

# **Māori Health**

# **Disability Statistical Report**

August 2019

<b>RECEIVED</b>
Waitangi Tribunal
<b>12 Aug 2019</b>
Ministry of Justice WELLINGTON

## Māori Health Disability Statistical Report

---

### Acknowledgements

The authors of this report are from the Māori Health Research team (Peter Himona, Natalie Talamaivao, Li-Chia Yeh, and Kirk Paterson) of the Māori Health Directorate within the Ministry of Health.

The project team is extremely thankful to Claimants, particularly Kāpō Māori Aotearoa (Ngāti Kāpō), for contributing to this report.

The authors would also like to acknowledge the numerous people who provided data and advice throughout the development of the report, and the peer reviewers: Christopher Carroll, Denise Hutana, Laura Cleary and Shari Mason from the Ministry of Health, and Dr Tristram Ingham - Senior Research Fellow from the University of Otago, Wellington.

From Stats NZ, Phillipa O'Brien and Andrew McLaren also provided advice, data, and a PowerPoint showing how the Stats NZ Disability Surveys have changed since 1996.

## Contents

Acknowledgements	3
Summary	4
Introduction	5
Method	6
Results	9
Discussion	15
Conclusion	17
Glossary	17
<b>Appendix 1: Findings from the 1996 Stats NZ Disability Survey</b>	<b>22</b>
Key findings from the 1996 Stats NZ Disability Survey:	22
Prevalence of disability among the total population	22
Type of impairment for disabled people	23
Cause of impairment for disabled people	26
Presence of multiple impairments for disabled people	29
Unmet need for special equipment for disabled people	30
Unmet need for health professionals for disabled people	30
Labour force status for disabled and non-disabled people	31
Personal income status for disabled and non-disabled people	31
Education status for disabled and non-disabled people	32
Deprivation status for disabled and non-disabled people	33
<b>Appendix 2: Findings from the 2001 Stats NZ Disability Survey</b>	<b>34</b>
Key findings from the 2001 Stats NZ Disability Survey:	34
Prevalence of disability among the total population	35
Type of impairment for disabled people	36
Cause of impairment for disabled people	39
Presence of multiple impairments for disabled people	42
Unmet need for special equipment for disabled people	43
Unmet need for health professionals for disabled people	44
Labour force status for disabled and non-disabled people	45
Personal income status for disabled and non-disabled people	46

Education status for disabled and non-disabled people	47
Deprivation status for disabled and non-disabled people	48
<b>Appendix 3: Findings from the 2006 Stats NZ Disability Survey</b>	<b>49</b>
Key findings from the 2006 Stats NZ Disability Survey:	49
Prevalence of disability among the total population	49
Type of impairment for disabled people	50
Cause of impairment for disabled people	54
Presence of multiple impairments for disabled people	57
Unmet need for special equipment for disabled people	58
Unmet need for health professionals for disabled people	58
Labour force status for disabled and non-disabled people	59
Personal income status for disabled and non-disabled people	59
Education status for disabled and non-disabled people	60
Deprivation status for disabled and non-disabled people	61
<b>Appendix 4: Findings from the 2013 Stats NZ Disability Survey</b>	<b>62</b>
Key findings from the 2013 Stats NZ Disability Survey:	62
Prevalence of disability among the total population	63
Type of impairment for disabled people	63
Cause of impairment for disabled people	67
Presence of multiple impairments for disabled people	70
Unmet need for special equipment for disabled people	71
Unmet need for health professionals for disabled people	71
Labour force status for disabled and non-disabled people	72
Personal income status for disabled and non-disabled people	73
Education status for disabled and non-disabled people	74
Deprivation status for disabled and non-disabled people	74
<b>Appendix 5: Integrated Data Infrastructure (IDI) data</b>	<b>76</b>
Analysing the Blind foundation membership data	76
Analysing the SOCRATES (visual impairment) and Blind Foundation data	77
Analysing the 2013 Stats NZ Disability Survey – adults	83
Analysis with regards to disabled children (aged 0–14 years)	84
Disclaimer of using the IDI data from SNZ	89
<b>Appendix 6: Ministry of Health – SOCRATES data</b>	<b>90</b>
<b>Appendix 7: Ministry of Health - PRIMHD data</b>	<b>93</b>
<b>Appendix 8: Ministry of Health - Spina bifida data</b>	<b>95</b>

## **Māori Health Disability Statistical Report**

---

Appendix 9: District Health Board - Ophthalmology data	97
Appendix 10: District Health Board - Paediatric Services data	102
Appendix 11: Stats NZ Disability Survey developments and changes	106
Appendix 12: Stats NZ PowerPoint: 2013 Disability Survey - How the survey has changed since 1996	108
Appendix 13: Meeting notes: Ministry of Health and Claimants	115
References	117

### Summary

A priority for this report is to compare results for disabled Māori to disabled non-Māori over time. One source of data was found which meets much of the requirements of this project (see purpose) - Stats NZ's Disability Surveys of 1996, 2001, 2006 and 2013. These surveys provide a picture of disability at a point in time – the survey year. Differences in methodologies mean these surveys are not comparable to each other or over time (see the section *Stats NZ Disability Survey developments and changes* later in the report). Therefore we were unable to determine if Māori disability rates have increased or decreased over time.

It is evident from the four Disability Surveys that Māori continue to have higher disability prevalence rates than non-Māori. However, these higher rates are not always reflected when data is disaggregated by other variables such as by cause or type of impairment.

The standard output from Stats NZ's 2013 survey did contain some comparisons between disabled Māori and non-Māori (pages 9 and 10<sup>1</sup>), and - *He hauā Māori: Findings from the 2013 Disability Survey*<sup>2</sup> compares results for disabled Māori to non-disabled Māori. Overall, there was very little standard output from Stats NZ which compared results for disabled Māori to disabled non-Māori.

Other datasets, for example SOCRATES (the Disability Support Services client database) and Blind Foundation data, provide information on disabled people - but only for a subset who qualify for funding - in the case of SOCRATES, or membership - in the case of the Blind Foundation. When looking at these datasets we have provided information on the percentage of Māori accessing these services and compared these results to the percentage of non-Māori accessing the same services. These datasets do not measure disability but can be used as an indicator to measure Māori access to services and determine if access has increased or decreased relative to non-Māori. Results highlighted that disabled Māori have had increasing access to services such as Mental Health and Disability Support Services, but these improvements were not reflected in appointments for ophthalmology or pediatric services at District Health Boards.

Comparing results for disabled Māori to other ethnic groups was problematic due to results having large variances because of low numbers. When working in the Integrated Data Infrastructure (IDI) working with low numbers and the rounding technique used by Stats NZ to maintain confidentiality was also problematic.

Stats NZ's Disability Survey, will again be held in 2023 and every 10 years thereafter.

Stats NZ introduced the Washington Group Short Set questions to various surveys and the 2018 Census to provide a better understanding of outcomes for disabled people in New Zealand. This set of questions is not intended to provide the over-arching view the Disability Survey provides. The Ministry of Health introduced the Washington Group Short Set questions to the 2018/19 and 2019/20 New Zealand Health Surveys.

---

<sup>1</sup>[http://archive.stats.govt.nz/browse\\_for\\_stats/health/disabilities/DisabilitySurvey\\_HOTP2013/Data%20Quality.aspx?\\_ga=2.138241008.1704443769.1548987388-1245016373.1548987388#06survey](http://archive.stats.govt.nz/browse_for_stats/health/disabilities/DisabilitySurvey_HOTP2013/Data%20Quality.aspx?_ga=2.138241008.1704443769.1548987388-1245016373.1548987388#06survey)

<sup>2</sup> [http://archive.stats.govt.nz/browse\\_for\\_stats/health/disabilities/He-haua-maori-findings-from-2013-disability-survey.aspx](http://archive.stats.govt.nz/browse_for_stats/health/disabilities/He-haua-maori-findings-from-2013-disability-survey.aspx)

# Māori Health Disability Statistical Report

---

The Ministry of Health developed *Whāia Te Ao Mārama 2018 to 2022: The Māori Disability Action Plan* to address the difficulties faced by disabled Māori, working off the foundation set by its predecessor of the same name to improve inequities present in the disability sector.

## Introduction

Disability data is a key priority of the *New Zealand Disability Strategy 2016-2026*<sup>3</sup> from the Office for Disability Issues and *Whāia Te Ao Mārama 2018 to 2022: The Māori Disability Action Plan* from the Ministry of Health.

As a result of the Crown commissioning this report<sup>4</sup>, discussions with Claimants resulted in the below scope being developed:

*The Māori Health Disability Statistical Report seeks to provide disability information for Māori over time, associated with various health conditions and risk factors to better understand disability and how it affects people with those conditions and risk factors.*

This report will be used by the Waitangi Tribunal in stage two of the Health Services and Outcomes Inquiry. The inquiry will hear all claims concerning grievances relating to health services and outcomes of national significance.

The priority of the report is to provide insights into the disabled Māori population and how it has changed over time compared to disabled non-Māori. Challenges faced when identifying and providing disability information was also identified as a priority.

Visually impaired people were highlighted as a focus area for the report. SOCRATES and Blind foundation data were used to represent this group. Other datasets which are reported on are: the Stats NZ 2013 adult and children Disability Surveys, District Health Board Ophthalmology and paediatric services data, spina bifida data, and low vision and or hearing loss identified in B4 School checks and then identifying if follow ups at DHB Ophthalmology Clinics and Audiology Clinics. To cover a wider range of disability - data from the 1996, 2001, 2006 and 2013 Stats NZ Disability Surveys was obtained covering 10 indicators which were asked in each of the surveys.

From the research into the above datasets the following observations emerged:

- Stats NZ Disability Surveys were the best source of data to measure disability in its entirety
- methodologies from these surveys were not consistent over time so survey results were not comparable over time
- a baseline could not be established
- working in the IDI is challenging due to working with small numbers and rounding techniques required to ensure confidentiality
- the delay of 2018 Census results meant the results from the Washington Group Short Set questions<sup>5</sup> (See explanation in 'Method' for detail) could not be used

---

<sup>3</sup> <https://www.odi.govt.nz/nz-disability-strategy/about-the-strategy/new-zealand-disability-strategy-2016-2026/>

<sup>4</sup> MEMORANDUM-DIRECTIONS OF JUDGE S R Clark CONCERNING PRIORTIES FOR STAGE TWO INQUIRY AND RESEARCH, 28 June 2018

<sup>5</sup> <https://www.stats.govt.nz/methods/improving-new-zealand-disability-data>

## Māori Health Disability Statistical Report

---

- other datasets (eg, SOCRATES, ophthalmology data) provide an indication of access to these services – even if they do not measure disability in its entirety
- confidence intervals (see Glossary for more information) were added to provide a measure of reliability.

## Method

### **Stats NZ Disability Surveys were the best source of data to measure disability in its entirety**

Discussion with subject experts in the Ministry and Stats NZ, made it clear that Stats NZ's Disability Surveys were the best source of statistics to measure disability in its entirety. There are many reports on disability but they typically focus on a subset of the disabled population. For example the Ministry's *Demographic Report on Clients Allocated the Ministry of Health's Disability Support Services as at September 2016*<sup>6</sup> reports on the almost 34,000 clients of which 5,920 were Māori.

The Stats NZ surveys questions and methods have changed over time. Examples include:

- collection methods (1996 and 2001, paper; 2006 and 2013, electronic)
- sample sizes (1996 and 2013, 20,000; 2001 and 2006 , 40,000)
- differences in Māori oversampling (1996 - no oversampling; 2001 and 2006 - 10,000; 2013 - 2,000).

Consideration was given to commissioning Stats NZ to repeat the report *Disability and Māori in New Zealand in 2006 Results from the New Zealand Disability Survey*. It provides information on a wide range of topics including some data comparing results for disabled Māori to disabled non-Māori. The Ministry did not commission a repeat due to costs and comparability issues between surveys.

The cost to purchase the 10 tables included in this report was \$3,100 (plus GST). An additional \$1,395 (plus GST) was paid to purchase confidence intervals for rates applying to the 10 tables.

### **A baseline could not be established**

A baseline is a line of data from which improvement is judged or compared. Ideally, survey methods should be the same to enable comparisons between surveys along the baseline. With different methods applied for different surveys, comparisons between surveys are not recommended.

In Stats NZ's Technical notes from the 2006 Disability Survey release it reports:

*"Strong caution should be exercised when comparing the 2006 disability rate with disability rates from previous surveys, particularly for the adult household rate. The apparent decrease in disability rates does not appear to be caused by a reduction in any one type or cause of*

---

<sup>6</sup> <https://www.health.govt.nz/publication/demographic-report-clients-allocated-ministry-healths-disability-support-services-september-2016>

*disability but occurs across disability types and causes. The decrease is also evident by sex and ethnic group.”*

### ***Working in the IDI is challenging due to working with small numbers and rounding techniques required to ensure confidentiality***

In the IDI the following datasets were analysed:

- Adults (aged 25 years and over) identified from the SOCRATES (visual impairment only) and Blind Foundation datasets were linked to the 2013 Census dataset which provides socio-economic status information, and various Ministry of Health and DHB datasets which provide health outcomes (cancer registration, chronic condition, hospital discharge datasets, and DHB ophthalmology clinics datasets)
- Children (aged 0 to 14 years) identified from the SOCRATES (visual impairment only) and Blind Foundation datasets were linked to DHB ophthalmology clinic datasets
- Adults identified in the 2013 Stats NZ Disability Survey were linked to various Ministry of Health datasets (cancer registration dataset, chronic condition dataset, and public hospital discharges)
- Children aged 0 to 14 years identified in the 2013 Stats NZ Disability Survey were linked to DHB Ophthalmology clinic datasets
- Children identified in the B4 School Check vision and hearing tests as requiring a full assessment were linked to DHB Ophthalmology and Audiology clinic datasets.

The main challenges identified in the above analysis in the IDI were centred on delays and technical issues.

*Delays* - It can take time for new datasets to be loaded in the IDI. Possible delays include waiting time for the datasets to be loaded (Blind Foundation data), applying for access to data in the IDI, IDI data lab closures, IT issues (relocation of the project folder) and the output checking time and sometimes re-submission and re-checking.

It took 5 months to load the Blind Foundation data into the IDI because of prioritised Census 2018 work, and negotiating access only for Ministry staff for this dataset. One of the conditions of obtaining Blind Foundation data was that the data would only be accessed by the Ministry of Health. This required Stats NZ to deter from its standard policy which allows all IDI users to have access to datasets loaded in the IDI.

*Technical issues* – Linking. Not all records in the datasets used for analysis could be linked to other datasets. Sometimes as much as 18 percent of records could not be linked. It could be because those people did not fill out the Census forms or due to linking issues caused by poor data quality (for example, they provided different names in different datasets).

Random rounding – Stats NZ requires results to be randomly rounded before age-standardised rates and ratios are calculated. Because some results from linking disability data are low this can lead to misleading results – because rounded results can be quite different to actual results when working with low numbers.

### ***The delay of 2018 Census results meant the results from the Washington Group Short Set of disability questions could not be used***

The Stats NZ paper *Improving New Zealand disability data* has the following explanation of what the Washington Group Short Set of disability questions are:

*"The Washington Group Short Set (WGSS) is a set of six questions on functioning difficulties and activity limitations. It was developed for inclusion in population censuses and in surveys where only a small number of questions can be used. It is based on the ICF and was designed with a specific purpose in mind<sup>7</sup>."*

At the beginning of this project the 2018 Census data from the Washington Group questions were identified as an opportunity to identify large numbers of disabled people to enable robust analysis. Large numbers would present better results as more people could be successfully linked to other datasets. Unfortunately the delays to the 2018 Census mean we were not able to use these questions in our analysis.

***Exploring other datasets was useful (SOCRATES, ophthalmology data) as these gave an indication of access to these services – even if they did not measure disability in its entirety.***

Due to the comparability issues we investigated other datasets (eg, SOCRATES and ophthalmology data) to see if changes in disability rates can be measured over time. All datasets used for analysis in this report were either requested by Claimants or included by the Ministry as they matched the topics Claimants requested. For datasets other than SNZ disability data, for example where appointments are measured, two methods are used. Firstly the percentage of Māori and non-Māori as a percent of total appointments made is shown. The second method shows the percentage of Māori (and non-Māori) as a rate per 100,000 of the estimated total Māori (and non-Māori) population.

There are many datasets which measure disability that could be analysed in this way. A report by Stats NZ *A stocktake of government data on disabled people*<sup>8</sup> lists many of them.

***Confidence intervals were added to this analysis making analysis more technical.***  
Stats NZ does not publish confidence intervals (see the definition in Glossary for and explanation of a confidence interval). They are available as a customised request from Stats NZ.

Confidence intervals were included where available to allow testing for significant differences between disabled Māori and other groups. Confidence intervals were not available for the 1996 Disability Survey results.

---

<sup>7</sup> <https://www.stats.govt.nz/methods/improving-new-zealand-disability-data>

<sup>8</sup> <https://www.odi.govt.nz/guidance-and-resources/improving-information-about-disabled-people/>

## Results

### Stats NZ Disability Survey

Below are results from the 1996, 2001, 2006 and 2013 Stats NZ Disability Surveys. It is evident from these surveys that Māori continue to have higher disability prevalence rates than non-Māori. However, these higher rates are not always reflected when data is disaggregated by other variables such as by cause or type of impairment.

#### *Key findings from the 1996 Stats NZ Disability Survey:*

These findings are statistically significant:

- 18 percent of Māori were disabled, greater than the 14 percent of non-Māori (age standardised rates)
- 18 percent of Māori males were disabled, greater than the 15 percent for non-Māori males (age standardised rates)
- 19 percent of Māori females were disabled, greater than the 14 percent for non-Māori females (age standardised rates).

#### *Key findings from the 2001 Stats NZ Disability Survey:*

These findings are statistically significant:

- 20 percent of Māori were disabled, greater than the 14 percent of non-Māori (age standardised rates)
- 20 percent of Māori males were disabled, greater than the 15 percent for non-Māori males (age standardised rates)
- 21 percent of Māori females were disabled, greater than the 14 percent for non-Māori females (age standardised rates)
- 14 percent of Māori aged 0 to 14 years were disabled, greater than the 10 percent of non-Māori in the same age group
- 22 percent of Māori aged 25 to 44 years were disabled, greater than the 14 percent of non-Māori in the same age group
- 34 percent of Māori aged 45 to 64 years were disabled, greater than the 25 percent of non-Māori in the same age group
- 54 percent of disabled Māori had physical impairment, less than the 63 percent of disabled non-Māori with the same impairment
- 9 percent of disabled Māori had intellectual impairment, greater than the 6 percent of disabled non-Māori with the same impairment
- 22 percent of disabled Māori had psychiatric / psychological impairment, greater than the 16 percent of disabled non-Māori with the same impairment
- 44 percent of disabled Māori aged 25 to 44 years had an unmet need for special equipment, greater than the 26 percent of disabled non-Māori in the same age group.
- 41 percent of disabled Māori aged 65 years and over had an unmet need for special equipment, greater than the 28 percent of disabled non-Māori in the same age group.
- 21 percent of disabled Māori males had an unmet need to access a health professional, greater than the 14 percent of disabled non-Māori males
- 27 percent of disabled Māori females had an unmet need to access a health professional, greater than the 15 percent of disabled non-Māori females
- 44 percent of disabled Māori were employed, greater than the 38 percent of disabled non-Māori, and less than the 64 percent of non-disabled Māori and 71 percent of non-disabled non-Māori

## Māori Health Disability Statistical Report

---

- 7 percent of disabled Māori were unemployed, greater than the 3 percent of disabled non-Māori, and 4 percent of non-disabled non-Māori
- 60 percent of disabled Māori had income of less than \$15,000, greater than the 44 percent of non-disabled Māori and 39 percent of non-disabled non-Māori
- 12 percent of disabled Māori had income between \$30,001 and \$50,000, less than the 18 percent of non-disabled Māori and 22 percent of non-disabled non-Māori
- 51 percent of disabled Māori had no education qualification, greater than the 37 percent of disabled non-Māori, 39 percent of non-disabled Māori, and 21 percent of non-disabled non-Māori
- 15 percent of disabled Māori had a post-school qualification at level 1 to 6, less than the 21 percent of disabled non-Māori, and 20 percent of non-disabled Māori
- 5 percent of disabled Māori lived in the lowest quintile deprivation areas (least deprived), less than the 19 percent of disabled non-Māori, 8 percent of non-disabled Māori and 25 percent of non-disabled non-Māori who lived in this quintile
- 47 percent of disabled Māori lived in the highest quintile deprivation areas (most deprived), greater than the 18 percent of disabled non-Māori and 14 percent of non-disabled non-Māori who lived in this quintile.

### *Key findings from the 2006 Stats NZ Disability Survey:*

These findings are statistically significant:

- 17 percent of Māori were disabled, greater than the 11 percent of non-Māori (age standardised rates)
- 17 percent of Māori males were disabled, greater than the 12 percent for non-Māori males (age standardised rates)
- 16 percent of Māori females were disabled, greater than the 10 percent for non-Māori females (age standardised rates)
- 16 percent of Māori aged 25 to 44 years were disabled, greater than the 9 percent of non-Māori in the same age group
- 27 percent of disabled Māori had birth as cause of impairment, greater than the 14 percent of disabled non-Māori with the same cause of impairment
- 9 percent of disabled Māori had ageing as cause of impairment, less than the 26 percent of disabled non-Māori with the same cause of impairment
- 40 percent of disabled Māori were employed, less than the 70 percent of non-disabled Māori, and 74 percent of non-disabled non-Māori
- 45 percent of disabled Māori had income of less than \$15,000, greater than the 29 percent of non-disabled non-Māori
- 50 percent of disabled Māori had no education qualification, greater than the 33 percent of non-disabled Māori and 19 percent of non-disabled non-Māori
- 42 percent of disabled Māori lived in the highest quintile deprivation areas (most deprived), greater than the 34 percent of non-disabled Māori who lived in this quintile.

### *Key findings from the 2013 Stats NZ Disability Survey:*

These findings are statistically significant:

- 24 percent of Māori were disabled, greater than the 16 percent of non-Māori (age standardised rates)
- 26 percent of Māori males were disabled, greater than the 16 percent for non-Māori males (age standardised rates)

- 22 percent of Māori females were disabled, greater than the 15 percent for non-Māori females (age standardised rates)
- 15 percent of Māori aged 0 to 14 years were disabled, greater than the 9 percent of non-Māori in the same age group
- 21 percent of Māori aged 15 to 24 years were disabled, greater than the 14 percent of non-Māori in the same age group
- 24 percent of Māori aged 25 to 44 years were disabled, greater than the 15 percent of non-Māori in the same age group
- 43 percent of Māori aged 45 to 64 years were disabled, greater than the 26 percent of non-Māori in the same age group
- 23 percent of disabled Māori had birth as cause of impairment, greater than the 12 percent of disabled non-Māori with the same cause of impairment
- 30 percent of disabled Māori aged 65 years and over had an unmet need for special equipment, greater than the 17 percent of disabled non-Māori in the same age group
- 37 percent of disabled Māori had income of less than \$15,000, greater than the 27 percent of disabled non-Māori and 26 percent of non-disabled non-Māori
- 31 percent of disabled Māori had income between \$15,001 and \$30,000, greater than the 22 percent of non-disabled Māori and 18 percent of non-disabled non-Māori
- 17 percent of disabled Māori had income between \$30,001 and \$50,000, less than the 22 percent of non-disabled non-Māori
- 9 percent of disabled Māori had income between \$50,001 and \$70,000, less than the 14 percent of non-disabled Māori and 16 percent of non-disabled non-Māori
- 41 percent of disabled Māori had no education qualification, less than the 31 percent of disabled non-Māori, 24 percent of non-disabled Māori, and 14 percent of non-disabled non-Māori with no education qualification
- 7 percent of disabled Māori lived in the lowest quintile deprivation areas (least deprived), less than the 21 percent of disabled non-Māori, 12 percent of non-disabled Māori, and 26 percent of non-disabled non-Māori who lived in this quintile
- 42 percent of disabled Māori lived in the highest quintile deprivation areas (most deprived), greater than the 18 percent of disabled non-Māori, 36 percent of non-disabled Māori, and 13 percent of non-disabled non-Māori, who lived in this quintile.

### ***Integrated Data Infrastructure (IDI) data***

Statistics New Zealand (SNZ) collects data from different agencies and store the data in the Integrated Data Infrastructure (IDI) Data Lab. Individual's data is linked either by a unique identifier (for example, the National Health Index (NHI) number in the health data) or by probabilistic linking method (linking based on key variables such as name, gender, and date of birth).

#### ***IDI - Blind Foundation membership data***

The Blind Foundation offers support to people who are blind or experiencing sight loss to help them face their future with confidence.

As at December 2017 the Blind Foundation had 5,499 members with valid National Health Index (NHI) numbers. NHI numbers are used as a linking tool in the IDI. Of these members, 537 (10 percent) were Māori, and 4,962 (90 percent) were non-Māori.

## Māori Health Disability Statistical Report

---

Apart from the 65 years and over age group (3 percent of Blind Foundation members in this age group identified as Māori compared to the 6 percent in the 2013 Census population), Māori membership is similar to the percentage of Māori in each age group identified by the 2013 Census and Disability Surveys.

### *IDI - Findings from the SOCRATES (visual impairment only) and Blind Foundation data*

The Blind Foundation membership data and visually impaired clients from SOCRATES data was joined to create a larger visually impaired group to analyse and provide insight. About 9200 records (no duplicates) from SOCRATES (visual impairment only) and Blind Foundation were uploaded into the IDI Data Lab, they were linked to the 2013 Census dataset, which provides socio-economic status information, and linked to the Ministry of Health cancer registration, chronic condition dataset, and hospital discharge dataset, which provide various health outcomes.

Key findings from the SOCRATES (visual impairment only) and Blind Foundation data analysis are:

- Less Māori (17 percent) aged between 25 and 64 years than non-Māori (25 percent).
- More Māori households (25 percent) was a one-parent family than non-Māori households (10 percent), and less Māori (13 percent) lived alone than non-Māori (29 percent)
- Less Māori (7 percent) have been diagnosed with cancer (any types) than non-Māori (13 percent)
- More Māori (20 percent) had diabetes than non-Māori (17 percent).
- Less Māori (8 percent) had coronary heart disease (CHD) than non-Māori (12 percent)
- Less Māori (3 percent) had acute myocardial infarction (AMI, or heart attack) than non-Māori (5 percent)
- Less Māori (19 percent) admitted to hospital due to unintentional injuries than non-Māori (21 percent) in 2012–14
- More Māori (7 percent) admitted to hospital due to motor vehicle accidents than non-Māori (4 percent) in 2012–14
- More Māori (7 percent) admitted to hospital due to diabetes than non-Māori (6 percent) in 2012–14
- Less Māori (2 percent) admitted to hospital due to high blood pressure/hypertensive disease than non-Māori (3 percent) in 2012–14
- Less Māori (0.7 percent) admitted to hospital due to suicide and self-harm than non-Māori (1 percent) in 2012–14
- Less Māori (0.4 percent) admitted to hospital due to ischaemic heart disease (IHD) than non-Māori (1 percent).

### *IDI - Findings from the 2013 adult Disability Survey*

The 2013 data (denominator) was linked to the Ministry of Health cancer registration dataset, chronic condition dataset, and public hospital discharge dataset (numerators) and age-standardised rates and rate ratios were calculated for different health conditions.

## Māori Health Disability Statistical Report

---

- Disabled Māori, aged 25 years and over, were more likely to have developed cancer (any types) than disabled non-Māori
- Māori females with or without disability were more likely to develop breast cancer than non-Māori females
- Disabled Māori, aged 25 years and over, were more likely to have chronic conditions such as cancer, diabetes, gout, stroke, and traumatic brain injury than disabled non-Māori
- In 2013, disabled Māori, aged 25 years and over, were more likely than disabled non-Māori to be admitted to hospital for diabetes, high blood pressure (hypertensive disease), ischaemic heart disease, and motor vehicle accidents.

### *IDI - Findings with regards to disabled children (aged 0–14 years)*

This analysis reports on appointments for Māori children with lived experience of low vision, blindness or hearing loss who were identified in B4 School checks and were then identified in follow ups at DHB Ophthalmology Clinics or Audiology Clinics.

Key findings from this analysis are:

- 84 percent of the disabled Māori children in the 2013 Disability Survey had attended their appointments at DHB paediatric outpatient clinics
- Between 2007 and 2017, 333 (26 percent of total children) Māori children with lived experience of low vision or blindness had attended their appointments at DHB Ophthalmology clinics
- Between 2007 and 2017, 399 (29 percent of the total children) Māori children with lived experience of low vision or blindness had attended their appointments at DHB paediatric clinics
- Between 2010 and 2017, 567 (20 percent of the total children) Māori children who required a referral for a full vision assessment after being screened by the B4 School Check vision test had attended their appointments at DHB Ophthalmology clinics
- Between 2010 and 2017, 2517 (31 percent of the total children) Māori children who required a referral for a full hearing assessment after being screened by the B4 School Check hearing test had attended their appointments at DHB Audiology clinics
- In 2016, less Māori children (80 percent) than non-Māori children (91 percent) who required a referral for a full vision assessment after being screened by the B4 School Check vision test had attended their appointments at DHB Ophthalmology clinics.

### **Ministry of Health - SOCRATES data**

SOCRATES is a national database of the Ministry of Health's Disability Support Services clients and service providers. Information for SOCRATES is supplied by Needs Assessment and Service Co-ordination agencies (NASCs) throughout New Zealand. SOCRATES does not include information on people older than 65 years of age with disability whose supports are funded by District Health Boards.

### **Accessing services**

Between 2010 and 2018, the number of Māori clients receiving Disability Support Services recorded in SOCRATES increased by 1754 (from 4977 to 6731) clients or 35 percent. At the

## Māori Health Disability Statistical Report

---

same time the number of non-Māori clients increased by 3839 clients (from 25,729 to 29,588) or 15 percent.

### ***Ministry of Health - Programme for the Integration of Mental Health Data (PRIMHD)***

PRIMHD (pronounced ‘primed’) is a Ministry of Health single national mental health and addiction information collection of service activity and outcomes data for health consumers. Mental health conditions are disabilities.

#### ***Accessing services***

The number of Māori clients accessing mental health and addiction services increased from 20,370 clients in 2007/08 to 49,120 clients in 2017/18, an increase of 28,750 clients or 141 percent. For non-Māori, the corresponding increase was from 83,998 clients to 127,528 clients, an increase of 43,530 clients or 52 percent.

Between 2007/08 and 2017/18 the percentage of clients accessing mental health and addiction services who were Māori has increased by 8 percentage points – from 20 percent in 2007/08 to 28 percent in 2017/18).

### ***Ministry of Health - Spina bifida data***

Spina bifida is a neural tube defect. It is the second most common birth defect worldwide, and affects about 1 in every 1000 pregnancies in New Zealand. Spina bifida is a complex birth defect.

Data is available from the National Minimum Data Set showing diagnosis of spina bifida at the date of birth, for those aged less than one, and all ages - diagnosed with any discharge.

Between 2006/07 and 2016/17 the total number of Māori babies diagnosed with spina bifida on their date of birth totalled 33. During this time there were 89 non-Māori babies diagnosed with spina bifida on their date of birth. Māori babies represent 27 percent of this group while non-Māori babies represent 73 percent.

Looking at the total number of discharges where babies aged less than one year can be admitted and discharged more than once. Between 2006/07 and 2016/17, Māori babies total discharges were 55 (or 27 percent of all discharges of babies diagnosed with spina bifida). Non-Māori babies accounted for 147 (or 73 percent) of discharges.

### ***District Health Board - Ophthalmology data***

District Health Boards (DHBS) have clinics which provide ophthalmology services. Ophthalmology is the branch of medicine that is concerned with the health of eyes and their surrounding tissues including muscles, bones, eyelids, and tear production/drainage systems.

In this analysis, *Ophthalmology - 1st attendance* and *Ophthalmology - Subsequent attendance* are used for appointments for attendances, and the following are used for appointments for procedures: *Eye - Argon Laser*, *Eye Procedures*, *Intraocular injection of pharmacological agent*, and *Minor Eye Procedures*.

## Māori Health Disability Statistical Report

---

### *Appointments for attendances*

Between 2007 and 2017, the number of Māori who had an appointment for an attendance at a DHB ophthalmology clinic increased by 68 percent (from 11,888 to 19,956 appointments), while the number for non-Māori increased by 71 percent (from 98,915 to 169,510 appointments). The percentage of individuals with appointments for attendances at DHB ophthalmology clinics who are Māori has remained at just over 10 percent.

### *“Did not attend” and “Did not wait” – Appointments for attendances*

Between 2007 and 2017, the percentage of Māori clients with appointments for attendances at DHB ophthalmology clinics who did not attend or did not wait for those appointments was more than two and a half times higher than that of non-Māori.

### *Appointments for procedures*

Between 2007 and 2017, the number of Māori who had appointments for procedures at a DHB ophthalmology clinics increased by 87 percent (from 707 to 1,323 appointments for procedures) while the corresponding increase for non-Māori was by 126 percent (from 8,231 to 18,614 appointments for procedures). During this time, the percentage of appointments for procedures for Māori decreased by 1 percentage point (from 8 percent in 2007 to 7 percent in 2017).

### *“Did not attend” and “Did not wait” – Appointments for procedures*

Between 2007 and 2017, the percentage of Māori clients with appointments for procedures at DHB ophthalmology clinics who did not attend or did not wait for those appointments was about twice that of non-Māori.

## **District Health Board - Paediatric Services data**

District Health Boards offer a range of paediatric services. This report measures appointments for “attendances” and those who “did not attend or did not wait” for those appointments – for those aged 0 to 19. The three most common paediatric services make up almost 90 percent of services offered: Ear Nose and Throat services – 22 percent, Orthopaedic services – 24 percent, and Paediatric Medical Outpatient services – 42 percent.

### *Appointments for attendances*

Between 2007 and 2017, the number of Māori aged 0 to 19 with appointments for attendances at a DHB for paediatric services increased from 47,388 to 57,407, an increase of 10,019 appointments or 21 percent. The corresponding increase for non-Māori was an increase from 161,426 to 180,748 appointments, an increase of 19,322 appointments or 12 percent.

### *“Did not attend” and “Did not wait” - Appointments for attendances*

Between 2007 and 2017, the percentage of Māori clients aged between 0 to 19 with appointments for attendances at DHBs for paediatric services who did not attend or did not wait for those appointments was more than twice that of non-Māori.

## **Discussion**

Stats NZ disability surveys are the best source of statistics to measure disability. They were conducted in 1996, 2001, 2006 and 2013. Because of changes to survey methods results from these surveys are not comparable and it would be statistically incorrect to use them to

## Māori Health Disability Statistical Report

---

measure changes in disability rates between surveys or over time. The next Disability survey is planned for 2023 and every 10 years thereafter, resulting in a 10 year gap between disability-specific surveys<sup>9</sup>.

Stats NZ have begun including the Washington Group Short Set questions into various surveys (the General Social Survey and the Household Labour Force Survey) and the 2018 census to improve New Zealand disability data and further align with international standards. The Ministry of Health has also included the Washington questions in the 2018/19 and 2019/20 New Zealand Health Survey. The purpose of the inclusion of the Washington questions in these surveys is to provide estimates of socio-economic measures by disability status. Stats NZ state in *Improving New Zealand disability data* that these questions are not meant to replace the disability survey, specifically, they should not be used to estimate disability prevalence rates<sup>10</sup>. The Washington questions could identify large numbers of disabled people which may avoid issues associated with low numbers therefore making analysis more robust. The delay of 2018 Census results means the results from the Washington Group Short Set questions could not be used for analysis in this report.

It is evident from these surveys that Māori continue to have higher disability prevalence rates than non-Māori. However, these higher rates are not always reflected when data is disaggregated by other variables such as by cause or type of impairment.

Ministry of Health and DHB datasets were useful as they gave an indication of access to disability support services provided by the Ministry of Health. Disabled Māori access to these services has increased.

Generally Māori had less appointments at DHB clinics than the percentage of Māori in the population, and, Māori were more likely than non-Māori not to attend or wait for these appointments.

The Ministry of Health has developed *Whāia Te Ao Mārama 2018 to 2022: The Māori Disability Action Plan*<sup>11</sup> as a tikanga based approach to support Māori with disabilities. This action plan highlights six goals, namely that by 2022 disabled Māori will:

1. Participate in the development of health and disability services
2. Have control over their disability support
3. Participate in Te Ao Māori
4. Participate in their community
5. Receive disability support services that are responsive to Te Ao Māori
6. Have informed and responsive communities.

These goals aim to address the difficulties faced by disabled Māori highlighted in this report. An example of an action given in *Whāia Te Ao Mārama 2018 to 2022: The Māori Disability Action Plan* is to “make data and evidence on the effectiveness of their services accessible to tāngata whaikaha”<sup>12</sup>. In doing so, the action plan looks to improve our understanding of disabled Māori.

---

<sup>9</sup> <https://www.odi.govt.nz/whats-happening/disability-survey-update/>

<sup>10</sup> <https://www.stats.govt.nz/methods/improving-new-zealand-disability-data>

<sup>11</sup> <https://www.health.govt.nz/system/files/documents/publications/whaia-te-ao-marama-2018-to-2022.pdf>

<sup>12</sup> <https://www.health.govt.nz/system/files/documents/publications/whaia-te-ao-marama-2018-to-2022.pdf>

### Conclusion

The data sources investigated in this report were either requested by Claimants or suggested by the Ministry to Claimants as they matched the topics Claimants requested. These data sources highlighted that disabled Māori have had increasing access to services such as Mental Health and Disability Support Services, but these improvements were not reflected in appointments for ophthalmology or pediatric services at District Health Boards.

This report found there was no statistically sound way to measure disability in its entirety for Māori over time. The most accurate source for disability data was the Stats NZ Disability Survey, as it provides an overview of the disabled population in each Census year. It is evident in the four Disability Surveys that Māori had higher disability prevalence rates than non-Māori. However, these higher rates are not always reflected when data is disaggregated by other variables such as by cause or type of impairment.

The main data source for the report, Stats NZ's Disability Survey, will again be held in 2023 and every 10 years thereafter. This provides an opportunity to again measure disability.

Stats NZ and the Ministry of Health introduced the Washington Group Short Set questions to various surveys and the 2018 Census to provide a better understanding of outcomes for disabled people in New Zealand. This set of questions is not intended to provide the overarching view the Disability Survey provides.

The Ministry of Health developed *Whāia Te Ao Mārama 2018 to 2022: The Māori Disability Action Plan* to address the difficulties faced by disabled Māori, working off the foundation set by its predecessor of the same name to improve inequities present in the disability sector.

### Glossary

#### ***Defining Disability***

The Office for Disability Issues identifies disabled people in the NZ Disability Strategy as “people who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others”<sup>13</sup>.

#### ***What is the Health Services and Outcomes Kaupapa Inquiry – Wai2575?***

Initiated in November 2016, the Waitangi Tribunal Health Services and Outcomes Inquiry, commonly known as Wai 2575, will hear all claims concerning grievances relating to health services and outcomes of national significance.

As of October 2018, there were 205 claims seeking to participate in the inquiry. The claims are historical and contemporary covering a range of issues relating to the health system, specific health services and outcomes, including health equity, primary care, disability services and Māori health providers.

---

<sup>13</sup> New Zealand Disability Strategy, Office for Disability Issues, Wellington, see <https://www.odi.govt.nz/nz-disability-strategy/>

The inquiry consists of three stages:

- Stage one enquired into aspects of primary care (with hearings from October to December 2018)
- Stage two covers three priority areas encompassing mental health (including suicide and self-harm), Māori with disabilities, and issues of alcohol, tobacco, and substance abuse. This stage is expected to begin from mid-2019
- Stage three will cover the remaining national significant issues and eligible historical issues.

This report will be used for stage two of the inquiry.

You can find out more about the [Health Services and Outcomes Inquiry](#) on the Waitangi Tribunal website.

### ***Definitions and Methods – Stats NZ Disability Surveys***

The statistics shown in this report are combined from both the Household Disability Survey (HDS) and the Disability Survey of Residential Facilities (DSRF). Often disability reports use only data from the HDS so these statistics will differ from those reports. Using data from just the HDS excludes those in the DSRF.

#### ***Household Disability Survey (HDS)***

The 2001 and 2006 HDS samples households including a 10,000 oversample of Māori and Pacific peoples, contributing to a total sample of 40,000. In the 2013 survey there was no oversample for Pacific people, and an oversample of 2,000 for Māori, contributing to a total sample size of 23,000.

In the 2001 and 2006 surveys, Stats NZ included group homes (with fewer than 10 people) in the HDS. For 2013, homes with fewer than five people were included in the survey.

#### ***Disability Survey of Residential Facilities (DSRF)***

The 2001 and 2006 survey samples included facilities with 10 or more long-stay beds, the 2013 survey includes facilities with as few as five long-stay beds. This change has meant that more psychiatric-type care only facilities are now included in the sample for the DSRF because these types of facilities usually have fewer than 10 beds.

#### ***Disability definition (Stats NZ, 2013 Disability Survey)***

An impairment that has a long-term, limiting effect on a person's ability to carry out day-to-day activities. 'Long-term' is defined as six months or longer. 'Limiting effect' means a restriction or lack of ability to perform. People were not considered to be disabled if an assistive device (such as glasses or crutches) eliminated their impairment.

It is also important to note that other viewpoints exist on the definition of disability including Māori viewpoints which differ significantly from other population groups. This report uses statistics from Stats NZ Disability Surveys hence we have presented their definition.

## ***Disability Rate***

The proportion of disabled people (numerator) in the population (denominator) or in any sub-population or age group.

## ***Numerators***

Data in this report was sourced from the 1996, 2001, 2006, and 2013 Disability Surveys from Stats NZ. The numerators are estimates produced from the surveys.

## ***Denominator***

The Stats NZ tables used in this report use three denominators – the disabled and non-disabled populations, and the Total population. Each table has a reference stating which denominator is used.

For other tables various denominators are used which are noted in the tables.

## ***Data quality***

Most of the results in this report are based on information obtained from sample surveys, where a sample of the population was surveyed. As with any sample survey, this means that the results are subject to sampling variability, where the results may differ if the survey included all eligible individuals in the population.

The sample surveys used for this report are designed to involve representative samples of the population. The survey results from this sample are then used to calculate estimated counts for the whole population. The precision of these estimates reflect the size of the sample and the design of sampling process used in the survey.

Two types of survey error are possible in estimates based on a sample survey: sampling error and non-sampling error. Sampling error results from the design of the sampling process and can usually be estimated using statistical calculations. Non-sampling error results from how the survey was conducted and is not usually able to be estimated using statistical calculations. More information on data quality can be found in the data quality notes for the 2013 Disability Survey<sup>14</sup>.

## ***Suppressed and rounded estimates***

The surveys produce estimated counts for the whole population with counts rounded to the nearest 1000, reflecting the level of precision possible due to the sampling error. Estimates less than 1000 are suppressed due to either potential confidentiality risk and/or high levels of relative sampling error. An "s" indicates that an estimated value has been suppressed. When "s" is included in any calculations, results are not calculated but also shown as "s", which reflects the suppressed number.

## ***Ethnicity classification***

Tables show information for Māori and non-Māori. The method of ethnicity classification was prioritised ethnicity. In general, the Ministry uses prioritised ethnicity classification when people identify with more than one ethnic group. A person was classified as Māori if one of

---

<sup>14</sup>

[http://archive.stats.govt.nz/browse\\_for\\_stats/health/disabilities/DisabilitySurvey\\_HOTP2013/Data%20Quality.aspx#reliability](http://archive.stats.govt.nz/browse_for_stats/health/disabilities/DisabilitySurvey_HOTP2013/Data%20Quality.aspx#reliability)

their recorded ethnicities was Māori; all other people were recorded as non-Māori, and represent a comparative or reference group. (For example, a person recorded as both Māori and New Zealand European was counted as Māori.) Unknown or missing ethnicity was counted as non-Māori.

### **Age-standardised rates**

Age-standardised rates account for differences in population structure, and can be used to compare groups with different age structures, such as Māori and non-Māori. This report uses direct age-standardisation; rates (unless noted otherwise) are standardised to the 2001 Census Usually Resident Māori population. Indicators are expressed as an age-standardised rate per 100 people (ie, a percentage).

Standardising to the 2001 Census Māori population provides rates that more closely approximate the crude Māori rates (ie, the actual rates among the Māori population) than could be provided by other standard populations (eg, the World Health Organization (WHO) World Standard Population), while also allowing comparisons with the non-Māori population. Caution should be taken when comparing data in this report with data in reports that use a different population standard, or indirect standardisation.

Reasons for age standardising to the 2001 Census Māori population are explained in the paper *Position Paper on Māori Health Analytics – Age Standardisation*<sup>15</sup>.

Age standardised rates are noted whenever they are used in this paper. For example: 19 percent of Māori were disabled, greater than the 16 percent of non-Māori (age standardised rates).

### **Age specific rates**

Age specific rates are the number of events (eg, disabled people) divided by the total population in that specific age group. In this case, caution should be taken when comparing Māori with non-Māori results. Age specific rates can convey what is happening specific age bands in each population, but are not useful for making comparisons for the whole population, because they do not take into account different age distributions in each of the populations (eg, the Māori population is much younger than the non-Māori population).

### **Confidence intervals**

A confidence interval (CI) gives an indication of uncertainty around a single value (such as a percentage). CIs are calculated with a stated probability; in the case of this report, 95 percent (ie, each CI in this report has a 95 percent probability of enclosing the true value).

The CI is influenced by the survey design and the sample size of the group. As the sample size becomes smaller, the CI becomes wider, and there is less certainty about the estimate produced by the survey data.

This report uses confidence intervals to determine if results are significantly different. When confidence intervals do not overlap they are said to be significantly different. This is indicated in tables by a '#'.

Stats NZ could not provide confidence intervals for the 1996 Disability Survey.

---

<sup>15</sup> <https://www.health.govt.nz/publication/position-paper-maori-health-analytics-age-standardisation>

### ***High relative sample errors***

A relative sample error is determined by the size of the sample error compared with the size of the survey estimate. Estimates with high relative sample errors (RSE) are suspect in quality and therefore unreliable. Therefore all estimates with an RSE of 100 percent or greater are suppressed. Estimates with an RSE of 30 percent to 49.9 percent and 50 to 99.9 percent should be viewed with caution. These are indicated in tables by an ‘\*’.

### ***Integrated Data Infrastructure (IDI)***

The IDI is a large research database, holding data about life events such as: education, health and income. It is sourced from government agencies, Stats NZ surveys, and non-government organisations. It is used to combine data from these sources to provide more in depth insights into the complex issues faced by New Zealanders.<sup>16</sup>

---

<sup>16</sup> <https://www.stats.govt.nz/integrated-data/integrated-data-infrastructure/>

## Appendix 1: Findings from the 1996 Stats NZ Disability Survey

### According to the 1996 Stats NZ Disability Survey:

#### *Key findings from the 1996 Stats NZ Disability Survey:*

##### **Prevalence of disability among the total population**

It is estimated 83,000 Māori and 618,000 non-Māori were disabled. From these estimates we can calculate that:

- 18 percent of Māori were disabled, greater than the 14 percent of non-Māori (age standardised rates)
- 18 percent of Māori males were disabled, greater than the 15 percent for non-Māori males (age standardised rates)
- 19 percent of Māori females were disabled, greater than the 14 percent for non-Māori females (age standardised rates).

Table 1: Number and percent of people with a disability by age group, Māori and Non-Māori, 1996.

Ethnicity	Age group – Number and percent of Disabled Māori				
	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over
Disabled Māori	27,000	6,000	22,000	21,000	7,000
Total Māori Population	173,000	70,000	127,000	66,000	14,000
Percent	16	9	17	32	50
Age group – Number and percent of Disabled Non-Māori					
Disabled Non-Māori	67,000	32,000	131,000	177,000	212,000
Total Non-Māori Population	653,000	397,000	943,000	719,000	405,000
Percent	10	8	14	25	52

Source: Customised data, Statistics New Zealand Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

From these estimates we can calculate the following:

- 16 percent of Māori aged 0 to 14 years were disabled
- 9 percent of Māori aged 15 to 24 years were disabled
- 17 percent of Māori aged 25 to 44 years were disabled
- 32 percent of Māori aged 45 to 64 years were disabled
- 50 percent of Māori aged 65 years and over were disabled.

### Type of impairment for disabled people

Table 2 below shows estimates of the number and percentage of disabled Māori and Non-Māori by Type of Impairment. Each impairment type is counted for each person (Total Response).

Table 2: Estimates of the Number and percent of disabled people by Impairment Type, Māori and non-Māori, 1996.

Ethnicity	Type of Impairment					
	Sensory	Physical	Intellectual	Psychiatric / Psychological	Other	Total
Māori Number	35,000	47,000	6,000	19,000	39,000	83,000
Percent (1)	42	57	7	23	47	-
Non-Māori Number	260,000	403,000	27,000	87,000	233,000	618,000
Percent (1)	42	65	4	14	38	-

Source: Customised data, Stats NZ Wellington.

Notes: (1) Total Response – percentages will sum to more than 100 percent as disabled people can have more than one type of impairment.

From these estimates we can calculate the following:

Table 2a: Number and percent of disabled people with Sensory Impairment by age group, Māori and Non-Māori, 1996.

Ethnicity	Number and percent of disabled people with Sensory Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	11,000	2,000	9,000	10,000	3,000
Disabled Māori	27,000	6,000	22,000	21,000	7,000
Percent	41	33	41	48	43
Non-Māori	20,000	11,000	38,000	76,000	114,000
Disabled Non-Māori	67,000	32,000	131,000	177,000	212,000
Percent	30	34	29	43	54

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

From these estimates we can calculate the following:

- 41 percent of disabled Māori aged 0 to 14 years had sensory impairment
- 41 percent of disabled Māori aged 25 to 44 years had sensory impairment.

## Māori Health Disability Statistical Report

---

Table 2b: Number and percent of disabled people with Physical Impairment by age group, Māori and Non-Māori, 1996.

Ethnicity	Number and percent of disabled people with Physical Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	9,000	2,000	12,000	18,000	5,000
Disabled Māori	27,000	6,000	22,000	21,000	7,000
Percent	33	33	55	86	71
Non-Māori	25,000	14,000	70,000	116,000	178,000
Disabled Non-Māori	67,000	32,000	131,000	177,000	212,000
Percent	37	44	53	66	84

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

From these estimates we can calculate the following:

- 33 percent of disabled Māori aged 15 to 24 years had physical impairment
- 86 percent of disabled Māori aged 45 to 64 years had physical impairment
- 71 percent of disabled Māori aged 65 years and over had physical impairment.

Table 2c: Number and percent of disabled people with Intellectual Impairment by age group, Māori and Non-Māori, 1996.

Ethnicity	Number and percent of disabled people with Intellectual Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	3,000	s	2,000	s	s
Disabled Māori	27,000	6,000	22,000	21,000	7,000
Percent	11	s	9	s	s
Non-Māori	9,000	3,000	9,000	4,000	2,000
Disabled Non-Māori	67,000	32,000	131,000	177,000	212,000
Percent	13	9	7	2	1

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates

From these estimates we can calculate the following:

- 11 percent of disabled Māori aged 0 to 14 years had intellectual impairment
- 9 percent of disabled Māori aged 25 to 44 years had intellectual impairment.

## Māori Health Disability Statistical Report

---

Table 2d: Number and percent of disabled people with Psychiatric/Psychological by age group, Māori and Non-Māori, 1996.

Ethnicity	Number and percent of disabled people with Psychiatric/Psychological Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	6,000	2,000	8,000	4,000	s
Disabled Māori	27,000	6,000	22,000	21,000	7,000
Percent	22	33	36	19	s
Non-Māori	15,000	7,000	30,000	22,000	15,000
Disabled Non-Māori	67,000	32,000	131,000	177,000	212,000
Percent	22	22	23	12	7

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

From these estimates we can calculate the following:

- 33 percent of disabled Māori aged 15 to 24 years had psychiatric/psychological impairment
- 36 percent of disabled Māori aged 25 to 44 years had psychiatric/psychological impairment
- 19 percent of disabled Māori aged 45 to 64 years had psychiatric/psychological impairment.

Table 2e: Number and percent of disabled people with Other Impairment by age group, Māori and Non-Māori, 1996.

Ethnicity	Number and percent of disabled people with Other Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	14,000	4,000	12,000	7,000	2,000
Disabled Māori	27,000	6,000	22,000	21,000	7,000
Percent	52	67	55	33	29
Non-Māori	38,000	16,000	51,000	58,000	69,000
Disabled Non-Māori	67,000	32,000	131,000	177,000	212,000
Percent	57	50	39	33	33

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

From these estimates we can calculate the following:

- 52 percent of disabled Māori aged 0 to 14 years had other impairment
- 67 percent of disabled Māori aged 15 to 24 years had other impairment
- 55 percent of disabled Māori aged 25 to 44 years had other impairment
- 29 percent of disabled Māori aged 65 years and over had other impairment.

### **Cause of impairment for disabled people**

Table 3 below shows estimates of the number and percentage of disabled Māori and non-Māori by Cause of Impairment. Each impairment cause is counted for each person (Total Response).

Table 3: Estimates of the Number and percent of disabled people by Cause of Impairment, Māori and non-Māori, 1996.

Ethnicity	Cause of Impairment						
	Accident	Birth	Disease	Ageing	Other	Unknown	Total
Māori Number	20,000	17,000	31,000	8,000	11,000	13,000	83,000
Percent (1)	24	20	37	10	13	16	
Non-Māori Number	138,000	77,000	257,000	135,000	65,000	99,000	618,000
Percent (1)	22	12	42	22	11	16	

Notes: (1) Total Response – percentages will sum to more than 100 percent as disabled people can have more than one cause of impairment.

Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

From these estimates we can calculate the following:

- 20 percent of disabled Māori had birth as cause of impairment
- 10 percent of disabled Māori aged had ageing as cause of impairment.

Table 3a: Number and percent of disabled people with Accident Cause of Impairment by age group, Māori and Non-Māori, 1996.

Ethnicity	Number and percent of disabled people with Accident Cause of Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	s	s	10,000	7,000	1,000
Disabled Māori	27,000	6,000	22,000	21,000	7,000
Percent	s	s	45	33	14
Non-Māori	3,000	8,000	44,000	45,000	39,000
Disabled Non-Māori	67,000	32,000	131,000	177,000	212,000
Non-Māori	4	25	34	25	18

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

From these estimates we can calculate the following:

- 45 percent of disabled Māori aged 25 to 44 years had accident as cause of impairment
- 33 percent of disabled Māori aged 45 to 64 years had accident as cause of impairment
- 14 percent of disabled Māori aged 65 years and over had accident as cause of impairment.

## Māori Health Disability Statistical Report

---

Table 3b: Number and percent of disabled people with Birth Cause of Impairment by age group, Māori and Non-Māori, 1996.

Ethnicity	Number and percent of disabled people with Birth Cause of Impairment by age group				
	0–14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	10,000	1,000	4,000	1,000	s
Disabled Māori	27,000	6,000	22,000	21,000	7,000
Percent	37	17	18	5	s
Non-Māori	27,000	10,000	19,000	13,000	8,000
Disabled Non-Māori	67,000	32,000	131,000	177,000	212,000
Non-Māori	40	31	15	7	4

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

From these estimates we can calculate the following:

- 17 percent of disabled Māori aged 15 to 24 years had birth as cause of impairment
- 18 percent of disabled Māori aged 25 to 44 years had birth as cause of impairment.

Table 3c: Number and percent of disabled people with Disease Cause of Impairment by age group, Māori and Non-Māori, 1996.

Ethnicity	Number and percent of disabled people with Disease Cause of Impairment by age group				
	0–14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	11,000	2,000	4,000	10,000	4,000
Disabled Māori	27,000	6,000	22,000	21,000	7,000
Percent	41	33	18	48	57
Non-Māori	24,000	10,000	35,000	70,000	116,000
Disabled Non-Māori	67,000	32,000	131,000	177,000	212,000
Non-Māori	36	31	27	40	55

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

From these estimates we can calculate the following:

- 41 percent of disabled Māori aged 0 to 14 disease as cause of impairment
- 18 percent of disabled Māori aged 25 to 44 years had disease impairment
- 48 percent of disabled Māori aged 45 to 64 years had disease impairment.

## Māori Health Disability Statistical Report

---

Table 3d: Number and percent of disabled people with Ageing Cause of Impairment by age group, Māori and Non-Māori, 1996.

Ethnicity	Number and percent of disabled people with Ageing Cause of Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	s	s	s	5,000	2,000
Disabled Māori	27,000	6,000	22,000	21,000	7,000
Percent	s	s	s	24	29
Non-Māori	s	s	6,000	30,000	98,000
Disabled Non-Māori	67,000	32,000	131,000	177,000	212,000
Non-Māori	s	s	5	17	46

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

From these estimates we can calculate the following:

- 24 percent of disabled Māori aged 45 to 64 years had ageing as cause of impairment
- 29 percent of disabled Māori aged 65 years and over had ageing as cause of impairment.

Table 3e: Number and percent of disabled people with Other Cause of Impairment by age group, Māori and Non-Māori, 1996.

Ethnicity	Number and percent of disabled people with Other Cause of Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	5,000	1,000	2,000	2,000	s
Disabled Māori	27,000	6,000	22,000	21,000	7,000
Percent	19	17	9	10	s
Non-Māori	11,000	3,000	13,000	15,000	22,000
Disabled Non-Māori	67,000	32,000	131,000	177,000	212,000
Non-Māori	16	9	10	8	10

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

From these estimates we can calculate the following:

- 19 percent of disabled Māori aged 0 to 14 years had other as cause of impairment
- 17 percent of disabled Māori aged 15 to 24 years had other a cause of impairment.

## Māori Health Disability Statistical Report

---

Table 3f: Number and percent of disabled people with Unknown Cause of Impairment by Age group, Māori and Non-Māori, 1996.

Ethnicity	Number and percent of disabled people with Unknown Cause of Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	4,000	2,000	5,000	2,000	s
Disabled Māori	27,000	6,000	22,000	21,000	7,000
Percent	15	33	23	10	S
Non-Māori	11,000	6,000	30,000	37,000	15,000
Disabled Non-Māori	67,000	32,000	131,000	177,000	212,000
Non-Māori	16	19	23	21	7

- Source: Customised data, Stats NZ Wellington.
- Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

From these estimates we can calculate the following:

- 33 percent of disabled Māori aged 15 to 24 years had unknown as cause of impairment
- 10 percent of disabled Māori aged 45 to 64 years had unknown as cause of impairment.

### ***Presence of multiple impairments for disabled people***

It is estimated 44,000 Māori and 351,000 non-Māori had multiple impairments.

From these estimates we can calculate that:

- 55 percent of disabled Māori males had multiple impairments compared with 56 percent of disabled non-Māori males
- 51 percent of disabled Māori females had multiple impairments compared with 58 percent of disabled non-Māori females
- 67 percent of disabled Māori aged 15 to 24 years had multiple impairments
- 43 percent of disabled Māori aged 45 years and over had multiple impairments.

Table 4: Number and percent of disabled people with multiple impairments by age group, Māori and Non-Māori, 1996.

Ethnicity	Number and percent of disabled people with Multiple Impairments by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	17,000	4,000	10,000	9,000	4,000
Disabled Māori	27,000	6,000	22,000	21,000	7,000
Percent	63	67	45	43	57
Non-Māori	43,000	21,000	87,000	107,000	94,000
Disabled Non-Māori	67,000	32,000	131,000	177,000	212,000
Percent	64	66	66	60	44

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

### ***Unmet need for special equipment for disabled people***

It is estimated that 15,000 Māori and 90,000 non-Māori had an unmet need for special equipment. From these estimates we can calculate that:

- 19 percent of disabled Māori males had an unmet need for special equipment compared with 15 percent of disabled non-Māori males
- 20 percent of disabled Māori females had an unmet need for special equipment compared with 15 percent of disabled non-Māori females
- 11 percent of disabled Māori aged 0 to 14 years had an unmet need for special equipment
- 33 percent of disabled Māori aged 15 to 24 years had an unmet need for special equipment.

Table 5: Percent of disabled people with unmet need for special equipment by age group, Māori and Non-Māori, 1996.

Ethnicity	Number and percent of disabled people with unmet need for special equipment by age group				
	0–14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	3,000	2,000	3,000	6,000	2,000
Disabled Māori	27,000	6,000	22,000	21,000	7,000
Percent	11	33	14	29	29
Non-Māori	5,000	5,000	12,000	21,000	49,000
Disabled Non-Māori	67,000	32,000	131,000	177,000	212,000
Percent	7	16	9	12	23

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

### ***Unmet need for health professionals for disabled people***

It is estimated 14,000 Māori and 61,000 non-Māori had an unmet need to access a health professional. From these estimates we can calculate that:

- 14 percent of disabled Māori males had an unmet need to access a health professional compared with 9 percent of disabled non-Māori males
- 20 percent of disabled Māori females had an unmet need to access a health professional compared with 11 percent of disabled non-Māori females
- 33 percent of disabled Māori aged 15 to 24 years had an unmet need to access a health professional
- 14 percent of disabled Māori aged 25 to 44 years had an unmet need to access a health professional.

## Māori Health Disability Statistical Report

---

Table 6: Number and percent of disabled people with unmet need for a health professional by age group, Māori and Non-Māori, 1996.

Ethnicity	Number and percent of disabled people with unmet need for a health professional by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	5,000	2,000	3,000	4,000	s
Disabled Māori	27,000	6,000	22,000	21,000	7,000
Percent	19	33	14	19	s
Non-Māori	12,000	3,000	26,000	16,000	8,000
Disabled Non-Māori	67,000	32,000	131,000	177,000	212,000
Percent	18	9	20	9	4

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

### ***Labour force status for disabled and non-disabled people***

Table 7 below shows estimates of the number and percent of disabled Māori and non-Māori by Labour force status.

Table 7: Number and percent of disabled and non-disabled people by Labour force Status, Māori and non-Māori, 1996.

Ethnicity	Labour Force Status			
	Employed	Unemployed	Not in the labour force	Total labour force status
Disabled Māori	19,000	3,000	35,000	56,000
Percent	34	5	63	100
Disabled Non-Māori	188,000	15,000	326,000	529,000
Percent	36	3	62	100
Non-Disabled Māori	135,000	23,000	61,000	220,000
Percent	61	10	28	100
Non-Disabled Non-Māori	1,263,000	64,000	477,000	1,806,000
Percent	70	4	26	100

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

From these estimates we can calculate the following:

- 34 percent of disabled Māori were employed
- 5 percent of disabled Māori were unemployed
- 63 percent of disabled Māori were not in the labour force.

### ***Personal income status for disabled and non-disabled people***

Table 8: below shows estimates of the number and percent of disabled and non-disabled Māori and non-Māori by Personal income status.

## Māori Health Disability Statistical Report

---

Table 8: Number and percent of disabled and non-disabled people by Personal income Status, Māori and non-Māori, 1996.

Ethnicity	Personal Income Status					
	Less than \$15,001	\$15,001 – \$30,000	\$30,001 – \$50,000	\$50,001 – \$70,000	\$70,001#	Total personal income status
Disabled Māori	35,000	11,000	4,000	s	s	50,000
Percent	70	22	8	s	s	100
Disabled Non-Māori	285,000	121,000	50,000	14,000	10,000	480,000
Percent	59	25	10	3	2	100
Non-Disabled Māori	100,000	66,000	27,000	3,000	5,000	201,000
Percent	50	33	13	1	2	100
Non-Disabled Non-Māori	766,000	486,000	326,000	92,000	72,000	1,740,000
Percent	44	28	18	5	4	100

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

From these estimates we can calculate the following:

- 70 percent of disabled Māori had income of less than \$15,000
- 22 percent of disabled Māori had income between \$15,001 and \$30,000
- 8 percent of disabled Māori had income between \$30,001 and \$50,000.

### ***Education status for disabled and non-disabled people***

Table 9 below shows estimates of the number and percent of disabled and non-disabled Māori and non-Māori by Education status.

Table 9: Number and percent of disabled and non-disabled people by Education Status, Māori and non-Māori, 1996.

Ethnicity	Education Status				
	No qualification	School qualification at level 1 to 4	Post-school qualification at level 1 to 6	Bachelor's degree or higher	Total education status
Disabled Māori	31,000	11,000	5,000	s	48,000
Percent	65	23	10	s	100
Disabled Non-Māori	213,000	107,000	109,000	25,000	455,000
Percent	47	24	24	5	100
Non-Disabled Māori	87,000	67,000	34,000	7,000	196,000
Percent	44	34	17	4	100
Non-Disabled Non-Māori	464,000	574,000	443,000	211,000	1,692,000
Percent	27	34	26	12	100

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

From these estimates we can calculate the following:

- 65 percent of disabled Māori had no education qualification

- 23 percent of disabled Māori had a school qualification at level 1 to 4.

### ***Deprivation status for disabled and non-disabled people***

Table 10 below shows estimates of the number and percent of disabled and non-disabled Māori and non-Māori by Deprivation status.

The lowest quintile is the least deprived area and the highest quintile is the most deprived area.

Table 10: Number and percent of disabled and non-disabled people by Deprivation Status, Māori and non-Māori, 1996.

Ethnicity	Deprivation Status					Total deprivation status
	Lowest quintile	Second quintile	Third quintile	Fourth quintile	Highest quintile	
Disabled Māori	4,000	6,000	13,000	17,000	35,000	83,000
Percent	5	7	16	20	43	100
Disabled Non-Māori	100,000	110,000	118,000	130,000	92,000	618,000
Percent	16	18	19	21	15	100
Non-Disabled Māori	25,000	44,000	55,000	71,000	140,000	367,000
Percent	7	12	15	19	38	100
Non-Disabled Non-Māori	619,000	531,000	460,000	395,000	305,000	2,498,000
Percent	25	21	18	16	12	100

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on rounded estimates and may differ to those calculated from unrounded estimates.

From these estimates we can calculate the following:

- 5 percent of disabled Māori lived in the lowest quintile deprivation (least deprived)
- 7 percent of disabled Māori lived in the second quintile deprivation areas
- 16 percent of disabled Māori lived in the third quintile deprivation areas
- 20 percent of disabled Māori lived in the fourth quintile deprivation areas
- 43 percent of disabled Māori lived in the highest quintile deprivation areas (most deprived).

### Appendix 2: Findings from the 2001 Stats NZ Disability Survey

Statistically significant differences between Māori and non-Māori percentages were highlighted for each table within this appendix. Where no significant difference was found the Māori percentage was shown. Suppressed results, shown in the tables as an “s” and results with high relative sample error, shown in the tables by an “\*\*” are not commented on.

#### **According to the 2001 Stats NZ Disability Survey:**

##### ***Key findings from the 2001 Stats NZ Disability Survey:***

These findings are statistically significant:

- 20 percent of Māori were disabled, greater than the 14 percent of non-Māori (age standardised rates)
- 20 percent of Māori males were disabled, greater than the 15 percent for non-Māori males (age standardised rates)
- 21 percent of Māori females were disabled, greater than the 14 percent for non-Māori females (age standardised rates)
- 14 percent of Māori aged 0 to 14 years were disabled, greater than the 10 percent of non-Māori in the same age group
- 22 percent of Māori aged 25 to 44 years were disabled, greater than the 14 percent of non-Māori in the same age group
- 34 percent of Māori aged 45 to 64 years were disabled, greater than the 25 percent of non-Māori in the same age group
- 54 percent of disabled Māori had physical impairment, less than the 63 percent of disabled non-Māori with the same impairment
- 9 percent of disabled Māori had intellectual impairment, greater than the 6 percent of disabled non-Māori with the same impairment
- 22 percent of disabled Māori had psychiatric / psychological impairment, greater than the 16 percent of disabled non-Māori with the same impairment
- 44 percent of disabled Māori aged 25 to 44 years had an unmet need for special equipment, greater than the 26 percent of disabled non-Māori in the same age group
- 41 percent of disabled Māori aged 65 years and over had an unmet need for special equipment, greater than the 28 percent of disabled non-Māori in the same age group
- 21 percent of disabled Māori males had an unmet need to access a health professional, greater than the 14 percent of disabled non-Māori males
- 27 percent of disabled Māori females had an unmet need to access a health professional, greater than the 15 percent of disabled non-Māori females
- 44 percent of disabled Māori were employed, greater than the 38 percent of disabled non-Māori, and less than the 64 percent of non-disabled Māori and 71 percent of non-disabled non-Māori
- 7 percent of disabled Māori were unemployed, greater than the 3 percent of disabled non-Māori, and 4 percent of non-disabled non-Māori
- 60 percent of disabled Māori had income of less than \$15,000, greater than the 44 percent of non-disabled Māori and 39 percent of non-disabled non-Māori
- 12 percent of disabled Māori had income between \$30,001 and \$50,000, less than the 18 percent of non-disabled Māori and 22 percent of non-disabled non-Māori

## Māori Health Disability Statistical Report

---

- 51 percent of disabled Māori had no education qualification, greater than the 37 percent of disabled non-Māori, 39 percent of non-disabled Māori, and 21 percent of non-disabled non-Māori
- 15 percent of disabled Māori had a post-school qualification at level 1 to 6, less than the 21 percent of disabled non-Māori, and 20 percent of non-disabled Māori
- 5 percent of disabled Māori lived in the lowest quintile deprivation areas (least deprived), less than the 19 percent of disabled non-Māori, 8 percent of non-disabled Māori and 25 percent of non-disabled non-Māori who lived in this quintile
- 47 percent of disabled Māori lived in the highest quintile deprivation areas (most deprived), greater than the 18 percent of disabled non-Māori and 14 percent of non-disabled non-Māori who lived in this quintile.

### ***Prevalence of disability among the total population***

It is estimated 119,000 Māori and 663,000 non-Māori were disabled. From these estimates we can calculate that:

- 20 percent of Māori were disabled, greater than the 14 percent of non-Māori (age standardised rates)
- 20 percent of Māori males were disabled, greater than the 15 percent for non-Māori males (age standardised rates)
- 21 percent of Māori females were disabled, greater than the 14 percent for non-Māori females (age standardised rates).

Table 1: Number and percent of people with a disability by age group, Māori and Non-Māori, 2001.

Ethnicity	Age group – Number and percent of Disabled Māori				
	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over
Disabled Māori	31,000	13,000	37,000	26,000	12,000
Total Māori Population	216,000	101,000	167,00	78,000	20,000
Percent	14 (13-16)	13 (10-15)	22 (20-24)	34 (31-37)	61 (56-67)
Age group – Number and percent of Disabled Non-Māori					
Disabled Non-Māori	60,000	34,000	127,000	182,000	230,000
Total Non-Māori Population	621,000	384,000	916,000	734,000	415,000
Percent	#10 (9-11)	9 (7-11)	#14 (12-16)	#25 (22-27)	55 (53-58)

Source: Customised data, Statistics New Zealand Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

# indicates results are statistically different to those for disabled Māori.

From these estimates we can calculate the following:

- 14 percent of Māori aged 0 to 14 years were disabled, greater than the 10 percent of non-Māori in the same age group
- 13 percent of Māori aged 15 to 24 years were disabled
- 22 percent of Māori aged 25 to 44 years were disabled, greater than the 14 percent of non-Māori in the same age group
- 34 percent of Māori aged 45 to 64 years were disabled, greater than the 25 percent of non-Māori in the same age group.

### Type of impairment for disabled people

Table 2 below shows estimates of the number and percent of disabled Māori and non-Māori by Type of Impairment. Each impairment type is counted for each person (Total Response).

Table 2: Estimates of the Number and percent of disabled people by Impairment Type, Māori and non-Māori, 2001.

Ethnicity	Type of Impairment					
	Sensory	Physical	Intellectual	Psychiatric / Psychological	Other	Total
Māori Number	47,000	65,000	10,000	26,000	57,000	119,000
Percent (1)	39 (36-42)	54 (52-57)	9 (7-10)	22 (20-25)	48 (46-51)	
Non-Māori Number	258,000	401,000	36,000	103,000	265,000	663,000
Percent (1)	41 (38-43)	#63 (61-66)	#6 (5-7)	#16 (15-18)	#42 (39-44)	

Source: Customised data, Stats NZ Wellington.

Notes: (1) Total Response – percentages will sum to more than 100 percent as disabled people can have more than one type of impairment.

Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

# indicates results are statistically different to those for disabled Māori.

From these estimates we can calculate the following:

- 39 percent of disabled Māori had sensory impairment
- 54 percent of disabled Māori had physical impairment, less than the 63 percent of disabled non-Māori with the same impairment
- 9 percent of disabled Māori had intellectual impairment, greater than the 6 percent of disabled non-Māori with the same impairment
- 22 percent of disabled Māori had psychiatric / psychological impairment, greater than the 16 percent of disabled non-Māori with the same impairment
- 48 percent of disabled Māori had other impairment, greater than the 42 percent of disabled non-Māori with the same impairment
- 19 percent of disabled Māori had birth as cause of impairment, greater than the 12 percent of disabled non-Māori with the same cause of impairment
- 10 percent of disabled Māori had ageing as cause of impairment, less than the 18 percent of disabled non-Māori with the same cause of impairment.

## Māori Health Disability Statistical Report

---

Table 2a: Number and percent of disabled people with Sensory Impairment by age group, Māori and non-Māori, 2001.

Ethnicity	Number and percent of disabled people with Sensory Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	12,000	4,000	13,000	12,000	6,000
Disabled Māori	31,000	13,000	37,000	26,000	12,000
Percent	38 (34-42)	34 (25-43)	35 (30-41)	45 (39-51)	48 (41-55)
Non-Māori	19,000	6,000	34,000	78,000	121,000
Disabled Non-Māori	60,000	34,000	127,000	182,000	230,000
Percent	31 (26-36)	*18 (9-27)	27 (21-32)	43 (38-49)	53 (50-56)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

From these estimates we can calculate the following:

- 38 percent of disabled Māori aged 0 to 14 years had sensory impairment
- 34 percent of disabled Māori aged 15 to 24 years had sensory impairment
- 35 percent of disabled Māori aged 25 to 44 years had sensory impairment
- 45 percent of disabled Māori aged 45 to 64 years had sensory impairment
- 48 percent of disabled Māori aged 65 years and over had sensory impairment.

Table 2b: Number and percent of disabled people with Physical Impairment by age group, Māori and non-Māori, 2001.

Ethnicity	Number and percent of disabled people with Physical Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	11,000	4,000	18,000	21,000	10,000
Disabled Māori	31,000	13,000	37,000	26,000	12,000
Percent	36 (32-39)	35 (27-43)	49 (44-55)	78 (74-83)	85 (81-89)
Non-Māori	21,000	10,000	62,000	113,000	195,000
Disabled Non-Māori	60,000	34,000	127,000	182,000	230,000
Percent	35 (31-40)	*30 (20-39)	49 (42-55)	#62 (57-68)	85 (82-87)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

# indicates results are statistically different to those for disabled Māori.

From these estimates we can calculate the following:

- 36 percent of disabled Māori aged 0 to 14 years had physical impairment
- 78 percent of disabled Māori aged 45 to 64 years had physical impairment, greater than the 62 percent of disabled non-Māori in the same age group
- 85 percent of disabled Māori aged 65 years and over had physical impairment.

## Māori Health Disability Statistical Report

---

Table 2c: Number and percent of disabled people with Intellectual Impairment by age group, Māori and non-Māori, 2001.

Ethnicity	Number and percent of disabled people with Intellectual I Impairment by age group				
	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	4,000	2,000	3,000	s	s
Disabled Māori	31,000	13,000	37,000	26,000	12,000
Percent	12 (10-14)	*16 (10-21)	*9 (6-12)	s	s
Non-Māori	9,000	5,000	9,000	5,000	6,000
Disabled Non-Māori	60,000	34,000	127,000	182,000	230,000
Percent	16 (13-18)	*16 (8-24)	*7 (5-10)	*3 (2-4)	3 (2-4)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable

s indicates a suppressed result.

From these estimates we can calculate the following:

- 12 percent of disabled Māori aged 0 to 14 years had intellectual impairment.

Table 2d: Number and percent of disabled people with Psychiatric/Psychological Impairment by age group, Māori and non-Māori, 2001.

Ethnicity	Number and percent of disabled people with Psychiatric/Psychological Impairment by age group				
	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	7,000	3,000	12,000	4,000	s
Disabled Māori	31,000	13,000	37,000	26,000	12,000
Percent	22 (18-26)	*26 (18-34)	32 (26-37)	*15 (8-22)	s
Non-Māori	15,000	12,000	31,000	26,000	19,000
Disabled Non-Māori	60,000	34,000	127,000	182,000	230,000
Percent	26 (21-30)	*35 (23-47)	24 (20-29)	15 (12-18)	8 (7-10)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 22 percent of disabled Māori aged 0 to 14 years had psychiatric/psychological impairment
- 32 percent of disabled Māori aged 25 to 44 years had psychiatric/psychological impairment.

## Māori Health Disability Statistical Report

---

Table 2e: Number and percent of disabled people with Other Impairment by age group, Māori and non-Māori, 2001.

Ethnicity	Number and percent of disabled people with Other Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	16,000	7,000	18,000	12,000	5,000
Disabled Māori	31,000	13,000	37,000	26,000	12,000
Percent	53 (48-58)	56 (46-65)	48 (42-53)	44 (38-50)	38 (31-44)
Non-Māori	36,000	21,000	62,000	68,000	77,000
Disabled Non-Māori	60,000	34,000	127,000	182,000	230,000
Percent	61 (57-65)	60 (49-71)	49 (43-56)	37 (32-43)	34 (31-37)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

From these estimates we can calculate the following:

- 53 percent of disabled Māori aged 0 to 14 years had other impairment
- 56 percent of disabled Māori aged 15 to 24 years had other impairment
- 44 percent of disabled Māori aged 45 to 64 years had other impairment
- 38 percent of disabled Māori aged 65 years and over had other impairment.

### ***Cause of impairment for disabled people***

Table 3 below shows estimates of the number and percent of disabled Māori and non-Māori by Cause of Impairment. Each impairment cause is counted for each person (Total Response).

Table 3: Estimates of the Number and percent of disabled people by Cause of Impairment, Māori and non-Māori, 2001.

Ethnicity	Cause of Impairment						
	Accident	Birth	Disease	Ageing	Other	Unknown	Total
Māori Number	33,000	23,000	46,000	12,000	26,000	13,000	119,000
Percent (1)	28 (25-30)	19 (17-22)	39 (36-42)	10 (9-12)	22 (20-24)	11 (9-12)	
Non-Māori Number	190,000	78,000	258,000	115,000	122,000	65,000	633,000
Percent (1)	30 (28-32)	#12 (11-14)	41 (38-43)	#18 (16-20)	19 (18-21)	10 (9-12)	

Notes: (1) Total Response – percentages will sum to more than 100 percent as disabled people can have more than one cause of impairment.

Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

# indicates results are statistically different to those for disabled Māori.

From these estimates we can calculate the following:

- 28 percent of disabled Māori had accident as cause of impairment
- 19 percent of disabled Māori had birth as cause of impairment, greater than the 12 percent of disabled non-Māori with the same cause of impairment
- 10 percent of disabled Māori had ageing as cause of impairment, less than the 18 percent of disabled non-Māori with the same cause of impairment
- 22 percent of disabled Māori had other as cause of impairment.

## Māori Health Disability Statistical Report

---

Table 3a: Number and percent of disabled people with Accident Cause of Impairment by age group, Māori and non-Māori, 2001.

Ethnicity	Number and percent of disabled people with Accident Cause of Impairment by age group				
	0–14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	1,000	4,000	15,000	11,000	3,000
Disabled Māori	31,000	13,000	37,000	26,000	12,000
Percent	*3 (2-5)	31 (23-39)	40 (34-46)	40 (34-46)	22 (17-26)
Non-Māori	1,000	5,000	54,000	70,000	59,000
Disabled Non-Māori	60,000	34,000	127,000	182,000	230,000
Non-Māori	*2 (1-4)	*15 (8-22)	43 (36-50)	39 (34-44)	26 (23-29)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

From these estimates we can calculate the following:

- 31 percent of disabled Māori aged 15 to 24 years had accident as cause of impairment
- 40 percent of disabled Māori aged 25 to 44 years had accident as cause of impairment
- 22 percent of disabled Māori aged 65 years and over had accident as cause of impairment.

Table 3b: Number and percent of disabled people with Birth Cause of Impairment by age group, Māori and non-Māori, 2001.

Ethnicity	Number and percent of disabled people with Birth Cause of Impairment by age group				
	0–14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	11,000	4,000	7,000	1,000	s
Disabled Māori	31,000	13,000	37,000	26,000	12,000
Percent	35 (30-39)	*29 (19-39)	19 (13-24)	*6 (4-7)	s
Non-Māori	27,000	8,000	20,000	14,000	8,000
Disabled Non-Māori	60,000	34,000	127,000	182,000	230,000
Percent	#45 (41-49)	*25 (16-33)	*16 (11-21)	*8 (5-10)	*4 (2-5)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable  
s indicates a suppressed result.

# indicates results are statistically different to those for disabled Māori.

From these estimates we can calculate the following:

- 35 percent of disabled Māori aged 0 to 14 years had birth as cause of impairment, less than the 45 percent of disabled non-Māori in the same age group
- 19 percent of disabled Māori aged 25 to 44 years had birth as cause of impairment.

## Māori Health Disability Statistical Report

---

Table 3c: Number and percent of disabled people with Disease Cause of Impairment by age group, Māori and non-Māori, 2001.

Ethnicity	Number and percent of disabled people with Disease Cause of Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	12,000	4,000	12,000	12,000	6,000
Disabled Māori	31,000	13,000	37,000	26,000	12,000
Percent	38 (33-42)	*29 (20-38)	34 (29-39)	47 (41-52)	50 (44-56)
Non-Māori	19,000	12,000	36,000	70,000	121,000
Disabled Non-Māori	60,000	34,000	127,000	182,000	230,000
Percent	31 (27-35)	*36 (24-48)	28 (23-34)	39 (33-44)	53 (49-56)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

From these estimates we can calculate the following:

- 38 percent of disabled Māori aged 0 to 14 years had disease as cause of impairment
- 34 percent of disabled Māori aged 25 to 44 years had disease as cause of impairment
- 47 percent of disabled Māori aged 45 to 64 years had disease as cause of impairment
- 50 percent of disabled Māori aged 65 years and over had disease as cause of impairment.

Table 3d: Number and percent of disabled people with Ageing Cause of Impairment by age group, Māori and non-Māori, 2001.

Ethnicity	Number and percent of disabled people with Ageing Cause of Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	s	s	1,000	5,000	5,000
Disabled Māori	31,000	13,000	37,000	26,000	12,000
Percent	s	s	*4 (2-6)	20 (16-25)	44 (39-50)
Non-Māori	s	s	2,000	21,000	92,000
Disabled Non-Māori	60,000	34,000	127,000	182,000	230,000
Percent	s	s	s	*12 (8-15)	40 (36-44)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable  
s indicates a suppressed result.

From these estimates we can calculate the following:

- 20 percent of disabled Māori aged 45 to 64 years had ageing as cause of impairment
- 44 percent of disabled Māori aged 65 years and over had ageing as cause of impairment.

## Māori Health Disability Statistical Report

---

Table 3e: Number and percent of disabled people with Other Cause of Impairment by age group, Māori and non-Māori, 2001.

Ethnicity	Number and percent of disabled people with Other Cause of Impairment by age group				
	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	6,000	3,000	9,000	6,000	3,000
Disabled Māori	31,000	13,000	37,000	26,000	12,000
Percent	20 (17-24)	*22 (15-29)	24 (19-28)	22 (19-26)	21 (16-27)
Non-Māori	11,000	3,000	23,000	43,000	42,000
Disabled Non-Māori	60,000	34,000	127,000	182,000	230,000
Percent	19 (15-23)	*10 (2-17)	18 (13-23)	24 (19-28)	18 (15-21)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable

s indicates a suppressed result.

From these estimates we can calculate the following:

- 20 percent of disabled Māori aged 0 to 14 years had other as cause of impairment
- 24 percent of disabled Māori aged 25 to 24 years had other as cause of impairment
- 22 percent of disabled Māori aged 45 to 64 years had other as cause of impairment
- 21 percent of disabled Māori aged 65 years and over had other as cause of impairment.

Table 3f: Number and percent of disabled people with Unknown Cause of Impairment by age group, Māori and non-Māori, 2001.

Ethnicity	Number and percent of disabled people with Unknown Cause of Impairment by age group				
	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	6,000	1,000	4,000	2,000	s
Disabled Māori	31,000	13,000	37,000	26,000	12,000
Percent	18 (14-21)	*9 (5-14)	*10 (6-13)	*6 (4-8)	s
Non-Māori	9,000	8,000	13,000	20,000	15,000
Disabled Non-Māori	60,000	34,000	127,000	182,000	230,000
Percent	16 (12-19)	*24 (13-36)	*10 (6-14)	*11 (7-14)	7 (5-8)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable

s indicates a suppressed result.

From these estimates we can calculate the following:

- 18 percent of disabled Māori aged 0 to 14 years had unknown cause of impairment.

### ***Presence of multiple impairments for disabled people***

It is estimated 66,000 Māori and 373,000 non-Māori had multiple impairments. From these estimates we can calculate that:

- 55 percent of disabled Māori males had multiple impairments compared with 57 percent of disabled non-Māori males

## Māori Health Disability Statistical Report

---

- 55 percent of disabled Māori females had multiple impairments compared with 61 percent of disabled non-Māori females.

Table 4: Number and percent of disabled people with multiple impairments by age group, Māori and non-Māori, 2001.

Ethnicity	Number and percent of disabled people with Multiple Impairments by age group				
	0–14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	13,000	6,000	20,000	18,000	9,000
Disabled Māori	31,000	13,000	37,000	26,000	12,000
Percent	42 (38-46)	48 (37-58)	54 (48-59)	69 (64-74)	71 (65-77)
Non-Māori	28,000	14,000	58,000	105,000	168,000
Disabled Non-Māori	60,000	34,000	127,000	182,000	230,000
Percent	47 (43-51)	42 (30-53)	46 (40-52)	#58 (53-63)	73 (70-76)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

# indicates results are statistically different to those for disabled Māori.

From these estimates we can calculate the following:

- 42 percent of disabled Māori aged 0 to 14 years had multiple impairments
- 48 percent of disabled Māori aged 15 to 24 years had multiple Impairments
- 54 percent of disabled Māori aged 25 to 44 years had multiple impairments
- 69 percent of disabled Māori aged 45 to 64 years had multiple impairments, greater than the 58 percent of disabled non-Māori in the same age group.

### ***Unmet need for special equipment for disabled people***

It is estimated that 38,000 Māori and 156,000 non-Māori had an unmet need for special equipment. From these estimates we can calculate that:

- 29 percent of disabled Māori males had an unmet need for special equipment compared with 26 percent of disabled non-Māori males
- 37 percent of disabled Māori females had an unmet need for special equipment, greater than the 27 percent of disabled non-Māori females.

## Māori Health Disability Statistical Report

---

Table 5: Number and percent of disabled people with unmet need for special equipment by age group, Māori and non-Māori, 2001.

Ethnicity	Number and percent of disabled people with unmet need for special equipment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	3,000	3,000	15,000	11,000	5,000
Disabled Māori	31,000	13,000	37,000	26,000	12,000
Percent	10 (8-13)	*29 (20-39)	44 (38-50)	45 (38-52)	41 (35-47)
Non-Māori	4,000	6,000	32,000	59,000	55,000
Disabled Non-Māori	60,000	34,000	127,000	182,000	230,000
Percent	7 (5-9)	*19 (11-27)	#26 (21-31)	34 (29-39)	#28 (25-31)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable

# indicates results are statistically different to those for disabled Māori.

From these estimates we can calculate the following:

- 10 percent of disabled Māori aged 0 to 14 years had an unmet need for special equipment
- 44 percent of disabled Māori aged 25 to 44 years had an unmet need for special equipment, greater than the 26 percent of disabled non-Māori in the same age group
- 45 percent of disabled Māori aged 45 to 64 years had an unmet need for special equipment
- 41 percent of disabled Māori aged 65 years and over had an unmet need for special equipment, greater than the 28 percent of disabled non-Māori in the same age group.

### ***Unmet need for health professionals for disabled people***

It is estimated 27,000 Māori and 87 000 non-Māori had an unmet need to access a health professional. From these estimates we can calculate that:

- 21 percent of disabled Māori males had an unmet need to access a health professional, greater than the 14 percent of disabled non-Māori males
- 27 percent of disabled Māori females had an unmet need to access a health professional, greater than the 15 percent of disabled non-Māori females.

## Māori Health Disability Statistical Report

---

Table 6: Number and percent of disabled people with unmet need for a health professional by age group, Māori and non-Māori, 2001.

Ethnicity	Number and percent of disabled people with unmet need for a health professional by age group				
	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	7,000	4,000	10,000	5,000	s
Disabled Māori	31,000	13,000	37,000	26,000	12,000
Percent	23 (18-27)	*35 (23-47)	29 (24-34)	22 (18-26)	s
Non-Māori	9,000	7,000	30,000	28,000	13,000
Disabled Non-Māori	60,000	34,000	127,000	182,000	230,000
Percent	16 (12-19)	*21 (10-31)	25 (19-30)	17 (12-21)	*6 (4-8)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable

s indicates a suppressed result.

From these estimates we can calculate the following:

- 23 percent of disabled Māori aged 0 to 14 years had an unmet need to access a health professional
- 29 percent of disabled Māori aged 25 to 44 years had an unmet need to access a health professional
- 22 percent of disabled Māori aged 45 to 64 years had an unmet need to access a health professional.

### ***Labour force status for disabled and non-disabled people***

Table 7 below shows estimates of the number and percent of disabled Māori and non-Māori by Labour force status.

Table 7: Number and percent of disabled and non-disabled people by Labour force Status, Māori and non-Māori, 2001

Ethnicity	Labour Force Status			
	Employed	Unemployed	Not in the labour force	Total labour force status
Disabled Māori	38,000	6,000	43,000	88,000
Percent	44 (41-46)	7 (6-9)	49 (46-52)	100
Disabled Non-Māori	215,000	19,000	336,000	573,000
Percent	#38 (36-40)	#3 (3-4)	#59 (57-61)	100
Non-Disabled Māori	177,000	25,000	73,000	278,000
Percent	#64 (62-66)	9 (8-10)	#27 (25-29)	100
Non-Disabled Non-Māori	1,327,000	70,000	464,000	1,877,000
Percent	#71 (70-73)	#4 (3-5)	#25 (24-26)	100

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

# indicates results are statistically different to those for disabled Māori.

From these estimates we can calculate the following:

- 44 percent of disabled Māori were employed, greater than the 38 percent of disabled non-Māori, and less than the 64 percent of non-disabled Māori and 71 percent of non-disabled non-Māori

## Māori Health Disability Statistical Report

---

- 7 percent of disabled Māori were unemployed, greater than the 3 percent of disabled non-Māori, and 4 percent of non-disabled non-Māori
- 49 percent of disabled Māori were not in the labour force, less than the 59 percent of disabled non-Māori, and greater than the 27 percent of non-disabled Māori and 25 percent of non-disabled non-Māori.

### ***Personal income status for disabled and non-disabled people***

Table 8 below shows estimates of the number and percent of disabled and non-disabled Māori and non-Māori by Personal income status.

Table 8: Number and percent of disabled and non-disabled people by Personal income Status, Māori and non-Māori, 2001.

Ethnicity	Personal Income Status					
	Less than \$15,001	\$15,001 – \$30,000	\$30,001 – \$50,000	\$50,001 – \$70,000	\$70,001#	Total personal income status
Disabled Māori	43,000	18,000	9,000	1,000	1,000	72,000
Percent	60 (57-63)	25 (22-28)	12 (9-14)	*2 (1-3)	*2 (1-2)	100
Disabled Non-Māori	269,000	120,000	67,000	20,000	10,000	487,000
Percent	55 (53-58)	25 (22-27)	14 (12-16)	*4 (3-6)	*2 (1-3)	100
Non-Disabled Māori	108,000	75,000	44,000	9,000	8,000	244,000
Percent	#44 (42-47)	#31 (29-33)	#18 (16-20)	4 (3-5)	*3 (2-5)	100
Non-Disabled Non-Māori	678,000	445,000	393,000	130,000	111,000	1,757,000
Percent	#39 (37-40)	25 (24-27)	#22 (21-24)	7 (6-9)	6 (5-7)	100

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable

# indicates results are statistically different to those for disabled Māori.

From these estimates we can calculate the following:

- 60 percent of disabled Māori had income of less than \$15,000, greater than the 44 percent of non-disabled Māori and 39 percent of non-disabled non-Māori
- 25 percent of disabled Māori had income between \$15,001 and \$30,000, less the 31 percent of non-disabled Māori
- 12 percent of disabled Māori had income between \$30,001 and \$50,000, less than the 18 percent of non-disabled Māori and 22 percent of non-disabled non-Māori.

### ***Education status for disabled and non-disabled people***

Table 9 below shows estimates of the number and percent of disabled and non-disabled Māori and non-Māori by Education status.

Table 9: Number and percent of disabled and non-disabled people by Education Status, Māori and non-Māori, 2001.

Ethnicity	Education Status				
	No qualification	School qualification at level 1 to 4	Post-school qualification at level 1 to 6	Bachelor's degree or higher	Total education status
Disabled Māori	34,000	20,000	10,000	3,000	67,000
Percent	51 (47-54)	30 (27-34)	15 (12-17)	*4 (3-6)	100
Disabled Non-Māori	164,000	152,000	92,000	31,000	441,000
Percent	#37 (34-40)	35 (32-38)	#21 (18-24)	7 (6-9)	100
Non-Disabled Māori	96,000	90,000	48,000	11,000	245,000
Percent	#39 (37-42)	#37 (35-39)	#20 (18-21)	5 (4-5)	100
Non-Disabled Non-Māori	373,000	748,000	360,000	258,000	1,739,000
Percent	#21 (20-23)	#43 (41-45)	21 (19-23)	15 (14-16)	100

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

# indicates results are statistically different to those for disabled Māori.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 51 percent of disabled Māori had no education qualification, greater than the 37 percent of disabled non-Māori, 39 percent of non-disabled Māori, and 21 percent of non-disabled non-Māori
- 30 percent of disabled Māori had a School qualification at level 1 to 4, less than the 37 percent of non-disabled Māori, and 43 percent of non-disabled non-Māori
- 15 percent of disabled Māori had a post-school qualification at level 1 to 6, less than the 21 percent of disabled non-Māori, and 20 percent of non-disabled Māori.

### **Deprivation status for disabled and non-disabled people**

Table 10 below shows estimates of the number and percent of disabled and non-disabled Māori and non-Māori by Deprivation status.

The lowest quintile is the least deprived area and the highest quintile is the most deprived area.

Table 10: Number and percent of disabled and non-disabled people by Deprivation Status, Māori and non-Māori, 2001.

Ethnicity	Deprivation Status					Total deprivation status
	Lowest quintile	Second quintile	Third quintile	Fourth quintile	Highest quintile	
Disabled Māori	5,000	10,000	16,000	28,000	52,000	119,000
Percent	5 (4-6)	9 (7-11)	15 (12-17)	25 (22-28)	47 (43-50)	100
Disabled Non-Māori	108,000	117,000	121,000	130,000	103,000	633,000
Percent	#19 (16-21)	#20 (18-23)	#21 (18-23)	22 (20-25)	#18 (16-20)	100
Non-Disabled Māori	35,000	53,000	78,000	103,000	195,000	464,000
Percent	#8 (6-9)	12 (10-13)	17 (15-19)	22 (20-25)	42 (39-45)	100
Non-Disabled Non-Māori	617,000	555,000	456,000	466,000	342,000	2,437,000
Percent	#25 (23-28)	#23 (21-25)	19 (17-21)	#19 (17-21)	#14 (13-15)	100

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

# indicates results are statistically different to those for disabled Māori

From these estimates we can calculate the following:

- 5 percent of disabled Māori lived in the lowest quintile deprivation areas (least deprived), less than the 19 percent of disabled non-Māori, 8 percent of non-disabled Māori and 25 percent of non-disabled non-Māori who lived in this quintile
- 9 percent of disabled Māori lived in the second quintile deprivation areas, less than the 20 percent of disabled non-Māori and 23 percent of non-disabled non-Māori who lived in this quintile
- 15 percent of disabled Māori lived in the third quintile deprivation areas, less than the 21 percent of disabled non-Māori who lived in this quintile
- 25 percent of disabled Māori lived in the fourth quintile deprivation areas, greater than the 19 percent of non-disabled non-Māori who lived in this quintile
- 47 percent of disabled Māori lived in the highest quintile deprivation areas (most deprived), greater than the 18 percent of disabled non-Māori and 14 percent of non-disabled non-Māori who lived in this quintile.

### Appendix 3: Findings from the 2006 Stats NZ Disability Survey

Statistically significant differences between Māori and non-Māori percentages were highlighted for each table within this appendix. Where no significant difference was found the Māori percentage was shown. Suppressed results, shown in the tables as an “s” and results with high relative sample error, shown in the tables by an “\*\*” are not commented on.

#### **According to the 2006 Stats NZ Disability Survey:**

##### ***Key findings from the 2006 Stats NZ Disability Survey:***

These findings are statistically significant:

- 17 percent of Māori were disabled compared, greater than the 11 percent of non-Māori (age standardised rates)
- 17 percent of Māori males were disabled, greater than the 12 percent for non-Māori males (age standardised rates)
- 16 percent of Māori females were disabled, greater than the 10 percent for non-Māori females (age standardised rates)
- 16 percent of Māori aged 25 to 44 years were disabled, greater than the 9 percent of non-Māori in the same age group
- 27 percent of disabled Māori had birth as cause of impairment, greater than the 14 percent of disabled non-Māori with the same cause of impairment
- 9 percent of disabled Māori had ageing as cause of impairment, less than the 26 percent of disabled non-Māori with the same cause of impairment
- 40 percent of disabled Māori were employed, less than the 70 percent of non-disabled Māori, and 74 percent of non-disabled non-Māori
- 45 percent of disabled Māori had income of less than \$15,000, greater than the 29 percent of non-disabled non-Māori
- 50 percent of disabled Māori had no education qualification, greater than the 33 percent of non-disabled Māori and 19 percent of non-disabled non-Māori
- 42 percent of disabled Māori lived in the highest quintile deprivation areas (most deprived), greater than the 34 percent of non-disabled Māori who lived in this quintile.

#### ***Prevalence of disability among the total population***

It is estimated 110,000 Māori and 572,000 non-Māori were disabled. From these estimates we can calculate that:

- 17 percent of Māori were disabled, greater than the 11 percent of non-Māori (age standardised rates)
- 17 percent of Māori males were disabled, greater than the 12 percent for non-Māori males (age standardised rates)
- 16 percent of Māori females were disabled, greater than the 10 percent for non-Māori females (age standardised rates).

## Māori Health Disability Statistical Report

---

Table 1: Number and percent of people with a disability by age group, Māori and non-Māori, 2006.

Ethnicity	Age group – Number and percent of Disabled Māori				
	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over
Disabled Māori	31,000	10,000	28,000	29,000	13,000
Total Māori Population	222,000	117,000	173,000	101,000	26,000
Percent	14 (12-17)	*9 (6-11)	16 (13-19)	28 (22-35)	48 (39-58)
Age group – Number and percent of Disabled Non-Māori					
Disabled Non-Māori	61,000	29,000	90,000	176,000	217,000
Total Non-Māori Population	664,000	470,000	997,000	883,000	479,000
Percent	*9 (6-12)	*6 (2-11)	#9 (8-10)	*20 (7-33)	*45 (28-62)

Source: Customised data, Statistics New Zealand Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

# indicates results are statistically different to those for disabled Māori.

\* indicates results with high relative sample errors which should be treated with caution.

From these estimates we can calculate the following:

- 14 percent of Māori aged 0 to 14 years were disabled
- 16 percent of Māori aged 25 to 44 years were disabled, greater than the 9 percent of non-Māori in the same age group
- 28 percent of Māori aged 45 to 64 years were disabled
- 48 percent of Māori aged 65 years and over were disabled.

### Type of impairment for disabled people

When tested by looking at confidence intervals, none of the findings for Māori and non-Māori shown in this section were found to be significantly different. Likewise, none of the age group comparisons were found to be significantly different. Constraints of the Disability Survey data sets do not allow us to use other forms of testing which may indicate significant differences between Māori and non-Māori.

Table 2: below shows estimates of the number and percent of disabled Māori and non-Māori by Type of Impairment. Each impairment type is counted for each person (Total Response).

## Māori Health Disability Statistical Report

---

Table 2: Number and percent of disabled people by Impairment Type, Māori and non-Māori, 2006.

Ethnicity	Type of Impairment					
	Sensory	Physical	Intellectual	Psychiatric / Psychological	Other	Total
Māori Number	38,000	65,000	14,000	27,000	54,000	110,000
Percent (1)	35 (32-37)	59 (48-71)	13 (10-15)	*25 (14-36)	49 (45-53)	
Non-Māori Number	238,000	364,000	37,000	86,000	237,000	572,000
Percent (1)	*42 (21-62)	*64 (37-90)	s	15 (13-18)	42 (35-48)	

Source: Customised data, Stats NZ Wellington.

Notes: (1) Total Response – percentages will sum to more than 100 percent as disabled people can have more than one type of impairment.

Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable

s indicates a suppressed result.

From these estimates we can calculate the following:

- 35 percent of disabled Māori had sensory impairment
- 59 percent of disabled Māori had physical impairment
- 13 percent of disabled Māori had intellectual impairment
- 49 percent of disabled Māori had other impairment.

Table 2a: Number and percent of disabled people with Sensory Impairment by age group, Māori and non-Māori, 2006.

Ethnicity	Number and percent of disabled people with Sensory Impairment by age group				
	0–14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	9,000	4,000	9,000	11,000	6,000
Disabled Māori	31,000	10,000	28,000	29,000	13,000
Percent	29 (21-36)	*36 (24-48)	*33 (22-44)	*38 (18-57)	*45 (27-63)
Non-Māori	15,000	7,000	32,000	75,000	110,000
Disabled Non-Māori	61,000	29,000	90,000	176,000	217,000
Percent	25 (20-30)	s	s	42 (38-47)	*51 (23-79)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

## Māori Health Disability Statistical Report

---

From these estimates we can calculate the following:

- 29 percent of disabled Māori aged 0 to 14 years had sensory impairment.

Table 2b: Number and percent of disabled people with Physical Impairment by age group, Māori and non-Māori, 2006.

Ethnicity	Number and percent of disabled people with Physical Impairment by age group				
	0–14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	14,000	5,000	14,000	21,000	11,000
Disabled Māori	31,000	10,000	28,000	29,000	13,000
Percent	*44 (17-71)	55 (42-68)	51 (43-59)	72 (52-92)	90 (74-105)
Non-Māori	26,000	11,000	42,000	107,000	178,000
Disabled Non-Māori	61,000	29,000	90,000	176,000	217,000
Percent	*43 (26-61)	*38 (24-51)	*47 (13-81)	*61 (25-96)	82 (66-99)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 55 percent of disabled Māori aged 15 to 24 years had physical impairment
- 90 percent of disabled Māori aged 65 years and over had physical impairment.

Table 2c: Number and percent of disabled people with Intellectual Impairment by age group, Māori and non-Māori, 2006.

Ethnicity	Number and percent of disabled people with Intellectual Impairment by age group				
	0–14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	5,000	2,000	4,000	2,000	s
Disabled Māori	31,000	10,000	28,000	29,000	13,000
Percent	*17 (3-31)	*25 (11-40)	s	*7 (2-12)	s
Non-Māori	12,000	5,000	8,000	8,000	4,000
Disabled Non-Māori	61,000	29,000	90,000	176,000	217,000
Percent	20 (17-23)	*17 (10-25)	s	s	*2 (0-4)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

## Māori Health Disability Statistical Report

---

Table 2d: Number and percent of disabled people with Psychiatric/Psychological Impairment by age group, Māori and non-Māori, 2006.

Ethnicity	Number and percent of disabled people with Psychiatric/Psychological Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	7,000	3,000	9,000	6,000	1,000
Disabled Māori	31,000	10,000	28,000	29,000	13,000
Percent	*23 (7-40)	*33 (22-45)	*32 (15-49)	23 (16-29)	*9 (4-13)
Non-Māori	12,000	9,000	28,000	21,000	15,000
Disabled Non-Māori	61,000	29,000	90,000	176,000	217,000
Percent	*20 (8-31)	s	*32 (19-44)	*12 (1-23)	*7 (3-11)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 23 percent of disabled Māori aged 45 to 64 years had psychiatric/psychological impairment.

Table 2e: Number and percent of disabled people with Other Impairment by age group, Māori and non-Māori, 2006.

Ethnicity	Number and percent of disabled people with Other Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	18,000	6,000	13,000	12,000	4,000
Disabled Māori	31,000	10,000	28,000	29,000	13,000
Percent	58 (46-70)	59 (42-77)	47 (34-60)	*44 (23-64)	*35 (23-47)
Non-Māori	37,000	20,000	36,000	62,000	82,000
Disabled Non-Māori	61,000	29,000	90,000	176,000	217,000
Percent	62 (52-71)	67 (55-79)	s	35 (27-44)	*38 (10-66)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 58 percent of disabled Māori aged 0 to 14 years had other impairment
- 59 percent of disabled Māori aged 15 to 24 years had other impairment
- 47 percent of disabled Māori aged 25 to 44 years had other impairment.

## Māori Health Disability Statistical Report

---

### Cause of impairment for disabled people

Table 3 below shows estimates of the number and percent of disabled Māori and non-Māori by Cause of Impairment. Each impairment cause is counted for each person (Total Response).

Table 3: Number and percent of disabled people by Cause of Impairment, Māori and non-Māori, 2006.

Ethnicity	Cause of Impairment						
	Accident	Birth	Disease	Ageing	Other	Unknown	Total
Māori Number	27,000	30,000	37,000	10,000	29,000	7,000	110,000
Percent (1)	*24 (3-46)	27 (19-35)	*34 (13-55)	9 (8-10)	26 (21-30)	*7 (1-12)	
Non-Māori Number	149,000	79,000	205,000	147,000	137,000	27,000	572,000
Percent (1)	26 (24-28)	#14 (11-17)	36 (32-40)	#26 (24-28)	24 (21-27)	s	

Notes: (1) Total Response – percentages will sum to more than 100 percent as disabled people can have more than one cause of impairment.

Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

# indicates results are statistically different to those for disabled Māori.

From these estimates we can calculate the following:

- 27 percent of disabled Māori had birth as cause of impairment, greater than the 14 percent of disabled non-Māori with the same cause of impairment
- 9 percent of disabled Māori had ageing as cause of impairment, less than the 26 percent of disabled non-Māori with the same cause of impairment
- 26 percent of disabled Māori had other as cause of impairment.

Table 3a: Number and percent of disabled people with Accident Cause of Impairment by age group, Māori and non-Māori, 2006.

Ethnicity	Number and percent of disabled people with Accident Cause of Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	1,000	3,000	9,000	10,000	4,000
Disabled Māori	31,000	10,000	28,000	29,000	13,000
Percent	s	*28 (3-54)	*33 (6-60)	36 (30-41)	s
Non-Māori	1,000	4,000	34,000	61,000	50,000
Disabled Non-Māori	61,000	29,000	90,000	176,000	217,000
Percent	s	s	*38 (21-55)	34 (29-40)	23 (19-27)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 36 percent of disabled Māori aged 45 to 64 years had accident as cause of impairment.

## Māori Health Disability Statistical Report

---

Table 3b: Number and percent of disabled people with Birth Cause of Impairment by age group, Māori and non-Māori, 2006.

Ethnicity	Number and percent of disabled people with Birth Cause of Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	15,000	4,000	6,000	3,000	s
Disabled Māori	31,000	10,000	28,000	29,000	13,000
Percent	50 (41-59)	*41 (9-73)	*23 (12-35)	12 (9-15)	s
Non-Māori	31,000	11,000	14,000	19,000	4,000
Disabled Non-Māori	61,000	29,000	90,000	176,000	217,000
Percent	*51 (10-91)	s	*15 (6-25)	*11 (7-15)	s

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 50 percent of disabled Māori aged 0 to 14 years had birth as cause of impairment
- 12 percent of disabled Māori aged 45 to 64 years had birth as cause of impairment.

Table 3c: Number and percent of disabled people with Disease as Cause of Impairment by age group, Māori and non-Māori, 2006.

Ethnicity	Number and percent of disabled people with Disease Cause of Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	10,000	2,000	8,000	12,000	6,000
Disabled Māori	31,000	10,000	28,000	29,000	13,000
Percent	s	s	s	*41 (23-59)	s
Non-Māori	16,000	10,000	24,000	55,000	100,000
Disabled Non-Māori	61,000	29,000	90,000	176,000	217,000
Non-Māori	*26 (2-51)	*35 (6-64)	s	*31 (16-47)	*46 (27-65)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

## Māori Health Disability Statistical Report

---

Table 3d: Number and percent of disabled people with Ageing as cause of Impairment by age group, Māori and non-Māori, 2006.

Ethnicity	Number and percent of disabled people with Ageing Cause of Impairment by age group				
	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	s	s	s	5,000	5,000
Disabled Māori	31,000	10,000	28,000	29,000	13,000
Percent	s	s	s	*16 (11-21)	*37 (13-62)
Non-Māori	s	s	2,000	31,000	114,000
Disabled Non-Māori	61,000	29,000	90,000	176,000	217,000
Percent	s	s	s	s	53 (38-67)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

Table 3e: Number and percent of disabled people with Other as cause of Impairment by age group, Māori and non-Māori, 2006.

Ethnicity	Number and percent of disabled people with Other Cause of Impairment by age group				
	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	6,000	2,000	9,000	9,000	3,000
Disabled Māori	31,000	10,000	28,000	29,000	13,000
Percent	*19 (4-35)	*20 (7-32)	s	31 (22-40)	s
Non-Māori	11,000	7,000	32,000	46,000	41,000
Disabled Non-Māori	61,000	29,000	90,000	176,000	217,000
Percent	19 (15-22)	*25 (13-37)	s	s	*19 (11-27)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 31 percent of disabled Māori aged 45 to 64 years had other as cause of impairment.

## Māori Health Disability Statistical Report

---

Table 3g: Number and percent of disabled people with Unknown as cause of Impairment by age group, Māori and non-Māori, 2006.

Ethnicity	Number and percent of disabled people with Unknown Cause of Impairment by age group				
	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	3,000	s	2,000	1,000	s
Disabled Māori	31,000	10,000	28,000	29,000	13,000
Percent	s	s	s	*4 (1-8)	s
Non-Māori	8,000	2,000	6,000	8,000	3,000
Disabled Non-Māori	61,000	29,000	90,000	176,000	217,000
Percent	*13 (3-22)	s	s	s	s

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

### ***Presence of multiple impairments for disabled people***

It is estimated 64,000 Māori and 331,000 non-Māori had multiple impairments. From these estimates we can calculate that:

- 57 percent of disabled Māori males had multiple impairments compared with 53 percent of disabled non-Māori males
- 59 percent of disabled Māori females had multiple impairments with 63 percent of disabled non-Māori females.

Table 4: Number and percent of disabled people with multiple impairments by age group, Māori and non-Māori, 2006.

Ethnicity	Number and percent of disabled people with Multiple Impairments by age group				
	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	15,000	6,000	15,000	18,000	9,000
Disabled Māori	31,000	10,000	28,000	29,000	13,000
Percent	50 (42-57)	61 (45-77)	56 (49-62)	63 (44-81)	71 (60-83)
Non-Māori	28,000	14,000	43,000	88,000	158,000
Disabled Non-Māori	61,000	29,000	90,000	176,000	217,000
Percent	47 (40-53)	*47 (13-80)	*49 (33-64)	*50 (20-80)	73 (65-81)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

From these estimates we can calculate the following:

- 50 percent of disabled Māori aged 0 to 14 years had multiple impairments
- 61 percent of disabled Māori aged 15 to 24 years had multiple impairments
- 56 percent of disabled Māori aged 25 to 64 years had multiple impairments
- 63 percent of disabled Māori aged 45 to 64 years had multiple impairments
- 71 percent of disabled Māori aged 65 years and over had multiple impairments.

### ***Unmet need for special equipment for disabled people***

It is estimated that 36,000 Māori and 129,000 non-Māori had an unmet need for special equipment. From these estimates we can calculate that:

- 31 percent of disabled Māori males had an unmet need for special equipment compared with 22 percent of disabled non-Māori males
- 36 percent of disabled Māori females had an unmet need for special equipment compared with 24 percent of disabled non-Māori females.

Table 5: Number and percent of disabled people with unmet need for special equipment by age group, Māori and non-Māori, 2006.

Ethnicity	Number and percent of disabled people with Unmet need for special equipment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	9,000	3,000	10,000	10,000	4,000
Disabled Māori	31,000	10,000	28,000	29,000	13,000
Percent	*30 (17-44)	*29 (16-42)	*35 (19-52)	*36 (14-58)	*34 (6-61)
Non-Māori	12,000	6,000	20,000	47,000	43,000
Disabled Non-Māori	61,000	29,000	90,000	176,000	217,000
Percent	21 (15-26)	s	*23 (9-37)	*27 (18-37)	*21 (13-29)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

### ***Unmet need for health professionals for disabled people***

It is estimated 24,000 Māori and 70,000 non-Māori had an unmet need to access a health professional. From these estimates we can calculate that:

No comments have been made regarding disabled Māori and non-Māori males and females unmet need to access a health professional as these results have high relative sample errors, or are suppressed, and are therefore unreliable.

## Māori Health Disability Statistical Report

---

Table 6: Number and percent of disabled people with unmet need for health professional by age group, Māori and non-Māori, 2006.

Ethnicity	Number and percent of disabled people with unmet need for health professional by age group				
	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over
Māori	6,000	3,000	8,000	6,000	1,000
Disabled Māori	31,000	10,000	28,000	29,000	13,000
Percent	*19 (9-29)	*32 (1-64)	*28 (16-41)	*21 (1-40)	*9 (4-15)
Non-Māori	8,000	7,000	22,000	22,000	11,000
Disabled Non-Māori	61,000	29,000	90,000	176,000	217,000
Percent	s	*25 (0-50)	*25 (11-39)	s	*5 (0-10)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

### ***Labour force status for disabled and non-disabled people***

Table 7 below shows estimates of the number and percent of disabled Māori and non-Māori by Labour force status.

Table 7: Number and percent of disabled and non-disabled people by Labour force Status, Māori and non-Māori, 2006.

Ethnicity	Labour Force Status			
	Employed	Unemployed	Not in the labour force	Total labour force status
Disabled Māori	32,000	6,000	40,000	79,000
Percent	40 (31-49)	s	*52 (35-68)	100
Disabled Non-Māori	199,000	12,000	300,000	512,000
Percent	*39 (23-54)	*2 (1-3)	59 (44-74)	100
Non-Disabled Māori	224,000	22,000	74,000	338,000
Percent	#70 (65-75)	*7 (3-11)	23 (21-25)	100
Non-Disabled Non-Māori	1,632,000	59,000	507,000	2,317,000
Percent	#74 (72-77)	*3 (0-5)	23 (19-28)	100

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable.

s indicates a suppressed result.

# indicates results are statistically different to those for disabled Māori.

From these estimates we can calculate the following.

- 40 percent of disabled Māori were employed, less than the 70 percent of non-disabled Māori, and 74 percent of non-disabled non-Māori.

### ***Personal income status for disabled and non-disabled people***

Table 8 below shows estimates of the number and percent of disabled and non-disabled Māori and non-Māori by Personal income status.

## Māori Health Disability Statistical Report

---

Table 8: Number and percent of disabled and non-disabled people by Personal income Status, Māori and non-Māori, 2006.

Ethnicity	Personal Income Status					
	Less than \$15,001	\$15,001 – \$30,000	\$30,001 – \$50,000	\$50,001 – \$70,000	\$70,001+	Total personal income status
Disabled Māori	29,000	20,000	12,000	2,000	1,000	65,000
Percent	45 (40-51)	30 (23-38)	s	s	*2 (1-4)	100
Disabled Non-Māori	187,000	127,000	77,000	31,000	13,000	433,000
Percent	43 (39-48)	*29 (14-44)	18 (14-21)	*7 (0-14)	s	100
Non-Disabled Māori	103,000	74,000	83,000	25,000	11,000	296,000
Percent	*35 (22-48)	25 (23-27)	*28 (19-37)	*8 (3-14)	*4 (3-5)	100
Non-Disabled Non-Māori	616,000	475,000	553,000	244,000	214,000	2,102,000
Percent	#29 (28-31)	*23 (11-35)	26 (20-33)	s	*10 (2-18)	100

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable.

s indicates a suppressed result.

# indicates results are statistically different to those for disabled Māori.

From these estimates we can calculate the following:

- 45 percent of disabled Māori had income of less than \$15,000, greater than the 29 percent of non-disabled non-Māori
- 30 percent of disabled Māori had income between \$15,001 and \$30,000.

### ***Education status for disabled and non-disabled people***

Table 9 below shows estimates of the number and percent of disabled and non-disabled Māori and non-Māori by Education status.

Table 9: Number and percent of disabled and non-disabled people by Education Status, Māori and non-Māori, 2006.

Ethnicity	Education Status				
	No qualification	School qualification at level 1 to 4	Post-school qualification at level 1 to 6	Bachelor's degree or higher	Total education status
Disabled Māori	32,000	16,000	13,000	3,000	64,000
Percent	50 (37-64)	24 (18-31)	*20 (12-29)	*5 (3-7)	100
Disabled Non-Māori	165,000	116,000	99,000	34,000	414,000
Percent	*40 (25-55)	*28 (19-37)	24 (21-27)	s	100
Non-Disabled Māori	97,000	110,000	64,000	25,000	297,000
Percent	#33 (30-36)	37 (27-47)	*22 (13-31)	*8 (5-12)	100
Non-Disabled Non-Māori	398,000	788,000	541,000	384,000	2,111,000
Percent	#19 (14-24)	*37 (25-50)	26 (23-28)	*18 (9-28)	100

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

## Māori Health Disability Statistical Report

---

# indicates results are statistically different to those for disabled Māori.  
s indicates a suppressed result.

From these estimates we can calculate the following:

- 50 percent of disabled Māori had no education qualification, greater than the 33 percent of non-disabled Māori and 19 percent of non-disabled non-Māori
- 24 percent of disabled Māori had a School qualification at level 1 to 4.

### ***Deprivation status for disabled and non-disabled people***

Table 10 below shows estimates of the number and percent of disabled and non-disabled Māori and non-Māori by Deprivation status.

The lowest quintile is the least deprived area and the highest quintile is the most deprived area.

Table 10: Number and percent of disabled and non-disabled people by Deprivation Status, Māori and non-Māori, 2006.

Ethnicity	Deprivation Status					Total deprivation status
	Lowest quintile	Second quintile	Third quintile	Fourth quintile	Highest quintile	
Disabled Māori	6,000	12,000	19,000	27,000	46,000	110,000
Percent	*5 (1-9)	*11 (0-21)	17 (14-20)	*25 (14-35)	42 (38-47)	100
Disabled Non-Māori	93,000	121,000	114,000	121,000	93,000	572,000
Percent	s	*22 (9-36)	21 (18-25)	22 (18-26)	*17 (9-25)	100
Non-Disabled Māori	56,000	67,000	96,000	127,000	181,000	528,000
Percent	s	*13 (6-19)	*18 (10-27)	24 (20-28)	#34 (31-37)	100
Non-Disabled Non-Māori	745,000	718,000	629,000	476,000	351,000	2,921,000
Percent	s	25 (19-30)	*22 (2-41)	*16 (10-23)	*12 (1-23)	100

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

# indicates results are statistically different to those for disabled Māori.

s indicates a suppressed result.

From these estimates we can calculate the following.

- 17 percent of disabled Māori lived in the third quintile deprivation areas
- 42 percent of disabled Māori lived in the lowest quintile deprivation areas (most deprived), greater than the 34 percent of non-disabled Māori who lived in this quintile.

### Appendix 4: Findings from the 2013 Stats NZ Disability Survey

Statistically significant differences between Māori and non-Māori percentages were highlighted for each table within this appendix. Where no significant difference was found the Māori percentage was shown. Suppressed results, shown in the tables as an “s” and results with high relative sample error, shown in the tables by an “\*\*” are not commented on.

#### **According to the 2013 Stats NZ Disability Survey:**

#### **Key findings from the 2013 Stats NZ Disability Survey:**

These findings are statistically significant:

- 24 percent of Māori were disabled, greater than the 16 percent of non-Māori (age standardised rates)
- 26 percent of Māori males were disabled, greater than the 16 percent for non-Māori males (age standardised rates)
- 22 percent of Māori females were disabled, greater than the 15 percent for non-Māori females (age standardised rates)
- 15 percent of Māori aged 0 to 14 years were disabled, greater than the 9 percent of non-Māori in the same age group
- 21 percent of Māori aged 15 to 24 years were disabled, greater than the 14 percent of non-Māori in the same age group
- 24 percent of Māori aged 25 to 44 years were disabled, greater than the 15 percent of non-Māori in the same age group
- 43 percent of Māori aged 45 to 64 years were disabled, greater than the 26 percent of non-Māori in the same age group
- 23 percent of disabled Māori had birth as cause of impairment, greater than the 12 percent of disabled non-Māori with the same cause of impairment
- 30 percent of disabled Māori aged 65 years and over had an unmet need for special equipment, greater than the 17 percent of disabled non-Māori in the same age group
- 37 percent of disabled Māori had income of less than \$15,000, greater than the 27 percent of disabled non-Māori and 26 percent of non-disabled non-Māori
- 31 percent of disabled Māori had income between \$15,001 and \$30,000, greater than the 22 percent of non-disabled Māori and 18 percent of non-disabled non-Māori
- 17 percent of disabled Māori had income between \$30,001 and \$50,000, less than the 22 percent of non-disabled non-Māori
- 9 percent of disabled Māori had income between \$50,001 and \$70,000, less than the 14 percent of non-disabled Māori and 16 percent of non-disabled non-Māori
- 41 percent of disabled Māori had no education qualification, less than the 31 percent of disabled non-Māori, 24 percent of non-disabled Māori, and 14 percent of non-disabled non-Māori with no education qualification
- 7 percent of disabled Māori lived in the lowest quintile deprivation areas (least deprived), less than the 21 percent of disabled non-Māori, 12 percent of non-disabled Māori, and 26 percent of non-disabled non-Māori who lived in this quintile
- 42 percent of disabled Māori lived in the lowest quintile deprivation areas (most deprived), greater than the 18 percent of disabled non-Māori, 36 percent of non-disabled Māori, and 13 percent of non-disabled non-Māori, who lived in this quintile.

### ***Prevalence of disability among the total population***

It is estimated 176,000 Māori and 885,000 non-Māori were disabled. From these estimates we can calculate that:

- 24 percent of Māori were disabled, greater than the 16 percent of non-Māori (age standardised rates)
- 26 percent of Māori males were disabled, greater than the 16 percent for non-Māori males (age standardised rates)
- 22 percent of Māori females were disabled, greater than the 15 percent for non-Māori females (age standardised rates).

Table 1: Number and percent of people with a disability by age group, Māori and non-Māori, 2013.

Ethnicity	Age group – Number and percent of Disabled Māori				
	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over
Disabled Māori	35,000	24,000	42,000	51,000	24,000
Total Māori Population	235,000	115,000	176,000	118,000	38,000
Percent	15 (13-17)	21 (17-25)	24 (18-30)	43 (37-50)	*63 (39-88)
Age group – Number and percent of Disabled Non-Māori					
Disabled Non-Māori	60,000	71,000	147,000	263,000	346,000
Total Non-Māori Population	654,000	505,000	990,000	998,000	591,000
Percent	#9 (8-10)	#14 (12-16)	#15 (12-17)	#26 (21-31)	*59 (10-108)

Source: Customised data, Statistics New Zealand Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

# indicates results are statistically different to those for disabled Māori.

\* indicates results with high relative sample errors which should be treated with caution.

From these estimates we can calculate the following:

- 15 percent of Māori aged 0 to 14 years were disabled, greater than the 9 percent of non-Māori in the same age group
- 21 percent of Māori aged 15 to 24 years were disabled, greater than the 14 percent of non-Māori in the same age group
- 24 percent of Māori aged 25 to 44 years were disabled, greater than the 15 percent of non-Māori in the same age group
- 43 percent of Māori aged 45 to 64 years were disabled, greater than the 26 percent of non-Māori in the same age group.

### ***Type of impairment for disabled people***

When tested by looking at confidence intervals, none of the findings for Māori and non-Māori shown in this section were found to be significantly different. Likewise, none of the age group comparisons were found to be significantly different. Constraints of the Disability Survey data sets do not allow us to use other forms of testing which may indicate significant differences between Māori and non-Māori.

## Māori Health Disability Statistical Report

---

Table 2: below shows estimates of the number and percent of disabled Māori and non-Māori by Type of Impairment. Each impairment type is counted for each person (Total Response).

Table 2: Number and percent of disabled people by Impairment Type, Māori and non-Māori, 2013.

Ethnicity	Type of Impairment					
	Sensory	Physical	Intellectual	Psychiatric / Psychological	Other	Total
Māori Number	75,000	91,000	22,000	51,000	77,000	176,000
Percent (1)	43 (37-48)	51 (41-62)	*12 (4-21)	29 (23-35)	44 (34-54)	
Non-Māori Number	409,000	541,000	67,000	191,000	280,000	885,000
Percent (1)	46 (35-58)	*61 (30-92)	s	*22 (14-30)	*32 (4-59)	

Source: Customised data, Stats NZ Wellington.

Notes: (1) Total Response – percentages will sum to more than 100 percent as disabled people can

Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 43 percent of disabled Māori had sensory impairment
- 51 percent of disabled Māori had physical impairment
- 29 percent of disabled Māori had psychiatric / psychological impairment
- 44 percent of disabled Māori had other impairment.

Table 2a: Number and percent of disabled people with Sensory Impairment by age group, Māori and non-Māori, 2013.

Ethnicity	Number and percent of disabled people with Sensory Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	7,000	10,000	17,000	27,000	14,000
Disabled Māori	35,000	24,000	42,000	51,000	24,000
Percent	21 (16-27)	40 (30-49)	41 (32-50)	53 (46-59)	59 (49-68)
Non-Māori	11,000	17,000	54,000	136,000	192,000
Disabled Non-Māori	60,000	71,000	147,000	263,000	346,000
Percent	18 (14-21)	25 (18-31)	37 (32-41)	52 (46-58)	56 (40-71)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

From these estimates we can calculate the following:

- 21 percent of disabled Māori aged 0 to 14 years had sensory impairment
- 40 percent of disabled Māori aged 15 to 24 years had sensory impairment
- 41 percent of disabled Māori aged 25 to 44 years had sensory impairment
- 53 percent of disabled Māori aged 45 to 64 years had sensory impairment
- 59 percent of disabled Māori aged 65 years and over had sensory impairment.

## Māori Health Disability Statistical Report

---

Table 2b: Number and percent of disabled people with Physical Impairment by age group, Māori and non-Māori, 2013.

Ethnicity	Number and percent of disabled people with Physical Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	5,000	10,000	20,000	34,000	21,000
Disabled Māori	35,000	24,000	42,000	51,000	24,000
Percent	15 (11-19)	43 (33-53)	48 (37-58)	67 (59-75)	86 (70-102)
Non-Māori	8,000	25,000	66,000	155,000	286,000
Disabled Non-Māori	60,000	71,000	147,000	263,000	346,000
Percent	14 (11-16)	36 (29-43)	45 (40-51)	59 (50-68)	*83 (51-114)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

From these estimates we can calculate the following:

- 43 percent of disabled Māori aged 15 to 24 years had physical impairment
- 67 percent of disabled Māori aged 45 to 64 years had physical impairment
- 86 percent of disabled Māori aged 65 years and over had physical impairment.

Table 2c: Number and percent of disabled people with Intellectual Impairment by age group, Māori and non-Māori, 2013.

Ethnicity	Number and percent of disabled people with Intellectual Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	7,000	3,000	6,000	4,000	2,000
Disabled Māori	35,000	24,000	42,000	51,000	24,000
Percent	20 (15-25)	*13 (6-21)	s	s	*7 (1-14)
Non-Māori	15,000	12,000	15,000	12,000	12,000
Disabled Non-Māori	60,000	71,000	147,000	263,000	346,000
Percent	25 (22-28)	*18 (10-26)	s	s	s

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 20 percent of disabled Māori aged 0 to 14 years had intellectual impairment.

## Māori Health Disability Statistical Report

---

Table 2d: Number and percent of disabled people with Psychiatric/Psychological Impairment by age group, Māori and non-Māori, 2013.

Ethnicity	Number and percent of disabled people with Psychiatric/Psychological Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	15,000	6,000	17,000	10,000	3,000
Disabled Māori	35,000	24,000	42,000	51,000	24,000
Percent	45 (38-51)	*24 (15-33)	*40 (24-57)	*19 (10-28)	s
Non-Māori	22,000	26,000	53,000	57,000	32,000
Disabled Non-Māori	60,000	71,000	147,000	263,000	346,000
Percent	37 (33-41)	37 (29-44)	37 (32-42)	*22 (13-31)	s

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 45 percent of disabled Māori aged 0 to 14 years had psychiatric/psychological impairment.

Table 2e: Number and percent of disabled people with Other Impairment by age group, Māori and non-Māori, 2013.

Ethnicity	Number and percent of disabled people with Other Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	25,000	10,000	15,000	21,000	7,000
Disabled Māori	35,000	24,000	42,000	51,000	24,000
Percent	72 (66-79)	40 (29-51)	*36 (15-56)	40 (30-51)	s
Non-Māori	45,000	35,000	46,000	73,000	81,000
Disabled Non-Māori	60,000	71,000	147,000	263,000	346,000
Percent	75 (72-79)	50 (42-58)	31 (23-40)	*28 (14-41)	s

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 72 percent of disabled Māori aged 0 to 14 years had other impairment
- 40 percent of disabled Māori aged 15 to 24 years had other impairment
- 40 percent of disabled Māori aged 45 to 64 years had other impairment.

### **Cause of impairment for disabled people**

When tested by looking at confidence intervals, only one of the findings shown in this section were found to be significantly different (Birth). Similarly, none of the age group comparisons were found to be significantly different. Constraints of the Disability Survey data sets do not allow us to use other forms of testing which may indicate significant differences between Māori and non-Māori.

Table 3 below shows estimates of the number and percent of disabled Māori and non-Māori by Cause of Impairment. Each impairment cause is counted for each person (Total Response).

Table 3: Number and percent of disabled people by Cause of Impairment, Māori and non-Māori, 2013.

Ethnicity	Cause of Impairment						
	Accident	Birth	Disease	Ageing	Other	Unknown	Total
Māori Number	47,000	40,000	67,000	31,000	47,000	9,000	176,000
Percent (1)	27 (24-30)	23 (20-25)	38 (31-45)	17 (13-22)	27 (21-32)	*5 (3-7)	
Non-Māori Number	273,000	103,000	352,000	259,000	200,000	28,000	885,000
Percent (1)	*31 (20-42)	#12 (10-14)	*40 (17-63)	s	*23 (8-37)	*3 (0-6)	

Notes: (1) Total Response – percentages will sum to more than 100 percent as disabled people can have more than one cause of impairment.

Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

# indicates results are statistically different to those for disabled Māori.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 27 percent of disabled Māori had accident as cause of impairment
- 23 percent of disabled Māori had birth as cause of impairment, greater than the 12 percent of disabled non-Māori with the same cause of impairment
- 17 percent of disabled Māori had ageing as cause of impairment
- 27 percent of disabled Māori aged had other as cause of impairment.

## Māori Health Disability Statistical Report

---

Table 3a: Number and percent of disabled people with Accident Cause of Impairment by age group, Māori and non-Māori, 2013.

Ethnicity	Number and percent of disabled people with Accident Cause of Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	1,000	6,000	13,000	20,000	6,000
Disabled Māori	35,000	24,000	42,000	51,000	24,000
Percent	*4 (2-7)	*25 (17-34)	32 (23-41)	39 (32-45)	*26 (18-35)
Non-Māori	2,000	15,000	48,000	102,000	106,000
Disabled Non-Māori	60,000	71,000	147,000	263,000	346,000
Percent	*3 (1-4)	21 (16-27)	33 (28-38)	39 (33-45)	*31 (6-56)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

From these estimates we can calculate the following:

- 32 percent of disabled Māori aged 25 to 44 years had accident as cause of impairment
- 39 percent of disabled Māori aged 45 to 64 years had accident as cause of impairment.

Table 3b: Number and percent of disabled people with Birth Cause of Impairment by age group, Māori and non-Māori, 2013.

Ethnicity	Number and percent of disabled people with Birth Cause of Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	16,000	7,000	8,000	7,000	2,000
Disabled Māori	35,000	24,000	42,000	51,000	24,000
Percent	45 (38-53)	*31 (20-41)	*19 (8-30)	*14 (8-20)	s
Non-Māori	27,000	21,000	24,000	22,000	8,000
Disabled Non-Māori	60,000	71,000	147,000	263,000	346,000
Percent	45 (41-48)	30 (23-36)	*17 (8-26)	s	*2 (0-5)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 45 percent of disabled Māori aged 0 to 14 years had birth as cause of impairment.

## Māori Health Disability Statistical Report

---

Table 3c: Number and percent of disabled people with Disease as Cause of Impairment by age group, Māori and non-Māori, 2013.

Ethnicity	Number and percent of disabled people with Disease Cause of Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	7,000	7,000	16,000	22,000	15,000
Disabled Māori	35,000	24,000	42,000	51,000	24,000
Percent	21 (16-25)	*27 (18-36)	39 (31-47)	43 (34-52)	63 (54-72)
Non-Māori	14,000	19,000	51,000	101,000	167,000
Disabled Non-Māori	60,000	71,000	147,000	263,000	346,000
Percent	24 (21-28)	27 (20-33)	35 (31-39)	39 (34-44)	*48 (7-90)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

From these estimates we can calculate the following:

- 21 percent of disabled Māori aged 0 to 14 years had disease as cause of impairment
- 43 percent of disabled Māori aged 45 to 64 years had disease as cause of impairment
- 63 percent of disabled Māori aged 65 years and over had disease as cause of impairment.

Table 3d: Number and percent of disabled people with Ageing as Cause of Impairment by age group, Māori and non-Māori, 2013.

Ethnicity	Number and percent of disabled people with Ageing Cause of Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	s	s	2,000	18,000	11,000
Disabled Māori	35,000	24,000	42,000	51,000	24,000
Percent	s	s	*5 (2-8)	35 (28-42)	45 (35-55)
Non-Māori	s	s	8,000	68,000	183,000
Disabled Non-Māori	60,000	71,000	147,000	263,000	346,000
Percent	s	s	*6 (4-8)	26 (21-30)	*53 (16-90)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable  
s indicates a suppressed result.

From these estimates we can calculate the following:

- 35 percent of disabled Māori aged 45 to 64 years had ageing as cause of impairment
- 45 percent of disabled Māori aged 65 years and over had ageing as cause of impairment.

## Māori Health Disability Statistical Report

---

Table 3e: Number and percent of disabled people with Other as Cause of Impairment by age group, Māori and non-Māori, 2013.

Ethnicity	Number and percent of disabled people with Other Cause of Impairment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	11,000	10,000	13,000	10,000	3,000
Disabled Māori	35,000	24,000	42,000	51,000	24,000
Percent	31 (24-37)	39 (29-49)	31 (25-37)	21 (15-26)	s
Non-Māori	18,000	25,000	44,000	59,000	54,000
Disabled Non-Māori	60,000	71,000	147,000	263,000	346,000
Percent	30 (25-34)	35 (29-42)	30 (26-34)	23 (19-26)	s

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 39 percent of disabled Māori aged 15 to 24 years had other as cause of impairment
- 21 percent of disabled Māori aged 45 to 64 years had other as cause of impairment.

### ***Presence of multiple impairments for disabled people***

It is estimated 95,000 Māori and 468,000 non-Māori had multiple impairments. From these estimates we can calculate that:

- 54 percent of disabled Māori males had multiple impairments
- 54 percent of disabled Māori females had multiple impairments.

Table 4: Number and percent of disabled people with multiple impairments by age group, Māori and non-Māori, 2013.

Ethnicity	Number and percent of disabled people with Multiple Impairments by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	16,000	11,000	18,000	33,000	17,000
Disabled Māori	35,000	24,000	42,000	51,000	24,000
Percent	47 (40-54)	44 (34-55)	*44 (26-62)	64 (53-75)	*70 (42-98)
Non-Māori	29,000	30,000	59,000	134,000	217,000
Disabled Non-Māori	60,000	71,000	147,000	263,000	346,000
Percent	48 (43-52)	43 (34-51)	40 (32-49)	51 (39-63)	s

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable

s indicates a suppressed result.

From these estimates we can calculate the following:

- 47 percent of disabled Māori aged 0 to 14 years had multiple impairments
- 64 percent of disabled Māori aged 45 to 64 years had multiple impairments.

### ***Unmet need for special equipment for disabled people***

It is estimated that 33,000 Māori and 128,000 non-Māori had an unmet need for special equipment. From these estimates we can calculate that:

- 23 percent of disabled Māori males had an unmet need for special equipment compared with 18 percent of disabled non-Māori males
- 23 percent of disabled Māori females had an unmet need for special equipment, greater than the 15 percent of disabled non-Māori females.

Table 5: Number and percent of disabled people with unmet need for special equipment by age group, Māori and non-Māori, 2013.

Ethnicity	Number and percent of disabled people with unmet need for special equipment by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	5,000	3,000	7,000	11,000	7,000
Disabled Māori	35,000	24,000	42,000	51,000	24,000
Percent	25 (18-32)	*16 (8-24)	*21 (14-27)	*23 (15-32)	30 (22-38)
Non-Māori	9,000	5,000	14,000	41,000	59,000
Disabled Non-Māori	60,000	71,000	147,000	263,000	346,000
Percent	29 (24-35)	*11 (6-15)	*13 (9-17)	17 (14-20)	#17 (14-21)

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable

# indicates results are statistically different to those for disabled Māori.

From these estimates we can calculate the following:

- 25 percent of disabled Māori aged 0 to 14 years had an unmet need for special equipment
- 30 percent of disabled Māori aged 65 years and over had an unmet need for special equipment, greater than the 17 percent of disabled non-Māori in the same age group.

### ***Unmet need for health professionals for disabled people***

It is estimated 36,000 Māori and 96,000 non-Māori had an unmet need to access a health professional.

No comments have been made regarding disabled Māori and non-Māori male and female unmet need to access a health professional as these results have high relative sample errors, or are suppressed, and are therefore unreliable.

## Māori Health Disability Statistical Report

---

Table 6: Number and percent of disabled people with unmet need for a health professional by age group, Māori and non-Māori, 2013.

Ethnicity	Number and percent of disabled people with unmet need for a health professional by age group				
	0–14 years	15–24 years	25–44 years	45–64 years	65 years and over
Māori	6,000	5,000	13,000	11,000	1,000
Disabled Māori	35,000	24,000	42,000	51,000	24,000
Percent	16 (11-21)	*19 (11-27)	*32 (20-43)	*22 (14-29)	s
Non-Māori	9,000	8,000	31,000	34,000	15,000
Disabled Non-Māori	60,000	71,000	147,000	263,000	346,000
Percent	14 (12-17)	*11 (8-15)	21 (16-27)	*13 (9-17)	S

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable

s indicates a suppressed result.

From these estimates we can calculate the following:

- 16 percent of disabled Māori aged 0 to 14 years had an unmet need to access a health professional.

### ***Labour force status for disabled and non-disabled people***

Table 7 below shows estimates of the number and percent of disabled Māori and non-Māori by Labour force status.

Table 7: Number and percent of disabled and non-disabled people by Labour force Status, Māori and non-Māori, 2013.

Ethnicity	Labour Force Status			
	Employed	Unemployed	Not in the labour force	Total labour force status
Disabled Māori	61,000	12,000	66,000	141,000
Percent	*44 (27-60)	*9 (5-13)	*48 (28-67)	100
Disabled Non-Māori	355,000	29,000	435,000	826,000
Percent	*43 (1-86)	s	*53 (7-99)	100
Non-Disabled Māori	202,000	24,000	72,000	306,000
Percent	68 (65-70)	64.8 8 (7-10.3)	24 (22-27)	100
Non-Disabled Non-Māori	1,614,000	78,000	540,000	2,258,00
Percent	72 (71-73)	4 (3-4)	24 (23-25)	100

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable

s indicates a suppressed result

# indicates results are statistically different to those for disabled Māori.

No comments have been made regarding disabled Māori by Labour force status as these results have high relative sample errors, or are suppressed, and are therefore unreliable.

### **Personal income status for disabled and non-disabled people**

Table 8 below shows estimates of the number and percent of disabled and non-disabled Māori and non-Māori by Personal income status.

Table 8: Number and percent of disabled and non-disabled people by Personal income Status, Māori and non-Māori, 2013.

Ethnicity	Personal Income Status					
	Less than \$15,001	\$15,001 – \$30,000	\$30,001 – \$50,000	\$50,001 – \$70,000	\$70,001+	Total personal income status
Disabled Māori	45,000	38,000	21,000	11,000	6,000	121,000
Percent	37 (33-41)	31 (28-35)	17 (14-20)	9 (7-11)	*5 (3-8)	100
Disabled Non-Māori	202,000	264,000	135,000	84,000	58,000	743,000
Percent	#27 (26-29)	36 (34-38)	18 (16-20)	11 (10-13)	8 (7-9)	100
Non-Disabled Māori	89,000	61,000	63,000	41,000	30,000	286,000
Percent	31 (29-34)	#22 (19-24)	22 (20-25)	#14 (12-17)	11 (9-13)	100
Non-Disabled Non-Māori	567,000	385,000	483,000	353,000	390,000	2,177,000
Percent	#26 (25-27)	#18 (17-19)	#22 (21-23)	#16 (15-17)	18 (17-19)	

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors and therefore unreliable

s indicates a suppressed result.

# indicates results are statistically different to those for disabled Māori.

From these estimates we can calculate the following:

- 37 percent of disabled Māori had income of less than \$15,000, greater than the 27 percent of disabled non-Māori and 26 percent of non-disabled non-Māori
- 31 percent of disabled Māori had income between \$15,001 and \$30,000, greater than the 22 percent of non-disabled Māori and 18 percent of non-disabled non-Māori
- 17 percent of disabled Māori had income between \$30,001 and \$50,000, less than the 22 percent of non-disabled non-Māori
- 9 percent of disabled Māori had income between \$50,001 and \$70,000, less than the 14 percent of non-disabled Māori and 16 percent of non-disabled non-Māori.

## Māori Health Disability Statistical Report

---

### ***Education status for disabled and non-disabled people***

Table 9 below shows estimates of the number and percent of disabled and non-disabled Māori and non-Māori by Education status.

Table 9: Number and percent of disabled and non-disabled people by Education Status, Māori and non-Māori, 2013.

Ethnicity	Education Status				
	No qualification	School qualification at level 1 to 4	Post-school qualification at level 1 to 6	Bachelor's degree or higher	Total education status
Disabled Māori	49,000	39,000	23,000	8,000	120,000
Percent	41 (37-44)	33 (29-36)	20 (17-23)	*7 (5-9)	100
Disabled Non-Māori	226,000	232,000	169,000	91,000	719,000
Percent	#31 (30-33)	32 (30-35)	24 (22-25)	13 (11-14)	100
Non-Disabled Māori	68,000	106,000	63,000	42,000	279,000
Percent	#24 (22-27)	38 (35-41)	23 (20-26)	15 (13-17)	100
Non-Disabled Non-Māori	294,000	794,000	502,000	558,000	2,146,000
Percent	#14 (13-15)	37 (36-38)	23 (22-24)	26 (25-27)	100

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

# indicates results are statistically different to those for disabled Māori.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 41 percent of disabled Māori had no education qualification, less than the 31 percent of disabled non-Māori, 24 percent of non-disabled Māori, and 14 percent of non-disabled non-Māori with no education qualification
- 33 percent of disabled Māori had a School qualification at level 1 to 4
- 20 percent of disabled Māori had a post-school qualification at level 1 to 6.

### ***Deprivation status for disabled and non-disabled people***

Table 10 below shows estimates of the number and percent of disabled and non-disabled Māori and non-Māori by Deprivation status.

The lowest quintile is the least deprived area and the highest quintile is the most deprived area.

## Māori Health Disability Statistical Report

---

Table 10: Number and percent of disabled and non-disabled people by Deprivation Status, Māori and non-Māori, 2013.

Ethnicity	Deprivation Status					Total deprivation status
	Lowest quintile	Second quintile	Third quintile	Fourth quintile	Highest quintile	
Disabled Māori	12,000	18,000	29,000	39,000	71,000	176,000
Percent	7 (5-9)	11 (9-13)	17 (14-20)	23 (20-27)	42 (39-45)	100
Disabled Non-Māori	172,000	172,000	163,000	176,000	149,000	885,000
Percent	#21 (19-22)	#21 (19-22)	20 (18-21)	21 (20-23)	#18 (17-19)	100
Non-Disabled Māori	61,000	69,000	79,000	108,000	178,000	506,000
Percent	#12 (11-14)	14 (12-16)	16 (15-18)	22 (20-24)	#36 (34-38)	100
Non-Disabled Non-Māori	726,000	626,000	595,000	472,000	364,000	2,853,000
Percent	#26 (25-27)	#23 (22-23)	#21 (21-22)	#17 (16-18)	#13 (12-14)	100

Source: Customised data, Stats NZ Wellington.

Notes: Percentages are calculated on unrounded estimates and may differ to those calculated from rounded estimates.

\* indicates results with high relative sample errors which should be treated with caution.

# indicates results are statistically different to those for disabled Māori.

s indicates a suppressed result.

From these estimates we can calculate the following:

- 7 percent of disabled Māori lived in the lowest quintile deprivation areas (least deprived), less than the 21 percent of disabled non-Māori, 12 percent of non-disabled Māori, and 26 percent of non-disabled non-Māori who lived in this quintile
- 11 percent of disabled Māori lived in the second quintile deprivation areas, less than the 21 percent of disabled non-Māori, and 23 percent of non-disabled non-Māori who lived in this quintile
- 17 percent of disabled Māori lived in the third quintile deprivation areas, less than the 21 percent of non-disabled non-Māori who lived in this quintile
- 23 percent of disabled Māori lived in the fourth quintile deprivation areas, greater than the 17 percent of non-disabled non-Māori who lived in this quintile
- 42 percent of disabled Māori lived in the lowest quintile deprivation areas (most deprived), greater than the 18 percent of disabled non-Māori, 36 percent of non-disabled Māori, and 13 percent of non-disabled non-Māori, who lived in this quintile.

### Appendix 5: Integrated Data Infrastructure (IDI) data

Stats NZ collects data from different agencies and store the data in the Integrated Data Infrastructure (IDI) Data Lab. Individual's data is linked either by a unique identifier (for example, the National Health Index (NHI) number in the health data) or by probabilistic linking method (linking based on key variables such as name, gender, and date of birth). More information about the IDI Data Lab can be found on the SNZ's website (<https://www.stats.govt.nz/integrated-data/integrated-data-infrastructure/>).

It can take lots of time to work in the IDI Data Lab, possible delays include (but not limited to):

- waiting time for SNZ to upload the datasets, for example, it took 5 months for Blind Foundation data to be added into the IDI Data Lab
- applying for data access, for example, a permission for accessing the 2013 Disability Survey, which had been stored in the IDI Data Lab, was required
- IDI Data Lab closures
- technology issues
- waiting time for SNZ to check the output, and sometimes re-submission of the output and re-checking is required by SNZ.

Unless otherwise stated, all rate differences presented here are statistically significant, when tested by looking at the confidence intervals.

All analyses carried out in this report were requested by the Claimants, including the selection of indicators and datasets.

#### ***Analysing the Blind foundation membership data***

The Blind Foundation offers support to people who are blind or experiencing sight loss to help them face their future with confidence.

As at December 2017 the Blind Foundation had 5,499 members with valid National Health Index (NHI) numbers. NHI numbers are used as a linking tool in the IDI. Of these members, 537 (10 percent) were Māori, and 4,962 (90 percent) were non-Māori.

It took SNZ 5 months to load the Blind Foundation data into the IDI Data Lab because SNZ had prioritised Census 2018 work, and multiple discussions and re-submissions of applications were required. This was because that one of the conditions of obtaining Blind Foundation data is that the data would only be accessed by the Ministry of Health, however, this contradicted the IDI Data Lab standard policy – all IDI Data Lab users have access to all datasets in the IDI Data Lab.

Table 1 shows Blind Foundation membership as at December 2017 by age group and ethnicity as a percentage of total members. Apart from the 65 years and over age group, Māori membership is similar to the percentage of Māori in each age group identified by the 2013 Census and Disability Surveys.

## Māori Health Disability Statistical Report

---

Table 1: Blind Foundation membership by age group, number and percent, Māori and non-Māori, December 2017.

Membership	Age Group					
	0-14	15-24	25-44	45-64	65 years and over	Total
Number						
Māori	105	81	89	149	113	537
Non-Māori	259	175	363	592	3573	4962
Total	364	256	452	741	3686	5499
Percent						
Māori	29	32	20	20	3	10
Non-Māori	71	68	80	80	97	90
Total	100	100	100	100	100	100

Source: Blind Foundation, Ministry of Health, both Wellington

### **Analysing the SOCRATES (visual impairment) and Blind Foundation data**

The Blind Foundation membership data and visually impaired clients from SOCRATES data was joined to create a larger visually impaired group to analyse and provide insight. About 9200 records (no duplicates) from SOCRATES (visual impairment only) and Blind Foundation were uploaded into the IDI Data Lab, they were linked to the 2013 Census dataset, which provides socio-economic status information, and linked to the Ministry of Health cancer registration, chronic condition dataset, and hospital discharge dataset, which provide various health outcomes.

About 1700 (18 percent) of the SOCRATES (visual impairment only) and Blind Foundation records could not be linked to the 2013 Census data. It could be because those people did not fill out the Census forms or due to linking issues (for example, they provided different names in different datasets). Please note that the counts presented here have been randomly rounded to base 3 for confidentiality and any counts less than six have been suppressed. Due to rounding, the percentages do not always add up to 100 percent.

Among those successfully linked to the 2013 Census data, about 900 were Māori (12 percent) and 6600 were non-Māori (88 percent). This does not reflect the 2013 population distribution – Māori made up 16 percent of the New Zealand population<sup>17</sup>. Table 1 shows that there are more females recorded than males for both Māori and non-Māori.

Table 1. Linking SOCRATES and Blind Foundation dataset with 2013 Census dataset.

	Māori		Non-Māori		Total
	Male	Female	Male	Female	
Counts	429	483	2805	3798	7515
Percent	6	6	37	51	100

Source: Ministry of Health, Wellington.

Stats NZ, Integrated Data Infrastructure, Stats NZ, Wellington.

Table 2: shows that, 17 percent of Māori aged between 25 and 64 years recorded in the SOCRATES (visual impairment only) and Blind Foundation dataset were employed, less than the 25 percent of non-Māori were employed. According to the 2013 Disability Survey,

<sup>17</sup> Ministry of Health. 2015. *Tatau Kahukura: Māori Health Chart Book 2015 (3<sup>rd</sup> edition)*. Wellington: Ministry of Health.

## Māori Health Disability Statistical Report

---

the employment rate for disabled Māori was 44 percent<sup>18</sup>, 45 percent for total disabled adults<sup>19</sup>, 68 percent for non-disabled Māori and 72 percent for total non-disabled adults.

Table 2: Employment status among those aged 25–64 years based on the 2013 Census.  
(Linking SOCRATES and Blind Foundation dataset with 2013 Census dataset.)

	Māori		Non-Māori	
	Counts	Percentages	Counts	Percentages
Employed	72	17	468	#25
Unpaid Family Worker/Response Unidentifiable/Not Stated	348	83	1407	#75
Total	420	100	1875	100

Source: Ministry of Health, Wellington.

Stats NZ, Integrated Data Infrastructure, Stats NZ, Wellington.

Note: # indicates results are statistically different to those for Māori.

Table 3 shows that about half of Māori (52 percent) aged between 25 and 64 years recorded in the SOCRATES (visual impairment only) and Blind Foundation dataset had personal income less than \$15,001 (including zero or loss). According to the 2013 Disability Survey, 37 percent of disabled Māori and 31 percent of non-disabled Māori had personal income less than \$15,001<sup>20</sup>.

Table 3: Personal income status among those aged 25–64 years based on the 2013 Census.

(Linking SOCRATES and Blind Foundation dataset with 2013 Census dataset.)

	Māori		Non-Māori	
	Counts	Percent	Counts	Percent
Less than \$15,001 (including zero or loss)	195	52	831	49
\$15,001–\$30,000	129	34	579	34
\$30,001–\$50,000	33	9	144	8
\$50,001–\$70,000	9	2	90	5
\$70,001 or more	9	2	66	4
Total	375	100	1710	100

Source: Ministry of Health, Wellington.

Stats NZ, Integrated Data Infrastructure, Stats NZ, Wellington

Table 4 shows that the most common household composition for Māori (all ages combined) recorded in the SOCRATES (visual impairment only) and Blind Foundation dataset was a one-parent family. About a quarter (25 percent) of Māori households were one-parent families, greater than the 10 percent of non-Māori households. In addition, the most common household composition for non-Māori was a one-person household. About 13 percent of Māori lived alone, less than the 29 percent of non-Māori that lived alone. According to the

<sup>18</sup> Statistics New Zealand (2015). *He hauā Māori: Findings from the 2013 Disability Survey*. Wellington: Statistics New Zealand.

<sup>19</sup> Statistics New Zealand (2014). *Social and economic outcomes for disabled people: Findings from the 2013 Disability Survey*. Wellington: Statistics New Zealand.

<sup>20</sup> Statistics New Zealand (2015). *He hauā Māori: Findings from the 2013 Disability Survey*. Wellington: Statistics New Zealand.

## Māori Health Disability Statistical Report

---

2013 Census, 18 percent of all households (Māori and non-Māori combined) was a one parent with child(ren)<sup>21</sup> household, and 24 percent was one person households<sup>22</sup>.

Table 4. Household composition based on the 2013 Census.

(Linking SOCRATES and Blind Foundation dataset with 2013 Census dataset.)

	Māori		Non-Māori	
	Counts	Percent	Counts	Percent
One person	117	13	1938	#29
Couple only	75	8	1587	#24
One parent	225	25	636	#10
Two parent	207	23	1014	#15
Multi-family	93	10	225	#3
Missing or excluded	198	22	1209	#18
Total	915	100	6609	100

Source: Ministry of Health, Wellington.

Stats NZ, Integrated Data Infrastructure, Stats NZ, Wellington

Note: # indicates results are statistically different to those for Māori.

Table 5 shows that about 20 percent of Māori (all ages combined) recorded in the SOCRATES (visual impairment only) and Blind Foundation dataset lived in households with total household income more than \$70,001. According to the 2013 Census, 39 percent of all households (Māori and non-Māori combined) had a total household income of more than \$70,001.

Table 5: Household income status based on the 2013 Census.

(Linking SOCRATES and Blind Foundation dataset with 2013 Census dataset.)

	Māori		Non-Māori	
	Counts	Percent	Counts	Percent
Less than \$15,001 (including zero or loss)	72	8	423	6
\$15,001–\$30,000	141	15	1695	#26
\$30,001–\$50,000	150	16	1305	20
\$50,001–\$70,000	96	10	639	10
\$70,001 or more	180	20	1101	17
Not stated or missing	279	30	1446	#22
Total	918	100	6609	100

Source: Ministry of Health, Wellington.

Stats NZ, Integrated Data Infrastructure, Stats NZ, Wellington

Note: # indicates results are statistically different to those for Māori.

Table 6 shows that about a quarter (25 percent) of Māori (all ages combined) recorded in SOCRATES (visual impairment only) and Blind Foundation dataset lived in households

<sup>21</sup> <http://archive.stats.govt.nz/Census/2013-census/profile-and-summary-reports/qstats-families-households/overview-families.aspx>

<sup>22</sup> <http://archive.stats.govt.nz/Census/2013-census/profile-and-summary-reports/qstats-families-households/households.aspx>

## Māori Health Disability Statistical Report

---

without motor vehicle access. According to the 2013 Census, 8 percent of all households (Māori and non-Māori combined) had no motor vehicle<sup>23</sup>.

Table 6. Motor vehicle access based on the 2013 Census.

(Linking SOCRATES and Blind Foundation dataset with 2013 Census dataset.)

	Māori		Non-Māori	
	Counts	Percent	Counts	Percent
No motor vehicle	201	25	1251	22
One or more motor vehicle	618	75	4386	78
Total	819	100	5637	100

Source: Ministry of Health, Wellington.

Stats NZ, Integrated Data Infrastructure, Stats NZ, Wellington.

Note: # indicates results are statistically different to those for Māori.

About 900 Māori and 6600 non-Māori records in the SOCRATES (visual impairment only) and Blind Foundation dataset were linked successfully to the Ministry of Health New Zealand Cancer Registry dataset (NZCR). Table 7 shows that about 7 percent (60) Māori have been diagnosed with cancer (any types), less than the 13 percent (about 890 counts) of non-Māori who have been diagnosed with cancer (any types). The counts were too small, especially for Māori, to break down to different types of cancer. In addition, small counts with rounding may lead to misleading results so percentages have not been calculated for different types of cancer.

Please note that a person can be counted more than once if the person has been diagnosed with more than one type of cancer. The percentages presented here were crude estimates based on rounded counts (to base 3) without any adjusting. The counts were too small to calculate age-standardised rates. This may not reflect the true cancer distribution as the population in the SOCRATES (visual impairment only) and Blind Foundation dataset does not represent the total population distribution.

Table 7: Linking SOCRATES and Blind Foundation dataset with the cancer registration dataset.

	Māori		Non-Māori	
	Counts	Percent	Counts	Percent
All cancers	60	7	885	#13
NO cancer	858	93	5724	#87
Total	918	100	6609	100

Source: Ministry of Health, Wellington.

Stats NZ, Integrated Data Infrastructure, Stats NZ, Wellington.

Note: # indicates results are statistically different to those for Māori.

About 1200 Māori and 9200 non-Māori records in the SOCRATES (visual impairment only) and Blind Foundation dataset were successfully linked to the Ministry of Health chronic condition dataset. Table 8 shows that about 20 percent of Māori had diabetes, higher than the 17 percent of non-Māori.

---

<sup>23</sup> <http://archive.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-transport-comms/number-motor-vehicles.aspx>

## Māori Health Disability Statistical Report

---

About 8 percent of Māori had coronary heart disease (CHD), less than the 12 percent of non-Māori. About 7 percent of Māori had gout. About 7 percent of Māori had chronic obstructive pulmonary disease (COPD). About 6 percent of Māori had stroke (STR).

About 4 percent of Māori had cancer (CAN), less than the 8 percent of non-Māori. About 4 percent of Māori had traumatic brain injury (TBI). About 3 percent of Māori had acute myocardial infarction (AMI, or heart attack), less than the 5 percent of non-Māori.

Please note that the percentage estimates presented here were calculated based on rounded counts as the counts were too small to calculate age-standardised rates. A person could be counted more than once if the person had more than one chronic condition.

Table 8. Linking SOCRATES and Blind Foundation dataset with the chronic condition dataset.

	Māori		Non-Māori	
	Counts	Percent	Counts	Percent
Acute myocardial infarction (AMI, or heart attack)	39	3	498	#5
Cancer (CAN)	54	4	747	#8
Coronary heart disease (CHD)	96	8	1140	#12
Chronic obstructive pulmonary disease (COPD)	93	7	855	9
Diabetes (DIA)	246	20	1533	#17
Gout	81	7	573	6
Stroke (STR)	72	6	507	6
Traumatic brain injury (TBI)	45	4	216	2
No chronic conditions	516	42	3108	#34
Total	1242	100	9177	100

Source: Ministry of Health, Wellington.

Stats NZ, Integrated Data Infrastructure, Stats NZ, Wellington

Note: # indicates results are statistically different to those for Māori.

Table 9 shows that, during the three year time period (2012–14, centered around the 2013 Census year), Māori records in the SOCRATES (visual impairment only) and Blind Foundation dataset had a total of 192,000 public hospital admissions (all causes), and there were 832,000 admissions among non-Māori. About 19 percent of total Māori hospital admissions were due to unintentional injuries, less than the 21 percent of total non-Māori hospital admissions were due to unintentional injuries.

About 7 percent of total Māori hospital admissions were due to diabetes, greater than the 6 percent of the total non-Māori hospital admissions were due to diabetes. About 7 percent of total Māori hospital admissions were due to motor vehicle accidents, greater than the 4 percent of total non-Māori hospital admissions were due to motor vehicle accidents. About 2 percent of total Māori hospital admission were due to high blood pressure/hypertensive disease, less than the 3 percent of total non-Māori hospital admission were due to high blood pressure/hypertensive disease. About 0.7 percent of total Māori hospital admissions were due to suicide and self-harm, less than the 1 percent of total non-Māori hospital

## Māori Health Disability Statistical Report

---

admissions were due to suicide and self-harm. About 0.5 percent of total Māori hospital admissions were due to cerebrovascular disease (stroke).

About 0.4 percent of total Māori hospital admissions were due to ischaemic heart disease (IHD), less than the 1 percent of total non-Māori hospital admissions were due to ischaemic heart disease (IHD). About 0.2 percent of total Māori hospital admissions were due to chronic obstructive pulmonary disease (COPD). Please note that the percentage estimates presented here were calculated based on rounded counts, and one person could have more than one hospital admission during this time period either due to the same cause or different causes.

Table 9: Linking SOCRATES and Blind Foundation dataset with the public hospital admission dataset (National Minimum Data Set, NMDS).

	Māori		Non-Māori	
	Counts	Percent	Counts	Percent
Chronic obstructive pulmonary disease (COPD)	441	0.2	2031	0.2
Diabetes	12,972	7	51,552	#6
High blood pressure / hypertensive disease	3552	2	20,910	#3
Ischaemic heart disease (IHD)	846	0.4	11,616	#1
Injuries (unintentional)	37,338	19	177,708	#21
Motor vehicle accidents	12,531	7	33,528	#4
Cerebrovascular disease (stroke)	1017	0.5	5262	0.6
Suicide and self-harm	1461	0.7	10,302	#1
Total (all cause) admissions	191,604	100	832,419	100

Source: Ministry of Health, Wellington.

Stats NZ, Integrated Data Infrastructure, Stats NZ, Wellington.

Note: # indicates results are statistically different to those for Māori.

In summary, for those from the SOCRATES (visual impairment only) and Blind Foundation dataset:

- More Māori households (25 percent) was a one-parent family than non-Māori households (10 percent), and less Māori (13 percent) lived alone than non-Māori (29 percent)
- Less Māori (7 percent) have been diagnosed with cancer (any types) than non-Māori (13 percent)
- More Māori (20 percent) had diabetes than non-Māori (17 percent)
- Less Māori (8 percent) had coronary heart disease (CHD) than non-Māori (12 percent).
- Less Māori (3 percent) had acute myocardial infarction (AMI, or heart attack) than non-Māori (5 percent)

- Less Māori (19 percent) admitted to hospital due to unintentional injuries than non-Māori (21 percent) in 2012–14
- More Māori (7 percent) admitted to hospital due to motor vehicle accidents than non-Māori (4 percent) in 2012–14
- More Māori (7 percent) admitted to hospital due to diabetes than non-Māori (6 percent) in 2012–14
- Less Māori (2 percent) admitted to hospital due to high blood pressure/hypertensive disease than non-Māori (3 percent) in 2012–14
- Less Māori (0.7 percent) admitted to hospital due to suicide and self-harm than non-Māori (1 percent) in 2012–14
- Less Māori (0.4 percent) admitted to hospital due to ischaemic heart disease (IHD) than non-Māori (1 percent).

### ***Analysing the 2013 Stats NZ Disability Survey – adults***

The 2013 Disability Survey data (denominator) was linked to the Ministry of Health cancer registration dataset, chronic condition dataset, and public hospital discharge dataset (numerators) and age-standardised rates and rate ratios were calculated for different health conditions. Please note that age-standardised rates and ratios were calculated based on suppressed and randomly rounded counts, not on the raw data. The 2001 Census Usually Resident Māori population was used as the standard population. The population with or without disability may not represent the true population distribution because it was sampled from the 2013 Disability Survey, which included over-samples of Māori and Pacific populations.

After adjusting for age, disabled Māori aged 25 years and over were almost one-and-a-half times (age-standardised rate ratio 1.47 with 95 percent confidence interval 1.08–2.01) as likely as disabled non-Māori to have developed cancer (any types). There was no significant difference between non-disabled Māori and non-disabled non-Māori (age-standardised rate ratio 0.86 with 95 percent confidence interval 0.59–1.26). In addition, disabled Māori females were more than twice as likely as disabled non-Māori females to develop breast cancer (age-standardised rate ratio 2.22 with 95 percent confidence interval 1.12–4.39) and this was the same for non-disabled Māori females and non-disabled non-Māori females (age-standardised rate ratio 3.73 with 95 percent confidence interval 2.13–6.52).

After adjusting for age, disabled Māori aged 25 years and over were more likely than disabled non-Māori to have chronic conditions such as cancer, diabetes, gout, stroke (STR), and traumatic brain injury (TBI). Non-disabled Māori aged 25 years and over were more likely than non-disabled non-Māori to have acute myocardial infarction (AMI, or heart attack), diabetes, gout, and traumatic brain injury (TBI), after adjusting for age.

In 2013, after adjusting for age, disabled Māori aged 25 years and over were more likely than disabled non-Māori to be admitted to hospital due to diabetes, high blood pressure (hypertensive disease), ischaemic heart disease, and motor vehicle accidents. Non-disabled Māori aged 25 years and over were more likely than non-disabled non-Māori to be admitted to hospital for diabetes, motor vehicle accidents, and suicide attempt (self-harm), after adjusting for age.

In summary, after adjusting for age:

- Disabled Māori, aged 25 years and over, were more likely to have developed cancer (any types) than disabled non-Māori
- Māori females with or without disability were more likely to develop breast cancer than non-Māori females
- Disabled Māori, aged 25 years and over, were more likely to have chronic conditions such as cancer, diabetes, gout, stroke, and traumatic brain injury than disabled non-Māori
- Non-disabled Māori, aged 25 years and over, were more likely to have chronic conditions such as acute myocardial infarction (or heart attack), diabetes, gout, and traumatic brain injury than non-disabled non-Māori
- In 2013, disabled Māori, aged 25 years and over, were more likely than disabled non-Māori to be admitted to hospital for diabetes, high blood pressure (hypertensive disease), ischaemic heart disease, and motor vehicle accidents
- Non-disabled Māori, aged 25 years and over, were more likely than non-disabled non-Māori to be admitted to hospital for diabetes, motor vehicle accidents, and suicide attempt (self-harm).

### ***Analysis with regards to disabled children (aged 0–14 years)***

This analysis reports on appointments for Māori children with lived experience of low vision, blindness or hearing loss who were identified in B4 School checks and were then identified in follow ups at DHB Ophthalmology Clinics or Audiology Clinics.

#### **Request 1. Number and percent of Māori children with lived experience of disability who accessed primary health care services compared with non-Māori children with lived experience of disability.**

It is not possible to link the 2013 Disability Survey to the New Zealand Health Survey (NZHS) as Stats NZ controls overlap between the Disability Survey and Health Survey samples.

#### **Request 2. Number and percent of Māori children with lived experience of disability who had appointments for “attendances” at DHB paediatric outpatient clinics compared with non-Māori children with lived experience of disability.**

The 2013 Disability Survey (children, aged 0–14 years old) was linked to the Ministry of Health National Non-Admitted Patient Collection (NNPAC) dataset. Counts were suppressed if less than six. Counts presented here were randomly rounded to base 3. Duplicate counts were removed, that is, every child was counted once for either attending or not attending, regardless of how many appointments the child had in the time period. Table 11 shows that in the 2013/14 financial year, 84 percent of disabled Māori (defined based on the 2013 Disability Survey) who had attended their appointments at DHB paediatric outpatient clinics, less than the 95 percent of disabled non-Māori children who had had attended their appointments.

## Māori Health Disability Statistical Report

---

Table 11. Attendances of disabled Māori and non-Māori children who had appointments at DHB paediatric outpatient clinics.

	Disabled Māori children		Disabled non-Māori children	
	Number	Percent	Number	Percent
Attended (ATT)	96	84	363	#95
Did not attend (DNA)	18	16	21	#5
Total	114	100	384	100

Source: Ministry of Health, Wellington.

Stats NZ, Integrated Data Infrastructure, Stats NZ, Wellington.

Note: # indicates results are statistically different to those for Māori.

**Request 3. Number and percent of Māori children with lived experience of low vision or blindness who had appointments for “attendances” at DHB Ophthalmology Clinics, compared with non-Māori children with lived experience of low vision or blindness.**

The Ministry of Health Blind Foundation dataset was linked to the Ministry of Health National Non-Admitted Patient Collection (NNPAC) dataset. Counts were suppressed if less than six. Counts presented here were randomly rounded to base 3. Percentages could not be calculated due to the suppressed counts. Duplicate counts were removed, that is, every child was counted once for either attending or not attending, regardless of how many appointments the child had in the time period.

Table 12 shows that in the past 10 years (Year 2007–Year 2017), 333 (26 percent of total children) Māori children with lived experience of low vision or blindness had attended their appointments at DHB Ophthalmology clinics, compared with 924 (74 percent) non-Māori children with lived experience of low vision. In 2016, 36 Māori children with lived experience of low vision or blindness had attended their appointments at DHB Ophthalmology clinics, compared with 93 non-Māori children with lived experience of low vision or blindness.

Table 12. Number of attendances of Māori children and non-Māori children with lived experience of low vision or blindness who had appointments at DHB Ophthalmology clinics.

	Māori children		Non-Māori children	
	Attended (ATT)	Did not attend/Did not wait (DNA/DNW)	Attended (ATT)	Did not attend/Did not wait (DNA/DNW)
2007	15	Suppressed	36	Suppressed
2008	18	6	60	9
2009	24	9	81	Suppressed
2010	33	Suppressed	84	6
2011	36	9	90	Suppressed
2012	30	9	96	9
2013	33	12	105	15
2014	45	Suppressed	99	12
2015	33	Suppressed	105	12
2016	36	6	93	9
2017	30	Suppressed	75	6

Source: Ministry of Health, Wellington.

Stats NZ, Integrated Data Infrastructure, Stats NZ, Wellington.

**Request 4. Number and percent of Māori children with lived experience of low vision or blindness, who had appointments for “attendances” at DHB paediatric outpatient clinics compared with non-Māori children with lived experience of low vision or blindness.**

The Ministry of Health Blind Foundation dataset was linked to the Ministry of Health National Non-Admitted Patient Collection (NNPAC) dataset. Counts were suppressed if less than six. Counts presented here were randomly rounded to base 3. Percentages could not be calculated due to the suppressed counts. Duplicate counts were removed, that is, every child was counted once for either attending or not attending, regardless of how many appointments the child had in the time period.

Table 13 shows that in the past 10 years (Year 2007–Year 2017), 399 (29 percent of the total children) Māori children with lived experience of low vision or blindness had attended their appointments at DHB paediatric clinics, compared with 978 (71 percent) non-Māori children with lived experience of low vision or blindness. In 2016, 42 Māori children with lived experience of low vision or blindness attended their appointments at DHB paediatric clinics, compared with 102 non-Māori children with lived experience of low vision or blindness.

Table 13. Number of attendances of Māori children and non-Māori children with lived experience of low vision or blindness who had appointments at DHB paediatric clinics.

	Māori children		Non-Māori children	
	Attended (ATT)	Did not attend/Did not wait (DNA/DNW)	Attended (ATT)	Did not attend/Did not wait (DNA/DNW)
2007	18	Suppressed	54	9
2008	30	Suppressed	78	15
2009	39	12	84	9
2010	42	12	90	9
2011	39	12	96	15
2012	42	6	99	12
2013	39	6	102	15
2014	33	12	105	21
2015	42	Suppressed	99	12
2016	42	9	102	9
2017	33	9	69	Suppressed

Source: Ministry of Health, Wellington.

Stats NZ, Integrated Data Infrastructure, Stats NZ, Wellington.

**Request 5. Number and percent of Māori children who were screened by the B4 School Check vision test who then required referral for a full vision assessment, compared with non-Māori. Of these children, Number and percent of Māori compared with non-Māori who had appointments for “attendances” at DHB Ophthalmology Clinics.**

The Ministry of Health B4 School Check (B4SC) dataset was linked to the Ministry of Health National Non-Admitted Patient Collection (NNPAC) dataset. Counts were suppressed if less than six. Counts presented here were randomly rounded to base 3. Percentages could not be calculated due to the suppressed counts. Duplicate counts were removed, that is, every child was counted once for either attending or not attending, regardless of how many appointments the child had in the time period. Only appointments happened after vision check were counted, if the date of vision check was missing, the B4SC check date was used.

Table 14 shows that in the past 8 years (Year 2010–Year 2017), 567 (20 percent of the total children) Māori children who required a referral for a full vision assessment after being screened by the B4 School Check vision test had attended their appointments at DHB Ophthalmology clinics, compared with 2337 (80 percent) non-Māori children. In 2016, 57 Māori children who required a referral for a full vision assessment after being screened by the B4 School Check vision test had attended their appointments at DHB Ophthalmology clinics, compared with 288 non-Māori children.

Table 14. Number of attendances of Māori children and non-Māori children who were screened by the B4 School Check vision test who then required referral for a full vision assessment who had appointments at DHB Ophthalmology clinics.

Year of having vision checked	Māori children		Non-Māori children	
	Attended (ATT)	Did not attend/Did not wait (DNA/DNW)	Attended (ATT)	Did not attend/Did not wait (DNA/DNW)
2010	15	Suppressed	60	9
2011	96	27	378	51
2012	96	30	357	54
2013	90	24	375	45
2014	111	30	426	45
2015	90	15	396	54
2016	57	15	288	33
2017	12	Suppressed	57	9

Source: Ministry of Health, Wellington.

Stats NZ, Integrated Data Infrastructure, Stats NZ, Wellington

**Request 6. Number and percent of Māori children who were screened by the B4 School Check hearing test who then required referral for a full hearing assessment, compared with non-Māori. Of these children, Number and percent of Māori compared with non-Māori who had appointments for “attendances” at DHB Audiology Clinics.**

The Ministry of Health B4 School Check (B4SC) dataset was linked to the Ministry of Health National Non-Admitted Patient Collection (NNPAC) dataset. Counts were suppressed if less than six. Counts presented here were randomly rounded to base 3. Duplicate counts were removed, that is, every child was counted once only for either attending or not attending, regardless of how many appointments the child had in the time period. Only appointments happened after hearing test were counted, if the date of hearing test was missing, the B4SC check date was used.

Table: 15 shows that in the past 8 years (Year 2010–Year 2017), 2517 (31 percent of the total children) Māori children who required a referral for a full hearing assessment after being screened by the B4 School Check hearing test had attended their appointments at DHB Audiology clinics, compared with 5577 (69 percent) non-Māori children. In 2016, 369 Māori children who required a referral for a full hearing assessment after being screened by the B4 School Check hearing test had attended their appointments at DHB Audiology clinics, compared with 786 non-Māori children.

Table: 16 shows that in 2016, 80 percent of Māori children who required a referral for a full vision assessment after being screened by the B4 School Check vision test had attended their appointments at DHB Ophthalmology clinics, less than the 91 percent of non-Māori children who required a referral for a full vision assessment after being screened by the B4 School Check vision test.

## Māori Health Disability Statistical Report

---

Table: 15. Number of attendances of Māori children and non-Māori children who were screened by the B4 School Check hearing test who then required referral for a full hearing assessment who had appointments at DHB Audiology clinics.

Year of having hearing checked	Māori children		Non-Māori children	
	Attended (ATT)	Did not attend/Did not wait (DNA/DNW)	Attended (ATT)	Did not attend/Did not wait (DNA/DNW)
2010	39	15	87	18
2011	342	120	765	135
2012	381	123	870	162
2013	480	204	1008	177
2014	420	150	975	135
2015	417	135	915	117
2016	369	93	786	78
2017	69	15	171	15

Source: Ministry of Health, Wellington.

Stats NZ, Integrated Data Infrastructure, Stats NZ, Wellington.

Table: 16. Percentage of attendances of Māori children and non-Māori children who were screened by the B4 School Check hearing test who then required referral for a full hearing assessment who had appointments at DHB Audiology clinics.

Year of having hearing checked	Māori children		Non-Māori children	
	Attended (ATT)	Did not attend/Did not wait (DNA/DNW)	Attended (ATT)	Did not attend/Did not wait (DNA/DNW)
2010	72	28	83	17
2011	74	26	#85	#15
2012	76	24	#84	#16
2013	70	30	#85	#15
2014	74	26	#88	#12
2015	76	24	#87	#11
2016	80	20	#91	#9
2017	82	18	92	8

Source: Ministry of Health, Wellington.

Stats NZ, Integrated Data Infrastructure, Stats NZ, Wellington.

Note: # indicates results are statistically different to those for Māori.

In summary,

- 84 percent of the disabled Māori children in the 2013 Disability Survey had attended their appointments at DHB paediatric outpatient clinics
- Between 2007 and 2017, 333 (26 percent of total children) Māori children with lived experience of low vision or blindness had attended their appointments at DHB Ophthalmology clinics
- Between 2007 and 2017, 399 (29 percent of the total children) Māori children with lived experience of low vision or blindness had attended their appointments at DHB paediatric clinics
- Between 2010 and 2017, 567 (20 percent of the total children) Māori children who required a referral for a full vision assessment after being screened by the B4 School Check vision test had attended their appointments at DHB Ophthalmology clinics
- Between 2010 and 2017, 2517 (31 percent of the total children) Māori children who required a referral for a full hearing assessment after being screened by the B4 School Check hearing test had attended their appointments at DHB Audiology clinics

- In 2016, less Māori children (80 percent) than non-Māori children (91 percent) who required a referral for a full vision assessment after being screened by the B4 School Check vision test had attended their appointments at DHB Ophthalmology clinics.

### ***Disclaimer of using the IDI data from SNZ***

The results in this report are not official statistics. They have been created for research purposes from the Integrated Data Infrastructure (IDI), managed by Stats NZ.

The opinions, findings, recommendations, and conclusions expressed in this report are those of the author(s), not Statistics NZ, Ministry of Health.

Access to the anonymised data used in this study was provided by Statistics NZ under the security and confidentiality provisions of the Statistics Act 1975. Only people authorised by the Statistics Act 1975 are allowed to see data about a particular person, household, business, or organisation, and the results in this [report, paper] have been confidentialised to protect these groups from identification and to keep their data safe.

Careful consideration has been given to the privacy, security, and confidentiality issues associated with using administrative and survey data in the IDI. Further detail can be found in the Privacy impact assessment for the Integrated Data Infrastructure available from [www.stats.govt.nz](http://www.stats.govt.nz).

### Appendix 6: Ministry of Health – SOCRATES data

SOCRATES is a national database of the Ministry of Health's Disability Support Services clients and service providers. Information for SOCRATES is supplied by Needs Assessment and Service Co-ordination agencies (NASCs) throughout New Zealand. SOCRATES does not include information on disabled people older than 65 years of age whose supports are funded by District Health Boards.

#### *Needs Assessment and Service Coordination services*

NASCs are organisations contracted by the Ministry of Health to work with disabled people and their family, whānau, aiga, or carers, to:

- identify their strengths and support needs
- outline what disability support services are available
- determine their eligibility for Ministry-funded support services.

NASCs allocate Ministry-funded disability support services and help with accessing other supports. These services are then delivered by their respective service providers.

NASCs are contracted by the Ministry's Disability Support Services unit. It's their job to ensure that the support and services allocated are fair, and fit within the disability support services budget.

Table 1: Number of Clients receiving Disability Support Services registered in the SOCRATES Database, Ministry of Health, Māori and Non-Māori, 2010 to 2018.

Clients	Year										Difference 2010 to 2018	
	2010	2011	2012	2013	2014	2015	2016	2017	2018	Number	Percent	
Māori	4977	5216	5313	5456	5683	5916	6044	6343	6731	1754	35	
Non-Māori	25,729	26,119	26,008	26,205	26,668	27,319	27,667	28,353	29,588	3,859	15	
Total	30,706	31,335	31,321	31,661	32,351	33,235	33,711	34,696	36,319	5,613	18	

Source: SOCRATES database, Ministry of Health, Wellington.

Data extracted from SOCRATES at 3 May 2019.

This data set is only a snapshot at a point in time (not for time period) - 31 December each year.

## Māori Health Disability Statistical Report

---

Between 2010 and 2018, the number of Māori clients receiving Disability Support Services recorded in SOCRATES increased by 1754 (from 4977 to 6731) clients or 35 percent. At the same time the number of non-Māori clients increased by 3839 clients (from 25,729 to 29,588) or 15 percent.

Table 2: Percent of Clients receiving Disability Support Services registered in the SOCRATES Database, Ministry of Health, Māori and Non-Māori, 2010 to 2018.

Clients	Year									Difference 2010 to 2018
	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Māori	16	17	17	17	18	18	18	18	19	2
Non-Māori	84	83	83	83	82	82	82	82	81	-2
Total	100	100	100	100	100	100	100	100	100	-

Source: SOCRATES database, Ministry of Health, Wellington.

Data extracted from SOCRATES at 3 May 2019.

This data set is only a snapshot at a point in time (not for time period) - 31 December each year.

Between 2010 and 2018, the percentage of clients receiving Disability Support Services recorded in SOCRATES who were Māori increased by 2 percentage points (from 16 percent in 2010 to 19 percent in 2018). During this time the percentage of clients who were non-Māori clients decreased by 2 percentage points (from 84 percent in 2010 to 81 percent in 2018). Please note these percentage point differences (2 and -2) are correct and appear incorrect because of rounding.

The same information shown in Table 2 is shown as rates per 100,000 people in Table 3 below.

## Māori Health Disability Statistical Report

---

Table 3: Number and rate per 100,000 of Clients receiving Disability Support Services registered in the SOCRATES Database, Ministry of Health, 2010 to 2017 Māori and Non-Māori.

Clients	Year								Difference 2010 to 2017	
	2010	2011	2012	2013	2014	2015	2016	2017	Number	Percent
Māori	4977	5216	5313	5456	5683	5916	6044	6343	1366	27
Population estimate (000)	666	676	684	692	702	712	723	734	68	10
<b>Rate per 100,000</b>	<b>747</b>	<b>772</b>	<b>777</b>	<b>788</b>	<b>810</b>	<b>831</b>	<b>835</b>	<b>864</b>	<b>117</b>	<b>16</b>
Non-Māori	25,729	26,119	26,008	26,205	26,668	27,319	27,667	28,353	2624	10
Population estimate (000)	3,685	3,709	3,724	3,750	3,808	3,884	3,970	4,060	375	10
<b>Rate per 100,000</b>	<b>698</b>	<b>704</b>	<b>698</b>	<b>699</b>	<b>700</b>	<b>703</b>	<b>697</b>	<b>698</b>	<b>0</b>	<b>0</b>

Source: SOCRATES database, Ministry of Health, Wellington.

Data extracted from SOCRATES at 3 May 2019.

This data set is only a snapshot at a point in time (not for time period) - 31 December each year.

Population estimates for 2018 are not available yet.

Between 2010 and 2017, the rate per 100,000 of Māori clients receiving Disability Support Services registered in the SOCRATES Database increased by 16 percent (from 747 to 864 clients per 100,000), while the rate for non-Māori remained around 700 clients per 100,000.

## Appendix 7: Ministry of Health - PRIMHD data

PRIMHD (pronounced ‘primed’) is a Ministry of Health single national mental health and addiction information collection of service activity and outcomes data for health consumers. Mental health conditions are disabilities.

The data is collected from district health boards (DHBs) and non-governmental organisations. It is stored in the PRIMHD datamart which is part of the Ministry’s national data warehouse.

From PRIMHD we are able to obtain the number and percent of clients accessing mental health and addiction services from 2002/03 to 2017/18.

Table 1: Number and percent of Māori and Non-Māori Clients accessing Mental Health and Addiction services, 2007/08 to 2017/18.

Clients	Year											Difference 2007/08 to 2017/18	
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18		
Number												Number	Percent
Māori Clients	20,370	23,762	27,255	30,794	34,015	38,502	39,471	40,550	44,044	46,322	49,120	28,750	141
Non-Māori Clients	83,998	87,972	93,941	101,888	105,374	112,872	116,485	118,120	123,796	125,371	127,528	43,530	52
Total	104,368	111,734	121,196	132,682	139,389	151,374	155,956	158,670	167,840	171,693	176,648	72,280	69
Percent												Percentage points	
Māori Clients	20	21	22	23	24	25	25	26	26	27	28		8
Non-Māori Clients	80	79	78	77	76	75	75	74	74	73	72		-8
Total	100	100	100	100	100	100	100	100	100	100	100		-

Source: PHRIMHD Database, Ministry of Health, Wellington.

Table 1 shows the number of Māori clients accessing mental health and addiction services increased from 20,370 clients in 2007/08 to 49,120 clients in 2017/18, an increase of 28,750 clients or 141 percent. For non-Māori, the corresponding increase was from 83,998 clients to 127,528

## Māori Health Disability Statistical Report

---

clients, an increase of 43,530 clients or 52 percent. The percentage of clients accessing mental health and addiction services who were Māori has increased by 8 percentage points – from 20 percent in 2007/08 to 28 percent points in 2017/18.

The same information in Table 1 above is shown in Table 2 below as rates per 100,000 population.

Table 2: Number and rate per 100,000 of Māori and Non-Māori Clients accessing Mental Health and Addiction services, 2007/08 to 2017/18.

Clients	Year											Difference 2007 to 2017	
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18		
												Number	Percent
Māori	20,370	23,762	27,255	30,794	34,015	38,502	39,471	40,550	44,044	46,322	49,120	28,750	141
Population estimate (000)	634	645	655	666	676	684	692	702	712	723	734	100	16
<b>Rate per 100,000 – Māori</b>	<b>3211</b>	<b>3684</b>	<b>4162</b>	<b>4624</b>	<b>5036</b>	<b>5627</b>	<b>5701</b>	<b>5779</b>	<b>6184</b>	<b>6403</b>	<b>6690</b>	<b>3479</b>	<b>108</b>
Non-Māori													
Clients	83,998	87,972	93,941	101,888	105,374	112,872	116,485	118,120	123,796	125,371	127,528	43530	52
Population estimate (000)	3,590	3,615	3,648	3,685	3,709	3,724	3,750	3,808	3,884	3,970	4,060	470	13
<b>Rate per 100,000 - Non-Māori</b>	<b>2340</b>	<b>2434</b>	<b>2575</b>	<b>2765</b>	<b>2841</b>	<b>3031</b>	<b>3106</b>	<b>3102</b>	<b>3188</b>	<b>3158</b>	<b>3141</b>	<b>801</b>	<b>34</b>

Source: PHRIMHD Database, Ministry of Health, Wellington.

Table 2 shows between 2007/08 and 2017/18, the rate per 100,000 of Māori clients accessing mental health and addiction services increased by 3479 clients per 100,000 or 108 percent (from 3211 clients per 100,000 in 2007/08 to 6690 clients per 100,000 in 2017/18). For non-Māori, the corresponding increase was by 801 clients or 34 percent (from 2340 clients per 100,000 in 2007/08 to 3141 clients per 100,000 in 2017/18).

### Appendix 8: Ministry of Health - Spina bifida data

Spina bifida is a neural tube defect. It is the second most common birth defect worldwide, and affects about 1 in every 1000 pregnancies in New Zealand. Spina Bifida is a complex birth defect.

Data is available from the National Minimum Data Set showing diagnosis of spina bifida at the date of birth, for those aged less than one, and all ages - diagnosed with any discharge. This information is shown in the following tables. Because of low numbers - numbers less than 6 are suppressed to ensure confidentiality. Some totals are also suppressed as including them could allow suppressed numbers to be calculated. Suppressed and low numbers limits the amount of analysis.

Table 1: Publicly funded hospital discharges with any diagnosis of spina bifida, admitted on the day of birth, 2006/07 to 2017/18, Māori and Non-Māori.

Discharges	Year										
	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17
Māori	s	8	s	s	s	6	s	s	s	s	6
Non-Māori	s	s	11	s	12	12	6	9	10	7	8

Source: National Minimum Data Set (NMDS), Ministry of Health, Wellington.

Note s = Numbers less than 6 are suppressed to ensure confidentiality.

Table 1 shows the number of Māori babies diagnosed with spina bifida on their date of birth each year is low. The low numbers do not allow yearly comparisons between Māori and non-Māori.

Between 2006/07 and 2016/17 the total number of Māori babies diagnosed with spina bifida on their date of birth totalled 33. During this time there were 89 non-Māori babies diagnosed with spina bifida on their date of birth. Māori babies represent 27 percent of this group while non-Māori babies represent 73 percent.

According to the report – Report on Maternity 2017<sup>24</sup>, 28.6 percent of live-born babies born in New Zealand were Māori.

---

<sup>24</sup> <https://www.health.govt.nz/publication/report-maternity-2017>

## Māori Health Disability Statistical Report

---

Table 2: Publicly funded hospital discharges with any diagnosis of spina bifida, admitted aged less than one, 2006/07 to 2017/18, Māori and non-Māori.

Discharges	Year										
	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17
Māori	s	9	9	s	s	7	s	s	s	s	10
Non-Māori	17	19	23	16	18	24	16	18	20	13	18

Source: National Minimum Data Set (NMDS), ministry of Health, Wellington.

Note s = Numbers less than 6 are suppressed to ensure confidentiality.

Table: 2 shows the number of Māori babies aged less than one year discharged from publicly funded hospitals who are diagnosed with spina bifida. Babies can be admitted and discharged more than once and are counted each time they are discharged. The low numbers do not allow yearly comparisons between Māori and non-Māori.

Between 2006/07 and 2016/17, Māori babies total discharges were 55 (or 27 percent of all discharges of babies diagnosed with spina bifida). Non-Māori babies accounted for 147 (or 73 percent) of discharges.

Table: 3 Shows the number of Māori (all ages) discharged from publicly funded hospitals each year who are diagnosed with spina bifida. Individuals are counted each time they are discharged.

Table 3: Number and percent of Publicly funded hospital discharges with any diagnosis of spina bifida, all ages, 2006/07 to 2017/18, Māori and non-Māori.

Discharges	Year											Difference 06/07 to 16/17	
	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17		
Number													
Māori	126	120	104	119	102	131	119	105	91	114	106	-20	-16
Non-Māori	656	562	432	406	382	430	398	378	376	390	302	-354	-54
Total	782	682	536	525	484	561	517	483	467	504	408	-374	-48
Percent												Percentage points	
Māori	16	18	19	23	21	23	23	22	19	23	26		10
Non-Māori	84	82	81	77	79	77	77	78	81	77	74		-10
Total	100	100	100	100	100	100	100	100	100	100	100		-

Source: National Minimum Data Set (NMDS), Ministry of Health, Wellington.

## Appendix 9: District Health Board - Ophthalmology data

District Health Boards (DHBs) have clinics which provide ophthalmology services. Ophthalmology is the branch of medicine that is concerned with the health of eyes and their surrounding tissues including muscles, bones, eyelids, and tear production/drainage systems.

In this analysis, *Ophthalmology - 1st attendance* and *Ophthalmology - Subsequent attendance* are used for appointments for attendances, and the following are used for appointments for procedures: *Eye - Argon Laser*, *Eye Procedures*, *Intraocular injection of pharmacological agent*, and *Minor Eye Procedures*.

### **Appointments for attendances at DHB ophthalmology clinics**

Table 1 shows the number and percentage of individuals who had an appointment for an attendance made for them at a DHB ophthalmology clinic between 2007 and 2017, for Māori and non-Māori.

Table 1: Number and percentage of individuals who had an appointment for an attendance at a DHB Ophthalmology Clinic, 2007 to 2017, Māori and Non-Māori.

Appointments for attendance	Year										Difference 2007 to 2017		
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Number												Number	Percent
Māori	11,888	13,104	15,003	15,128	15,351	15,753	16,794	17,272	17,882	18,372	19,956	8,068	68
Non-Māori	98,915	111,915	124,024	126,783	130,240	135,498	147,547	150,973	151,526	158,327	169,510	70,595	71
Total	110,803	125,019	139,027	141,911	145,591	151,251	164,341	168,245	169,408	176,699	189,466	78,663	71
Percent												Percentage points	
Māori	11	10	11	11	11	10	10	10	11	10	11	0	0
Non-Māori	89	90	89	89	89	90	90	90	89	90	89	0	0
Total	100	100	100	100	100	100	100	100	100	100	100	-	-

Source: Ministry of Health, Wellington.

Between 2007 and 2017, the number of Māori who had an appointment for an attendance at a DHB ophthalmology clinic increased by 68 percent (from 11,888 to 19,956 appointments), while the number for non-Māori increased by 71 percent (from 98,915 to 169,510 appointments). The percentage of individuals with appointments for attendances at DHB ophthalmology clinics who are Māori has remained at just over 10 percent.

## Māori Health Disability Statistical Report

---

The same information shown in Table 1 above is shown as rates per 100,000 people in Table 2 below.

Table 2: Number and rate per 100,000 of individuals who had an appointment for an attendance at a DHB Ophthalmology Clinic, 2007 to 2017, Māori and Non-Māori.

Appointments for attendance	Year											Difference 2007 to 2017	
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Māori	11,888	13,104	15,003	15,128	15,351	15,753	16,794	17,272	17,882	18,372	19,956	8,068	68
Population estimate (000)	634	645	655	666	676	684	692	702	712	723	734	99,900	16
<b>Rate per 100,000</b>	<b>1874</b>	<b>2032</b>	<b>2291</b>	<b>2272</b>	<b>2273</b>	<b>2302</b>	<b>2426</b>	<b>2461</b>	<b>2511</b>	<b>2540</b>	<b>2718</b>	<b>844</b>	<b>45</b>
Non-Māori	98,915	111,915	124,024	126,783	130,240	135,498	147,547	150,973	151,526	158,327	169,510	70,595	71
Population estimate (000)	3590	3615	3648	3685	3709	3724	3750	3808	3884	3970	4060	470,200	13
<b>Rate per 100,000</b>	<b>2756</b>	<b>3096</b>	<b>3400</b>	<b>3441</b>	<b>3512</b>	<b>3639</b>	<b>3935</b>	<b>3965</b>	<b>3902</b>	<b>3988</b>	<b>4175</b>	<b>1,420</b>	<b>52</b>

Source: Ministry of Health, Wellington.

Between 2007 and 2017, the rate (per 100,000) of Māori who had an appointment for an attendance at a DHB ophthalmology increased by 844 appointments or 45 percent (from 1874 to 2718 appointments per 100,000), while the number for non-Māori increased by 1420 appointments or 52 percent (from 2756 to 4175 appointments per 100,000).

When tested the difference in rates (per 100,000) for Māori and non-Māori were significantly different each year.

### **Appointments for procedures at DHB ophthalmology clinics**

Table 3 shows the number and percentage of individuals who had appointments for “procedures” at DHB Ophthalmology clinics clinic between 2007 and 2017, for Māori and non-Māori.

## Māori Health Disability Statistical Report

---

Table 3: Number and percentage of individuals who had appointments for procedures at a DHB Ophthalmology Clinic, 2007 to 2017, Māori and Non-Māori.

Appointments for procedures	Year											Difference 2007 to 2017	
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Number												Number	Percent
Māori	707	688	925	1043	1057	1120	1112	1049	1123	1089	1323	616	87
Non-Māori	8,231	7,357	9,596	11,118	12,045	13,019	14,413	15,147	16,210	16,377	18,614	10,383	126
Total	8,938	8,045	10,521	12,161	13,102	14,139	15,525	16,196	17,333	17,466	19,937	10,999	123
Percent												Percentage points	
Māori	8	9	9	9	8	8	7	6	6	6	7		-1
Non-Māori	92	91	91	91	92	92	93	94	94	94	93		1
Total	100	100	100	100	100	100	100	100	100	100	100		-

Source: Ministry of Health, Wellington.

Between 2007 and 2017, the number of Māori who had appointments for procedures at a DHB ophthalmology clinics increased by 87 percent (from 707 to 1,323 appointments for procedures) while the corresponding increase for non-Māori was by 126 percent (from 8,231 to 18,614 appointments for procedures). During this time, the percentage of appointments for procedures for Māori decreased by 1 percentage point (from 8 percent in 2007 to 7 percent in 2017).

The same information shown in Table 3 above is shown as rates per 100,000 people in Table 4 below.

Table 4: Number and rate per 100,000 of individuals who had appointments for procedures at a DHB Ophthalmology Clinic, 2007 to 2017, Māori and Non-Māori.

Appointments for procedures	Year											Difference 2007 to 2017	
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Māori	707	688	925	1,043	1,057	1,120	1,112	1,049	1,123	1,089	1,323	616	87
Population estimate (000)	634	645	655	666	676	684	692	702	712	723	734	99,900	16
<b>Rate per 100,000</b>	<b>111</b>	<b>107</b>	<b>141</b>	<b>157</b>	<b>156</b>	<b>164</b>	<b>161</b>	<b>149</b>	<b>158</b>	<b>151</b>	<b>180</b>	<b>69</b>	<b>62</b>
Non-Māori	8,231	7,357	9,596	11,118	12,045	13,019	14,413	15,147	16,210	16,377	18,614	10,383	126
Population estimate (000)	3,590	3,615	3,648	3,685	3,709	3,724	3,750	3,808	3,884	3,970	4,060	470	13
<b>Rate per 100,000</b>	<b>229</b>	<b>204</b>	<b>263</b>	<b>302</b>	<b>325</b>	<b>350</b>	<b>384</b>	<b>398</b>	<b>417</b>	<b>413</b>	<b>459</b>	<b>229</b>	<b>100</b>

Source: Ministry of Health, Wellington.

## Māori Health Disability Statistical Report

---

Between 2007 and 2017, the rate (per 100,000) of procedural appointments made for Māori increased by 62 percent (from 111 appointments to 180 appointments per 100,000), while the rate (per 100,000) for non-Māori increased by 100 percent (from 229 appointments to 459 appointments per 100,000).

When tested the difference in rates (per 100,000) for Māori and non-Māori were significantly different each year.

### ***“Did not attend” and “Did not wait” – Appointments for attendances***

Table 5 shows the number and percent of individuals who had appointments for an attendance at DHB ophthalmology clinics who did not attend or did not wait for those appointments.

Table 5: Number and percent of individuals who had an appointment for an attendance at a DHB Ophthalmology Clinic, but did not attend or did not wait for that appointment, 2007 to 2017, Māori and Non-Māori.

Did not attend or did not wait - appointments	Year										Difference 2007 to 2017		
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Māori												Number	Percent
Number - did not attend or did not wait	1997	1849	2216	2277	2476	2240	2393	2427	2473	2781	2968	971	49
Appointments	11,888	13,104	15,003	15,128	15,351	15,753	16,794	17,272	17,882	18,372	19,956	8,068	68
<b>Percent - did not attend or did not wait</b>	<b>17</b>	<b>14</b>	<b>15</b>	<b>15</b>	<b>16</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>15</b>	<b>15</b>	<b>Percentage point</b>	
Non-Māori												Number	Percent
Number - did not attend or did not wait	6640	6400	7270	7513	7817	7394	8067	8020	8022	8948	9867	3,227	49
Appointments	98,915	111,915	124,024	126,783	130,240	135,498	147,547	150,973	151,526	158,327	169,510	70,595	71
<b>Percent - did not attend or did not wait</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>Percentage point</b>	
													<b>-1</b>

Source: Ministry of Health, Wellington.

Table 5 shows between 2007 and 2017, the percentage of Māori clients with appointments for attendances at DHB ophthalmology clinics who did not attend or did not wait for those appointments was more than two and a half times higher than that of non-Māori.

When tested, the difference in rates (per 100,000) for Māori and non-Māori were significantly different each year.

### ***“Did not attend” or “Did not wait” – appointments for procedures***

Table 6 shows the number and percent of individuals who had appointments at DHB ophthalmology clinics for procedures who did not attend or did not wait for those procedures.

Table 6: Number and percent of individuals who had an appointment at a DHB Ophthalmology Clinics for procedures, but did not attend or did not wait for that procedure, 2007 to 2017, Māori and Non-Māori.

Did not attend or did not wait - procedures	Year										Difference 2007 to 2017		
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Māori												Number	Percent
Number - did not attend or did not wait	22	42	58	63	45	68	71	65	49	68	74	52	236
Appointments for procedures	707	688	925	1,043	1,057	1,120	1,112	1,049	1,123	1,089	1,323	616	87
Percent - did not attend or did not wait	3	6	6	6	4	6	6	6	4	6	6	Percentage points	2
Non-Māori													
Number - did not attend or did not wait	149	173	213	229	254	342	405	432	453	477	576	427	287
Appointments for procedures	8,231	7,357	9,596	11,118	12,045	13,019	14,413	15,147	16,210	16,377	18,614	10,383	126
Percent - did not attend or did not wait	2	2	2	2	2	3	3	3	3	3	3	Percentage points	1

Source: Ministry of Health, Wellington.

Table 6 shows between 2007 and 2017, the percentage of Māori clients with appointments for procedures at DHB ophthalmology clinics who did not attend or did not wait for those appointments was about twice that of non-Māori.

When tested, apart from 2007, the difference in rates (per 100,000) for Māori and non-Māori were significantly different each year.

### Appendix 10: District Health Board - Paediatric Services data

District Health Boards offer a range of paediatric services. This report measures appointments for “attendances” and those who “did not attend or did not wait” for those appointments – for those aged 0 to 19. The three most common paediatric services make up almost 90 percent of services offered: Ear Nose and Throat services – 22 percent, Orthopaedic services – 24 percent, and Paediatric Medical Outpatient services – 42 percent.

#### ***Appointments for attendances***

Tables 1 and 2 below show the number (in 1000s) and percentage of individuals aged 0 to 19 who had an appointment for an attendance at a DHB clinic for paediatric services between 2007 and 2017.

Table 1 shows between 2007 and 2017, the number of Māori aged 0 to 19 with appointments for attendances at DHB for paediatric services increased from 47,388 to 57,407, an increase of 10,019 appointments or 21 percent. The corresponding increase for non-Māori was from 161,426 to 180,748 appointments, an increase of 19,322 appointments or 12 percent.

Table 1: Number of individuals aged 0 to 19 years who had an appointment for an attendance at a DHB Clinic for Paediatric Services, 2007 to 2017, Māori and non-Māori.

Appointments for attendances	Year											Difference 2007 to 2017	
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Māori	47,388	50,967	53,298	55,981	56,258	55,691	56,460	57,692	58,126	56,117	57,407	10,019	21%
Non-Māori	161,426	173,498	178,418	184,409	183,950	183,061	184,475	186,534	185,459	181,566	180,748	19,322	12%
Total	208,814	224,465	231,716	240,390	240,208	238,752	240,935	244,226	243,585	237,683	238,155	29,341	14%

Source: Ministry of Health, Wellington.

## Māori Health Disability Statistical Report

---

Table 2 shows between 2007 and 2017, the percentage of clients who were Māori aged 0 to 19 with appointments for attendances at DHBs for paediatric services did not change much.

Table 2: Percentage of individuals aged 0 to 19 years who had an appointment for an attendance at a DHB Clinic for Paediatric Services, 2007 to 2017, Māori and non-Māori.

Appointments for attendances	Year (Number 000)											Difference 2007 to 2017
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Māori	23	23	23	23	23	23	23	24	24	24	24	1
Non-Māori	77	77	77	77	77	77	77	76	76	76	76	-1
Total	100	100	100	100	100	100	100	100	100	100	100	-

Source: Ministry of Health, Wellington.

The same information shown in Table 2 above is shown as rates per 100,000 people aged 0 -19 years in Table 3 below.

## Māori Health Disability Statistical Report

---

Table 3: Number and rate per 100,000 of individuals aged 0 to 19 years who had an appointment for an attendance at a DHB Clinic for Paediatric Services, 2007 to 2017, Māori and non-Māori.

Appointments for attendances	Year											Difference 2007 to 2017	
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Māori	47,388	50,967	53,298	55,981	56,258	55,691	56,460	57,692	58,126	56,117	57,407	10019	21
Population estimate	285,410	289,700	292,980	296,190	298,390	300,280	301,860	303,860	305,950	307,820	309,630	24220	8
<b>Rate per 100,000</b>	<b>16,603</b>	<b>17,593</b>	<b>18,192</b>	<b>18,900</b>	<b>18,854</b>	<b>18,546</b>	<b>18,704</b>	<b>18,986</b>	<b>18,999</b>	<b>18,230</b>	<b>18,541</b>	<b>1937</b>	<b>12</b>
Non-Māori	161,426	173,498	178,418	184,409	183,950	183,061	184,475	186,534	185,459	181,566	180,748	19322	12
Population estimate	922,130	922,850	925,190	929,080	926,860	922,390	919,390	920,820	925,190	932,180	940,570	18440	2
<b>Rate per 100,000</b>	<b>17,506</b>	<b>18,800</b>	<b>19,284</b>	<b>19,849</b>	<b>19,847</b>	<b>19,846</b>	<b>20,065</b>	<b>20,257</b>	<b>20,046</b>	<b>19,478</b>	<b>19,217</b>	<b>1711</b>	<b>10</b>

Source: Ministry of Health, Wellington.

Table 3 shows between 2007 and 2017, the rate per 100,000 of individuals aged 0 to 19 years who had an appointment for an attendance at a DHB Clinic for paediatric services increased by 12 percent (from 16,603 to 18,541 appointments per 100,000 population). For non-Māori the corresponding increase was 10 percent (from 17,506 to 19,217 appointments per 100,000 population).

When tested, the difference in rates (per 100,000) for Māori and non-Māori were significantly different each year.

### ***“Did not attend” and “Did not wait” – Appointments for attendances***

Table 4 shows between 2007 and 2017, the number of Māori aged 0 to 19 with appointments for attendances at DHBs for paediatric services - who did not attend or did not wait for those appointments - increased from 8,979 to 10,009, an increase of 1,030 appointments or 11 percent. For non-Māori the corresponding number decreased, from 13,479 to 11,853 appointments, a decrease of 1,626 appointments or 12 percent.

## Māori Health Disability Statistical Report

---

Table 4: Number and percentage of individuals aged 0 to 19 years who had an appointment for an attendance at a DHB Clinic for Paediatric Services clinics who did not attend or did not wait for those appointments, Māori and Non-Māori, 2007 to 2017.

Did not attend or did not wait - appointments	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Difference 2007 to 2017	
Māori												Number	Percent
Number - did not attend or did not wait	8,979	10,068	10,156	10,407	10,703	9,942	10,248	10,170	10,398	9,913	10,009	1,030	11
Appointments	47,388	50,967	53,298	55,981	56,258	55,691	56,460	57,692	58,126	56,117	57,407	10,019	21
Percent - did not attend or did not wait	19	20	19	19	19	18	18	18	18	18	17	Percentage points	-2
Non-Māori												Number	Percent
Number - did not attend or did not wait	13,479	14,768	14,071	14,248	14,552	12,958	13,401	12,873	12,493	11,921	11,853	-1,626	-12
Appointments	161,426	173,498	178,418	184,409	183,950	183,061	184,475	186,534	185,459	181,566	180,748	19,322	12
Percent - did not attend or did not wait	8	9	8	8	8	7	7	7	7	7	7	Percentage points	-2

Source: Ministry of Health, Wellington.

Table 4 shows between 2007 and 2017, the percentage of Māori clients aged between 0 to 19 with appointments for attendances at DHBs for paediatric services who did not attend or did not wait for those appointments was more than twice that of non-Māori.

### Appendix 11: Stats NZ Disability Survey developments and changes

Stats NZ has prepared papers explaining why their Disability Surveys are not comparable<sup>25</sup>.

Stats NZ has also released a PowerPoint presentation which summarises these explanations in a less technical, easier to understand, format – a copy of this is also included in Appendix 12.

There were some changes in the content between the 2001 and 2006 surveys while the 2013 survey was redeveloped to ensure that statistics generated from it were relevant to current and emerging needs and conform to international best practice<sup>26</sup>. There were also changes to the 2013 child disability questions in this survey.

Significant amongst the developments that occurred prior to the 2013 Disability Survey were:

- the introduction of the International Classification of Functioning, Disability and Health (ICF) by the World Health Organisation (WHO), which replaces the International Classification of Impairments, Disability and Handicaps (ICIDH)<sup>27</sup>
- the development of The New Zealand Disability Strategy (Office for Disability Issues, Ministry of Social Development, 2001)<sup>28</sup>
- the development of The New Zealand Carers' Strategy and Five-year Action Plan 2008 (Ministry of Social Development, 2008a)<sup>29</sup>
- the ratification by the New Zealand Government of the United Nations Convention on the Rights of Persons with Disabilities.<sup>30</sup>

The result of these developments can be seen in the changes to questions 16 and 17 of the 2006 and 2013 Census.<sup>31</sup> These questions are used to identify a sampling frame for the Disability Surveys. The Disability Survey questionnaire was updated because of the developments above. The changes to the census questions were aimed at improving the sample methodology.

Table: 1 Changes to questions 16 and 17 of the 2006 and 2013 Census.

Census disability questions	
2006	2013
<ul style="list-style-type: none"><li>• Q16: Does a health problem or a condition you have (lasting six months or more) cause you difficulty with, or stop you doing:<ul style="list-style-type: none"><li>• everyday activities that people</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Q16: Does a health problem or a condition you have (lasting six months or more) cause you difficulty with, or stop you from:<ul style="list-style-type: none"><li>• seeing, even when wearing</li></ul></li></ul>

<sup>25</sup> 2013 Disability Survey, Stats NZ, Wellington, see [http://archive.stats.govt.nz/browse\\_for\\_stats/health/disabilities/DisabilitySurvey\\_HOTP2013/Data%20Quality.aspx?\\_ga=2.138241008.1704443769.1548987388-1245016373.1548987388#06survey](http://archive.stats.govt.nz/browse_for_stats/health/disabilities/DisabilitySurvey_HOTP2013/Data%20Quality.aspx?_ga=2.138241008.1704443769.1548987388-1245016373.1548987388#06survey)

<sup>26</sup> 2013 Disability Survey, Stats NZ, Wellington.

<sup>27</sup> 2013 Disability Survey: Discussion paper on proposed content. See:

[http://archive.stats.govt.nz/browse\\_for\\_stats/health/disabilities/2011-disability-survey.aspx?\\_ga=2.242935938.1803864504.1550437941-1842864503.1473304299](http://archive.stats.govt.nz/browse_for_stats/health/disabilities/2011-disability-survey.aspx?_ga=2.242935938.1803864504.1550437941-1842864503.1473304299)

<sup>28</sup> 2013 Disability Survey: Discussion paper on proposed content.

<sup>29</sup> 2013 Disability Survey: Discussion paper on proposed content.

<sup>30</sup> 2013 Disability Survey: Discussion paper on proposed content.

<sup>31</sup> 2013 Disability Survey, Stats NZ, Wellington.

<ul style="list-style-type: none"> <li>• your age can usually do communicating, mixing with others, or socialising</li> <li>• any other activity that people your age can usually do, or</li> <li>• no difficulty with any of these.</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• glasses or contact lenses</li> <li>• hearing, even when using a hearing aid</li> <li>• walking, lifting, or bending</li> <li>• using your hands to hold, grasp, or use objects</li> <li>• learning, concentrating, or remembering</li> <li>• communicating, mixing with others, or socialising, or</li> <li>• no difficulty with any of these.</li> <li>•</li> </ul>
<p>Q17: Do you have any disability or handicap that is long-term (lasting six months or more)?</p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>	<p>Q17: Do you have a <u>long-term disability</u> (lasting six months or more) <u>that stops you from doing everyday things other people can do?</u></p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>

In addition to these developments and changes, there were also changes to the Disability Survey questionnaire and methodologies.<sup>32</sup>

#### *Lack of comparability between Disability Surveys 1996, 2001, 2006 and 2013*

These changes mean it is not appropriate to compare trends across the Disability Surveys and Stats NZ recommends it is not appropriate to carry out analysis over time<sup>33 34</sup>, – for example to say whether or not disability rates have increased or decreased over time. Because of this, this report does not include any time series analysis of the Disability Surveys.

<sup>32</sup> 2013 Disability Survey, Stats NZ, Wellington.

<sup>33</sup> 2006 Disability Survey, Stats NZ, Wellington.

[http://archive.stats.govt.nz/browse\\_for\\_stats/health/disabilities/DisabilitySurvey2006\\_HOTP06/Techni cal%20Notes.aspx](http://archive.stats.govt.nz/browse_for_stats/health/disabilities/DisabilitySurvey2006_HOTP06/Techni cal%20Notes.aspx)

<sup>34</sup> 2013 Disability Survey, Data quality, Stats NZ, Wellington

[http://archive.stats.govt.nz/browse\\_for\\_stats/health/disabilities/DisabilitySurvey\\_HOTP2013/Data%20Quality.aspx#06survey](http://archive.stats.govt.nz/browse_for_stats/health/disabilities/DisabilitySurvey_HOTP2013/Data%20Quality.aspx#06survey)

Appendix 12: Stats NZ PowerPoint: 2013 Disability Survey - How the survey has changed since 1996





# Overview

- ◎ What is the disability survey?
- ◎ Objectives of the 2013 disability survey
- ◎ A look into a few of the most significant changes to the survey
- ◎ Upcoming dates

[www.stats.govt.nz](http://www.stats.govt.nz)

New Zealand Government



# The Disability Survey is...

- ◎ Two surveys make up the Disability Survey:
  - Household Disability Survey
  - Disability Survey of Residential Facilities
- ◎ The Household Disability Survey is made up of two questionnaires – one for children (0-14yrs) and one for adults (15+ yrs).
- ◎ The Disability Survey of Residential Facilities is made up of one questionnaire and only surveys adults (15+yrs).

[www.stats.govt.nz](http://www.stats.govt.nz)

New Zealand Government



## Objectives of the 2013 Survey

- ◎ What is the prevalence of disability in New Zealand, and how does it vary across key sub-groups in the population, defined on the basis of age-group, sex, ethnic group?
- ◎ To what extent do the social and economic outcomes of disabled people differ from those of non-disabled people? How do outcomes vary between different groups within the disabled population?
- ◎ To what extent are the needs of disabled people currently met? What level and type of support do they need to perform daily activities?
- ◎ What factors facilitate or hinder the participation of disabled people in important life areas (learning opportunities, paid work, civic society)?
- ◎ Who are the main carers of disabled people and what types of support do they provide?



## Child Screening Module

- ◎ 1996 – asks if respondent has difficulties e.g. seeing, hearing, speaking, learning, intellectually, questions on chronic conditions e.g. diabetes, cancer, heart condition, questions asking if child uses special equipment e.g. buggy, walking aid, artificial limb
- ◎ 2001 – screening questions on Muscular Dystrophy, Spina Bifida and Autism or Asperger Syndrome were added. These are conditions very prevalent in NZ.
- ◎ 2006 – questions on cause were added for chronic conditions (severe asthma, diabetes, cancer, epilepsy, muscular dystrophy, autism/Asperger's Syndrome).
- ◎ 2013 – questions on chronic conditions and whether child uses specific types of equipment have been removed. Now focus on if child can carry out certain tasks such as see, hear, raise arms, bend, or has an intellectual, emotional, learning difficulty etc. Responses to some of these questions can now be more descriptive (easily, with difficulty, not at all) rather than the yes/no responses available before 2013.



## HDS Sample Size

- ◎ 1996 – around 20,000 people selected for the household survey. There were no oversamples.
- ◎ 2001 – sample size increased to around 40,000 people. This includes an oversample of around 10,000 Māori and around 10,000 Pacific peoples. The two oversamples was included to improve the quality of Māori and Pacific estimates.
- ◎ 2006 – same sampling as 2001: 40,000 people including oversamples of Māori and Pacific peoples of 10,000 each.
- ◎ 2013 – sample size has dropped to around 20,000 people. The new sampling design allows for a higher proportion of Māori than the national population proportion (an extra 2,000 people included in the total sample size of 20,000).



## Questionnaire Type and Collection

Year	Household Disability Survey	Residential Disability Survey
1996/7	Paper based: Telephone and face to face	Paper based: Face to face
2001	Paper based: Face to face; Electronic: Telephone.	Paper based: Face to face
2006	Electronic: Telephone and face to face	Electronic: Face to face
2013	Electronic: Telephone and face to face	Electronic: Face to face



# Ethnicity

- ◎ Outputs from the 2013 survey will be based on total response ethnic group, not on single prioritised ethnic group like 1996 – 2006.
- ◎ The 2013 derivation is based on six ethnic groups – random reduction of ethnic groups was not carried out in previous surveys.
- ◎ The 2013 derivations are based on survey data imputed with census data. The 2006 derivation used census data imputed with survey data.
- ◎ Note that the number and proportion of respondents in each ethnic group will also be affected by the sampling methodology. The 2006 survey included Māori and Pacific over sampling of approximately 10,000 people each.
- ◎ The 2013 ethnic group derived variable will not be comparable with the 2006 variable.



# HDS Modules in 1996-2006

### Child questionnaire modules:

Screening  
Services and Assistance  
Education  
Transport  
Accommodation  
Economic characteristics

### Adult household questionnaire modules:

Screening  
Services and Assistance  
Employment  
Education  
Transport  
Accommodation  
Special equipment  
Economic characteristics



## HDS Module Additions

- ◎ There were no changes in module subject or order from 1996 to 2006. In 2013 there were a few changes.

### **Child questionnaire modules:**

Screening  
Special Equipment  
Help Received  
Health Services  
Housing  
Education  
Transport  
Leisure  
Carers  
and Outcomes\*

### **Adult household questionnaire modules:**

Screening  
Special Equipment  
Help Received  
Health Services  
Housing  
Safety  
Employment  
Transport  
Education  
Social Contact  
Leisure  
and Outcomes\*



## Residential Modules

### ◎ 1996/7-2001

#### **Adult residential modules:**

Screening  
Assistance and Equipment

### ◎ 2006

#### **Adult residential modules:**

Screening  
Services (Residential respondents with disability completed the first part of section B only)

### ◎ 2013

#### **Adult residential modules:**

Screening  
Special Equipment  
Help Received



## What has been taken out?

- ◎ Questions on chronic conditions have been removed from the child screening module in the Household Disability Survey.
- ◎ No longer ask for the main condition or health problem which causes the limitation.

The 2013 Disability Survey has sacrificed some depth from the survey, to be able to get a greater breadth of information.

### Appendix 13: Meeting notes: Ministry of Health and Claimants

Summary of meetings between the Ministry and Claimants.

This is a summary of meetings between the Māori Research Team of the Ministry of Health and Claimants regarding the Māori Health Disability Statistical Report (Report), a Crown-funded research report the Waitangi Tribunal expected to receive on the 30 June 2019. The report is for use by the Waitangi Tribunal in stage two of the Health Services and Outcomes Inquiry.

The purpose of this summary is to record a summary of discussions which took place which assisted the Ministry of Health (Ministry) to develop this Report.

Kāpō Māori Aotearoa and representatives from Wai 2109 (Ngāti Kāpō) attended five meetings. Representatives of Te Roopu Taurima (Wai 2734) and Donna Washbrook (Wai 2672) provided feedback on the PowerPoint used to update the meeting on 7 November 2018.

#### **18 January 2018**

The Ministry first met with Ngāti Kāpō on 18 January 2018. Discussions were centred on: the project being investigative in nature, which health conditions and risk factors could be used to better understand disability, deciding on a definition of disability, and what the next actions were.

These discussions assisted with the developing the scope of the Report and helped the Ministry to understand what information would be helpful for Claimants which could be included in the Report.

#### **28 February 2018**

At the second meeting discussions were centred on analysing Blind Foundation and SOCRATES data in the Integrated Data Infrastructure (IDI) to better understand visually impaired people, and linking these people to Ministry of Health datasets including: cancer registrations, hospital admissions, Ministry surveys, pharmaceutical data and mortality data.

Only those recorded as being visually impaired in the SOCRATES database would be used in the planned analysis. The data of those visually impaired identified in the SOCRATES database would be added to those identified in the Blind Foundation database to establish a larger visually impaired group to analyse. A larger group would enable more robust analyses compared to a smaller group.

#### **18 July 2018**

At the third meeting Ngāti Kāpō were updated on: the delay to the 2018 Census and its implications, the delay of our application to lodge SOCRATES and Blind Foundation data in the IDI, the ordering of Stats NZ Disability Survey data, which health conditions were to be analysed, and what the next steps were (obtaining and analysing Disability Survey data, some analysis of health conditions, follow up of the IDI application, and obtaining District Health Board ophthalmology data).

At this meeting the Ministry began using this scope for the project.

## Māori Health Disability Statistical Report

---

*The Māori Health Disability Statistical Report seeks to provide disability information for Māori over time, associated with various health conditions and risk factors to better understand disability and how it affects people with those conditions and risk factors.*

*This scope reflects the direction approved by the Ministry of Health and Claimants which is to provide a statistical report.*

The discussion on which health conditions to analyse would be helpful when the Ministry began working in the Integrated Data Infrastructure (IDI).

When asked in August 2018 what level of involvement Kāpō Māori Aotearoa (Ngāti Kāpō) wanted they replied they had very little resources and the level of ongoing involvement is uncertain.

### **7 November 2018**

At the fourth meeting Ngāti Kāpō were updated on progress: preliminary results were made available showing analysis from SOCRATES and Blind Foundation data, the 2013 Disability Survey, and ophthalmology data; there were further delays with the 2018 Census results; progress was being made with our Disability Survey request; and the cost of repeating a 2006 Stats NZ disability report was discussed.

Representatives of Te Roopu Taurima (Wai 2734) and Donna Washbrook (Wai 2672) provided feedback on the PowerPoint used to update this meeting by email. This feedback included a request for information on spina bifida.

### **February 2019**

In February 2019 by email Ngāti Kāpō requested information on tamariki Māori with lived experience of disability accessing: primary care services, Blind Foundation membership, B4 School Checks, having attendances at DHB Ophthalmology clinics, having low vision and or hearing loss tested identified in B4 School checks and then identifying if follow ups at DHB Ophthalmology Clinics and Audiology Clinics occurred.

### **25 July 2019**

In July 2019 Ngāti Kāpō were updated on progress discussing: the Purpose an Acknowledgements pages of the report, why an extension was obtain to lodge the report on the 12 August 2019, Reviewers comments.

### References

- Ministry of Health. 2017. *Demographic Report on Clients Allocated the Ministry of Health's Disability Support Services: As at September 2016*. Wellington: Ministry of Health.
- Ministry of Health. 2018. Position Paper on Māori Health Analytics – Age standardisation. Wellington: Ministry of Health.
- Ministry of Health. 2018. Whāia Te Ao Mārama 2018 to 2022: The Māori Disability Action Plan. Wellington: Ministry of Health.
- Ministry of Health. 2019. Report on Maternity 2017. Wellington: Ministry of Health.
- Office for Disability Issues. 2016. New Zealand Disability Strategy 2016–2026. Wellington: Office for Disability Issues.
- Office for Disability Issues. 2016. Update on the Disability Survey. URL: <https://www.odt.govt.nz/whats-happening/disability-survey-update/> (accessed 31 July 2019).
- Statistics New Zealand (2009). 2011 Disability Survey: Discussion paper on proposed content. Wellington: Statistics New Zealand.
- Statistics New Zealand (2014). Disability Survey: 2013. Retrieved from www.stats.govt.nz. URL: [http://archive.stats.govt.nz/browse\\_for\\_stats/health/disabilities/DisabilitySurvey\\_HOTP2013/Data%20Quality.aspx#06survey](http://archive.stats.govt.nz/browse_for_stats/health/disabilities/DisabilitySurvey_HOTP2013/Data%20Quality.aspx#06survey) (accessed 31 July 2019).
- Statistics New Zealand (2014). QuickStats about transport and communications. URL: <http://archive.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-transport-comms/number-motor-vehicles.aspx> (accessed 31 July 2019).
- Statistics New Zealand (2014). Social and economic outcomes for disabled people: Findings from the 2013 Disability Survey. Wellington: Statistics New Zealand.
- Statistics New Zealand. 2015. *He hauā Māori: Findings from the 2013 Disability Survey*. Wellington: Statistics New Zealand.
- Statistics New Zealand. 2016. A Stocktake of government data for the Disability Data and Evidence Working Group. Wellington: Statistics New Zealand.
- Stats NZ. 2017. *Improving New Zealand disability data*. Retrieved from www.stats.govt.nz. URL: <https://www.stats.govt.nz/methods/improving-new-zealand-disability-data> (accessed 31 July 2019).
- Stats NZ. 2018. How the survey has changed since 1996 – unpublished PowerPoint. Wellington. Stats NZ.
- Stats NZ. 2018. Integrated Data Infrastructure. URL: <https://www.stats.govt.nz/integrated-data/integrated-data-infrastructure/> (accessed 31 July 2019).

## Māori Health Disability Statistical Report

---

Waitangi Tribunal. 2018. Wai 2575, #2.5.29. MEMORANDUM-DIRECTIONS OF JUDGE S R Clark CONCERNING PRIORTIES FOR STAGE TWO INQUIRY AND RESEARCH, 28 June 2018. URL:  
<https://forms.justice.govt.nz/search/Documents/.../Wai%202575%2C%202.5.29.pdf>  
(accessed 31 July 2019).