



# Analysis of participants by gender

31 December 2019

National Disability Insurance Agency

**ndis**

# Outline



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# Introduction



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- As at 31 December 2019, 62% of NDIS participants were male and 37% were female.<sup>1</sup>
  - The purpose of this report is to examine this disparity and better understand the underlying drivers of gender mix across Scheme participants compared with other populations.
  - Comparisons have been made between the NDIS participants and the following groups:
    - “Tier 3 disability population” from the 2015 Survey of Disability and Aged Care (SDAC), which are people with significant and enduring support needs who would be eligible for individualised support. This grouping within SDAC is most closely aligned to the eligibility criteria of the NDIS as defined in the original Productivity Commission costings for the NDIS<sup>2</sup>. Comparisons with other SDAC groupings are also included in the detailed results.
    - General population, based on an estimated resident population for 2017, derived from 2016 census data.
  - The ratio of males to females across disability and age groups were analysed, including the use of age standardisation across populations. This is to better understand the extent to which age and disability impact the gender ratio in the NDIS.

<sup>1</sup> 1% of participants had an indeterminate gender or their gender was not recorded.

<sup>2</sup> Productivity Commission 2011. *Disability Care and Support*.

# Key findings (1)

As mentioned previously, at 31 December 2019, 62% of NDIS participants were male and 37% were female.<sup>3</sup> For the target age group of 0-64 years, this is a male to female ratio of 1.70.

Autism is the most common primary disability type of NDIS participants. There are 3.2 times the number of male participants with autism compared with females.

Intellectual disability and developmental delay is also more prevalent in males than females.

Autism, intellectual disability and developmental delay are the most common disability types in children and as a result, the ratio of males to females in the NDIS is highest at young ages. This is also the case in other disability populations such as the 'Tier 3 disability population' from the Survey of Disability and Aged Care (SDAC).

**At 31 December 2019,  
62% of NDIS participants were  
male and 37% were female.**

<sup>3</sup> 1% of participants had an indeterminate gender or their gender was not recorded.

# Key findings (2)

Overall gender ratios are impacted by the age and disability mix in the NDIS population and introduce bias in comparisons to other populations.

Age standardisation has been applied to the SDAC Tier 3 population to provide a more direct comparison with the NDIS. The results are used to gauge the extent to which the high proportion of males in the NDIS is explained by age.

After standardising to the NDIS age distribution, the ratio of males to females in SDAC Tier 3 population is 1.61 which is close to the NDIS ratio of 1.70.<sup>4</sup>

The remaining discrepancy has not been investigated but it is noted that the eligibility criteria of the NDIS is not identical to the profile of the SDAC Tier 3 population.

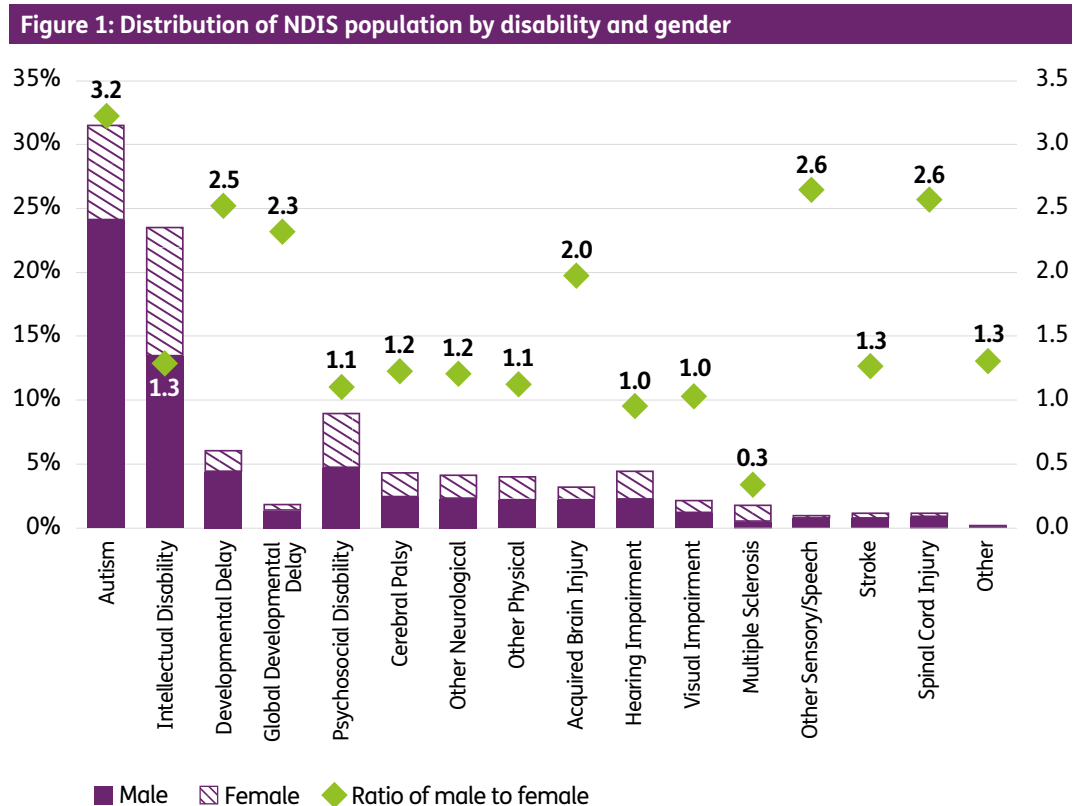
**In summary, the high male to female ratio across NDIS participants is due to the relatively high proportion of children entering the Scheme. The most common disability types at younger ages are autism and developmental delay, which are far more prevalent in males than females.**

<sup>4</sup> The male to female ratio for the SDAC Tier 3 disability population, before standardising to the NDIS age distribution, is lower at 1.45.

# NDIS participants by disability and gender

The ratio of male to female NDIS participants was 1.7 as at 31 December 2019, for ages 0 to 64.<sup>5</sup>

Figure 1 sets out the distribution of Scheme participants by primary disability and gender, and also includes the males to female ratio for each disability type.<sup>6,7</sup>



<sup>5</sup> Ages 65 and over have been excluded.

<sup>6</sup> Participants with an indeterminate gender have been excluded from this analysis. At 31 December 2019, the gender of 1% of participants was reported as 'Other'. This includes where gender was not recorded.

<sup>7</sup> Down Syndrome is included in Intellectual Disability.

# Male to female ratios for disability types

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## Autism

is the most common primary disability type of NDIS participants. There are **3.2** times the number of male participants with autism compared with females.

## Intellectual disability

is the second most common primary disability type. It also has a clear bias towards males, with **1.3** times the number of male participants compared with females. Some of this difference is driven by participants having both autism and intellectual disability, noting that the prevalence of autism is higher for males than females.<sup>8</sup>

## Developmental delay and global developmental delay

which primarily relate to children, have male to female ratios of **2.5** and **2.3** respectively.

## Acquired brain injury (ABI) and spinal cord injury (SCI)

are smaller groups as a percentage of total Scheme participants. However, males are over-represented in these categories as well. This is consistent with accident compensation schemes where rates of injury are higher in males compared with females.

<sup>8</sup> Across all participants with a primary disability of intellectual disability, 11% also have autism as a secondary disability. For that group, the ratio of males to females is 2.4.

# Male to female ratios by age

The ratio of males to females in the NDIS is highest at young ages. This is driven by autism, developmental delay and intellectual disability which are more prevalent in male children compared with females.

The same trend of higher male to female ratios at young ages is evident in other disability populations including the SDAC.

Note the ratio for the general population is close to parity for all age groups analysed.

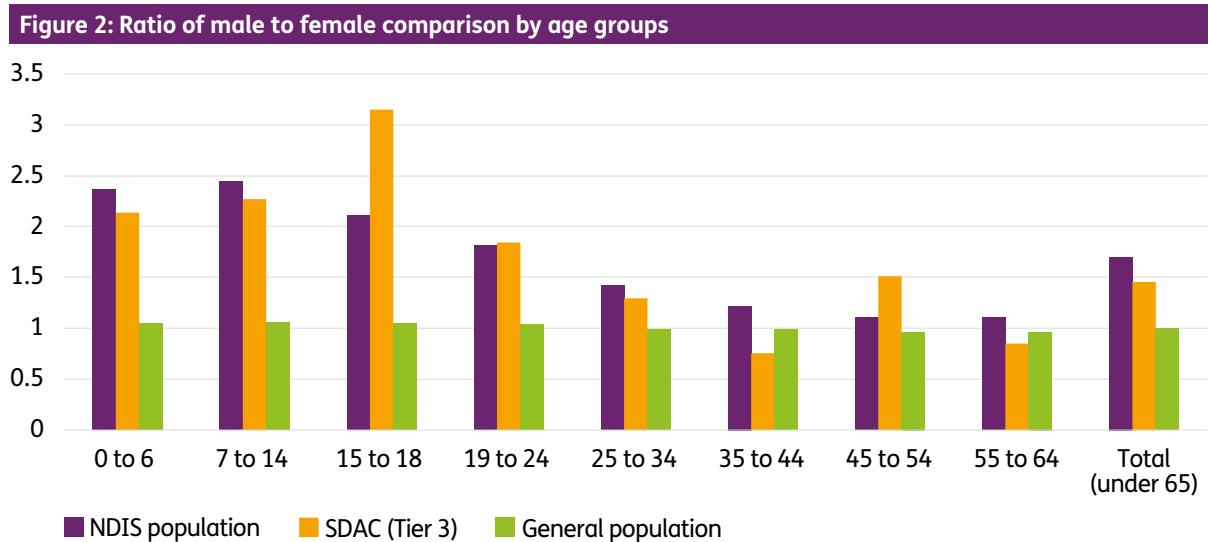


Figure 2 shows the male to female ratios by age for the NDIS population compared with the ‘Tier 3 disability population’ from the SDAC<sup>9</sup> and also the general population.

For the SDAC Tier 3 population, the overall ratio of male to female is 1.45 compared with 1.70 for NDIS participants. Although the NDIS ratio is higher, in both cases, the overall predominance of males is driven by the high ratios at younger ages.

<sup>9</sup> ‘Tier 3 disability population’ from the Survey of Disability and Aged Care (SDAC) are people with significant and enduring support needs who would be eligible for individualised support. This is the SDAC grouping most closely aligned to the eligibility criteria of the NDIS, as defined in the original Productivity Commission costings for the NDIS.



# Age mix in the NDIS and the impact on male to female ratios

- With a focus on Early Intervention, the NDIS has a high proportion of participants at young ages. **41%** of NDIS participants under 65 are aged 0 to 14 years, compared with **29%** in the SDAC Tier 3 population (and **22%** in the general population).
- This difference in age distribution, combined with the prevalence of certain disability types in children, is a key driver of the ratio of males to females in the NDIS being high relative to other disability populations.

**Hence, overall gender ratios are impacted by the age and disability mix in the NDIS population and introduce bias in comparisons to other populations.**

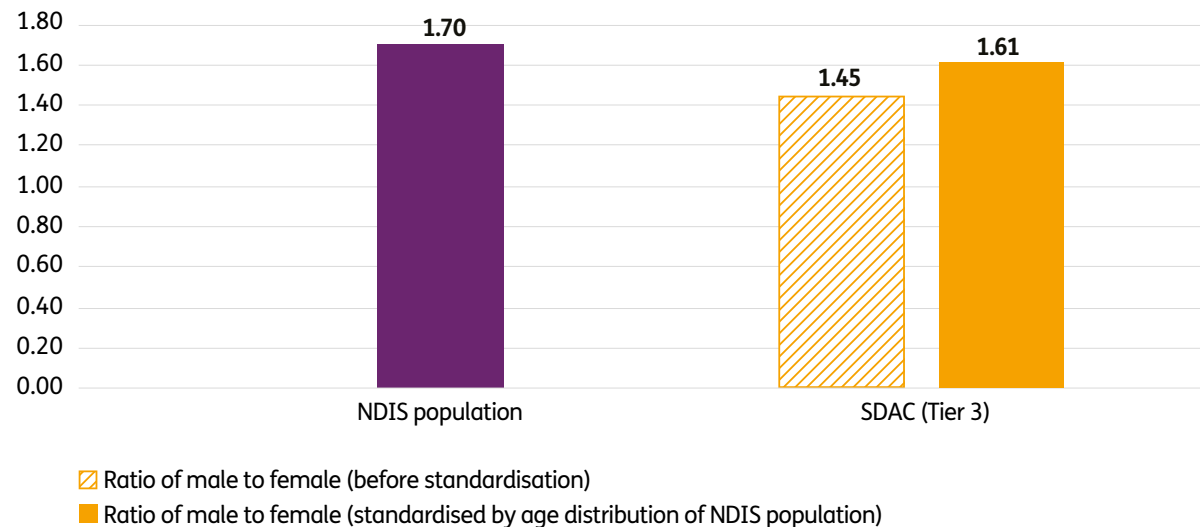
- **Age standardisation** has been used to allow for this bias.
  - In order to gauge the extent to which the high proportion of males in the NDIS is explained by age, the SDAC Tier 3 population has been standardised to the age distribution of the NDIS population (aged 0 to 64 years and excluding indeterminate gender) at 31 December 2019, while retaining the same gender mix across each age group.
  - The male to female ratios for SDAC Tier 3 is then recalculated and compared with the NDIS profile.
  - In simple terms, age standardisation tells us what the male to female ratio of the SDAC Tier 3 population would be if 41% of the group was aged 0 to 14 years, thus providing a more direct comparison with the NDIS male to female ratio.

# Male to female ratios standardised for age

After standardising to the NDIS age distribution, the ratio of males to females in SDAC Tier 3 population increases from **1.45** to **1.61**. This confirms that there is a strong relationship between gender and age mix.

As shown in Figure 3, the age standardised male to female ratio of 1.61 for the SDAC Tier 3 population is close to the NDIS ratio of 1.70. The remaining discrepancy has not been investigated. However, it is important to note that the eligibility criteria of the NDIS is similar but not identical to the Tier 3 definition and so differences between the populations are to be expected, including the gender mix.

**Figure 3: Ratio of male to female comparison before and after age standardisation**



**In summary, the results of this analysis indicate that the high male to female ratio across NDIS participants is due to the relatively high proportion of children entering the Scheme. The most common disability types at younger ages are autism and developmental delay, which are far more prevalent in males than females.**

# Appendix

## Detailed results (1)

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In these detailed results, the NDIS population is compared with the general population as well as three distinct population groups available from the 2015 Survey of Disability and Aged Care (SDAC):

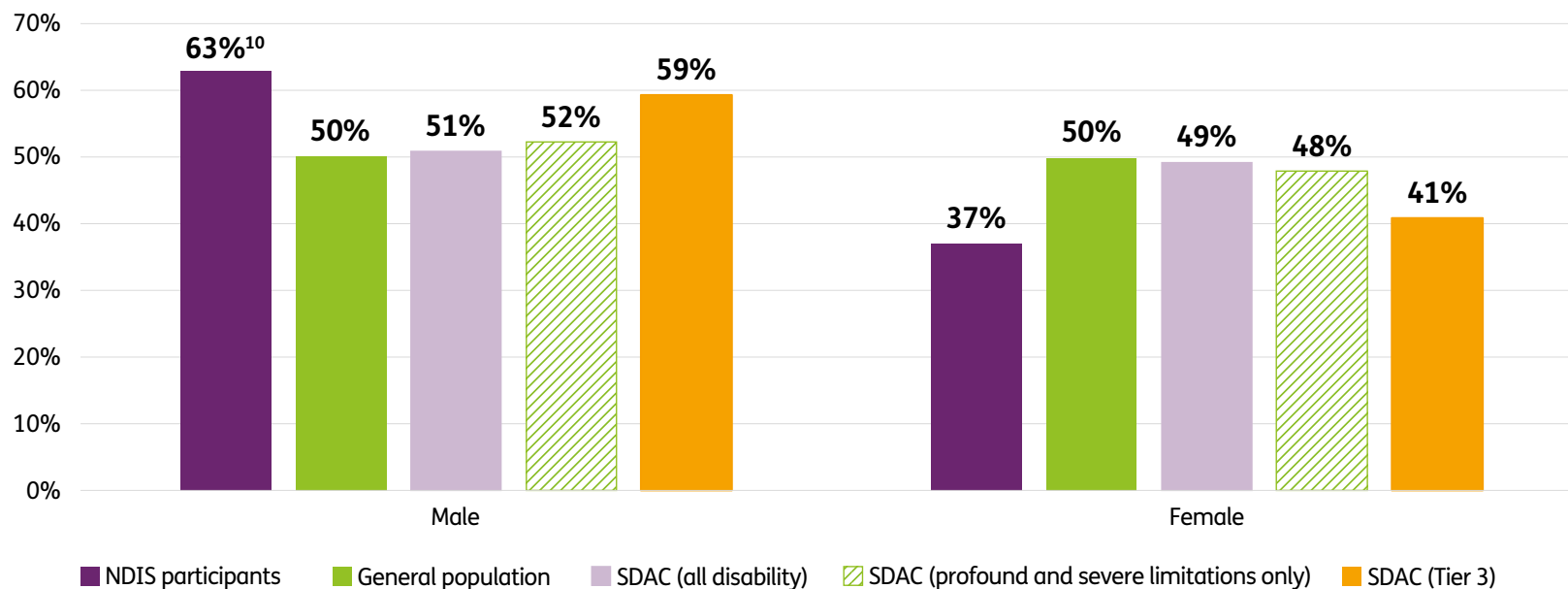
- all people with a disability
- people with a profound and/or severe core activity limitation only, and
- “Tier 3 disability population”, which are people with significant and enduring support needs who would be eligible for individualised support.

The SDAC Tier 3 population is most closely aligned to the eligibility criteria of the NDIS, and was used as the basis of the original Productivity Commission costings for the NDIS. Hence, it is used as the comparative disability population in the main report.

# Appendix

## Detailed results (2)

Figure 4: Gender distribution of NDIS population (under 65 and excluding indeterminate gender) compared to general and SDAC population

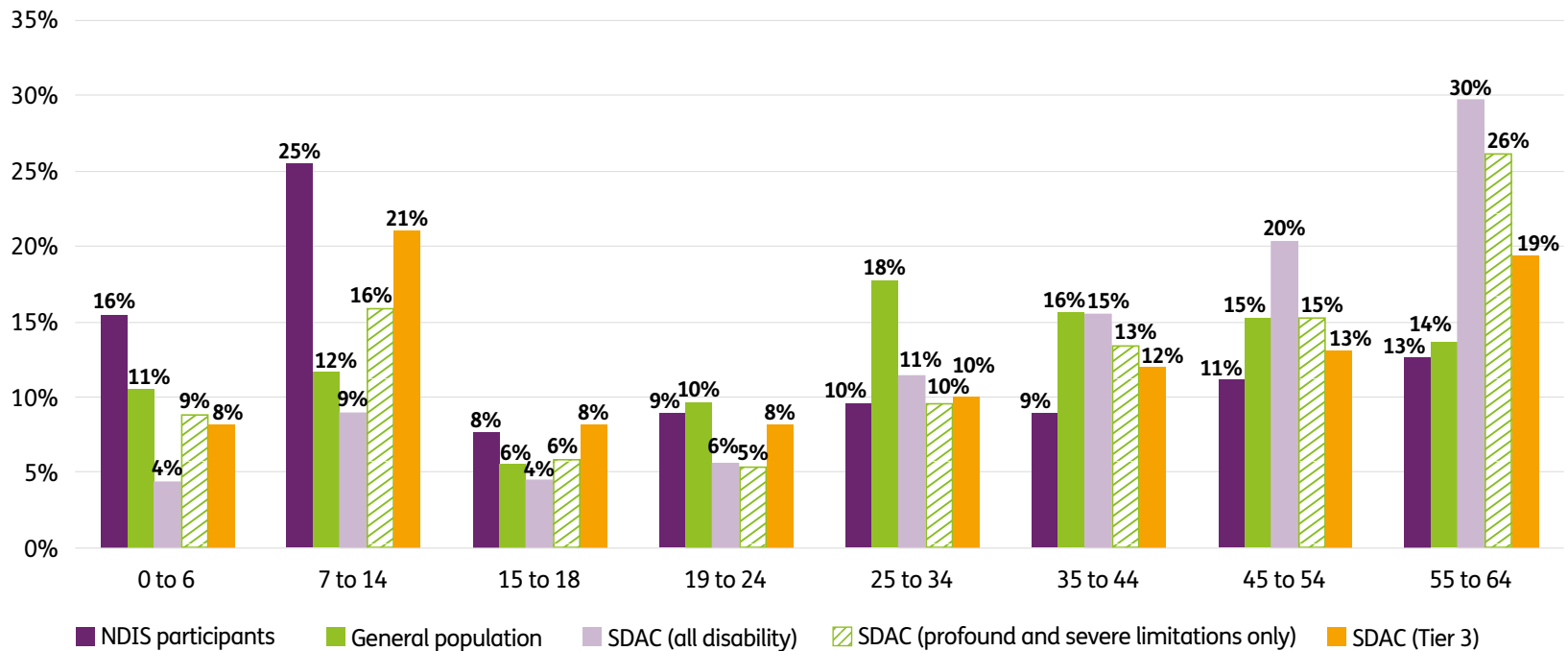


<sup>10</sup> 63% is the proportion of male NDIS participants after excluding participants with indeterminate gender. When those with indeterminate gender are included the proportion of males is 62%.

# Appendix

## Detailed results (3)

Figure 5: Age distribution of NDIS population (under 65 and excluding indeterminate gender) compared to general and SDAC population



# Appendix

## Detailed results (4)

Figure 6: Distribution of NDIS population (excluding indeterminate gender) by disability and gender

Disability group	Gender		Total	Ratio of male to female
	Male	Female		
Autism	24%	7%	<b>32%</b>	3.23
Intellectual Disability	12%	9%	<b>20%</b>	1.34
Developmental Delay	4%	2%	<b>6%</b>	2.53
Global Developmental Delay	1%	1%	<b>2%</b>	2.32
Down Syndrome	2%	1%	<b>3%</b>	1.20
Psychosocial disability	5%	4%	<b>9%</b>	1.09
Cerebral Palsy	2%	2%	<b>4%</b>	1.23
Other Neurological	2%	2%	<b>4%</b>	1.21
Other Physical	2%	2%	<b>4%</b>	1.13
ABI	2%	1%	<b>3%</b>	1.97
Hearing Impairment	2%	2%	<b>4%</b>	0.96
Visual Impairment	1%	1%	<b>2%</b>	1.04
Multiple Sclerosis	0%	1%	<b>2%</b>	0.35
Other Sensory/Speech	1%	0%	<b>1%</b>	2.62
Stroke	1%	1%	<b>1%</b>	1.28
Spinal Cord Injury	1%	0%	<b>1%</b>	2.55
Other	0%	0%	<b>0%</b>	1.28
<b>Total (under 65)</b>	<b>63%</b>	<b>37%</b>	<b>100%</b>	<b>1.70</b>

Figure 7: Distribution of SDAC population (all disability) by disability and gender

Disability group	Gender		Total	Ratio of male to female
	Male	Female		
Autism	4%	1%	<b>5%</b>	4.26
Intellectual Disability <sup>11</sup>	2%	2%	<b>5%</b>	1.19
Psychosocial disability	1%	1%	<b>2%</b>	1.34
Cerebral Palsy	0%	0%	<b>1%</b>	1.40
Other Neurological	3%	3%	<b>5%</b>	1.03
Other Physical	15%	17%	<b>32%</b>	0.90
ABI	1%	0%	<b>1%</b>	2.07
Hearing Impairment	3%	2%	<b>5%</b>	1.65
Visual Impairment	1%	1%	<b>2%</b>	0.93
Multiple Sclerosis	0%	0%	<b>0%</b>	0.35
Other Sensory/Speech	1%	1%	<b>2%</b>	2.47
Stroke	1%	0%	<b>1%</b>	1.85
Spinal Cord Injury	1%	0%	<b>1%</b>	1.34
Other	18%	21%	<b>39%</b>	0.85
<b>Total (under 65)</b>	<b>51%</b>	<b>49%</b>	<b>100%</b>	<b>1.03</b>

<sup>11</sup> Intellectual disability as reported in SDAC data includes developmental delay and global developmental delay as well as Down syndrome.

# Appendix

## Detailed results (5)

Figure 8: Distribution of SDAC population (profound and severe) by disability and gender

Disability group	Gender		Total	Ratio of male to female
	Male	Female		
Autism	9%	3%	<b>12%</b>	3.49
Intellectual Disability	5%	4%	<b>9%</b>	1.13
Psychosocial disability	1%	2%	<b>3%</b>	0.95
Cerebral Palsy	1%	1%	<b>2%</b>	1.35
Other Neurological	3%	3%	<b>6%</b>	1.05
Other Physical	10%	14%	<b>24%</b>	0.76
ABI	1%	1%	<b>2%</b>	1.94
Hearing Impairment	1%	1%	<b>1%</b>	1.10
Visual Impairment	1%	1%	<b>2%</b>	0.55
Multiple Sclerosis	0%	1%	<b>1%</b>	0.45
Other Sensory/Speech	2%	1%	<b>3%</b>	3.84
Stroke	1%	0%	<b>2%</b>	3.77
Spinal Cord Injury	0%	0%	<b>1%</b>	0.98
Other	14%	17%	<b>31%</b>	0.84
<b>Total</b>	<b>52%</b>	<b>48%</b>	<b>100%</b>	<b>1.09</b>

Figure 9: Distribution of SDAC population (Tier 3) by disability and gender

Disability group	Gender		Total	Ratio of male to female
	Male	Female		
Autism	20%	5%	<b>25%</b>	4.25
Intellectual Disability	12%	11%	<b>23%</b>	1.15
Psychosocial disability	1%	1%	<b>2%</b>	1.06
Cerebral Palsy	2%	1%	<b>3%</b>	1.43
Other Neurological	7%	9%	<b>16%</b>	0.85
Other Physical	6%	7%	<b>12%</b>	0.84
ABI	4%	2%	<b>6%</b>	1.75
Hearing Impairment	1%	0%	<b>1%</b>	1.78
Visual Impairment	0%	1%	<b>1%</b>	0.49
Multiple Sclerosis	1%	2%	<b>3%</b>	0.35
Other Sensory/Speech	2%	0%	<b>2%</b>	4.53
Stroke	3%	1%	<b>4%</b>	2.07
Spinal Cord Injury	1%	1%	<b>1%</b>	0.96
Other	0%	0%	<b>0%</b>	-
<b>Total</b>	<b>59%</b>	<b>41%</b>	<b>100%</b>	<b>1.45</b>

# Appendix

## Detailed results (6)

Figure 10: Male to female ratios by age groups and standardisation

Age group	NDIS population	SDAC (all disability)	SDAC (profound and severe limitation only)	SDAC (Tier 3 only)
0 to 6	2.36	1.99	1.80	2.14
7 to 14	2.44	1.81	2.26	2.27
15 to 18	2.11	1.30	2.00	3.15
19 to 24	1.81	1.12	1.18	1.84
25 to 34	1.42	0.97	0.86	1.29
35 to 44	1.22	0.88	0.71	0.75
45 to 54	1.10	0.90	0.84	1.51
55 to 64	1.10	0.93	0.83	0.85
<b>Total (before standardisation)</b>	<b>1.70</b>	<b>1.03</b>	<b>1.09</b>	<b>1.45</b>
<b>Total (after standardisation)</b>	<b>1.70</b>	<b>1.28</b>	<b>1.30</b>	<b>1.61</b>





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