally experience better outcomes. At baseline, participants with a psychosocial disability do not do as well as participants with other disabilities, and this is observed across all domains. In longitudinal analyses, participants with a psychosocial disability are more likely to deteriorate with regard to seeing a regular doctor, not being able to do things in the last 12 months, and knowing people in their community. Controlling for other factors, participants with ABI/stroke are more likely to volunteer and those with a psychosocial disability are less likely. Also of note is the considerable variation in smoking rates by disability, ranging from 0% for participants with Down syndrome to 46.4% for participants with a psychosocial disability (the overall rate is 6.8%).
- Participants from regional and remote locations tend to experience higher levels of choice and control. They are much more likely to know people in their community than those living in major cities at baseline, and more likely to improve over time. However they are less likely to have a regular doctor and more likely to have difficulty accessing health services. They are also less likely to be happy with their home.
- Participants from a CALD background tend to have lower baseline levels of choice and control. In longitudinal analyses, they are more likely to deteriorate over time with respect to knowing people in their community.
- At baseline, Indigenous participants have slightly higher levels of choice and control than non-Indigenous participants. However, Indigenous participants were almost twice as likely to say they often felt lonely, were less happy with their home, and had poorer health outcomes. Indigenous participants were almost three times as likely to smoke (16.3% compared to 5.5% for non-Indigenous participants). In longitudinal analyses, Indigenous participants were more likely to start wanting more choice and control, and more likely to improve with respect to knowing people in their community.

Box 6.4: Has the NDIS helped? – participants aged 15 to 24

- Opinions on whether the NDIS has helped vary considerably by domain for the young adult cohort at first review, being lowest for work (20.5% after one year in the Scheme, increasing to 21.4% after two years in the Scheme) and home (21.9% after one year in the Scheme, decreasing to 21.2% after two years in the Scheme), and highest for choice and control (61.2% after one year in the Scheme, increasing to 68.0% after two years in the Scheme) and daily activities (59.3% after one year in the Scheme, increasing to 67.0% after two years in the Scheme).

- Higher plan utilisation is strongly associated with a positive response across all eight domains, after both one and two years in the Scheme. Perceptions also tended to improve with increasing plan budget. Participants from Western Australia tended to be more positive, and those from Tasmania less positive.

- The percentage who think that the NDIS has helped increased between first and second review across all domains except home. The likelihood of improvement/ deterioration varied by participant characteristics:

- Participants from QLD tended to be more likely to improve.

- Female participants were more likely to improve in the relationships, health and wellbeing, and lifelong learning domains.

- For daily living, larger increases in plan utilisation over the period, and higher annualised plan budget at the start of the period, were associated with a higher likelihood of improvement.

- SIL participants were more likely to improve in the home, health and wellbeing, lifelong learning, and community participation domains, but more likely to deteriorate with regard to relationships.

- Participants with more complex needs (lower level of function, higher annualised plan budget, higher level of NDIA support through the participant pathway) tended to be more likely to improve and/or less likely to deteriorate in their opinions about whether the NDIS had helped. However for the work domain, participants with lower level of function were less likely to improve, and for lifelong learning, participants with lower level of NDIA support were more likely to improve.

6.2 Results overview – participants aged 15 to 24

6.2.1 Outcomes framework questionnaire domains

Typically the young adult (15 to 24) cohort is characterised by increasing levels of independence and participation in community, with some individuals moving out of the family home, and transitioning from school to employment or further study.

For participants aged 15 to 24, the eight outcome domains are:

- Choice and control (CC)
- Daily living (DL)
- Relationships (REL)
- Home (HM)
- Health and wellbeing (HW)
- Lifelong learning (LL)
- Work (WK)
- Social, community and civic participation (S/CP)

The LF contains a number of extra questions for participants aged 15 and over, across all domains, but particularly in the health and wellbeing domain.

6.2.2 Participant living arrangements

Overall, at baseline, 75.8% of young adult participants live with their parents. 3.9% live with other family members, 7.3% with people not related to them, 2.4% with a spouse/partner and/or children, and 4.0% live alone (Figure 6.1).

For participants who have been in the Scheme for two years or more at 30 June 2019, the percentage living with their parents has not changed significantly between baseline and second review. The percentage living with other family members has increased, as has the percentage living alone (offset by a reduction in the percentage who say they have “other” living arrangements).

At baseline, most participants (79.9%) are in a private home either owned or rented from a private landlord. 11.1% of participants live in a private home rented from a public authority. 4.2% are in supported accommodation, 1.1% in residential care or a hostel and a further 1.1% in a boarding house, short-term crisis accommodation, a temporary shelter, or a nursing home (Figure 6.2).

Looking at longitudinal change, for participants who have been in the Scheme for two years or more at 30 June 2019, there has been a reduction in the percentage living in a privately owned home, and slight increases in the percentages living in private or public rental properties. The percentage living in supported accommodation has also increased slightly, from 3.2% to 4.7% (Figure 6.2).

Figure 6.1 Participant living arrangements – combined baseline

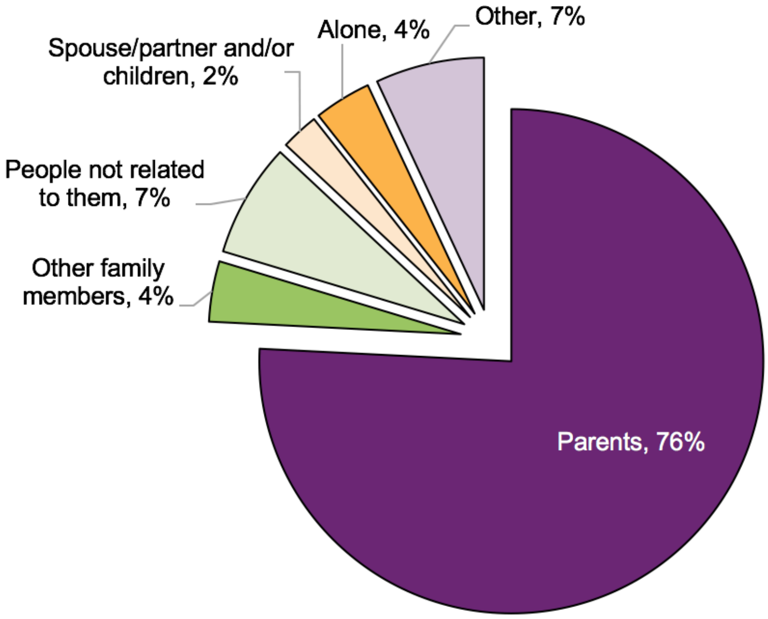
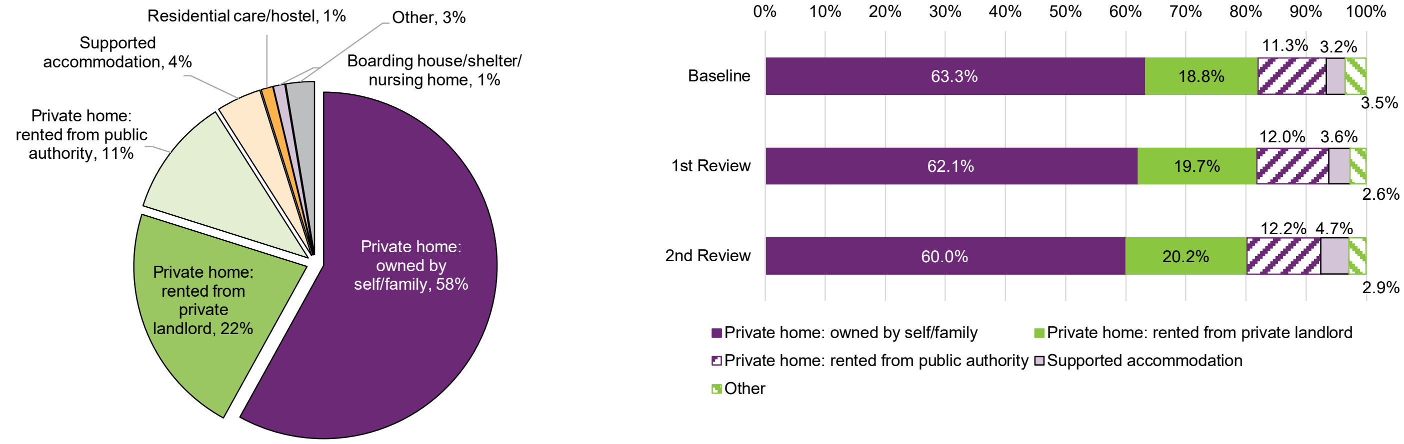


Figure 6.2 Participant housing arrangements – combined baseline and longitudinal


Combined baseline

Longitudinal change - participants in the Scheme for 2 or more years

6.2.3 Baseline indicators – across all participants[32]

Independence

The SF includes questions designed to investigate whether participants aged 15 to 24 exhibit growing independence and increased choice and control over their lives, as would be expected for young adults generally. More than half the participants had experienced increased independence/control over their life compared to two years ago[33], however 64.4% were still not happy with the level of independence/control they were currently experiencing. 55.7% said they made more decisions in their life than two years ago, however this includes

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[32] The combined baseline, including 2016-17, 2017-18, and 2018-19 entrants.

[33] Note that this is a cross-sectional, not a longitudinal measure. The question asks participants to think about the level of choice and control they had two years ago, and compare it to the level of choice and control they have at the time of interview.

33.7% who would like to make more decisions. Of those who had commenced planning for life post-school, 66.9% said they had at least some input into the decisions.

Choice and control

More participants chose, or had a say in, what they do each day (83.8%) and how they spend their free time (88.2%) than in who supports them (71.0%), where they live (51.1%) or who they live with (50.9%). The majority (64.9%) said their family makes most decisions in their life, although 28.3% said they made most decisions themselves. 91.2% said they had someone who supports them to make decisions. Overall, 81.0% said they would like more choice and control in their life.

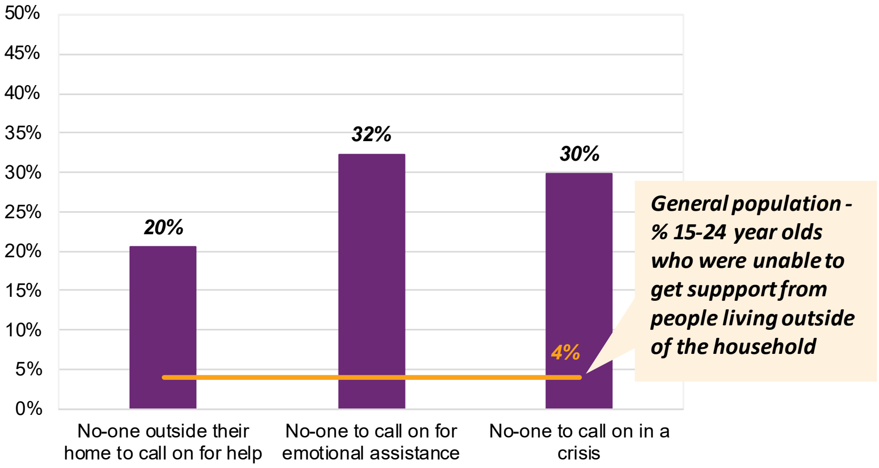
Daily living

Support for daily living was most needed for domestic tasks (87.2%) and travel and transport (84.5%), and least needed for personal care (57.0%) and using technology (45.2%). Where support was needed, it was most often received for personal care, domestic tasks, and finances/money (82.7%-85.3%), and least often received for communication (70.8%), reading and/or writing (71.1%) and using technology (61.4%). For those receiving support, generally low percentages (ranging from 27.6%, for getting out of the house, to 59.7%, for finances/money) felt that it met their needs. A little over one-quarter (27%) of participants needed support in all of the eight areas surveyed.

Relationships

Looking at relationships, 20.4% of participants said they had no-one outside their home to call on for help, 32.3% had no-one to call on for emotional assistance, and 29.8% had no-one to call on in a crisis. By comparison, the ABS General Social Survey (GSS) asks “Are you able to get support in times of crisis from persons living outside the household?”, and the proportion of 15 to 24 year olds who said they were unable to get support was 4% for the 2014 survey (Figure 6.3).

Figure 6.3 Ability to get assistance



Whilst only 3.5% of respondents said they provided care for others, 62.5% of these said they needed help to continue caring, and only 31.1% said they received enough help.

32.4% of participants said they did not have any friends apart from family or paid staff. 47.6% said they got to see their friends without family or paid staff present. Overall, 66.2% were happy with their relationships with staff. 24.7% said they often feel lonely.

Home

27.7% of participants were planning for a home of their own, with slightly more than half having some input into the planning. 80.4% were happy with their current home, however 34.2% said they would not want to live there in five years' time, mainly because they wanted to choose their future home. 37.3% cited lack of support as a barrier to living in a home of their choice, with 21.1% citing lack of affordable housing. 84.3% said they felt very safe or safe in their home.

Health and Wellbeing

People with disability generally rate their health as poorer than other Australians[34], and this holds true for NDIS participants. 68.2% of the young adult cohort rated their health as good, very good or excellent, compared to 91.9% of Australians aged 15 to 24 overall[35]. NDIS participants also express lower overall life satisfaction than the general population. When asked to think about their life now and in the future, on a seven-point scale from "delighted" to "terrible", 41.5% of young adult participants responding to the LF said they felt either "delighted", "pleased" or "mostly satisfied", compared to 78.3% of Australians aged 18 to 24 overall[36].

NDIS participants are also more likely to go to hospital than Australians generally. 28.7% of young adult participants had been to hospital in the last 12 months, compared to 7.9% of Australians aged 15 to 24[37]. Moreover, 51.3% of those who had been to hospital have had multiple visits, compared to a population figure of 21.8% for Australians aged 15 to 24[37].

31.0% of the young adult cohort said they had experienced some difficulty in getting health services. The most common reason cited was access issues (10.0%), however 6.4% said it was because of the attitudes and/or expertise of health professionals.

6.8% of the young adult cohort said they currently smoked, and this is lower than a 2017-18 population figure for 15 to 24 year olds of 12.6%[35].

Figure 6.4 illustrates these results.

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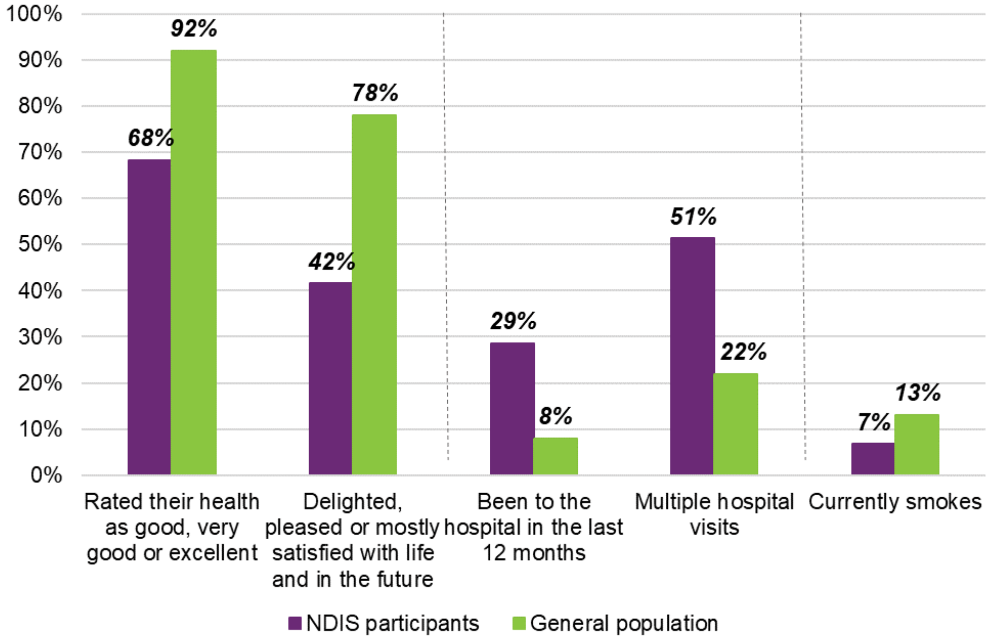
[34] Australian Institute of Health and Welfare (AIHW) (2018) Australia's Health 2018.

[35] ABS National Health Survey (NHS) 2017-18.

[36] ABS General Social Survey (GSS) 2010. For GSS 2014 the question changed from using seven descriptive categories to a rating on a 0 to 10 scale.

[37] ABS Patient Experience Survey (PES) 2018-19.

Figure 6.4 Health and wellbeing indicators of participants compared with the general population



Lifelong learning

Regarding education and training, 29.7% of the cohort said their schooling was (or had been) in a mainstream class. While 58.2% said they had opportunities to learn new things, 36.4% said they did not but would like to. 40.3% said there was a course or training they wanted to do but were unable to do in the last 12 months.

Work

8.4% said they were currently working in an unpaid job, whilst 17.3% were working in a paid job. Of those not currently working in a paid job, 59.6% said they would like one and 40.4% said they didn't want one.

Social, civic, community participation

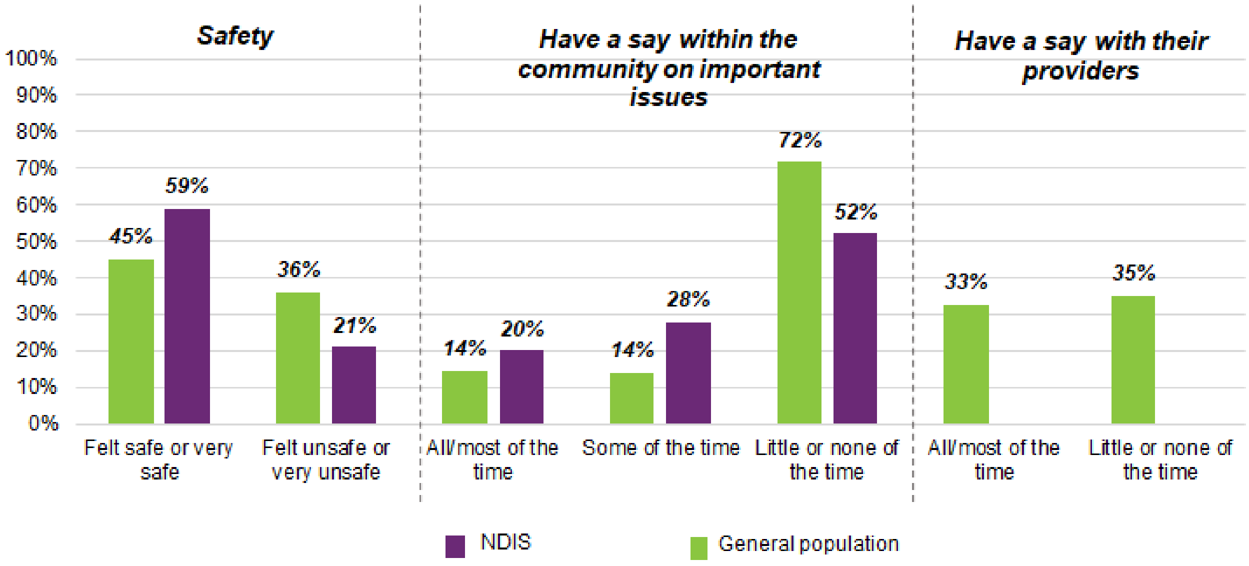
12.5% of participants said they currently volunteered, and a further 27.7% expressed an interest in volunteering. 33.7% had been involved in a community, cultural or religious group in the last 12 months, with 81.5% of LF respondents feeling a sense of belonging to the group. Also from the LF, 30.0% said they had had negative experiences in their community in the past 12 months.

The GSS asks "How safe or unsafe do you feel walking alone in your local area after dark?", with responses on a five-point scale from "Very safe" to "Very unsafe". The LF also asks this question, however with an additional response option "I never go out alone", which was chosen by 71.4% of respondents. Of those who do go out alone, 45.1% said they felt safe or very safe whereas 36.0% said they felt unsafe or very unsafe. From the 2014 GSS, the corresponding figures for 15 to 24 year olds were 59% and 21%.

NDIS participants were also less likely to feel able to have a say within the community on important issues: 14.3% of participants felt able to have a say all of the time or most of the time, 14.0% some of the time, and 71.7% a little of the time or none of the time. From the 2014 GSS, the corresponding figures for 15 to 24 year olds were 20%, 28% and 52%.

32.6% of participants felt able to have a say with their support providers either all of the time or most of the time, however 34.9% were only able to have a say a little of the time or not at all.

Figure 6.5 Social, civic and community participation indicators, NDIS participants compared with the general population



6.2.4 Baseline indicators – participant characteristics

Baseline indicators have been analysed by participant characteristics using one-way analyses and multiple regression modelling. Multiple regression modelling was performed for twelve indicators, namely the percentage of participants who:

- Are happy with the level of independence/control they have now
- Choose who supports them
- Choose what they do each day
- Have been given the opportunity to participate in a self-advocacy group meeting, conference, or event
- Want more choice and control in their life
- Have no friends other than family or paid staff
- Are happy with the home they live in
- Feel safe or very safe in their home
- Rate their health as excellent, very good or good
- Currently attend or previously attended school in a mainstream class
- Are currently working in a paid job
- Are currently a volunteer.

Key findings from the one-way analyses and regression modelling include:

- **Level of function**
  Baseline indicators are generally better for participants with a higher level of function. The participant's level of function was a significant predictor in models for eleven indicators, and higher level of function was associated with better outcomes in ten of them. After controlling for other factors, participants with higher level of function were more likely to:
    - Be happy with the level of independence/control that they have now (48.0% compared to 37.0% and 26.1% for those with medium and low levels of

function respectively, on a one-way basis). Despite this, participants with higher level of function were also more likely to want *more* choice and control in their life.

- Choose what they do each day (65.1% compared to 49.3% and 21.7% for those with medium and low levels of function respectively, on a one-way basis) and who supports them (55.0%, 38.0% and 17.2%).
- Attend (or have previously attended) school in a mainstream class (52.3% compared to 30.9% and 14.6% for those with medium and low levels of function respectively, on a one-way basis).

Differences by level of function were not as apparent for the percentage who are happy with their home, and level of function was not a significant predictor in the regression model for this indicator, after controlling for other factors. However, annualised plan budget, which is correlated with level of function, was a significant predictor in the model for the probability of a participant being happy with their home.

There was also a large difference by level of function in the percentage of participants who are not working and not looking for work. 38.9% of participants with a high level of function stated they are not working and not looking for work, compared to 48.6% for participants with medium level of function and 79.0% for those with low level of function.

- **Culturally and linguistically diverse backgrounds**

Baseline indicators are generally worse for participants who are from a CALD background.
CALD background was a significant predictor in models for eight indicators, and in seven cases the relationship with baseline outcomes was negative.
After controlling for other factors, participants from a CALD background were:

- More likely to have no friends other than family or paid staff (42.9% compared to 31.7% for those who are not from a CALD background, on a one-way basis).
- Less likely to choose what they do each day (35.6% compared to 44.0%) and who supports them (28.1% compared to 34.7%).
- Less likely to be happy with the level of independence and control they currently have (29.3% compared to 35.7%).
- Less likely to have a paid job (13.1% compared to 17.5% for non-CALD participants).

However, CALD participants were more likely to be happy with their current home (82.6% compared to 80.0%).

On a one-way basis, CALD participants were less likely to feel able to have a say with support services most of the time or all of the time (25.2% compared to 32.6% for non-CALD participants).

- **Indigenous**

Baseline indicators are generally poorer for Indigenous participants.
Indigenous status was a significant predictor in models for six indicators, and in five cases the relationship with baseline outcomes was negative. After controlling for other factors, Indigenous participants were:

- Less likely to be happy in the home they live in (69.6% compared to 81.1% for non-Indigenous participants, on a one-way basis) and to feel safe there (76.9% compared to 84.8%).

- Less likely to rate their health as excellent, very good or good (65.0% compared to 68.3%).
- Less likely to be working in a paid job (10.4% compared to 18.1% for non-Indigenous participants).
- Less likely to volunteer (8.8% compared to 12.8%).

However, Indigenous participants were more likely to choose what they do each day (48.4% compared to 42.7% for non-Indigenous participants). One-way analyses also suggest that Indigenous participants achieve slightly better outcomes than non-Indigenous participants for most of the choice and control indicators.

Also from the one-way analyses:

- Indigenous participants are more likely to want to see their family more often, but less likely to want to see their friends more often. Indigenous participants are more likely to provide care for others (5.7% compared to 3.2% for non-Indigenous participants). Although based on smaller numbers in the LF, Indigenous participants are more likely to say they often felt lonely (41.9% compared to 24.0% for non-Indigenous participants).
- Indigenous participants are more likely to experience difficulties accessing health services, and to have been to hospital in the last year.
- Based on the LF, Indigenous participants were almost three times as likely to smoke (16.3% compared to 5.5% for non-Indigenous participants).
- Indigenous participants are less likely to receive opportunities to learn new things (48.5% compared to 58.7% for non-Indigenous participants) or to participate in education, training and skill development.
- Indigenous participants were slightly more likely to know people in their community (57.9% compared to 51.6% for non-Indigenous participants).

- **Age**

Baseline indicators generally improve with age.
Age at entry to the scheme was a significant predictor in all twelve modelled indicators, and had a positive effect on outcomes in nine of them. After controlling for other factors, older participants are more likely to:

- Choose what they do each day (26.0% for 15 year olds, increasing to 51.8% for 24 year olds) and who supports them (21.7% for 15 year olds, increasing to 41.0% for 24 year olds)
- Have friends other than family or paid staff (68.6% for those aged 22 or older, compared to 65.3% for those aged 17 or younger)
- Be working in a paid job (4.0% for 15 year olds, increasing to 25.0% for 24 year olds).

However, older participants tended to be less happy with the home they live in. 88.7% of participants aged 15 years were happy with their home, decreasing approximately linearly to 72.6% for participants aged 24. Older participants are also less likely to feel safe in their home. However from the one-way analyses, older participants are more likely to feel safe getting out and about in the community.

Also from the one-way analyses:

- The level of choice and control tends to increase with age, and many of the participation indicators also improve with age.

- Some relationship indicators improve with age, including the percentage with someone outside their home to call when they need help. The proportion of participants who would like to see their family more often increases with age.
- The LF suggests that overall life satisfaction increases with age for the young adult cohort.
- There is a sharp reduction in the percentage participating in education, training, or skill development, from 65.0% for those aged 17 or younger (many of whom would still be in school), to 37.9% for those aged 18 to 21, and 23.3% for those aged 22 or older.
- Opportunities to learn new things also become less widespread with age. The percentage of participants who get opportunities decreased from 68.9% for those aged 17 or younger to 50.8% for those 22 or older.

- **Disability**

The participant's disability is a significant predictor in all of the multiple regression models. These models show that controlling for other factors:

- Participants with Down syndrome and those with an intellectual disability are much less likely to choose who supports them, and to choose what they do each day.
- Participants with a psychosocial disability, and those with a visual impairment, are much less likely to be happy with their current level of independence, whereas those with a hearing impairment are much more likely to be happy. Participants with a psychosocial disability are also more likely to want more choice and control in their lives, and those with a hearing impairment are less likely.
- Participants with autism, and those with a psychosocial disability, are more likely to have no friends other than family or paid staff (40.0% and 39.0%, respectively, compared to 32.4% overall, on a one-way basis).
- Participants with Down syndrome are more likely to be happy with their home, and those with a psychosocial disability, other physical disability, cerebral palsy, or visual impairment are less likely to be happy.
- Participants with Down syndrome are also more likely to feel safe or very safe in their home, and those with a hearing impairment, psychosocial disability, a visual impairment or other physical disability are less likely to be happy.
- Participants with a hearing impairment have better self-rated health, followed by participants with an intellectual disability. However, participants with Down syndrome (and those with all other disabilities apart from hearing) have significantly worse self-rated health than those with an intellectual disability. This is particularly the case for participants with psychosocial disability, other neurological or other physical disability, or ABI/stroke.
- Participants with Down syndrome and those with an intellectual disability are much less likely to attend (or to have attended) school in a mainstream class (6.5% and 13.3%, respectively, on a one-way basis, compared with 41.3% for other disabilities combined).
- Compared to participants with an intellectual disability, participants with a hearing impairment or other physical disability are significantly more likely to have a paid job, and those with a psychosocial disability, cerebral palsy, another neurological disorder, autism, or visual impairment are significantly less likely.
- Participants with ABI/stroke are more likely to volunteer, and those with a psychosocial disability less likely.

Other large differences occurring in the one-way analyses include:

  - Compared to an overall rate of 31.0%, participants with a psychosocial disability (48.4%), cerebral palsy/another neurological disability (38.7%), or a physical disability (37.0%) are the most likely to have experienced difficulties accessing health services, and those with a sensory disability (26.0%) or an intellectual disability/Down syndrome (27.6%) the least likely.
  - Participants with a psychosocial disability also tend to have worse outcomes for lifelong learning, being less likely to have opportunities to learn new things and to participate in education and training, and more likely to have been unable to do a course or training they wanted to do in the last 12 months. Better lifelong learning outcomes are observed for participants with a sensory disability.
  - Participants with a sensory disability are more likely to participate and to know people in their community, and more likely to feel able to have a say with their service providers. Participation in the community is lower for participants with autism or a psychosocial disability, whilst those with autism or an intellectual disability are the least likely to feel able to have a say with their service providers.
  - From the LF, 6.8% of young adult participants smoke, but this varies considerably by disability. Although based on small numbers, 46.4% of participants with a psychosocial disability smoke, whereas none of the participants with Down syndrome or a sensory disability say they smoke.

- **Geography**

  Baseline indicators generally improve with increasing remoteness of the participant's area of residence.

  Remoteness was a significant predictor in six of the multiple regression models, and had a positive effect on outcomes in five of them. After controlling for other factors, participants from more remote areas were more likely to:

  - Be happy with the level of independence and control they currently have (33.2% for participants in major cities compared to approximately 40% in regional and remote areas, on a one-way basis)
  - Rate their health as excellent, very good or good (67.4% for participants in major cities compared to approximately 70% in regional and remote areas, on a one-way basis)
  - Volunteer (11.4% for participants in major cities compared to approximately 15% in regional and remote areas).
  - Attend (or have previously attended) school in a mainstream class, and have a paid job (although the magnitude of the difference is slight).

  However, participants from more remote areas were less likely to be happy with the home they current lived in. 81.7% of participants from major cities were happy with their current home, compared to approximately 78% from regional areas and 74.2% from remote/very remote areas.

  Other large differences occurring in the one-way analyses include:

  - Participants living in major cities are more likely to have a regular doctor and less likely to have difficulty accessing health services compared to those living in remote/very remote areas.
  - Participants from remove/very remote areas were much more likely to know people in their community (76.9% compared to 46.9% for those living in major cities).

  - Participants from major cities were the least likely to feel safe getting out and about in their community (38.5% versus 52.5% for those living in remote/very remote areas).

- **Self-management**

Self-managing (either partially or fully) is generally associated with better outcomes at baseline.[38]

Self-management was a significant predictor in models for eight indicators, and had a positive effect on outcomes in five of them. After controlling for other factors, self-management is associated with a higher likelihood of a participant:

  - Choosing who supports them (38.5% for fully self-managing participants compared to 35.2% for those with agency-managed plans, on a one-way basis).
  - Being happy with their current home (87.6% for fully self-managed participants compared to 80.4% for agency managed)
  - Feeling safe or very safe in their home (89.3% for fully self-managed participants compared to 84.6% for agency managed)
  - Attending school in a mainstream class (44.2% for full self-managed, 34.3% for partly self-managed, and 27.1% for agency managed).

However, self-managing participants were less likely to be happy with their current level of independence and control (approximately 33% for participants who self-manage compared to 39.5% for those with agency-managed plans).

On a one-way basis, self-managing participants were more likely to get opportunities to learn new things, to have a paid job, to volunteer, to participate and know people in their community, and to have a say with service providers.

- **Gender**

Baseline results by gender are mixed.

In multiple regression models, gender was a significant predictor for eight of the indicators. In four cases, outcomes were more positive for females compared to males. After controlling for other factors, female participants were:

  - More likely to choose who supports them but less likely to be happy with their current level of independence
  - More likely to have friends other than family or paid staff
  - Less likely to feel safe or very safe in their home
  - Less likely to rate their health as excellent, very good or good (63.3% compared to 71.1% for males, on a one-way basis)
  - More likely to attend (or to have attended) school in a mainstream class
  - Less likely to be working in a paid job (16.3% compared to 18.0% for males) but more likely to volunteer (14.6% versus 11.4%).

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[38] At baseline, participants will only just have received their first plan, and so these results do not reflect the effect of self-managing *per se*. Rather, self-management is serving here as a proxy for other characteristics with which it is associated (such as a higher level of self-determination).

6.2.5 Longitudinal indicators – across all participants

Longitudinal analysis describes how outcomes have changed for participants during the time they have been in the Scheme. Included here are participants who entered the Scheme between 1 July 2016 and 30 June 2018, for whom a record of outcomes is available at scheme entry (baseline) and at one or more of the two time points: approximately one year following scheme entry (first review), and approximately two years following scheme entry (second review). The analysis considers how outcomes have changed between baseline and first review, between baseline and second review and between first review and second review.

There have been a number of improvements across all domains for the three periods being considered. The greatest changes occurred when considering a participant's responses from baseline to their second review.

Table 6.1 summarises changes for selected indicators across different time periods. In Table 6.1, cohort "B,R1,R2" includes participants responding at baseline, first review and second review.[39] Cohort "B,R1" includes participants responding at both baseline and first review (but not at second review, so the cohorts do not overlap). Indicators were selected for the tables if the change was statistically significant[40] and had an absolute magnitude greater than 0.02[41].

Table 6.1 Selected longitudinal indicators for participants aged 15 to 24

Domain (Form)	Indicator	Cohort	Baseline	Review 1	Review 2	Change B-R1	Change R1-R2	Change B-R2	Improvement/ Deterioration
CC (SF)	% who make more decisions in their life than they did 2 years ago	B,R1,R2	57.2%	62.0%	63.7%	4.8%	1.6%	6.4%	**Improvement**
		B,R1	57.2%	60.9%		3.8%			
CC (SF)	% who choose who supports them	B,R1,R2	30.6%	32.2%	33.5%	1.5%	1.3%	2.8%	**Improvement**
		B,R1	34.2%	35.1%		0.9%			
CC (SF)	% who choose what they do each day	B,R1,R2	40.6%	42.3%	43.1%	1.7%	0.7%	2.5%	**Improvement**
		B,R1	43.4%	43.9%		0.4%			

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[39] A small number may be missing a response at the first review.
[40] McNemar's test at the 0.05 level.
[41] Between baseline and second review for the "B,R1,R2" cohort, and between baseline and first review for the "B,R1" cohort.

Domain (Form)	Indicator	Cohort	Baseline	Review 1	Review 2	Change B-R1	Change R1-R2	Change B-R2	Improvement/ Deterioration
CC (SF)	% who make most decisions in their life	B,R1,R2	25.5%	26.2%	28.6%	0.7%	2.4%	3.1%	**Improvement**
		B,R1	27.5%	28.5%		1.0%			
CC (LF)	% who choose how they spent their free time	B,R1,R2	61.3%	52.5%	72.5%	-8.8%	20.0%	11.3%	**Improvement**
		B,R1	50.4%	62.8%		12.4%			
REL (LF)	% who feel happy with their relationships with staff	B,R1,R2	57.7%	89.7%	88.5%	32.1%	-1.3%	30.8%	**Improvement**
		B,R1	76.4%	84.0%		7.6%			
HM (LF)	% who make decisions in planning for a home of their own (with or without the help of others)	B,R1,R2	11.3%	12.5%	23.8%	1.3%	11.3%	12.5%	**Improvement**
		B,R1	15.2%	20.0%		4.8%			
HW (SF)	% who did not have any difficulties accessing health services	B,R1,R2	70.4%	72.5%	73.6%	2.1%	1.1%	3.2%	**Improvement**
		B,R1	66.4%	68.0%		1.7%			
HW (SF)	% who have been to the hospital in the last 12 months	B,R1,R2	26.8%	23.2%	22.1%	-3.7%	-1.0%	-4.7%	**Improvement**
		B,R1	28.7%	23.7%		-5.0%			
LL (SF)	% who get opportunities to learn new things	B,R1,R2	62.5%	64.4%	64.7%	1.9%	0.4%	2.3%	**Improvement**
		B,R1	59.6%	62.1%		2.6%			
LL (SF)	Of those who currently participate in education, training or skill development in a mainstream class, % who say it's what they want	B,R1,R2	65.4%	71.7%	74.1%	6.3%	2.4%	8.7%	**Improvement**
		B,R1	77.9%	81.5%		3.6%			

Domain (Form)	Indicator	Cohort	Baseline	Review 1	Review 2	Change B R1	Change R1 R2	Change B R2	Improvement/ Deterioration
LL (SF)	Of those who currently participate in education, training or skill development in a class for students with disability, % who say it's what they want	B,R1,R2	80.1%	82.9%	84.5%	2.8%	1.5%	4.3%	**Improvement**
		B,R1	84.6%	85.3%		0.7%			
WK (SF)	% who are currently working in an unpaid job	B,R1,R2	7.7%	9.5%	9.8%	1.8%	0.3%	2.1%	**Improvement**
		B,R1	8.6%	9.2%		0.6%			
WK (SF)	% who are currently working in a paid job	B,R1,R2	13.3%	17.9%	22.0%	4.6%	4.1%	8.7%	**Improvement**
		B,R1	17.6%	20.4%		2.8%			
WK (LF)	% who have had at least one job in the past 12 months	B,R1,R2	13.8%	15.0%	26.3%	1.3%	11.3%	12.5%	**Improvement**
		B,R1	31.2%	32.4%		1.2%			
WK (SF)	% who have worked in a casual job in the past year	B,R1,R2	12.5%	17.5%	26.3%	5.0%	8.8%	13.8%	**Improvement**
		B,R1	13.2%	14.8%		1.6%			
S/CP (SF)	% who spend their free time doing activities that interest them	B,R1,R2	75.7%	80.2%	81.5%	4.5%	1.3%	5.8%	**Improvement**
		B,R1	75.8%	79.5%		3.6%			
S/CP (SF)	% who are currently a volunteer	B,R1,R2	12.0%	13.8%	14.7%	1.9%	0.8%	2.7%	**Improvement**
		B,R1	13.2%	13.9%		0.7%			
S/CP (SF)	% who have been actively involved in a community, cultural or religious group in the last 12 months	B,R1,R2	31.1%	37.8%	43.3%	6.7%	5.5%	12.2%	**Improvement**
		B,R1	32.8%	39.1%		6.3%			

Domain (Form)	Indicator	Cohort	Baseline	Review 1	Review 2	Change B R1	Change R1 R2	Change B R2	Improvement/ Deterioration
S/CP (SF)	% who know people in their community	B,R1,R2	51.0%	56.8%	58.3%	5.8%	1.5%	7.3%	**Improvement**
		B,R1	57.2%	59.9%		2.7%			
S/CP (LF)	% who have the opportunity to try new things and have new experiences	B,R1,R2	77.5%	86.3%	91.3%	8.8%	5.0%	13.8%	**Improvement**
		B,R1	77.6%	84.4%		6.8%			
S/CP (LF)	% who feel safe or very safe when walking alone in their local area after dark	B,R1,R2	7.6%	16.5%	15.2%	8.9%	-1.3%	7.6%	**Improvement**
		B,R1	10.8%	16.4%		5.6%			
CC (SF)	% who want more choice and control in their life	B,R1,R2	71.8%	81.8%	86.8%	10.0%	4.9%	14.9%	**Context Dependent**
		B,R1	83.3%	87.9%		4.6%			
REL (SF)	% who would like to see their friends more often	B,R1,R2	56.6%	59.4%	62.4%	2.8%	3.0%	5.8%	**Context Dependent**
		B,R1	60.9%	63.2%		2.3%			
HM (SF)	Of those who are happy with their current home, % who would like to live there in 5 years time	B,R1,R2	66.4%	62.7%	60.0%	-3.7%	-2.7%	-6.3%	**Context Dependent**
		B,R1	58.1%	56.4%		-1.7%			
HW (SF)	% who have a doctor they see on a regular basis	B,R1,R2	78.5%	84.8%	88.4%	6.3%	3.61%	9.9%	**Context Dependent**
		B,R1	82.2%	86.2%		4.0%			
CC (SF)	% who feel able to advocate (stand up) for themselves	B,R1,R2	32.3%	29.6%	27.1%	-2.7%	-2.5%	-5.2%	**Deterioration**
		B,R1	30.9%	28.6%		-2.2%			

Domain (Form)	Indicator	Cohort	Baseline	Review 1	Review 2	Change B R1	Change R1 R2	Change B R2	Improvement/ Deterioration
HM (SF)	% who are happy with the home they live in	B,R1,R2	85.0%	84.2%	82.0%	-0.8%	-2.3%	-3.1%	**Deterioration**
		B,R1	80.8%	79.9%		-0.9%			
HM (SF)	% who feel safe or very safe in their home	B,R1,R2	87.9%	87.4%	85.4%	-0.5%	-2.0%	-2.5%	**Deterioration**
		B,R1	84.9%	84.3%		-0.6%			
HW (SF)	% who rate their health as excellent, very good or good	B,R1,R2	71.0%	68.8%	68.0%	-2.2%	-0.8%	-2.9%	**Deterioration**
		B,R1	67.8%	66.4%		-1.3%			
LL (SF)	% who currently attend or previously attended school in a mainstream class[42]	B,R1,R2	26.0%	24.0%	23.6%	-1.9%	-0.4%	-2.4%	**Deterioration**
		B,R1	29.2%	27.9%		-1.3%			
LL (SF)	% who currently participate in education, training or skill development	B,R1,R2	46.8%	47.6%	41.2%	0.8%	-6.5%	-5.6%	**Deterioration**
		B,R1	45.0%	42.7%		-2.3%			
S/CP (SF)	% who wanted to do certain things in the last 12 months, but could not	B,R1,R2	55.9%	62.7%	65.7%	6.9%	3.0%	9.8%	**Deterioration**
		B,R1	64.7%	68.3%		3.6%			

Key findings from Table 6.1 include:

- There have been considerable improvements in the social, community and civic participation domain. Participants are more involved in their community, with an increase in the percentage of participants who have been actively involved in a community, cultural or religious group in the last 12 months (by 12.2% over two years in the Scheme). The percentage of participants who know people in their community has continued to increase (by 7.3% over two years), as has the percentage of participants who have opportunities to try new things and have new experiences (by 13.8% over two years).

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[42] This indicator can only change over time for participants who have not yet finished school. The percentages shown are for all participants, whether they have finished school or not.

- Choice and control indicators have also improved. More participants are able to choose who supports them and to choose what they do each day. Participants are more likely to make most decisions in their life (up 3.1% over two years) and are also more likely to be able to choose how they spend their free time (up 11.3%). The percentage who make more decisions than two years ago has increased by 6.4% over two years (possibly partly reflect increasing age).
- The desire for greater choice and control has also continued to increase. For those who have been in the Scheme for two years, a 10% increase in the first year has been followed by a further 5% increase in the second year. Whether this is a positive or a negative change depends on the reasons (for example, it could reflect increasing awareness that choice and control is possible).
- There has been a considerable increase in the percentage who are happy with their relationships with staff[43] over the first year in the Scheme. However, little change in the percentage is observed over the second year.
- For those participants currently involved in education, training or skill development, the percentage who say it's what they want has increased, with a greater increase for those in a mainstream class compared to those in a class for students with disability. Additionally, more participants are getting the opportunity to learn new things.
- The percentage of participants working in an unpaid or paid job has increased, as well as the percentage of participants who volunteer.
- Whilst self-rated health has deteriorated, health services have become more accessible, with the percentage of participants reporting no difficulty in accessing health services increasing by 3.2% between baseline and second review. Additionally, the percentage of participants who say they have a regular doctor has increased by 9.9% between baseline and second review.
- There has been a further decrease in the percentage of participants who feel they are able to advocate for themselves, over the second year in the Scheme.

6.2.6 Longitudinal indicators – participant characteristics

Analysis by participant characteristics has been examined in two ways:

1. A simple comparison of the percentage meeting the indicator at first or second review with the percentage meeting the indicator at baseline. The difference (review-baseline) is compared for different subgroups.
2. Multiple regression analyses with separate models for improvement and deterioration in the indicator. That is, for the subset without/with the indicator at baseline, the probability of meeting/not meeting the indicator at first or second review is modelled as a function of participant characteristics.[44]

It should be noted that these two analyses can produce different results, particularly where there is a large difference in the indicator at baseline between subgroups.

Some key features of the analyses for selected indicators are summarised below.

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[43] This may partly reflect participants without staff at baseline responding “no” at baseline then subsequently changing their answer to “yes” once they have staff and are happy with them, at review. For future collections, an option “I don't have any staff” has been added.

[44] Modelling of baseline to second review transitions is based on a smaller amount of data, hence these models tend to identify a smaller number of significant predictors.

I want more choice and control in my life

The percentage of participants who want more choice and control increased by 6.3% between baseline and first review and by 14.9% between baseline and second review, as set out in Table 6.2 below.

Table 6.2 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort[1]		Context dependent: No to Yes		Context dependent: Yes to No		Net Movement (No to Yes)
	No	Yes	Number	%	Number	%	
Baseline to Review 1	3,188	12,540	1,215	38.1%	231	1.8%	+6.3%
Baseline to Review 2	1,448	3,690	881	60.8%	113	3.1%	+14.9%

[1]The cohort is selected as all those with non-missing responses at the relevant surveys.

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of transitioning are set out in Table 6.3 below.

Table 6.3 Key drivers of likelihood of transitions in *"I want more choice and control in my life"* response[45]

Variable	Baseline to First Review Relationship with likelihood of		Baseline to Second Review Relationship with likelihood of	
	No to Yes	Yes to No	No to Yes	Yes to No
Participant lives in Queensland	⬆	⇧		
Participant lives in South Australia				⇧
Participant is Indigenous			⬆	
Participant is older	⇩		⇩	
Lower level of function	⇩		⇩	
Plan is agency-managed		⬇		
Participant received services from State/Territory programs before entering the NDIS	⬆			
Higher level of NDIA support	⇩	⬇	⇩	

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[45] See Table 2.2 for definition of arrow symbols in this and similar tables.

Key findings from Table 6.3 include:

- In general, participants who live in QLD, are Indigenous, or entered the NDIS after having previously received services from State/Territory governments are more likely to start wanting more choice and control (either at first or second review).
- In general, participants who are older, have a lower level of function or higher level of NDIA support through the pathway, are less likely to start wanting more choice and control.
- Participants from Queensland were also more likely to stop wanting more choice and control after one year.
- Participants with a higher level of NDIA support were also less likely to stop wanting more choice and control after one year.

I would like to see my friends more often

The percentage of participants who would like to see their friends more often increased by 2.5% between baseline and first review and by 5.8% between baseline and second review, as set out in Table 6.4 below.

Table 6.4 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort[1]		Context dependent: No to Yes		Context dependent: Yes to No		Net Movement (No to Yes)
	No	Yes	Number	%	Number	%	
Baseline to Review 1	5,954	8,777	1,028	17.3%	659	7.5%	+2.5%
Baseline to Review 2	2,006	2,620	591	29.5%	324	12.4%	+5.8%

[1] The cohort is selected as all those with non-missing responses at the relevant surveys.

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of transitioning are set out in Table 6.5 below.

Table 6.5 Key drivers of likelihood of transitions of *"I would like to see my friends more often"* response

Variable	Baseline to First Review Relationship with likelihood of		Baseline to Second Review Relationship with likelihood of	
	No to Yes	Yes to No	No to Yes	Yes to No
Participant lives in Victoria	⇩	⬇	⇩	
Participant lives in Queensland	⬆	⇧		
Disability is autism or a visual impairment			⬆	
Disability is another physical disability			⇩	

Variable	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
	No to Yes	Yes to No	No to Yes	Yes to No
Participant is CALD				⬇
Lower level of function	⬆	⬇	⬆	⬇
Participant has SIL supports in their plan			⇩	
Participant lives in a more remote area	⇩			
Between 75% and 95% of supports are capacity building supports	⬆			
More than 5% of supports and capital supports	⇩			
Plan is self managed		⬇		
Plan is plan-managed/ agency managed	⬆			
Participant received services from Commonwealth programs before entering the NDIS	⇩			
Higher level of NDIA support	⇩	⬇		
Higher Index of Economic Opportunity (IEO)	⬆			⬇

Key findings from Table 6.5 include:

- For participants who said they would like to see their friends more often when they entered the Scheme, those living in Victoria, and those with higher levels of NDIA support, were more likely to continue to want to see their friends more often after one or two years in the Scheme. Conversely, for participants who were happy with how often they see their friends at baseline, those living in Victoria, and those with higher levels of NDIA support, were more likely to remain happy with how often they see their friends after one or two years in the Scheme.
- For participants who said they would like to see their friends more often when they entered the Scheme, those with a lower level of function were more likely to continue to want to see their friends more often after one or two years in the Scheme. For participants who were happy with how often they see their friends at baseline, those with a lower level of function were more likely to start saying they wanted to see their friends more often after one or two years in the Scheme.

I have a doctor I see on a regular basis

The percentage of participants who have a doctor they see on a regular basis increased by 4.7% between baseline and first review and by 9.9% between baseline and second review, as set out in Table 6.6 below.

Table 6.6 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort		Context dependent: No to Yes		Context dependent: Yes to No		Net Movement (No to Yes)
	No	Yes	Number	%	Number	%	
Baseline to Review 1	2,983	12,813	1,078	36.1%	341	3%	+4.7%
Baseline to Review 2	1,105	4,034	656	59.4%	147	4%	+9.9%

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of transitioning are set out in Table 6.7 below.

Table 6.7 Key drivers of likelihood of transitions of *"I have a doctor I see on a regular basis"* response

Variable	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
	No to Yes	Yes to No	No to Yes	Yes to No
Participant lives in Victoria	⇩	⬇		
Participant lives in Queensland	⬆		⬆	
Participant lives in a more remote area		⇧		
Participant lives in South Australia		⇧		
Disability is a neurological disability		⬇		
Disability is a psychosocial disability		⇧		
Participant is female	⬆	⬇		
Participant is older			⇩	
Entered the Scheme in 2016/17		⇧		
Lower level of function	⬆	⬇	⬆	

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	**No to Yes**	**Yes to No**	**No to Yes**	**Yes to No**
Higher annualised plan budget	⬆	⬇		⬇
Higher level of NDIA support	⇩		⇩	
Higher Index of Economic Resources (IER)		⬇		
Higher Index of Economic Opportunity (IEO)				⬇

Key findings from Table 6.7 include:

- Female participants who didn't have a doctor they saw regularly at baseline were more likely to have one at the first review, compared to male participants. Additionally, of those who had a doctor they saw regularly at baseline, female participants were less likely to not have a doctor they saw regularly at the first review.
- Of the participants who did not have a regular doctor at baseline, participants living in Queensland were more likely to subsequently have a regular doctor at both the first and second reviews.
- Participants with a lower level of function and participants with a higher annualised plan budget were more likely to go from not having a regular doctor to having a regular doctor after spending time in the Scheme, and were less likely to go from having a regular doctor to not having one.
- Participants in higher socioeconomic areas were more likely to stay with a regular doctor, between baseline and first review and between baseline and second review.

I wanted to do certain things in the last 12 months but could not

The percentage of participants who wanted to do certain things in the last 12 months but could not increased by 4.6% between baseline and first review and by 9.8% between baseline and second review. This was a result of improvements offset by deteriorations as set out in Table 6.8 below.

Table 6.8 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort		Improvements: Yes to No		Deteriorations: No to Yes		Net Movement (No to Yes)
	No	Yes	Number	%	Number	%	
Baseline to Review 1	6,016	9,783	711	7.3%	1,444	24.0%	+4.6%
Baseline to Review 2	2,268	2,871	337	11.7%	843	37.2%	+9.8%

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of improvement or deterioration in the outcome are set out in Table 6.9 below.

Table 6.9 Key drivers of likelihood of transitions of *"I wanted to do certain things in the last 12 months but could not"* response

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	Improvement	Deterioration	Improvement	Deterioration
Participant lives in Queensland or South Australia	⇧	⬆	⇧	
Participant lives in South Australia	⇧		⇧	
Participant lives in NT, TAS, WA or ACT		⇩		
Disability is an acquired brain injury, a psychosocial disability or a disability caused by a stroke		⬆		
Participant is older		⇩		
Entered the Scheme in 2016/17	⇧			
Access type is early intervention				⬆
Lower level of function	⬇		⬇	
Participant lives in a more remote area		⬆		⬆
Higher annualised plan budget		⬆		
Between 75% and 95% of supports are capacity building supports	⇧	⇩	⇧	
More than 5% of supports are capital supports		⇩		
Plan is agency managed				⬆
Participant has not received services from Commonwealth or State systems before entering the NDIS		⇩		
Higher level of NDIA support	⬇	⇩		⇩
Higher Index of Economic Opportunity (IEO)		⬆		⬆

Key findings from Table 6.9 include:

- Participants with a lower level of function were less likely to improve (those who responded that they wanted to do certain things in the last 12 months and could not at baseline were more likely to continue to respond that they wanted to do certain thing in the 12 months and could not at first and second reviews).
- Participants living in Queensland and South Australia were more likely to improve compared to participants living in other States/Territories. Participants with more than 75% of their plan consisting of capacity building supports were also more likely to improve, and were less likely to deteriorate between baseline and the first review.
- Participants with higher levels of NDIA support were less likely to change their response after spending time in the Scheme (that is, they were less likely to improve but also less likely to deteriorate).
- Participants living in more remote areas and participants living in areas with a higher Index of Economic Opportunity (IEO) were more likely to deteriorate.

I know people in my community

The percentage of participants who know people in their community increased by 3.6% between baseline and first review and by 7.3% between baseline and second review. This was a result of improvements offset by deteriorations as set out in Table 6.10 below.

Table 6.10 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	7,028	8,722	1,158	16.5%	593	6.8%	+3.6%
Baseline to Review 2	2,516	2,623	697	27.7%	322	12.3%	+7.3%

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of improvement or deterioration in the outcome are set out in Table 6.11 below.

Table 6.11 Key drivers of likelihood of transitions of *"I know people in my community"* response

Variable	Baseline to First Review Relationship with likelihood of		Baseline to Second Review Relationship with likelihood of	
	Improvement	Deterioration	Improvement	Deterioration
Participant lives in Victoria	⬇			
Participant lives in Queensland	⬆	⬆		
Disability is autism		⬆		⬆
Disability is cerebral palsy	⬆	⬇		⬇

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	**Improvement**	**Deterioration**	**Improvement**	**Deterioration**
Disability is Down syndrome or a neurological disability	↑		↑	
Disability is a hearing impairment or an intellectual disability	↑			
Disability is a physical disability		↓	↑	
Disability is a psychosocial disability		↑		
Participant is CALD	↓			
Participant is Indigenous			↑	
Participant is older		↓		
Entered the Scheme in 2016/17	↑	↑		
Lower level of function	↓	↑	↓	↑
Participant lives in a more remote area	↑	↓	↑	↓
Participant has not received services from Commonwealth or State systems before entering the NDIS			↓	
Higher level of NDIA support	↓	↓	↓	
Access type is early intervention	↓			
Higher Index of Economic Resources (IER)		↓		

Key findings from Table 6.11 include:

- Similar to other indicators, participants with higher levels of NDIA support were less likely to change their response to the indicator '*I know people in my community'* after spending time in the Scheme. Participants living in Queensland and participants who entered the Scheme in 2016/17 were more likely to change their response.
- Participants with autism were more likely to deteriorate, while those with cerebral palsy, Down syndrome or a neurological disability were more likely to improve.
- CALD participants were less likely to improve compared to non-CALD participants.

- Indigenous participants were more likely to improve between baseline and second review, compared to non-Indigenous participants.
- Participants with a lower level of function were less likely to improve and more likely to deteriorate while participants living in more remote areas were more likely to improve and less likely to deteriorate.

7. Participants aged 15 to 24: Has the NDIS helped?

7.1 Results across all participants

For participants who have been in the Scheme for approximately one or two years as at 30 June 2019, Figure 7.1 shows the percentage of participants aged 15 to 24 who think that the NDIS has helped with outcomes related to each of the eight domains, after one year in the Scheme and after two years in the Scheme.

Figure 7.1 Percentage who think that the NDIS has helped with outcomes related to each domain

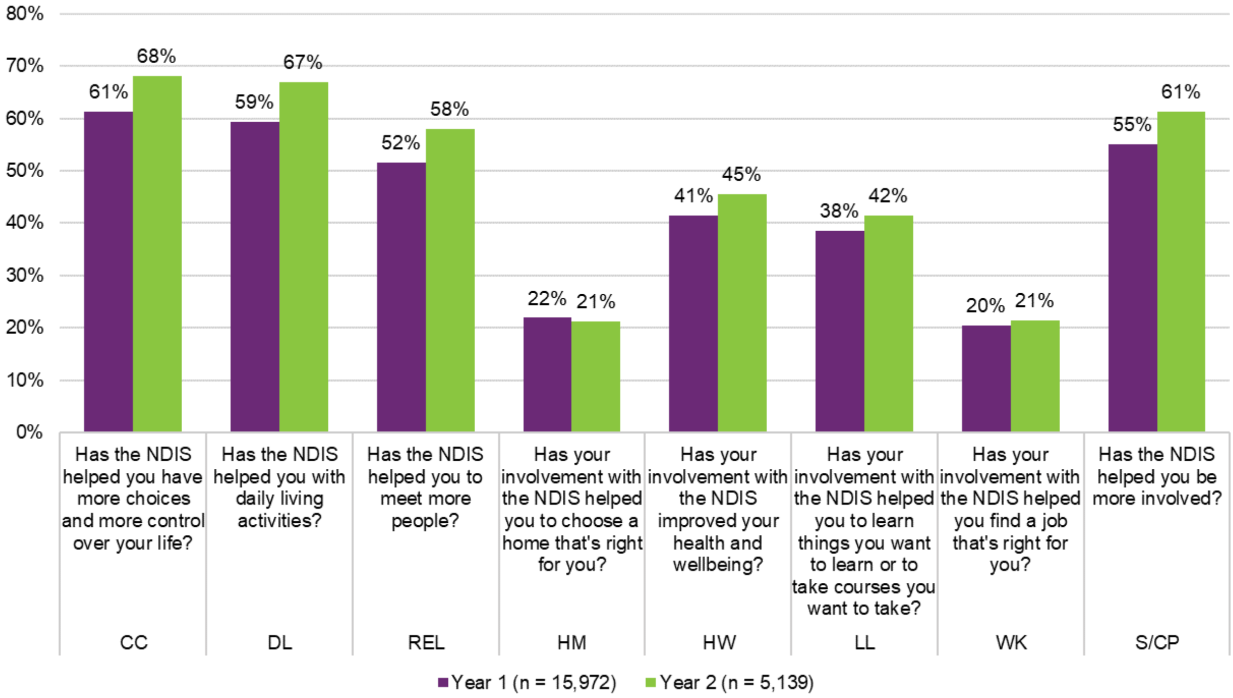

Figure 7.1 shows that opinions on whether the NDIS has helped vary considerably by domain for the young adult cohort.

After one and two years in the Scheme, the percentage responding positively is highest for choice and control (61.2% after one year, increasing to 68.0% after two years), and is also above 50% for daily living (59.3% increasing to 67.0%), relationships (51.7% increasing to 58.0%), and participation (55.2% increasing to 61.4%). These are all domains where the NDIS would be expected to have an impact. At both time points, percentages are lower for health and wellbeing (41.5% after one year and 45.5% after two years) and lifelong learning (38.5% after one year and 41.5% after two years), and still lower for home (21.9% after one year and 21.2% after two years) and work (20.5% after one year and 21.4% after two years).

7.2 Results by participant characteristics

7.2.1 Year 1 'Has the NDIS Helped?' indicators – participant characteristics

Year 1 (first review) indicators have been analysed by participant characteristics using one-way analyses, revealing the following key findings:

- For all eight domains, participants with higher baseline plan utilisation are more likely to respond positively. In particular, those with very low utilisation (below 20%) are much less likely to say that the NDIS has helped, and the positive response rate increases strongly between the 0-20% to 60-80% utilisation categories.
- The annualised cost of the baseline plan also has an impact on the likelihood of a positive response. A generally increasing trend towards responding positively as plan budget increases is observed. Related to this, for some areas the likelihood of a positive response tended to increase as participant's level of function decreased.
- The likelihood of responding positively tended to increase with age for most areas.
- Participants with a sensory disability, and those with a psychosocial disability, tended to be less positive about the NDIS having helped, and participants with intellectual disability tended to be more positive on average.
- Participants in TAS and NT tended to be less positive, and those in QLD and WA tended to be more positive.
- Participants in regional areas with population between 5000 and 50,000 were more likely to think that the NDIS had helped compared to participants in larger regional areas or major cities. However, participants in remote and very remote areas were less likely to think that the NDIS had helped.
- Indigenous participants responded less positively across all domains apart from the home domain. However, results for CALD and non-CALD participants were generally similar. There were also no appreciable differences by gender.

7.2.2 Longitudinal 'Has the NDIS Helped?' indicators – participant characteristics

Analysis of longitudinal indicators by participant characteristics has been examined in two ways:

1. A simple comparison of the percentage reporting that the NDIS had helped after two years in the Scheme with the percentage reporting that the NDIS had helped after one year in the Scheme. The difference (percentage after two years minus percentage after one year) is compared for different subgroups.
2. Multiple regression analyses modelling the probability of improvement / deterioration over the participant's second year in the Scheme.[46]

Some key features of the analyses are summarised below.

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[46] Regression models for improvement include all participants who answered "No" at review 1 and model the probability of answering "Yes" at review 2 (between 1696 and 3439 participants, depending on the domain). Models for deterioration include all participants who answered "Yes" at review 1 and model the probability of answering "No" at review 2 (between 959 and 2768 participants).

Has the NDIS helped you have more choices and more control over your life?

The percentage of participants reporting that the NDIS helped them have more choices and more control over their life increased 6.5% from 62.0% to 68.5% between the first review and the second review. Of those who responded negatively at the first review, 28% responded positively at the second review (improvement). Table 7.1 sets out the breakdown of the movements of responses.

Table 7.1 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	1,696	2,768	467	27.5%	178	6.4%	6.5%

- Participants with fully self-managed plans were more likely to improve but were also more likely to deteriorate, compared to participants with partly self-managed or plan-managed/agency managed plans.
- Participants living in Queensland were more likely to improve.
- Participants living in an area with a higher average unemployment rate were less likely to improve.

Has the NDIS helped you with daily living activities?

The percentage of participants reporting that the NDIS helped them with daily living activities increased 7.8% from 59.3% to 67.1% between the first review and the second review. Of those who responded negatively at the first review, 30.0% responded positively at the second review (improvement). Table 7.2 sets out the breakdown of the movements of responses.

Table 7.2 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	1,851	2,698	556	30.0%	202	7.5%	7.8%

- Participants with higher levels of NDIA support were more likely to improve.
- Participants with a larger increase in plan utilisation over the period were more likely to improve.
- Older participants were more likely to improve.
- Participants living in Queensland were more likely to improve.
- Participants with a higher annualised plan budget were more likely to improve and less likely to deteriorate.
- Participants living in an area with a higher average unemployment rate were less likely to improve.
- Participants living in New South Wales were more likely to deteriorate.

Has the NDIS helped you meet more people?

The percentage of participants reporting that the NDIS helped them meet more people increased 4.9% from 53.5% to 58.4% between the first review and the second review. Of those who responded negatively at the first review, 20.5% responded positively at the second review (improvement). Table 7.3 sets out the breakdown of the movements of responses.

Table 7.3 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	2,084	2,398	428	20.5%	210	8.8%	4.9%

- Participants with a lower level of function were more likely to improve.
- Female participants were more likely to improve and less likely to deteriorate.
- SIL participants were more likely to deteriorate.
- Participants with a higher annualised plan budget were less likely to deteriorate.

Has your involvement with the NDIS helped you to choose a home that's right for you?

The percentage of participants reporting that the NDIS helped them choose a home that's right for them decreased by 3.3% from 23.8% to 20.5% between the first review and the second review. Of those who responded negatively at the first review, there was a 3.9% increase in those who responded positively at the second review (improvement). Table 7.4 sets out the breakdown of the movements of responses.

Table 7.4 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	3,376	1,054	130	3.9%	276	26.2%	-3.3%

- Participants with higher levels of NDIA support were more likely to improve and less likely to deteriorate.
- Participants with a lower level of function were more likely to improve.
- SIL participants were more likely to improve their response and less likely to deteriorate.

Has your involvement with the NDIS improved your health and wellbeing?

The percentage of participants reporting that the NDIS improved their health and wellbeing increased 3.9% from 42.0% to 45.9% between the first review and the second review. Of those who responded negatively at the first review, 15.4% responded positively at the second review (improvement). Table 7.5 sets out the breakdown of the movements of responses.

Table 7.5 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	2,583	1,869	397	15.4%	223	11.9%	+3.9%

- Female participants were more likely to improve.
- SIL participants were more likely to improve.
- Participants with self-managed plans were more likely to improve.
- Participants living in NT, TAS, WA or ACT were less likely to improve.
- Participants with a higher plan budget were less likely to deteriorate.
- Participants living in an area with a higher Index of Education and Occupation (IEO) were less likely to deteriorate.

Has your involvement with the NDIS helped you to learn things you want to learn or to take courses you want to take?

The percentage of participants reporting that the NDIS helped them to learn things they want to learn or to take courses they want to take increased by 0.4% from 41.3% to 41.7% between the first review and the second review. Of those who responded negatively at the first review, there was a 10.2% increase in those who responded positively at the second review (improvement). Table 7.6 sets out the breakdown of the movements of responses.

Table 7.6 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	2,614	1,840	267	10.2%	250	13.6%	0.4%

- Participants with lower level of NDIA support were more likely to improve.
- Female participants were more likely to improve.
- SIL participants were more likely to improve.
- Participants with an acquired brain injury, a visual impairment, a hearing impairment or a spinal cord injury were more likely to deteriorate.
- Participants who did not receive disability supports prior to entering the NDIS (were not a part of an existing State or Commonwealth scheme upon entry to the NDIS) were less likely to deteriorate.

Has your involvement with the NDIS helped you find a job that's right for you?

The percentage of participants reporting that the NDIS helped them find a job that's right for them decreased by 0.2% from 21.8% to 21.6% between the first review and the second review. Of those who responded negatively at the first review, there was a 6.8% increase in those who responded positively at the second review (improvement). Table 7.7 sets out the breakdown of the movements of responses.

Table 7.7 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	3,439	959	233	6.8%	240	25.0%	-0.2%

- Indigenous participants were less likely to improve.
- Participants with a lower level of function were less likely to improve.
- Participants from Victoria were less likely to improve.

Has the NDIS helped you be more involved?

The percentage of participants reporting that the NDIS helped them be more involved increased 5.9% from 55.6% to 61.5% between the first review and the second review. Of those who responded negatively at the first review, 21.3% responded positively at the second review (improvement). Table 7.8 sets out the breakdown of the movements of responses.

Table 7.8 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	1,966	2,462	418	21.3%	156	6.3%	5.9%

- Participants with a lower level of function were more likely to improve.
- Participants from Queensland were more likely to improve.
- SIL participants were more likely to improve.
- Participants living in an area with a higher Index of Education and Occupation (IEO) were less likely to improve.
- Older participants were less likely to deteriorate.
- Participants with a higher plan budget were less likely to deteriorate.
- Participants who did not receive disability supports prior to entering the NDIS (were not a part of an existing State or Commonwealth scheme upon entry to the NDIS) were less likely to deteriorate.

8. Participants aged 25 and over: overview of results

8.1 Key findings

Box 8.1: Overall findings for participants aged 25 and over who joined the Scheme between 1 July 2016 and 30 June 2017

- For participants entering the Scheme in 2016-17, significant improvements were observed across a number of indicators, with improvements in the first year generally continuing into the second year of Scheme experience.
- The largest improvements were observed for the social, community and civic participation domain. The percentage participating in a community group in the last 12 months increased by 10.3% between baseline and second review, from 36.5% to 46.8%, the percentage who know people in their community increased by 7.4%, from 59.8% to 67.2%, and the percentage who spend their free time doing activities that interest them increased by 7.6%, from 68.3% to 75.9%.
- There were also some improvements in health and wellbeing outcomes for participants aged 25 and over. The percentage of participants who had been to the hospital in the last 12 months decreased by 5.8% between baseline and the second review, from 40.6% to 34.8%, the percentage who had no difficulties accessing health services increased by 3.1%, from 68.5% to 71.6%, and the percentage who have a doctor they see on a regular basis increased by 6.8%, from 87.9% to 94.7%. The percentage who feel delighted, pleased, or mostly satisfied with their life increased by 12.8% between baseline and second review, from 38.9% to 51.7%. However, the percentage of participants who rated their health as excellent, very good or good declined by 4.3%, from 50.9% to 46.6%.
- Choice and control was a key concern of participants aged 25 and over, with the percentage of participants expressing a desire for greater choice and control increasing by 13.8% between baseline and second review, from 66.7% to 80.5%. The percentage of participants who felt able to advocate for themselves decreased by 4.3% between baseline and second review, from 50.9% to 46.6%.
- A higher percentage of participants wanted to see their friends and family more often after two years in the Scheme. The percentage who would like to see their friends more often increased by 5.7% between baseline and second review, from 48.9% to 54.6%, and the percentage who would like to see their family more often increased by 4.6%, from 35.2% to 39.8%.

Box 8.2: Overall findings for participants aged 25 and over who joined the Scheme between 1 July 2017 and 30 June 2018

- Participants who entered the Scheme in 2017-18 experienced similar improvements between baseline and first review to those who entered in 2016-17. In particular, improvements were observed in the areas of:
- Social, community and civic participation: the percentage of participants who have been actively involved in a community, cultural or religious group in the last 12 months increased by 5.2% between baseline and the first review, from 36.2% to 41.4%. Further, the percentage of participants who spend their free time doing activities that interest them increased by 4.0% between baseline and the first review, from 66.2% to 70.2%.
- Lifelong learning: the percentage of participants who got the opportunity to learn new things increased 3.1% between baseline and the first review, from 41.9% to 45.0%.
- Choice and control was also a concern for participants entering the Scheme in 2017-18. The percentage who wanted more choice and control in their life increased by 4.3% between baseline and first review, from 79.3% to 83.6%. There was also a 1.6% decline in the percentage who felt able to advocate for themselves, from 49.6% to 48.0%.

Box 8.3: Outcomes by key characteristics for participants aged 25 and over

- The impact of disability type on outcomes varies by domain. At baseline, participants with intellectual disability or autism experience lower levels of choice and control, and those with a sensory disability or multiple sclerosis experience higher levels. However, participants with multiple sclerosis have the poorest self-rated health and are more likely to go to hospital. Controlling for other factors, participants with cerebral palsy, another physical disability, or a visual impairment are more likely to volunteer, whereas those with a psychosocial disability or stroke are less likely to volunteer. In longitudinal analyses, participants with a psychosocial disability were less likely to improve and more likely to deteriorate with regard to knowing people in their community.
- Baseline and longitudinal outcomes also vary with participant level of function. Participants with a higher level of function tend to have better baseline outcomes and exhibit higher rates of improvement than those with a lower level of function.
- Results by remoteness were mixed. Levels of volunteering were higher in more remote areas. The likelihood of knowing people in the community was higher at baseline for participants in more remote areas, and also improved more over time. However, difficulties in accessing health services tended to increase with remoteness, and participants in major cities were more likely to have a paid job.
- Results by CALD status were also mixed, being slightly better for some baseline choice and control indicators but poorer on some health and wellbeing indicators. CALD participants were less likely to smoke. In longitudinal analyses, CALD participants were more likely to improve and less likely to deteriorate with respect to not being able to do things that they wanted to do in the last 12 months.
- At baseline, SF choice and control indicators for Indigenous participants tend to be slightly worse than non-Indigenous participants. Indigenous participants are slightly less likely to have someone outside their home to call on for help. Indigenous participants were less happy with their home, less likely to feel safe at home and in their community, and had poorer health outcomes. Indigenous participants were more likely to smoke (30.9% compared to 18.7% overall).

Box 8.4: Health and wellbeing outcomes for participants aged 25 and over, compared to the Australian population

- NDIS participants tend to have poorer baseline health and wellbeing outcomes than Australians overall, and despite improvements on some indicators, outcomes generally remain poorer at first and second review.
- At baseline, 46.3% of participants 25 and over rated their health as good, very good or excellent, compared to 86.6% of Australians aged 25 to 64 overall[47]. As mentioned above, there have been slight declines for this indicator longitudinally, from 47.8% to 46.3% at first review for participants entering in 2017-18, and from 50.9% to 48.2% at first review and 46.6% at second review for participants entering in 2016-17.
- Participants also expressed lower overall life satisfaction than the general population. At baseline, 44.2% said they felt “delighted”, “pleased” or “mostly satisfied” with their life, compared to 77.2% of Australians aged 25 to 64 overall[48]. This indicator has improved over time for participants: by 7.3%-11.8% between baseline and review 1 and a further 5.4% between review 1 and review 2, but still remains substantially lower than for Australians overall, being 51.7% at review 2 for participants entering in 2016-17 and 58.4% at review 1 for participants entering in 2017-18.
- At baseline, 42.5% of participants said they had been to hospital in the last 12 months, compared to 11.6% of Australians aged 25 to 64[49]. This indicator has also improved over time, reducing to 34.8% over two years for 2016-17 entrants and to 36.8% over one year for 2017-18 entrants, but remains substantially above the percentage for Australians overall.
- From baseline reponses, 56.7% of those who had been to hospital had had multiple visits, compared to a population figure of 26.3% for Australians aged 25 to 64.[49] This percentage has not changed materially over time.
- At baseline, 34.5% of participants said they had experienced some difficulty in getting health services. This percentage has improved over time, reducing by 1.7%-1.9%% between baseline and review 1 and a further 1.2% between review 1 and review 2. The most common difficulty cited was access issues (9.7% at baseline), however 5.7% said it was because of the attitudes and/or expertise of health professionals.
- At baseline, 18.7% of participants said they currently smoked. This is comparable to a 2017-18 population figure of 17.2% for 25 to 64 year olds.[47] However, there is considerable variation in smoking rates by disability. The percentage of participants with a psychosocial disability who smoke is 51.2%, almost four times the percentage for other disabilities combined (13.5%). Conversely, none of the participants with Down syndrome say they smoke. Overall, the percentage who smoke has remained relatively stable over time.

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[47] ABS National Health Survey (NHS) 2017-18.

[48] ABS General Social Survey (GSS) 2010. For GSS 2014 the question changed from using seven descriptive categories to a rating on a 0 to 10 scale.

[49] ABS Patient Experience Survey (PES) 2018-19.

Box 8.5: Has the NDIS helped? – participants aged 25 and over

- Opinions on whether the NDIS has helped tend to be slightly more optimistic than the young adult cohort, but generally reflect a similar pattern by domain (apart from lifelong learning and work). The percentage who think the NDIS has helped is highest for daily activities (70.7% after one year in the Scheme, increasing to 79.3% after two years in the Scheme), followed by choice and control (66.8% after one year in the Scheme, increasing to 74.0% after two years in the Scheme). Percentages are lowest for home (28.4% after one year and 28.7% after two years) and work (19.4% after one year and 18.7% after two years).

- Higher plan utilisation is strongly associated with a positive response across all eight domains, after both one and two years in the Scheme. Perceptions also tended to improve with plan budget. Participants from WA tended to be more positive, and those from VIC less positive.

- The percentage who think that the NDIS has helped increased by between 1.1% and 8.6% between first and second review across all domains except work, where there was a 0.7% decrease. The likelihood of improvement/ deterioration varied by some participant characteristics:

- SIL participants were more likely to improve and less likely to deteriorate across all domains.
- Female participants were more likely to improve in the choice and control and daily living domains.
- Participants who self-manage were more likely to improve and/or less likely to deteriorate in the choice and control, daily living, and health and wellbeing domains.
- Older participants were less likely to deteriorate for daily living, home, health and wellbeing, but less likely to improve for lifelong learning and work (possibly reflecting older participants attaching less importance to these domains).
- CALD participants were more likely to deteriorate for health and wellbeing and community participation.

8.2 Results overview – participants aged 25 and over

8.2.1 Outcomes framework questionnaire domains

Employment is an important area for the older adult (25 and over) cohort, with the older members of this cohort also starting to transition to retirement. For both young and older adults, choice and control is a normal part of everyday life.

For participants aged 25 and over, the eight outcome domains are:

- Choice and control (CC)
- Daily living (DL)
- Relationships (REL)
- Home (HM)
- Health and wellbeing (HW)
- Lifelong learning (LL)
- Work (WK)
- Social, community and civic participation (S/CP)

The LF contains a number of extra questions for the adult cohorts, across all domains, but particularly in the health and wellbeing domain.

8.2.1 Participant living arrangements

By comparison with the younger adult cohort, participants aged 25 and over are more likely to live alone (24.1%), or with a spouse/partner and/or children (25.1%), or with people not related to them (20.0%). However 21.4% live with their parents and 4.5% live with other family members.

For participants who have been in the Scheme for two years or more at 30 June 2019, the percentage living with people not related to them has increased by about 2.8% between baseline and second review, and the percentage living alone has increased by 1.9%. The percentage living with their parents has decreased by 1.7%, and the percentage who say they have “other” living arrangements decreased by a similar amount.

For participants aged 25 and over at baseline, the percentage in a private home either owned or rented from a private landlord is 59.6%. 16.7% of participants live in a private home rented from a public authority. 12.2% are in supported accommodation, 4.2% in residential care or a hostel and a further 1.4% in a boarding house, short-term crisis accommodation, or a temporary shelter. 2.9% live in a nursing home.

Looking at longitudinal change, for participants who have been in the Scheme for two years or more at 30 June 2019, the percentage living in supported accommodation has increased by 2.5% between baseline and second review, from 12.7% to 15.2%. The percentage living in a nursing home/aged care facility has increased by 1.9%, and the percentage in public housing by 1.4%. Slight decreases were observed for the percentage living in a private home (owned or rented from a private landlord) and the percentage living in large or small residences.

The ABS Census of Population and Housing 2016 found that 3.6% of *households* were in public housing (rented from State/Territory governments) and 4.2% were in some form of social housing (including public housing supplied by the government, and community housing supplied by non-government organisations). Although not directly comparable to these household-based percentages, the percentages of participants who say they live in public housing (8.0%, 8.3%, 11.1% and 16.7% for the four age cohorts) appears higher than the general population.

Figure 8.1 Participant living/housing arrangements – combined baseline

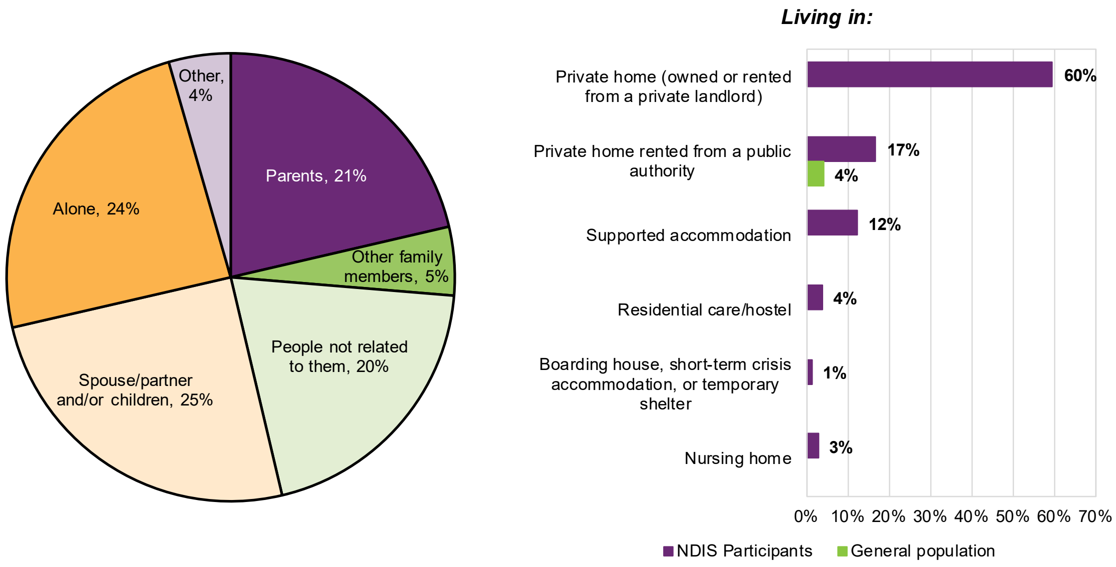
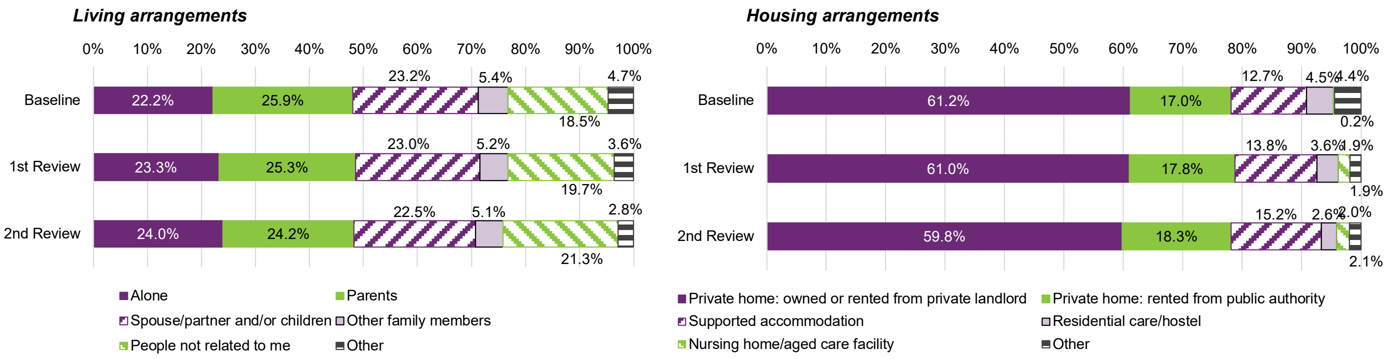


Figure 8.2 Participant living/housing arrangements – longitudinal change for participants who have been in the Scheme for two years or more



8.2.2 Baseline indicators – Across all participants

Choice and control

More participants chose, or had a say in, what they do each day (90.5%) and how they spend their free time (90.6%) than in who supports them (80.7%), where they live (75.4%) or who they live with (74.0%). The majority (58.4%) said they made most of the decisions about their lives, with 29.7% saying their family did, and 7.0% that their service providers did. 75.8% said they had someone who supports them to make decisions, with a further 19.8% saying they didn't need anyone. Overall, 77.1% said they would like more choice and control in their life.

Daily living

Support for daily living was most needed for domestic tasks (88.6%) and travel and transport (80.5%), and least needed for personal care (55.9%) and reading or writing (56.3%). Where support was needed, it was most often received for problem solving (92.7%) and finances/ money (80.6%), and least often received for using technology (46.7%). For those receiving support, the percentage of participants who felt it met their needs was highest for problem solving (88.6%), followed by finances/money (69.7%). However, for other areas, generally low percentages (ranging from 27.9%, for getting out of the house, to 48.6%, for personal care) felt that it met their needs. 24.2% of participants needed support in all of the eight areas surveyed.

Relationships

Looking at relationships, 23.0% of participants said they had no-one outside their home to call on for practical support, 23.4% had no-one to call on for emotional support, and 20.8% had no-one to call on in a crisis. By comparison, the ABS General Social Survey (GSS) asks "Are you able to get support in times of crisis from persons living outside the household?", and the proportion of 25 to 64 year olds who said they were unable to get support was 5.5% for the 2014 survey.

Whilst only 14.0% of respondents said they provided care for others, 73.8% of these said they needed help to continue caring, and only 16.0% said they received enough help.

28.8% of participants said they did not have any friends apart from family or paid staff. Overall, 75.3% were happy with their relationships with staff. 21.2% said they often feel lonely.

Home

73.5% of adult participants were happy with their current home, however 16.7% said they would not want to live there in five years' time, with 8.7% saying this was because they wanted to choose their future home, 2.5% for reasons related to support needs, and 5.5% for another reason. 32.5% cited lack of support as a barrier to living in a home of their choice, with 28.5% citing lack of affordable housing. 74.0% said they felt very safe or safe in their home.

Health and wellbeing

People with disability generally rate their health as poorer than other Australians[50], and this holds true for NDIS participants. 46.3% of participants 25 and over rated their health as good, very good or excellent, compared to 86.6% of Australians aged 25 to 64 overall[51]. NDIS participants also express lower overall life satisfaction than the general population. When asked to think about their life now and in the future, on a seven-point scale from "delighted" to "terrible", 44.2% of participants responding to the LF said they felt either "delighted", "pleased" or "mostly satisfied", compared to 77.0% of Australians aged 25 to 64 overall[52].

NDIS participants are also more likely to go to hospital than Australians generally. 42.5% of participants 25 and over had been to hospital in the last 12 months, compared to 11.6% of Australians aged 25 to 64[53]. Moreover, 56.7% of those who had been to hospital had had multiple visits, compared to a population figure of 26.3% for Australians aged 25 to 64.[53]

34.5% of the adult cohort said they had experienced some difficulty in getting health services. The most common reason cited was access issues (9.7%), however 5.7% said it was because of the attitudes and/or expertise of health professionals.

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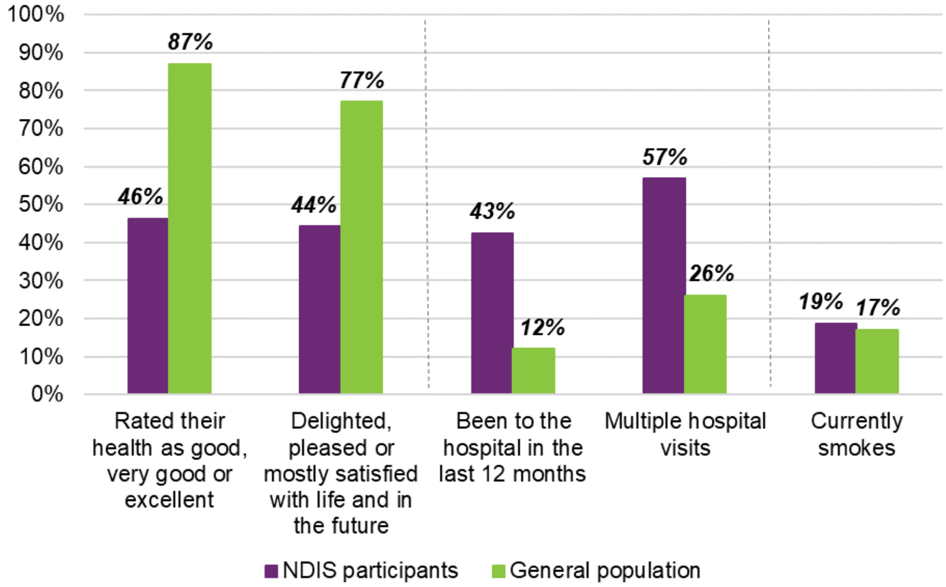
[50] Australian Institute of Health and Welfare (AIHW) (2018) Australia's Health 2018.
[51] ABS National Health Survey (NHS) 2017-18.
[52] ABS General Social Survey (GSS) 2010. For GSS 2014 the question changed from using seven descriptive categories to a rating on a 0 to 10 scale.
[53] ABS Patient Experience Survey (PES) 2018-19.

18.7% of adult participants said they currently smoked, and this is similar to a 2017-18 population figure for 25 to 64 year olds of 17.2%.[51]

Figure 8.3 Health and wellbeing indicators for NDIS participants compared with the general population



Lifelong learning

40.0% of participants said they get opportunities to learn new things, however 41.5% said they did not get opportunities but would like to learn new things.

Only 11.7% of participants currently participate in education, training or skill development, with roughly half in a class for students with disability.

35.5% said there was a course or training they wanted to do but were unable to do in the last 12 months. Most of the time this was due to lack of support.

Work

6.4% said they were currently working in an unpaid job, whilst 23.3% were working in a paid job. Of those not currently working in a paid job, 30.4% said they would like one and 69.6% said they didn't want one. From the LF, 66.5% of adult participants said they had not had a job in the previous 12 months, 31.1% had had one job, and 2.5% more than one. 11.5% had done some casual work in the previous 12 months.

Also from the LF, 79.8% of participants currently in a paid job had held that job for more than two years and 5.7% for less than six months. 92.8% found their job suitable and 89.1% said they received the support needed to do their job. For those working in an ADE, 24.6% could see a pathway to open employment. For those not currently in a paid job, 87.6% had not applied for any jobs in the previous three months, 5.5% had applied for one or two jobs, and 6.9% for three or more.

From the SF, 14.7% of participants who do not have a job said they were being assisted to get a job.

The LF also attempts to uncover reasons why participants do not have a paid job, and the kinds of assistance that would help them find a job. 29.0% of participants specified lack of support (including lack of support to either get a job or stay in a job) as the main reason they did not currently have a job, with 11.2% saying they couldn't find a job, and 5.5% saying travel was difficult, however the majority (54.3%) chose the "other" response option. Only a small number of participants provided extra information as to what that other reason was, however those who did mainly cited poor health. Similarly, when asked what assistance would help them get a job, 41.0% said more support, 6.4% said help with travel, 7.4% having a mentor, 3.3% educating employers, and 6.2% getting work experience, however 35.7% chose the "other" response option. The small number who gave extra information mainly said that better health, or a mixture of some/all of the fixed category responses, would help them get a job.

Only 17.2% of adult participants responding to the LF said they had started planning for retirement, and regarding retirement planning, 78.2% of these said they made all of the decisions or made the important decisions with help from others.

Social, civic, community participation

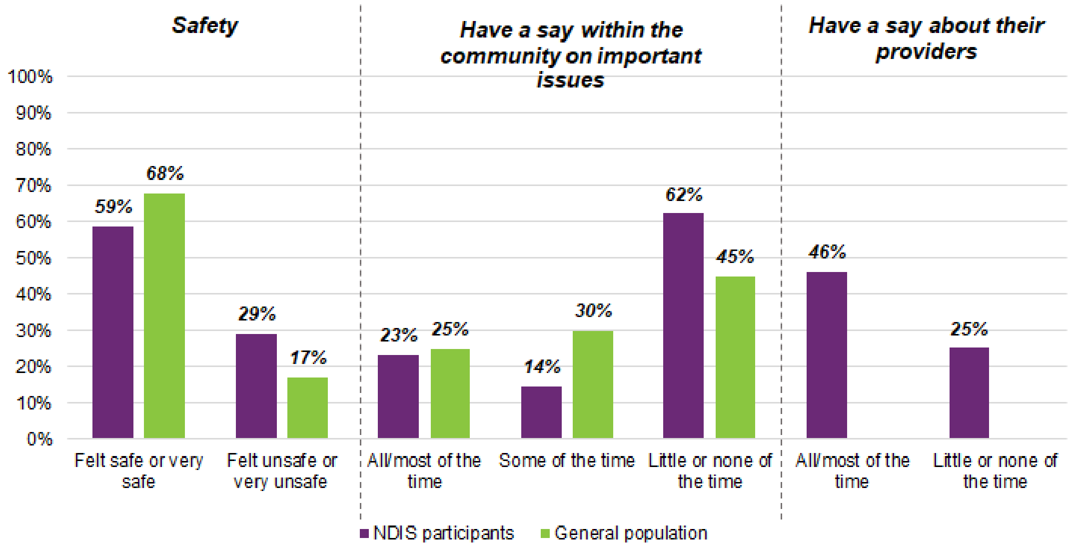
12.2% of participants said they currently volunteered, and a further 24.1% expressed an interest in volunteering. 37.0% had been involved in a community, cultural or religious group in the last 12 months, with 90.7% of LF respondents feeling a sense of belonging to the group. Also from the LF, 25.0% said they has had negative experiences in their community in the past 12 months.

The GSS asks "How safe or unsafe do you feel walking alone in your local area after dark?", with responses on a five-point scale from "Very safe" to "Very unsafe". The LF also asks this question, however with an additional response option "I never go out alone", which was chosen by 64.7% of respondents. Of those who do go out alone, 58.8% said they felt safe or very safe whereas 29.3% said they felt unsafe or very unsafe. From the 2014 GSS, the corresponding figures for 25 to 64 year olds were 68.5% and 16.7%.

NDIS participants were also less likely to feel able to have a say within the community on important issues: 23.3% of participants felt able to have a say all of the time or most of the time, 14% some of the time, and 62.2% a little of the time or none of the time. From the 2014 GSS, the corresponding figures for 25 to 64 year olds were 24.8%, 30.4% and 44.7%.

46.3% of participants felt able to have a say with their support providers either all of the time or most of the time, however 25.2% were only able to have a say a little of the time or not at all.

Figure 8.4 Social, community and civic participation indicators for NDIS participants compared with the general population



8.2.3 Baseline indicators – participant characteristics

Baseline indicators have been analysed by participant characteristics using one-way analyses and multiple regression modelling. Multiple regression modelling was performed for 14 indicators, namely the percentage of participants who:

- Choose who supports them
- Choose what they do each day
- Have been given the opportunity to participate in a self-advocacy group meeting, conference, or event
- Want more choice and control in their life
- Have no friends other than family or paid staff
- Are happy with the home they live in
- Feel safe or very safe in their home
- Rate their health as excellent, very good or good
- Have no difficulties accessing health services
- Currently participate in education, training or skill development
- Wanted to do a course or training in the last 12 months, but could not
- Are currently working in a paid job
- Are currently a volunteer
- Have been actively involved in a community, cultural or religious group in the last 12 months.

Key findings from the one-way analyses and regression modelling include:

- **Level of function**

  Across all domains, baseline outcomes tend to be better for participants with higher level of function, particularly in the areas of choice and control, health and wellbeing, and employment.

  Level of function was a significant predictor in all 14 multiple regression models considered for baseline indicators. Controlling for other variables, participants with a higher level of function:

  - Are much more likely to choose who supports them (on a one-way basis, 81.3%, 60.7% and 37.4% for participants with high, medium and low level of function, respectively) and are less likely to want more choice and control in their lives. Participants with a higher level of function are also more likely to choose what they do each day.
  - Are more likely to rate their health as excellent, very good or good (63.4%, 48.3% and 37.1% for participants with high, medium and low level of function, respectively).
  - Are significantly more likely to have a paid job and significantly less likely to be a volunteer.
  - Are more likely to have friends other than family or paid staff, and are more likely to be involved in a community, cultural or religious group.

  Other indicators with large differences in one-way analyses include the percentage of participants who:

  - Make most of the decisions in their life (84.5%, 65.1% and 39.4% for participants with high, medium and low level of function, respectively)
  - Want to see their family more often (31.9%, 39.4% and 47.8%)

    - Know people in their community (72.1%, 61.4% and 50.2%)
    - Feel they are able to have a say with their support services (64.7%, 50.2% and 34.0%).

  LF indicators also show differences, the largest being the percentage of participants who:

    - Choose how they spend their free time (88.3%, 78.0% and 55.5%)
    - Choose where they live (83.7%, 69.0% and 47.1%) and who they live with (85.4%, 72.0% and 49.0%)
    - Often felt lonely (12.5%, 22.3% and 22.8%)
    - Feel safe or very safe walking alone in their local area after dark (34.2%, 25.0% and 9.2%).

- **Disability**
  Baseline indicators differ significantly by disability type, and generally participants with a hearing or visual impairment experience better outcomes across most domains.
  Like level of function, disability type was a significant predictor in all 14 regression models, and controlling for other factors:
    - Participants with Down syndrome are the least likely to choose who supports them and what they do each day, followed by participants with an intellectual disability, whereas participants with spinal cord injury, another physical disability or multiple sclerosis are the most likely. However, participants with Down syndrome or an intellectual disability, as well as those with autism or neurological disability, are the least likely to say they want more choice and control in their life. Conversely, participants with stroke, a visual impairment, spinal cord injury, or a psychosocial disability are more likely to want more choice and control in their life.
    - Participants who have had a stroke, have a psychosocial disability or have an acquired brain injury are the least likely to have a paid job, while participants with a hearing impairment are the most likely.
    - Participants with autism or a psychosocial disability are the most likely to have no friends other than family or paid staff.
    - Participants with a hearing impairment, a visual impairment, or a psychosocial disability, are the least likely to feel safe or very safe in their home, whereas those with Down syndrome, an intellectual disability, cerebral palsy or autism are the most likely to feel safe.
    - Participants with autism, Down syndrome or an intellectual disability are the most likely to have been actively involved in a community, cultural or religious group.

  From the one-way analyses of SF indications, the largest differences are observed for the following indicators:

    - Overall, 14.0% of participants provide care for others, but this percentage is much higher for participants with a hearing impairment or another sensory/speech disability (37.7%), multiple sclerosis (28.5%), or a visual impairment (27.9%).
    - Participants with a sensory disability and those with multiple sclerosis are more likely to feel able to have a say with support services, whereas those with autism or an intellectual disability or Down syndrome are the least likely.

From the LF:

- 18.7% of adult participants smoke, however this varies considerably by disability. At 51.2%, the percentage of participants with a psychosocial disability who smoke is almost four times the percentage for other disabilities combined (13.5%). At the other extreme, none of the participants with Down syndrome say they smoke. Age differences do not appear large enough to explain the difference, since the average age for participants with a psychosocial disability is 46 and for those with Down syndrome is 42 (compared to 47 overall).
- Participants with a sensory disability are least likely to feel happy about their relationship with staff (62.7% compared to 78.9% overall).

- **Culturally and linguistically diverse backgrounds**

Participants from a non-CALD background tend to have better baseline outcomes for most indicators.

CALD status is a significant predictor in 12 out of 14 regression models. Controlling for other factors:

- CALD participants are less likely to choose who supports them, less likely to choose what they do each day, and are more likely to want more choice and control in their lives.
- CALD participants are less likely to be happy with their home and less likely to feel safe there.
- CALD participants have poorer self-rated health and are more likely to have difficulty accessing health services (43.2% compared to 33.9% for non-CALD participants, on a one-way basis).
- CALD participants are less likely to have friends other than family or paid staff (64.4% compared to 71.1%, on a one-way basis).
- CALD participants are less likely to have a paid job and less likely to volunteer.
- However, CALD participants are more likely to have been involved in a community, cultural or religious group in the last 12 months.

From the one-way analyses, CALD participants are more likely to provide care for others (19.2% compared to 13.3% for non-CALD participants).

From the LF, compared to non-CALD participants, CALD participants:

- Are less likely to smoke (14.4% compared to 19.0%).
- Are less likely to feel delighted, please or satisfied about their life (38.4% compared to 44.7%).
- Are equally likely to feel happy with their relationship with staff (78.5% for CALD participants compared to 78.8% for non-CALD participants).

- **Indigenous**

Baseline outcomes for Indigenous participants tend to be slightly worse or similar to outcomes for non-Indigenous participants, but this varies by indicator and outcome domain. In particular, health and wellbeing and work outcomes tend to be worse for Indigenous participants at baseline.

Indigenous status is a significant predictor in nine of the 14 regression models, and is negatively associated with outcomes in all nine models. Controlling for other factors, Indigenous participants:

- Are less likely to choose what they do each day, and are more likely to want more choice and control in their lives.
- Are less likely to be happy with their current home, and less likely to feel safe there.
- Have poorer self-rated health and are more likely to have difficulties accessing health services.
- Are less likely to participate in education, training and skill development, to have a paid job or to be a volunteer.

However there are some positive associations from one-way analyses:

- Indigenous participants are more likely to choose how they spend their free time, where they live, and who they live with.
- Indigenous participants are more likely to have someone outside their home to call on for practical support (86.6% versus 77.0%) and someone to call on in a crisis (86.6% versus 79.8%).
- For those who are working, a higher percentage say they get the support they need to do their job, and for those involved in a community, cultural or religious group, a higher percentage say they feel like they belong to the group.
- Indigenous participants are also more likely to know people in their community (64.3% versus 58.1% for non-Indigenous participants).

Conversely:

- Indigenous participants are less likely to get opportunities to learn new things (30.9% compared to 40.3% for non-Indigenous participants).
- Indigenous participants are more likely to smoke (30.9% compared to 19.7% for non-Indigenous participants.
- Indigenous participants are less likely to have seen a dentist in the last 12 months (41.5% compared to 52.4% for non-Indigenous participants – these percentages compare to an overall population figure of 47.8% for Australians aged 25 to 64).[54]

Remoteness may be contributing to some of these differences. For example, population data on visits to the dentist indicate that for people aged 15 and over, those living in major cities (51.0%) were more likely to see a dentist in the last 12 months than those living in outer regional, remote or very remote areas (40.8%).[54]

- **Age**

For participants aged 25 and over, baseline outcomes differ considerably by age. Older participants tend to have better choice and control outcomes, but worse health and wellbeing, community participation, and lifelong learning outcomes.
Entry age was a significant predictor in 13 of 14 regression models considered.
Controlling for other factors:

- Older participants are more likely to choose who supports them and to choose what they do each day, and are less likely to want more choice and control in their lives.
- The percentage of participants working in a paid job decreases with age (as participants approach retirement).

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[54] ABS Patient Experience Survey (PES) 2018-19.

- A higher percentage of older participants have friends apart from family and paid staff.
- Older participants are more likely to be happy with their home.
- Self-rated health deteriorates with age.
- Older participants are more likely to be actively involved in a community, cultural or religious group.
- The percentage of participants who wanted to do a course or training in the last 12 months, but could not, decreases with age.

Significant age-related differences exist for other SF indicators, and the one-way analyses show the following:

- The percentage of participants who would like to see their family more often increases with age, from 30.5% for those aged under 35 to 48.5% for those 55 or over.
- The percentage who say they will want to live in their current home in 5 years' time increases with age (from 71.6% for participants aged under 35, steadily increasing with age to 89.7% for participants aged 55 and over).
- Older participants are more likely to have been to hospital in the last 12 months.

From the LF, older participants are less likely to have the opportunity to try new things (74.4% for participants aged under 35, decreasing to 59.9% for participants aged 55 and over). Participation in education or training also becomes less widespread with age.

- **Geography**

Baseline results by remoteness are mixed.
Remoteness was a significant predictor in seven of the 14 regression models considered. Controlling for other factors:

- Participants living in more remote areas are more likely to have friends other than family or paid staff.
- Participants living in more remote areas are more likely to have difficulties accessing health services (41.8% compared to 33.9% for participants living in major cities, on a one-way basis).
- Participants living in more remote areas are more likely to volunteer.
- Participants living in more remote areas are more likely to choose what they do each day, and to have been given the opportunity to participate in a self-advocacy meeting or event.

From the one-way analyses:

- Participants living in major cities are less likely to know people in their community (54.2% compared to 61.1-72.0% for participants from regional areas, and 81.0% for participants living in remote and very remote areas).
- From the LF, participants from major cities were less likely to feel happy with relationships with staff (75.9% compared to greater than 80% for more remote areas).

- **Plan management type**

  Self-management is consistently associated with better outcomes[55], particularly in the domain of choice and control. Plan management type was a significant predictor in all 14 regression models. Controlling for other factors:

    - Participants who self-manage their plans are more likely to choose who supports them and what they do each day, and are less likely to want more choice and control in their lives.
    - Self-managed participants are more likely to have a paid job, actively participate in a community, cultural or religious group, to volunteer, and are more likely to have friends other than family or paid staff.

  Other large differences observed from the one-way analyses of SF indicators are as follows:

    - Participants who self-manage are more likely to know people in their community (73.5% compared to 58.8% overall).
    - Participants who self-manage are more likely to get opportunities to learn new things (55.3% compared to 40.0% overall).

  From the LF, a smaller percentage of participants who fully self-manage feel happy with their relationship with staff (70.3% compared to 78.9% overall).

- **Gender**

  Many baseline indicators differ by gender, and female participants tend to have better choice and control and relationship outcomes, but worse home and health and wellbeing outcomes.
  Gender is a significant predictor in 13 of the 14 regression models considered. Controlling for other factors:

    - Female participants are more likely to choose who supports them and to choose what they do each day. However, they are also more likely to want more choice and control in their lives.
    - Female participants are less likely to be working in a paid job, but more likely to volunteer.
    - Female participants are more likely to have friends other than family or paid staff, and are more likely to be actively involved in a community, cultural or religious group.
    - Female participants are less likely to be happy with their home, and to feel sale or very safe in their home (71.0% compared to 76.5% of male participants, on a one-way basis).
    - Female participants are less likely to rate their health as excellent, very good or good (41.7% compared to 50.2% of male participants).

  From the one-way analyses of indicators, other large observed differences are as follows:

    - Female participants are almost twice as likely to provide care for others (19.0%, compared to 9.8% of male participants), and of those who provide care for others, are less likely to receive enough assistance (18.7% compared to 27.1% of male participants).

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[55] At baseline, participants will only just have received their first plan, and so these results do not reflect the effect of self-managing *per se*. Rather, self-management is serving here as a proxy for other characteristics with which it is associated (such as a higher level of self-determination).

- Female participants are less likely to feel safe getting out and about in their community (38.8% compared to 47.5% of male participants).

8.2.4 Longitudinal indicators – across all participants

Longitudinal analysis describes how outcomes have changed for participants during the time they have been in the Scheme. Included here are participants who entered the Scheme between 1 July 2016 and 30 June 2018, for whom a record of outcomes is available at scheme entry (baseline) and at one or more of the two time points: approximately one year following scheme entry (first review), and approximately two years following scheme entry (second review). The analysis considers how outcomes have changed between baseline and first review, between baseline and second review and between first review and second review.

There have been a number of improvements across all domains for the three periods being considered. The greatest changes occurred when considering a participant's responses from baseline to their second review.

Table 8.1 summarises changes for selected indicators across different time periods. In Table 8.1, cohort "B,R1,R2" includes participants responding at baseline, first review and second review.[56] Cohort "B,R1" includes participants responding at both baseline and first review (but not at second review, so the cohorts do not overlap). Indicators were selected for the tables if the change was statistically significant[57] and had an absolute magnitude greater than 0.02[58].

Table 8.1 Selected longitudinal indicators for participants aged 25 and over

Domain (Form)	Indicator	Cohort	Baseline	Review 1	Review 2	Change B R1	Change R1 R2	Change B R2	Improvement/ Deterioration
REL (SF)	Of those who provide care for others and need help to continue, % who do not receive enough assistance	B,R1,R2	82.0%	80.6%	78.9%	-1.3%	-1.7%	-3.0%	**Improvement**
		B,R1	78.5%	77.5%		-0.9%			
REL (LF)	% who have someone outside their home to call on for practical support	B,R1,R2	81.2%	85.7%	89.9%	4.5%	4.2%	8.7%	**Improvement**
		B,R1	76.1%	82.2%		6.1%			
REL (LF)	% who have someone to call on in a crisis (for example, if they are sick)	B,R1,R2	85.9%	94.0%	89.9%	-0.2%	8.2%	8.1%	**Improvement**
		B,R1	77.9%	81.0%		3.1%			

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[56] A small number may be missing a response at the first review.
[57] McNemar's test at the 0.05 level.
[58] Between baseline and second review for the "B,R1,R2" cohort, and between baseline and first review for the "B,R1" cohort.

Domain (Form)	Indicator	Cohort	Baseline	Review 1	Review 2	Change B R1	Change R1 R2	Change B R2	Improvement/ Deterioration
REL (LF)	% who feel happy with their relationships with staff	B,R1,R2	69.4%	83.4%	87.1%	14.1%	3.6%	17.7%	**Improvement**
		B,R1	85.8%	90.2%		4.4%			
HW (SF)	% who did not have any difficulties accessing health services	B,R1,R2	68.5%	70.4%	71.6%	1.9%	1.2%	3.1%	**Improvement**
		B,R1	65.2%	66.9%		1.7%			
HW (SF)	% who have been to the hospital in the last 12 months	B,R1,R2	40.6%	36.6%	34.8%	-4.0%	-1.8%	-5.8%	**Improvement**
		B,R1	40.8%	36.8%		-4.0%			
HW (LF)	% who felt delighted, pleased or mostly satisfied about their life in general, now and in the future	B,R1,R2	38.9%	46.3%	51.7%	7.3%	5.4%	12.8%	**Improvement**
		B,R1	46.6%	58.4%		11.8%			
HW (LF)	% who have been subjected to restrictive practices in the past 12 months	B,R1,R2	6.8%	4.8%	2.0%	-2.0%	-2.8%	-4.7%	**Improvement**
		B,R1	8.1%	5.6%		-2.6%			
HW (LF)	% who have had a flu vaccination in the last 12 months	B,R1,R2	49.7%	54.4%	61.1%	4.8%	6.7%	11.4%	**Improvement**
		B,R1	64.6%	67.1%		2.5%			
LL (SF)	% who get opportunities to learn new things	B,R1,R2	46.6%	49.6%	51.2%	3.0%	1.6%	4.6%	**Improvement**
		B,R1	41.9%	45.0%		3.0%			
LL (SF)	% who currently participate in education, training or skill development,	B,R1,R2	14.2%	16.5%	16.2%	2.4%	-0.3%	2.1%	**Improvement**
		B,R1	13.6%	14.6%		0.9%			

Domain (Form)	Indicator	Cohort	Baseline	Review 1	Review 2	Change B R1	Change R1 R2	Change B R2	Improvement/ Deterioration
LL (SF)	Of those who currently participate in education, training or skill development in a mainstream class, % who prefer their current study arrangement	B,R1,R2	51.3%	56.2%	59.2%	4.9%	3.1%	8.0%	**Improvement**
		B,R1	67.0%	69.2%		2.2%			
S/CP (SF)	% who spend their free time doing activities that interest them	B,R1,R2	68.3%	73.2%	75.9%	4.9%	2.6%	7.5%	**Improvement**
		B,R1	66.2%	70.2%		4.0%			
S/CP (SF)	% who have been actively involved in a community, cultural or religious group in the last 12 months	B,R1,R2	36.5%	41.6%	46.8%	5.1%	5.2%	10.3%	**Improvement**
		B,R1	36.2%	41.4%		5.2%			
S/CP (SF)	% who know people in their community	B,R1,R2	59.8%	65.4%	67.2%	5.6%	1.8%	7.3%	**Improvement**
		B,R1	63.8%	66.6%		2.8%			
S/CP (LF)	% who currently have interests (for example, hobbies, favourite things to do)	B,R1,R2	79.2%	85.0%	89.3%	5.8%	4.2%	10.1%	**Improvement**
		B,R1	84.7%	89.1		4.4%			
S/CP (LF)	% who have the opportunity to try new things and have new experiences	B,R1,R2	57.7%	70.1%	73.8%	12.3%	3.8%	16.1%	**Improvement**
		B,R1	69.8%	75.6		5.8%			
S/CP (LF)	For those who have taken part in leisure activities in the past 12 months, % who felt those activities enabled them to spend time with people they liked	B,R1,R2	88.0%	89.0%	97.7%	1.0%	8.8%	9.8%	**Improvement**
		B,R1	93.8%	95.4		1.6%			
CC (SF)	% who want more choice and control in their life	B,R1,R2	66.7%	75.7%	80.5%	9.0%	4.7%	13.8%	**Context Dependent**
		B,R1	79.3%	83.6%		4.3%			

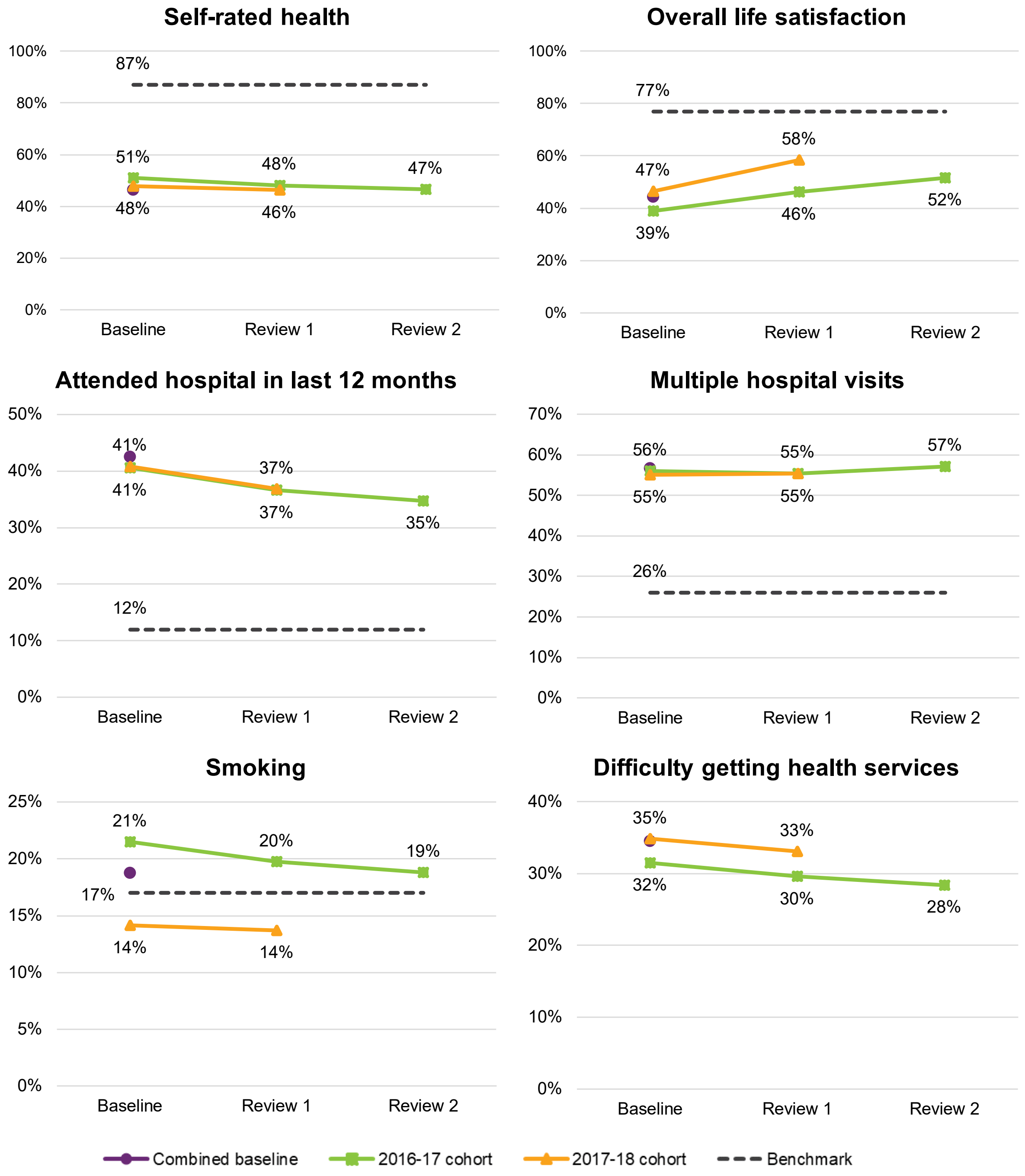
Domain (Form)	Indicator	Cohort	Baseline	Review 1	Review 2	Change B R1	Change R1 R2	Change B R2	Improvement/ Deterioration
REL (SF)	% who would like to see their family more often	B,R1,R2	35.2%	37.3%	39.8%	2.0%	2.5%	4.5%	**Context Dependent**
		B,R1	40.5%	41.6%		1.2%			
REL (SF)	% who would like to see their friends more often	B,R1,R2	48.9%	51.4%	54.6%	2.5%	3.2%	5.7%	**Context Dependent**
		B,R1	55.1%	56.9%		1.8%			
HW (SF)	% who have a doctor they see on a regular basis	B,R1,R2	87.9%	92.5%	94.7%	4.6%	2.2%	6.8%	**Context Dependent**
		B,R1	90.9%	93.5%		2.6%			
CC (SF)	% who feel able to advocate (stand up) for themselves	B,R1,R2	50.7%	48.4%	46.6%	-2.3%	-1.8%	-4.1%	**Deterioration**
		B,R1	49.6%	48.0%		-1.6%			
HM (SF)	% who feel safe or very safe in their home	B,R1,R2	77.9%	76.5%	75.7%	-1.4%	-0.8%	-2.3%	**Deterioration**
		B,R1	75.7%	74.7%		-1.0%			
HW (SF)	% who rate their health as excellent, very good or good	B,R1,R2	50.9%	48.2%	46.6%	-2.8%	-1.6%	-4.4%	**Deterioration**
		B,R1	47.8%	46.3%		-1.5%			
HW (SF)	% who feel safe getting out and about in their community	B,R1,R2	48.9%	48.2%	46.8%	-0.7%	-1.4%	-2.1%	**Deterioration**
		B,R1	48.3%	47.0%		-1.2%			
WK (LF)	% who have had one or more jobs in the past 12 months	B,R1,R2	37.6%	33.3%	32.9%	-4.3%	-0.4%	-4.7%	**Deterioration**
		B,R1	37.2%	34.5%		-2.7%			

Domain (Form)	Indicator	Cohort	Baseline	Review 1	Review 2	Change B R1	Change R1 R2	Change B R2	Improvement/ Deterioration
S/CP (SF)	% who wanted to do certain things in the last 12 months, but could not	B,R1,R2	61.3%	67.0%	69.7%	5.8%	2.7%	8.4%	**Deterioration**
		B,R1	67.9%	70.8%		2.9%			

Key findings from Table 8.1 include:

- Improvements were observed for 19 of the 29 indicators (about two-thirds) where a change has been noted.
- There is considerable overlap with the 15 to 24 age group, with all 15 indicators common to the tables for both age groups exhibiting changes in the same direction.
- There were large improvements in community participation – particularly with regard to participants knowing people in their community, being actively involved in a community, cultural or religious group over the last 12 months, having interests and the having opportunity to try new things and have new experiences.
- In the relationships domain, more participants say they have someone outside their home to call on for practical assistance, and someone to call on in a crisis.
- There was further deterioration over the second year in the Scheme in the number of participants who wanted to do certain things in the last 12 months but couldn't.
- There have been some improvements in the health and wellbeing domain. More participants have a doctor they see on a regular basis, more have had a flu vaccination in the last 12 months, and fewer have had difficulties accessing health services. The percentage who felt delighted, pleased or mostly satisfied with their life has increased, however self-rated health has continued to decline (possibly partly age-related). Figure 8.5 illustrates longitudinal results for the health domain, compared to the Australian population where possible.
- More participants say they get the opportunity to learn new things.

Figure 8.5 Longitudinal health and wellbeing indicators for NDIS participants compared with the general population



8.2.5 Longitudinal indicators – participant characteristics

Analysis by participant characteristics has been examined in two ways:

1. A simple comparison of the percentage meeting the indicator at first or second review with the percentage meeting the indicator at baseline. The difference (review-baseline) is compared for different subgroups.
2. Multiple regression analyses with separate models for improvement and deterioration in the indicator. That is, for the subset without/with the indicator at baseline, the probability of meeting/not meeting the indicator at first or second review is modelled as a function of participant characteristics.[59]

It should be noted that these two analyses can produce different results, particularly where there is a large difference in the indicator at baseline between subgroups.

Some key features of the analyses for selected indicators are summarised below.

I want more choice and control in my life

The percentage of participants wanting more choice and control increased by 5.6% between baseline and first review and by 13.8% between baseline and second review. This was a result of transitions from "No" to "Yes" and from "Yes" to "No" as set out in Table 8.2 below.

Table 8.2 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort		Context dependent: No to Yes		Context dependent: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	11,507	35,805	3,320	28.9%	664	1.9%	+5.6%
Baseline to Review 2	4,795	9,611	2,272	47.4%	290	3.0%	+13.8%

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of transitions are set out in **Table 8.3** below.

Table 8.3 Key drivers of likelihood of transitions in *"I want more choice and control in my life"* response[60]

Variable	Baseline to First Review Relationship with likelihood of		Baseline to Second Review Relationship with likelihood of	
	No to Yes	Yes to No	No to Yes	Yes to No
Participant lives in Victoria	⇩		⇩	
Participant lives in Queensland	⬆	⇧	⬆	⇧

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[59] Modelling of baseline to second review transitions is based on a smaller amount of data, hence these models tend to identify a smaller number of significant predictors.

[60] See Table 2.2 for definition of arrow symbols in this and similar tables.

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	No to Yes	Yes to No	No to Yes	Yes to No
Participant lives in South Australia	⇩	⇧		
Participant lives in NT, TAS, WA or ACT		⇧	⇩	⇧
Disability is cerebral palsy	⇩	⇧		
Disability is autism		⇧		
Disability is acquired brain injury			⬆	
Disability is a neurological disability			⇩	
Disability is a physical disability	⇩			
Disability is a visual impairment		⬇		
Participant is female	⬆	⇧	⬆	
Participant is CALD		⬇		⬇
Participant is Indigenous		⬇		
Participant is older	⇩	⇧	⇩	
Participant entered the Scheme in 2016/17	⬆	⇧		
Lower level of function	⬆	⬇		
Participant has SIL supports in their plan	⇩		⇩	
Participant lives in a more remote area	⬆			⬇
30-60% of supports are capacity building supports	⬆			
Plan is fully self-managed	⇩			
Plan is partly self-managed		⬇		

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	No to Yes	Yes to No	No to Yes	Yes to No
Plan is plan-managed/Agency managed	⬆	⬇	⬆	
Higher level of NDIA support	⇩	⬇	⇩	
Higher Index of Economic Resources (IER)	⇩			
Higher Index of Economic Opportunity (IEO)	⬆		⬆	

Key findings from Table 8.3 include:

- Participants from QLD were more likely to transition from either “No” to “Yes” or “Yes” to “No”.
- Older participants were less likely to change from not wanting more choice and control to wanting more choice and control, between baseline and either first or second review.
- Female participants were more likely to start wanting more choice and control, and less likely to stop wanting it.
- For participants who answered ‘No’ at baseline, those with SIL supports were less likely than those without SIL to answer ‘Yes’ at first or second review.
- Participants with higher levels of NDIA support through the pathway were less likely to change their response after spending time in the Scheme.

I would like to see my friends more often

The percentage of participants who would like to see their friends more often increased by 2.0% between baseline and first review and by 5.7% between baseline and second review, as set out in Table 8.4 below.

Table 8.4 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort		Context dependent: No to Yes		Context dependent: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	20,697	23,696	2,377	11.5%	1,477	6.2%	+2.0%
Baseline to Review 2	6,637	6,359	1,393	21.0%	652	10.3%	+5.7%

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of change in the outcome are set out in Table 8.5 below.

Table 8.5 Key drivers of likelihood of transitions of *"I would like to see my friends more often"* response

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	No to Yes	Yes to No	No to Yes	Yes to No
Participant lives in Victoria	⇩	⬇	⇩	
Participant lives in Queensland	⬆	⇧	⬆	⇧
Participant lives in South Australia	⇩	⇧		
Disability is spinal cord injury	⇩			
Disability is Down syndrome	⬆			
Disability is Autism				⬇
Disability is hearing impairment			⇩	⬇
Disability is caused by a stroke	⬆		⬆	⬇
Disability is visual impairment	⬆		⬆	⬇
Participant is female	⬆		⬆	
Participant is CALD		⬇		
Participant is older		⬇		
Entered the Scheme in 2016/17		⇧		
Lower level of function	⬆	⬇	⬆	⬇
Participant has SIL supports in their plan	⇩		⇩	
Higher annualised plan budget				⬇
Between 15-30% of supports are capacity building supports	⬆		⬆	⬇
Between 30-60% of supports are capacity building supports	⬆			

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	No to Yes	Yes to No	No to Yes	Yes to No
Plan is plan-managed/agency managed	⬆		⬆	
Lower level of NDIA support	⇩			
Higher level of NDIA support	⇩	⬇	⇩	
Higher Index of Economic Opportunity (IEO)	⬆	⇧		

Key findings from Table 8.5 include:

- Participants living in QLD were more likely to change their response between baseline and subsequent reviews.
- Participants with SIL supports were less likely to change their response from ‘No’ at baseline to ‘Yes’ at first review.
- Female participants and participants who use a plan manager were more likely to change from ‘No’ at baseline to ‘Yes’ at first review.
- Participants with lower level of function were more likely to either start wanting to see friends more often, or to keep wanting to see friends more often, at first and second review.
- Participants with a visual impairment or stroke were more likely to start wanting to see friends more often, between baseline and first or second review.

I have a doctor I see on a regular basis

The percentage of participants who have a doctor they see on a regular basis increased by 3.2% between baseline and first review and by 6.8% between baseline and second review, as set out in Table 8.6 below.

Table 8.6 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort		Context dependent: No to Yes		Context dependent: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	4,736	42,912	1,917	40.5%	409	1.0%	+3.2%
Baseline to Review 2	1,746	12,661	1,139	65.2%	161	1.3%	+6.8%

Participant characteristics that had a statistically significant effect (p<0.05) on the likelihood of change in the outcome are set out in Table 8.7 below.

Table 8.7 Key drivers of likelihood of transitions of *"I have a doctor I see on a regular basis"* response

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	**No to Yes**	**Yes to No**	**No to Yes**	**Yes to No**
Participant lives in Victoria	⇩			
Participant lives in Queensland	⬆	⇧	⬆	
Participant lives in South Australia	⇩			
Participant lives in NT, TAS, WA or ACT	⬆			
Disability is an acquired brain injury	⬆	⬇		
Disability is Down syndrome		⬇		
Disability is a hearing impairment	⇩			
Disability is multiple sclerosis		⬇		
Disability is a physical disability		⬇		
Disability is a psychosocial disability	⬆			
Disability is caused by a stroke	⬆			
Disability is visual impairment	⇩	⬇		
Participant is female	⬆		⬆	
Participant is older	⬆		⬆	
Entered the Scheme in 2016/17	⬆	⇧		
Participant has a lower level of function			⬆	
Participant has SIL supports in their plan		⬇		
Participant lives in a more remote area		⬇	⬆	

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	No to Yes	Yes to No	No to Yes	Yes to No
Between 30% and 60% of supports are capacity building supports		⇧		
More than 60% of supports are capacity building supports		⇧		
More than 5% of supports are capital supports		⇧		
Higher level of NDIA support	⇩			

Key findings from Table 8.7 include:

- Older participants without a regular doctor at baseline were more likely to have one at first or second review, compared to younger participants.
- Females were more likely to start seeing a regular doctor between baseline and first review.
- Participants living in Queensland were more likely to change their response between baseline and subsequent reviews.
- Participants with an acquired brain injury, Down syndrome, multiple sclerosis, a visual impairment, or other physical disability were more likely to continue seeing their doctor on a regular basis.

I wanted to do certain things in the last 12 months but could not

The percentage of participants who wanted to do certain things in the last 12 months but could not increased by 3.8% between baseline and first review and by 8.4% between baseline and second review. This was a result of deteriorations partially offset by improvements as set out in Table 8.8 below.

Table 8.8 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort		Improvements: Yes to No		Deteriorations: No to Yes		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	16,199	31,395	1,821	5.8%	3,613	22.3%	+3.8%
Baseline to Review 2	5,582	8,825	846	9.6%	2,061	36.9%	+8.4%

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of improvement or deterioration in the outcome are set out in Table 8.9 below.

Table 8.9 Key drivers of likelihood of transitions of *"I wanted to do certain things in the last 12 months but could not"* response

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	Improvement	Deterioration	Improvement	Deterioration
Participant lives in Victoria	↓			
Participant lives in Queensland	↑	↑	↑	↑
Participant lives in South Australia		↓		
Participant has an intellectual disability/Down syndrome	↑	↓	↑	
Disability is autism	↑	↓		
Disability is acquired brain injury				↑
Disability is hearing impairment	↓		↓	↓
Disability is multiple sclerosis	↓		↓	
Disability is a neurological disability	↓	↑		
Disability is a physical disability	↓		↓	↑
Disability is psychosocial disability, visual impairment or stroke	↓	↑	↓	↑
Disability is a spinal cord injury	↓	↑	↓	
Participant is female		↑		
Participant is CALD	↑	↓		
Participant is older		↓		↓
Entered the Scheme in 2016/17	↑	↑		
Lower level of function	↓	↑	↓	↑
Participant has SIL supports in their plan		↓		

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	**Improvement**	**Deterioration**	**Improvement**	**Deterioration**
Between 15-30% of supports are capacity building supports	⬇	⬆		
Between 30-60% of supports are capacity building supports		⬆		
More than 5% of supports are capital supports	⬇			
Plan is plan-managed/agency-managed	⬇	⬆		⬆
Higher level of NDIA support	⬇	⬇		⬇
Access type is early intervention	⬇	⬆		⬆
Higher Index of Economic Opportunity (IEO)	⬇	⬆	⬇	

Key findings from Table 8.9 include:

- The likelihood of changing responses varies by disability. In general, participants with an intellectual disability or Down syndrome were more likely to improve and less likely to deteriorate, whereas those with a psychosocial disability, visual impairment or stroke were less likely to improve and more likely to deteriorate.
- Participants with a lower level of function are more likely to deteriorate and less likely to improve between baseline and follow-up reviews.
- CALD participants are more likely to improve and less likely to deteriorate between baseline and first review.
- Participants living in Queensland have a higher chance of changing their response between baseline and follow-up reviews.

I know people in my community

The percentage of participants who know people in their community increased by 3.6% between baseline and first review and by 7.3% between baseline and second review. This was a result of improvements partially offset by deteriorations as set out in Table 8.10 below.

Table 8.10 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of Baseline Responses in cohort		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Baseline to Review 1	17,696	29,712	3,071	17.4%	1,380	4.6%	3.6%
Baseline to Review 2	5,789	8,618	1,779	30.7%	722	8.4%	7.3%

Participant characteristics that had a statistically significant effect ($p<0.05$) on the likelihood of improvement or deterioration in the outcome are set out in Table 8.11 below.

Table 8.11 Key drivers of likelihood of transitions of *"I know people in my community"* response

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	Improvement	Deterioration	Improvement	Deterioration
Participant lives in Victoria	↓		↓	
Participant lives in Queensland	↑	↑	↑	
Disability is autism		↑		↑
Disability is cerebral palsy		↓		
Disability is Down syndrome	↑			
Disability is multiple sclerosis		↓		
Disability is a neurological disability		↓		
Disability is a physical disability		↓	↑	
Disability is a psychosocial disability	↓	↑	↓	↑
Disability is spinal cord injury		↓	↑	↓
Disability is caused by a stroke			↓	
Disability is visual impairment	↓			↑
Entered the Scheme in 2016/17	↑	↑		
Lower level of function	↓	↑	↓	↑
Participant lives in a more remote area	↑	↓	↑	↓
Higher annualised plan budget			↓	
More than 60% of supports are capacity building supports		↑		

	Baseline to First Review		Baseline to Second Review	
	Relationship with likelihood of		Relationship with likelihood of	
Variable	Improvement	Deterioration	Improvement	Deterioration
More than 5% of supports are capital supports				⬇
Plan is fully self-managed	⬆	⬇	⬆	⬇
Plan is partly self-managed		⬇		⬇
Plan is plan-managed/agency managed	⬆	⬇		
Participant received services from Commonwealth systems before entering the NDIS	⬇			
Participant has not received services from Commonwealth or state systems before entering the NDIS		⬆		⬆
Lower level of NDIA support		⬇		
Higher level of NDIA support	⬇	⬇	⬇	
Access type is early intervention				⬆
Higher Index of Economic Opportunity (IEO)			⬆	

Key findings from Table 8.11 include:

- Participants with lower level of function had higher rates of deterioration between baseline and follow-up reviews, and lower levels of improvement.
- Participants in remote areas and those with fully self-managed plans were more likely to improve and less likely to deteriorate with regard to knowing people in their community.
- Participants from Victoria had lower rates of improvement between baseline and follow-up reviews. Conversely, participants from Queensland had higher rates of improvement.
- Participants with a spinal cord injury were more likely to improve and less likely to deteriorate with regard to knowing people in their community. However, participants with a psychosocial disability were less likely to improve and more likely to deteriorate.

9. Participants aged 25 and over: Has the NDIS helped?

9.1 Results across all participants

For participants who have been in the Scheme for approximately one or two years as at 30 June 2019, Figure 9.1 shows the percentage of participants aged 25 and over who think that the NDIS has helped with outcomes related to each of the eight domains, after one year in the Scheme and after two years in the Scheme.

Figure 9.1 Percentage who think that the NDIS has helped with outcomes related to each domain

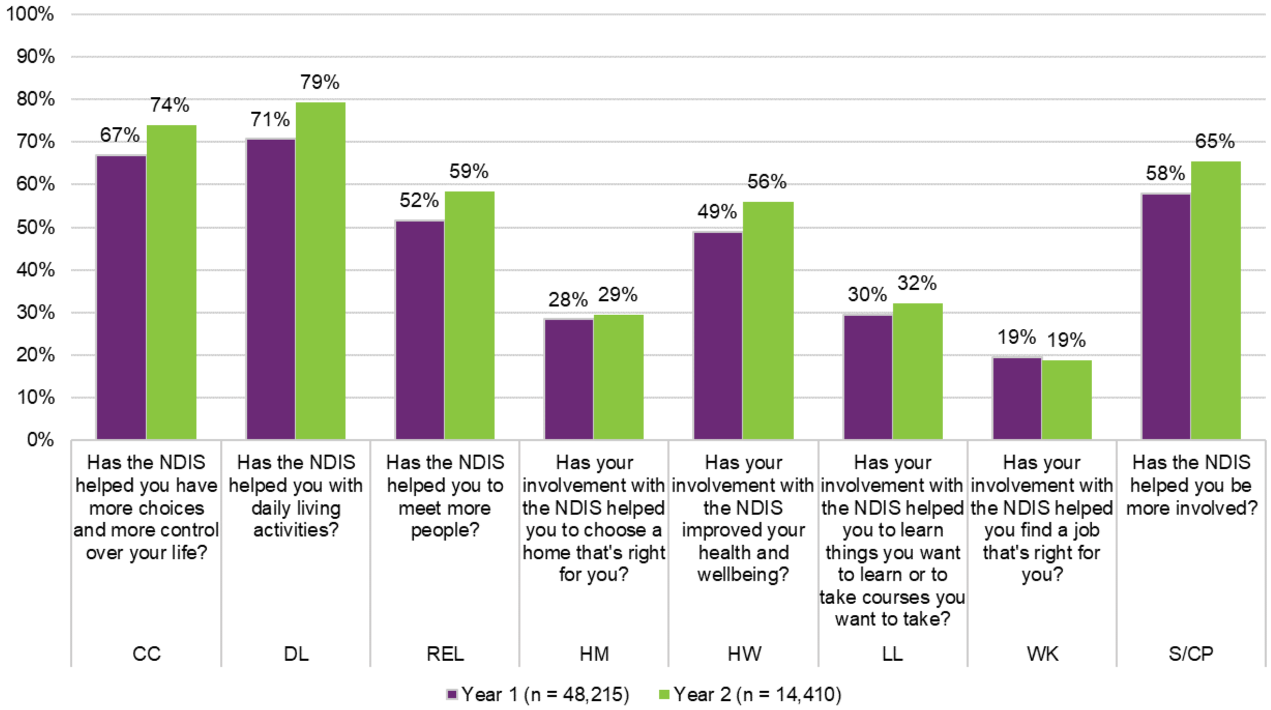

Figure 9.1 shows that opinions on whether the NDIS has helped vary considerably by domain for participants aged 25 and over. Compared to the 15 to 24 cohort, results tend to be more positive, but generally reflect a similar pattern by domain. However the young adult cohort is more likely to think that the NDIS has helped with education, and results for the work domain are similar for younger and older adults.

The percentage who think the NDIS has helped is highest for daily activities (70.7% after one year increasing to 79.3% after two years), followed by choice and control (66.8% after one year increasing to 74.0% after two years), participation (58.0% after one year increasing to 65.5% after two years), and relationships (51.6% after one year increasing to 58.5% after two years). These are all domains where the NDIS would be expected to have an impact. Percentages are slightly lower for health and wellbeing (49.0% and 55.9%), and lower still for lifelong learning (29.5% and 32.2%), home (28.4% and 29.4%) and work (18.7% and 19.4%). Improvements in the percentage of positive responses between one and two years are observed for all domains except work.

9.2 Results by participant characteristics

9.2.1 Year 1 ‘Has the NDIS Helped?’ indicators – participant characteristics

Year 1 (first review) indicators have been analysed by participant characteristics using one-way analyses, revealing the following key findings:

- There is a strong trend towards responding more positively as baseline plan utilisation increases, for all eight domains. In particular, those with very low utilisation (below 20%) are much less likely to say that the NDIS has helped, and the positive response rate for participants with plan utilisation of 80% and over is 15 to 35 percentage points higher than for those with utilisation below 20%.
- Annualised baseline plan budget also has an impact on the likelihood of a positive response. A generally increasing trend towards responding positively as plan budget increases is observed, except for the work domain, where an initial increase is followed by a slight decline for plans above $50,000. A similar pattern is observed for level of function, with the likelihood of a positive response tending to increase as participant’s level of function decreases, apart from the work domain.
- Participants in supported independent living (SIL) are more likely to respond positively, across all domains but particularly for the home domain (57% versus 25% for other participants).
- The percentage who say that the NDIS has helped tends to increase with age for choice and control, daily living, home, and health and wellbeing. However, the reverse tends to be the case for relationships, lifelong learning, work, and social, community and civic participation, where younger participants tend to respond more positively. For work, the likelihood of responding positively is particularly low for participants aged 55 or over (likely related to retirement).
- The percentage responding positively is consistently lower across all domains for participants with deafness/hearing loss or another sensory/speech disorder, and is also generally lower for participants with visual impairment. Participants with an intellectual disability or Down syndrome tended to be more positive on average.
- Participants in WA, TAS and QLD tended to respond more positively, and those in NT, SA and VIC less positively. On a one-way basis, participants in ACT were the least positive in the home domain and the most positive in the health and wellbeing domain.
- Participants in regional areas with population between 5000 and 50,000 were more likely to think that the NDIS had helped compared to participants in larger regional areas or major cities. However, participants in remote and very remote areas were less likely to think that the NDIS had helped. These results are consistent with those for younger adults.
- There was a slight but consistent trend for CALD participants to respond less positively across all domains. Results for Indigenous participants were slightly worse across most domains. There were no appreciable differences by gender.

9.2.2 Longitudinal 'Has the NDIS Helped?' indicators – participant characteristics

Analysis of longitudinal indicators by participant characteristics has been examined in two ways:

1. A simple comparison of the percentage reporting that the NDIS had helped after two years in the Scheme with the percentage reporting that the NDIS had helped after one year in the Scheme. The difference (percentage after two years minus percentage after one year) is compared for different subgroups.
2. Multiple regression analyses modelling the probability of improvement / deterioration over the participant's second year in the Scheme.

Regression models for improvement include all participants who answered "No" at review 1 and model the probability of answering "Yes" at review 2 (between 3731 and 9822 participants, depending on the domain). Models for deterioration include all participants who answered "Yes" at review 1 and model the probability of answering "No" at review 2 (between 2402 and 8981 participants).

Some key features of the analyses for helped question indicators are summarised below.

Has the NDIS helped you have more choices and more control over your life?

The percentage of participants reporting that the NDIS helped them have more choices and more control over their life increased 7.5% from 66.6% to 74.1% between the first review and the second review. Of those who responded negatively at the first review, 30.4% responded positively at the second review (improvement). Table 9.1 sets out the breakdown of the movements of responses.

Table 9.1 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	4,139	8,249	1,258	30.4%	332	4.0%	7.5%

- Participants whose plans were Agency managed were less likely to improve.
- Female participants were more likely to improve.
- Participants living in QLD and NSW were more likely to improve.
- SIL participants were more likely to improve and less likely to deteriorate.
- Indigenous participants were more likely to deteriorate.
- Participants with higher levels of NDIA support were less likely to deteriorate.
- Participants with lower level of function were more likely to deteriorate.

Has the NDIS helped you with daily living activities?

The percentage of participants reporting that the NDIS helped them with daily living activities increased 8.7% to 79.3% between the first review and the second review. Of those who responded negatively at the first review, 37.8% responded positively at the second review (improvement). Table 9.2 sets out the breakdown of the movements of responses.

Table 9.2 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	3,731	8,981	1,411	37.8%	309	3.4%	8.7%

- Female participants were more likely to improve.
- Participants with higher plan budget were more likely to improve.
- Participants living in Victoria were less likely to either improve or deteriorate.
- SIL participants were less likely to deteriorate.
- Participants with fully or partly self-managed plans were less likely to deteriorate compared to participants with an agency managed plan.
- Participants with a hearing impairment were more likely to deteriorate.
- Participants needing lower levels of NDIA support were more likely to deteriorate.
- Participants in more remote locations were less likely to deteriorate.
- Older participants were less likely to deteriorate.

Has the NDIS helped you to meet more people?

The percentage of participants reporting that the NDIS helped them meet more people increased 6.5% from 52.0% to 58.5% between the first review and the second review. Of those who responded negatively at the first review, 20.7% responded positively at the second review (improvement). Table 9.3 sets out the breakdown of the movements of responses.

Table 9.3 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	6,057	6,568	1,251	20.7%	436	6.6%	6.5%

- SIL participants were more likely to improve.
- New participants (not previously receiving supports from State/Territory or Commonwealth programs) were less likely to improve.
- Participants living in VIC were less likely to improve.
- Participants with lower level of function were more likely to improve, and those with higher plan budget were less likely to deteriorate.
- Participants with intellectual disability, Down syndrome, autism or cerebral palsy were more likely to improve, and participants with Down syndrome were less likely to deteriorate.

- Participants with higher levels of NDIA support were less likely to deteriorate.

Has your involvement with the NDIS helped you to choose a home that's right for you?

The percentage of participants reporting that the NDIS helped them choose a home that's right for them did not change materially between the first review (28.8%) and the second review (28.7%). Of those who responded negatively at the first review, 6.7% responded positively at the second review (improvement). Table 9.4 sets out the breakdown of the movements of responses.

Table 9.4 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	8,860	3,579	595	6.7%	610	17.0%	-0.1%

- SIL participants were much more likely to improve and much less likely to deteriorate.
- Participants living in NSW were more likely to improve. Participants living in ACT and WA were less likely to deteriorate, and those living in Queensland were more likely to deteriorate.
- Participants with higher levels of NDIA support were more likely to improve and less likely to deteriorate.
- Participants with lower level of function were more likely to improve.
- Older participants were less likely to deteriorate.

Has your involvement with the NDIS improved your health and wellbeing?

The percentage of participants reporting that the NDIS improved their health and wellbeing increased by 6.2% from 49.6% to 55.9% between the first review and the second review. Of those who responded negatively at the first review, 19.8% responded positively at the second review (improvement). Table 9.5 sets out the breakdown of the movements of responses.

Table 9.5 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	6,296	6,204	1,246	19.8%	465	7.5%	6.2%

- SIL participants were much more likely to improve and much less likely to deteriorate.
- Participants with an increase in plan utilisation between first and second review were more likely to improve.
- Participants with Agency managed plans were less likely to improve. Fully or partly self-managed participants were less likely to deteriorate.
- Participants living in NSW and QLD were more likely to improve.
- Participants living in more remote areas were more likely to improve.

- Participants with a psychosocial disability were more likely to improve, while participants with a hearing impairment were less likely to improve
- CALD participants were more likely to deteriorate.
- Older participants were less likely to deteriorate.

Has your involvement with the NDIS helped you to learn things you want to learn or to take courses you want to take?

The percentage of participants reporting that the NDIS helped them to learn things they want to learn or to take courses they want to take increased from 31.0% to 32.0% between the first review and the second review. Of those who responded negatively at the first review, 7.7% responded positively at the second review (improvement). Table 9.6 sets out the breakdown of the movements of responses.

Table 9.6 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	8,552	3,851	658	7.7%	539	14.0%	1.0%

- SIL participants were more likely to improve and less likely to deteriorate.
- Participants living in Victoria were less likely to improve.
- Participants who are new to the scheme were less likely to improve, compared to those previously receiving supports from State/Territory programs.
- Participants with an intellectual disability or Down syndrome were the most likely to improve, whereas those with a neurological or physical disability were less likely to improve.
- Older participants were less likely to improve and more likely to deteriorate.
- Participants with higher levels of NDIA support were less likely to deteriorate.

Has your involvement with the NDIS helped you find a job that's right for you?

The percentage of participants reporting that the NDIS helped them find a job that's right for them decreased from 19.6% to 18.7% between the first review and the second review. Of those who responded negatively at the first review, 3.7% responded positively at the second review (improvement). Table 9.7 sets out the breakdown of the movements of responses.

Table 9.7 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	9,822	2,402	362	3.7%	476	19.8%	-0.9%

- SIL participants were more likely to improve and less likely to deteriorate.
- Participants with Down syndrome or an intellectual disability were the most likely to improve.
- Participants with higher levels of NDIA support were more likely to improve.

- Participants previously receiving supports from Commonwealth programs were more likely to improve.
- Participants living in VIC were less likely to improve.
- Participants with higher proportions of capacity building supports in their plans were more likely to improve and less likely to deteriorate.
- Participants with lower level of function were less likely to improve.
- Older participants were less likely to improve.

Has the NDIS helped you be more involved?

The percentage of participants reporting that the NDIS helped them to be more involved increased by 6.7% to 65.5% between the first review and the second review. Of those who responded negatively at the first review, 23.1% responded positively at the second review (improvement). Table 9.8 sets out the breakdown of the movements of responses.

Table 9.8 Breakdown of net movement in longitudinal responses

Longitudinal Period	Number of first review responses		Improvements: No to Yes		Deteriorations: Yes to No		Net Movement
	No	Yes	Number	%	Number	%	
Review 1 to Review 2	5,144	7,330	1,190	23.1%	352	4.8%	6.7%

- SIL participants were more likely to improve and less likely to deteriorate.
- Participants with a larger increase in plan utilisation over the period were more likely to improve.
- Participants living in Queensland were more likely to improve while participants from Victoria were less likely.
- Participants with Down syndrome were the most likely to improve while participants with multiple sclerosis, cerebral palsy, a hearing impairment, a spinal cord injury or other physical disability were less likely to improve.
- Participants with lower level of function, and those with higher annualised plan budget, were more likely to improve.
- Participants with higher levels of NDIA support were less likely to deteriorate.
- CALD participants were more likely to deteriorate.