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# Aboriginal and Torres Strait Islander Stolen Generations and descendants

Numbers, demographic characteristics and  
selected outcomes



**Aboriginal and Torres Strait Islander  
Stolen Generations and descendants**

**Numbers, demographic characteristics  
and selected outcomes**

Australian Institute of Health and Welfare  
Canberra

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**Using data from surveys conducted by the Australian Bureau of Statistics, it is possible to identify Aboriginal and Torres Strait Islander peoples who were born before 1972 and who have reported being removed from their families.**

**In this report, this subgroup is used as a proxy measure for what we know as the 'Stolen Generations', with analysis providing a picture of the population size, demographic characteristics and health and welfare outcomes for the surviving members of the Stolen Generations.**

**Out of respect for the experiences of the Stolen Generations, where possible, the report uses the term 'Stolen Generations' or 'Stolen Generations proxy population' to describe the subgroup in the cohort born before 1972 who reported being removed from family, as derived from analyses of Australian Bureau of Statistics data.**



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The report was compiled with input from The Healing Foundation and its Action Plan for Healing Project Working Group.

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The analyses for this report were carried out through access to the Australian Bureau of Statistics' DataLab.

We acknowledge the suffering of Stolen Generations members across Australia, including those who have passed on, and thank them for their ongoing courage in sharing their experiences.

# Abbreviations

ACT	Australian Capital Territory
ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
BTH	Bringing them home
ERP	estimated resident population
GSS	General Social Survey
HREOC	Human Rights and Equal Opportunity Commission
K5	Kessler Psychological Distress Scale 5
NATSISS	National Aboriginal and Torres Strait Islander Social Survey
NATSIHS	National Aboriginal and Torres Strait Islander Health Survey
NT	Northern Territory
NSW	New South Wales
OR	odds ratio
OSR	Online Service Report
pp	percentage points
Qld	Queensland
SA	South Australia
SEWB	social and emotional wellbeing
Tas	Tasmania
Vic	Victoria
WA	Western Australia

# Symbols

—	nil or rounded to zero
..	not applicable
n.a.	not available
n.p.	not publishable because of small numbers, confidentiality or other concerns about the quality of the data
▲	the estimate for the Stolen Generations proxy population is significantly lower than that of the comparison group at 5% test level, consistent with the 95% confidence interval (also applies for descendants)
●	the estimate for the Stolen Generations proxy population is significantly higher than that of the comparison group at 5% test level (also applies for descendants)

# Overview

This overview outlines key findings from the analyses of the estimated numbers and demographic characteristics of proxy measures of the Stolen Generations and the descendants of all Aboriginal and Torres Strait Islander people removed from their families. It also covers the key findings from examining the relationship between being removed, and being a descendant, regarding 38 outcomes that cover health status, health risk factors, cultural factors and socioeconomic indicators for the most recent data, as well as changes over time. In this component of the analysis, the Stolen Generations proxy population was compared with Aboriginal and Torres Strait Islander people in the same age cohort who were not removed. In addition, the descendants of all people removed were compared with Indigenous people who had not experienced any type of removal. Comparisons with non-Indigenous Australians were also carried out for a smaller set of outcomes.

## Key findings

Using data from five Australian Bureau of Statistics (ABS) surveys of the Aboriginal and Torres Strait Islander population (undertaken from 2002 to 2014–15), it is possible to identify individuals who were born before 1972 and who reported being removed from their families. This subgroup is used as a proxy measure for the Stolen Generations. The ABS surveys can also be used to identify the descendants of all people removed from their families, which include descendants of the Stolen Generations.

Based on data from the 2014–15 survey:

- 20,900 individuals born before 1972 were estimated to be the surviving members among those who had been removed from their families
- a slightly higher proportion of them were women (56%) than men (44%), and the majority (79%) lived in non-remote areas
- 29% of those who were removed in this age cohort reported living alone, 66% were aged 50 and over, and 20% were aged 65 and over.

The time series data suggest that, on average, 11% of people in the cohort born before 1972 report being removed from their families.

- When this proportion is applied to population data for 2018 (among those aged 46 and over), the resulting estimate is that in 2018, around 17,150 people in the cohort born before 1972 are the surviving members among those who had been removed from their families (the Stolen Generations proxy population).

The Stolen Generations proxy population experienced a range of adverse health, cultural and socioeconomic outcomes at a rate higher than the Indigenous population that had not been removed.

- Key findings among these differences are a higher likelihood of: being incarcerated in the last five years (3.3 times), being formally charged by police in their lifetime (2.2 times), having government payments as their main income source (1.8 times), not being a home owner (1.7 times) and being more likely to have poor general health based on a composite measure (1.6 times).

*(continued)*

### **Key findings (continued)**

This report also estimated the size of the population of descendants of all people removed in the past. The descendants are defined as people aged 18 and over at the time of the ABS survey who reported having elder relatives (great/grandparents, parents, or uncles and aunts) removed.

- In 2014–15, the estimated number of descendants aged 18 and over was around 114,800; this includes around 15,400 individuals who reported that they themselves were also removed from their families.
- The proportion of the population identified as descendants remained stable across the five ABS surveys—around 33% of the population aged 18 and over.

The descendants were also consistently more likely to have experienced adverse outcomes over a broad range of health, socioeconomic and cultural indicators, compared with a reference group of Indigenous people aged 18 and over who reported neither being removed themselves from their own families, nor having any relatives removed.

- Key findings among these differences are a higher likelihood of: feeling discriminated against in the last 12 months (2 times), experiencing actual or threatened physical violence (1.9 times), having poor general health based on a composite measure (1.6 times), and having been arrested in the last five years (1.5 times).

Large differences are also seen between the Stolen Generations proxy population born before 1972 and a comparable non-Indigenous reference group, as well as between the descendants aged 18 and over and their comparable non-Indigenous reference group.

## **Background**

The Human Rights and Equal Opportunity Commission's *Bringing them home* (BTH) report (HREOC 1997) documented stories of individuals and families affected by the systematic policy of Australian governments to remove Aboriginal and Torres Strait Islander children from their families. The report also described the extent of harm created for, and the burden suffered by, both those individuals who were removed, and their families and descendants.

To coincide with the 20th anniversary of the BTH report, The Healing Foundation commissioned a study to review the principles and recommendations of the BTH report and to examine progress made on those recommendations in the contemporary policy landscape. This report, *Bringing them home 20 years on: an action plan for healing* (The Healing Foundation 2017), outlined actions to meet the continuing and emerging needs and rights of the Stolen Generations—noting the paucity of evidence on their current needs.

The Australian Government then funded The Healing Foundation to undertake a demographic analysis and needs assessment that aimed to identify the size, characteristics and needs of the Stolen Generations, using both quantitative and qualitative data sources (as part of a broader Action Plan for Healing project).

The Australian Institute of Health and Welfare (AIHW) prepared this quantitative analysis for The Healing Foundation as part of the Action Plan for Healing project.

This report has four main components:

1. estimates of the numbers, demographic characteristics and location of the Aboriginal and Torres Strait Islander population born before 1972 who were removed from their families, as a proxy for the surviving members of the Stolen Generations
2. estimates of the numbers, demographic characteristics and location of the Aboriginal and Torres Strait Islander population aged 18 and over whose elder relatives were removed in the past, as a proxy for the descendants of the Stolen Generations
3. comparisons of differences in selected health, socioeconomic and cultural outcomes between the groups identified in (1) and (2) and similar Aboriginal and Torres Strait Islander people who did not experience any type of removal, and an account of the sources of these differences
4. comparisons of differences in some selected health and socioeconomic outcomes between the groups identified in (1) and (2) and similar non-Indigenous people.

This overview presents key findings from these four components, together with a summary of the data sources used, and the definitions that were adopted to develop the proxy measures of the Stolen Generations and of a broader group of the descendants of all removed people in these data sources.

## Data sources

The analysis in this report is mainly based on data from a series of surveys conducted by the Australian Bureau of Statistics—the National Aboriginal and Torres Strait Islander Social Survey (NATSISS) and the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS). In total, data from five surveys—the NATSISS for 2002, 2008 and 2014–15; and the NATSIHS for 2004–05 and 2012–13—are used in this analysis.

The Indigenous-specific social and health surveys from the ABS analysed in this report are nationally representative, have relatively large sample sizes and contain detailed data on a wide range of topics, including a consistent set of information about Aboriginal and Torres Strait Islander people who were removed from their families. As such, they are valuable resources to better understand the Stolen Generations and their descendants, based on proxy measures of these groups.

A novel aspect of this report is it makes use of the time series nature of the five ABS surveys to analyse the data for a specific birth-cohort in the different surveys, whereby the difference in the number of years between successive ABS survey periods was taken into account to ‘age’ the population of interest (synthetic age-cohort method). This approach provides a more reliable perspective on the differences between the Stolen Generations proxy population and the comparison group than analysis based on a single cross-sectional survey.

## Proxy measures for the study cohorts

The main focus of this report’s analysis is the cohort of individuals born before 1972 who reported being removed from their families. That cohort is used as a proxy for the Stolen Generations, and the analysis follows them through the different time periods covered by the five ABS surveys.

The BTH report notes that, by 1972, the state and territory legislation that created the Stolen Generations had been formally repealed, and removal practices ceased (HREOC 1997), although there were lags in the repeal of legislation and changes in practices in some jurisdictions. A reasonable proxy measure, therefore, to identify members

of the Stolen Generations would have been to focus on the removals of Aboriginal and Torres Strait Islander children that occurred before 1972.

The ABS surveys however do not collect information on the timing (that is, the calendar year in which the removal occurred). Therefore an alternative approach has been adopted in this study to focus on the removal from family of individuals who were born before 1972 as a proxy for the Stolen Generations. Removal of children could occur at very young ages, including infants aged only a few months old. Given this, it is appropriate to apply the age cut-off of being born before 1972 to identify the potential Stolen Generation members in the ABS survey data.

There are more limitations in the ABS survey data to derive an equivalent proxy measure for the descendants of the Stolen Generations (that is, descendants of people in the cohort born before 1972 who had been removed). The survey data can only identify a broader group of individuals aged 18 and over at the time of the survey who reported that some member of their older generations (that is, great/grandparents, parents, or uncles and aunts) had been removed. Though many of these individuals will be the direct descendants of the Stolen Generations, this is not a reliable enough proxy just for the descendants of the Stolen Generations since nothing is known about the time periods when these elder relatives were removed. Accordingly, in this report this group of individuals aged 18 and over is referred to more generally as the descendants of all people removed from their families in the past, and they include the descendants of the Stolen Generations.

The descendants can be further divided into two groups, depending on whether the descendants also reported that they had been removed from their families.

The results pertaining to the proxy measure of the Stolen Generations presented in this report should be treated with caution as the estimates may include other types of removal from family that occurred, even among people born before 1972, but which may not be associated with the historical context of the Stolen Generations. Also, the removal of relatives in older generations reported in the ABS surveys may include other types of removal from family not associated with the Stolen Generations. Further, the wording of the ABS survey questions do not specifically indicate whether a removal was only temporary, nor whether it was 'forcible removal from family'. The specific questions in the survey are:

- Have you been removed from your family by welfare or the government or taken away to a mission?
- Have any of your relatives been removed from their family by welfare or the government or taken away to a mission?

## **Estimates of the Stolen Generations proxy population**

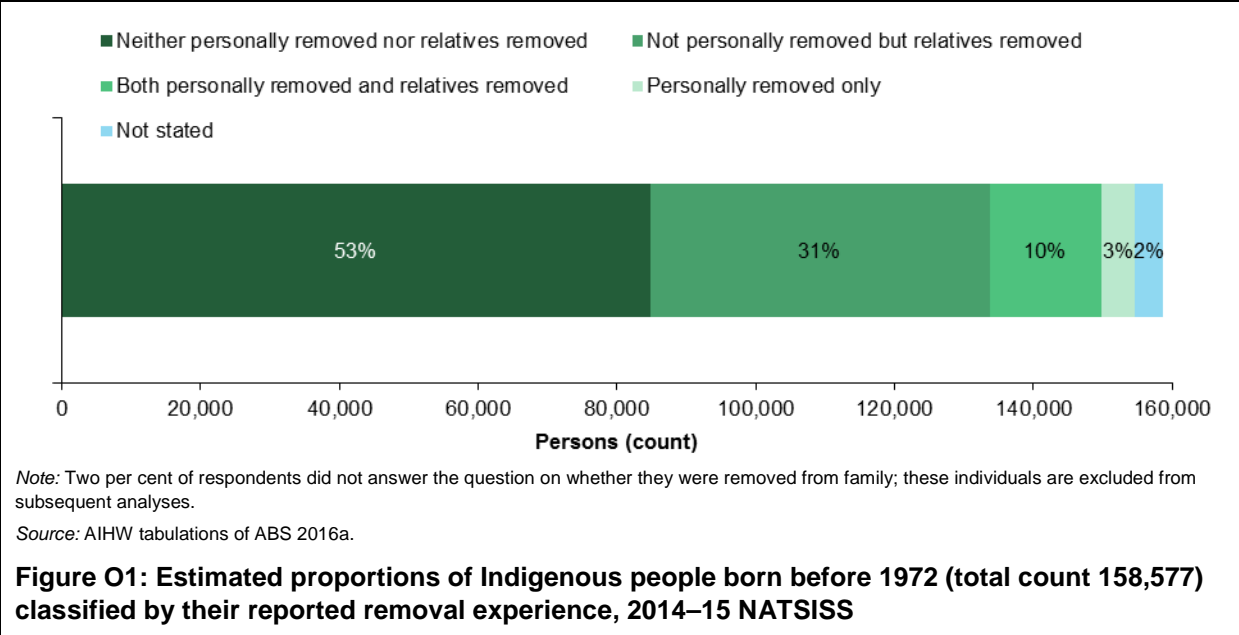
Figure O1 presents the categories of responses to the two questions on removal from family from the 2014–15 survey for those born before 1972. There were approximately 158,600 Indigenous people in this cohort in 2014–15. Just over half (53%) reported that they were not removed and did not have relatives removed. Around 13% reported being removed (an estimate of 20,900 individuals). Of these, approximately 16,000 also had relatives removed (10% of the total cohort born before 1972). Another 31% reported that while they were not removed, they had relatives who were removed.

The five available ABS surveys from 2002 to 2014–15, with the same set of questions on removal from family, have been analysed to obtain a longer time series on the reported rate of removal and on the characteristics of those who reported being removed. The main

population of interest—those who have been removed among individuals born before 1972—can be identified in each survey, using the appropriate age cut-off that defines those born before 1972 relative to the time period of each survey.<sup>1</sup>

The resulting time series estimates on the proportion of people who reported being removed ranged from 9.3% (in 2004–05) to 16.4% (in 2012–13). Compared with the other four survey estimates, the estimate for 2012–13 is substantially different and possibly represents an outlier value, and therefore has been excluded when computing the average. The average proportion of people who reported being removed in this age cohort, based on the other four surveys, is 11%.

Applying the average 11% rate of being removed to the projected Indigenous population in 2018 of 155,940 in the cohort born before 1972 (based on 2011 Census projections of the Indigenous estimated resident population),<sup>2</sup> produces an estimate of the Stolen Generations proxy population in 2018 of 17,150.



## Demographic profile of the Stolen Generations proxy population

Of those born before 1972 who reported being removed, in 2014–15, 56% were women and 44% were men. The majority (79%) of this Stolen Generations proxy population lived in non-remote areas. This pattern was consistent for all survey years.

In 2014–15, among the Stolen Generations proxy population (all of whom are aged at least 42), three in ten (29%) reported living alone (in a lone-person household), two-thirds were

<sup>1</sup> The age cut-offs used approximately identify the cohort born before 1972 as several of these ABS surveys were conducted over a two-year period. These cut-offs are ages 30 and over in 2002, ages 32 and over in 2004–05, ages 36 and over in 2008, ages 40 and over in 2012–13 and ages 42 and over in 2014–15.

<sup>2</sup> Using ABS projections of the total Indigenous estimated resident population (ERP) in 2018, based on the 2011 Census, the estimated total number of Indigenous adults aged 46 and over is 155,940. Updated results on the total Indigenous ERP in 2018 derived from the more recent 2016 Census are not yet available.

aged 50 and over, and 20% were aged 65 and over. Two-thirds reported having disability or restrictive long-term condition, and 15% had severe or profound core activity limitation.

The distribution by jurisdiction of the Stolen Generations proxy population is shown in Table O1. In 2014–15, most lived in New South Wales (around 6,200, or 30% of the total), Western Australia (around 4,600, or 22%) and Queensland (around 4,400, or 21%). These three jurisdictions together accounted for almost three-quarters (73%) of this cohort.

Table O1 also shows there are substantial differences in the rate of removal reported, as a percentage of the total number of people born before 1972, based on current state or territory of residence. Western Australia has the highest reported rate of removal (23.8% in 2014–15). This rate is nearly twice the rate of removal at the national level (13.5% in 2014–15). The next highest rate was reported by those living in South Australia (16.2%). Lowest rates of being removed were reported in Queensland (10.8%), followed by New South Wales and the Northern Territory (12.0% each).

**Table O1: Estimated population and proportions of Indigenous Australians born before 1972 who reported being removed from their families, by jurisdiction, 2002 to 2014–15**

State/territory	2002 (aged 30 and over)	2004–05 (aged 32 and over)	2008 (aged 36 and over)	2012–13 (aged 40 and over)	2014–15 (aged 42 and over)
<b>Estimated number of people who were removed</b>					
NSW	4,056	3,071	3,875	6,216	6,247
Vic	1,669	1,034	1,660	2,397	1,341
Qld	3,231	2,852	3,493	5,510	4,439
WA	3,211	3,885	3,731	5,797	4,643
SA	1,326	1,479	1,314	1,494	1,394
Tas/ACT	621	366	582	666	1,064
NT	1,332	1,211	1,202	2,405	1,764
<b>Australia</b>	<b>15,448</b>	<b>13,898</b>	<b>15,856</b>	<b>24,486</b>	<b>20,891</b>
<b>Percentage who were removed (rate of being removed) by jurisdiction</b>					
NSW	8.6	7.0	8.8	12.7	12.0
Vic	17.0	11.3	16.9	22.3	12.2
Qld	7.5	7.3	8.9	13.5	10.8
WA	14.4	17.9	19.7	31.2	23.8
SA	14.9	17.4	17.1	17.8	16.2
Tas/ACT	8.0	5.0	8.6	9.2	14.0
NT	7.9	6.4	7.3	16.7	12.0
<b>Australia</b>	<b>9.9</b>	<b>9.3</b>	<b>11.1</b>	<b>16.4</b>	<b>13.5</b>

*Notes*

1. The column for the 2012–13 NATSIHS is shaded to indicate that the results from this survey are quite different from the other four surveys and possibly represent outlier values, especially in the estimates of the number of people who were removed. There have not been any clear reasons provided for why the 2012–13 results differ so much from the other surveys.
2. The data for Tasmania and the ACT are presented together because these jurisdictions are combined in the ABS DataLab files. The survey respondents from Tasmania and the ACT can be separately identified only in the 2014–15 NATSIHS. For consistency in the presentation of the results the combined Tasmania/ACT category is used for all survey periods. The ACT estimate of the Stolen Generations proxy population for 2014–15 in particular is not reliable, being based on a very small sample size of survey respondents aged 42 and over.
3. Data on rate of being removed by jurisdiction in the bottom panel of this table are likely to be less reliable than the estimated national rate of removal in this cohort born before 1972 because of the smaller number of individuals within each jurisdiction who report having been removed in these sample surveys.

Sources: AIHW tabulations of ABS 2010a, 2010b, 2010c, 2015, 2016a.



## Estimated population and demographic profile of descendants

The proportion of the population identified as descendants of all people who were removed in the past remained more or less stable across all surveys (excluding the 2012–13 NATSIHS)—at around one-third of the total population aged 18 and over. This one-third proportion includes those who were both descendants of all people who were removed as well as those who were themselves removed.

In 2014–15, the estimated number of Indigenous adults aged 18 and over who reported being descendants was around 114,800 individuals (Table O2). This includes around 15,400 individuals who reported that they themselves were also removed.

**Table O2: Estimated population and proportions of Indigenous Australians aged 18 and over, who reported to be descendants of all people removed, by jurisdiction, 2002 to 2014–15**

State/territory	2002	2004–05	2008	2012–13	2014–15
<b>Estimated number of the descendants</b>					
NSW	15,102	14,163	21,453	30,830	35,731
Vic	4,306	4,578	6,166	10,254	8,816
Qld	23,936	23,024	24,483	35,887	32,410
WA	14,245	15,275	17,494	21,415	20,740
SA	4,118	4,377	5,100	7,507	7,263
Tas/ACT	2,092	1,808	2,541	3,482	3,233
NT	5,902	6,839	7,903	8,652	6,567
<b>Australia</b>	<b>69,701</b>	<b>70,064</b>	<b>85,141</b>	<b>118,028</b>	<b>114,760</b>
<b>Percentage of descendants as a proportion of the population aged 18 and over, by jurisdiction</b>					
NSW	25.9	23.8	29.4	32.1	34.2
Vic	36.7	37.3	37.3	49.7	35.9
Qld	42.3	39.5	34.9	41.7	32.1
WA	45.6	44.9	50.1	51.5	46.1
SA	34.9	37.2	37.1	43.0	38.1
Tas/ACT	23.9	19.0	22.5	24.5	19.6
NT	23.8	22.1	23.7	25.3	17.5
<b>Australia</b>	<b>34.3</b>	<b>32.4</b>	<b>33.7</b>	<b>38.0</b>	<b>33.0</b>

### Notes

1. The column for the 2012–13 NATSIHS is shaded to indicate that the results from this survey are quite different from the other four surveys and possibly represent outlier values.
2. The data for Tasmania and the ACT are presented together because these jurisdictions are combined in the ABS DataLab files. The survey respondents from Tasmania and the ACT can be separately identified only in the 2014–15 NATSIHS. For consistency in the presentation of the results the combined Tasmania/ACT category is used for all survey periods.

Sources: AIHW tabulations of ABS 2010a, 2010b, 2010c, 2015, 2016a.

The demographic profile for descendants of all people removed is similar to what was observed for the Stolen Generations proxy population: a higher percentage were women, the majority lived in non-remote areas, and a large percentage were concentrated in New South Wales, Queensland and Western Australia. In 2014–15, around 77% of all descendants lived in these three jurisdictions, with New South Wales alone accounting for close to one-third (31%) of the total number of descendants.

The proportion of individuals aged 18 and over who were descendants of all people removed also varied by jurisdiction (Table O2). Again, the highest rate in 2014–15 occurred in Western Australia, with 46% of all adults aged 18 and over reporting they had relatives in an older generation removed. The next highest rate was in South Australia (38%), followed by Victoria (36%) and New South Wales (34%). The lowest rate of reporting removal of a family member from an older generation occurred in the Northern Territory (18%). The estimated high rates of being descendants in Western Australia and South Australia occur consistently in the ABS survey series in Table O2.

## Differences in outcomes for the Stolen Generations proxy population

The differences in 38 health, socioeconomic and cultural outcomes between the Stolen Generations proxy population and comparable Aboriginal and Torres Strait Islander Australians in the cohort born before 1972 who were not removed are presented in this report as simple tabulations of the difference in the mean values (or gaps) between the two comparison groups.

Multivariate logistic regression models are also estimated for a smaller set of 20 selected outcomes. The regression results are summarised in Figure O2 in terms of the likelihood of those outcomes occurring among the Stolen Generations proxy population relative to their comparison group. Higher odds (an odds ratio estimate that is significantly greater than 1) means a greater likelihood of the observed outcome occurring in the Stolen Generations proxy population.<sup>3</sup> The odds ratios reported in Figure O2 cover three time periods, from each of the last three NATSISS in 2002, 2008 and 2014–15 (even though not all variables are available in each of these surveys).

In 2014–15, the Stolen Generations proxy population experienced a higher likelihood of an adverse outcome in 12 of the 20 indicators examined. The significantly higher likelihoods of adverse outcomes faced by the Stolen Generations proxy population cover a wide range of wellbeing measures, and several of these estimated differences in likelihoods are very high.

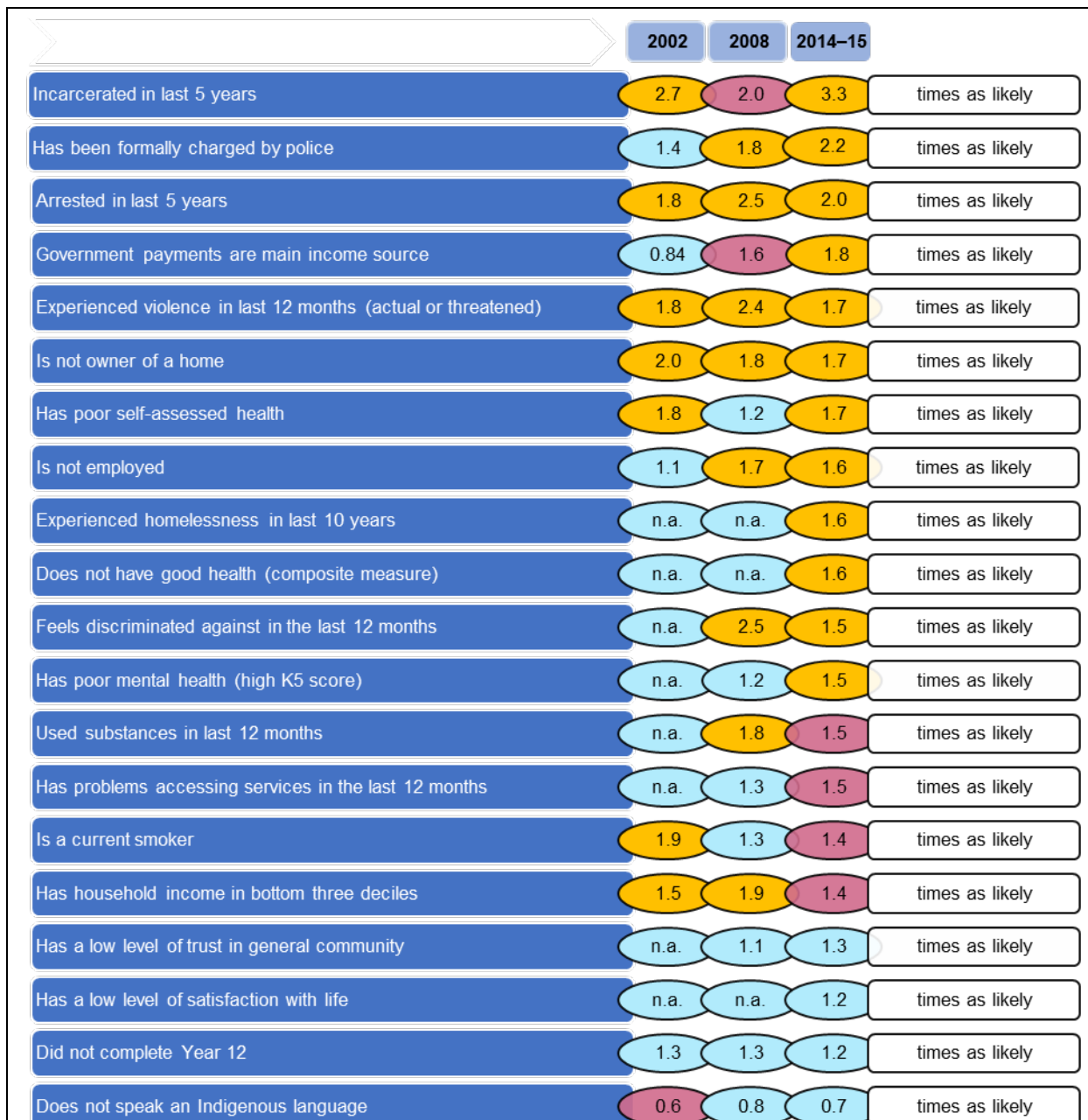
Compared with those who were not removed, and after controlling for other potential influences on these outcomes, the results show that individuals who were removed in this age cohort were (Figure O2):

- 3.3 times as likely to have been incarcerated in the last five years
- 2.2 times as likely to have ever been formally charged by police
- 2 times as likely to have been arrested in the last five years
- 1.8 times as likely to have government payments as their main income source
- 1.7 times as likely to have experienced violence in the previous 12 months
- 1.7 times as likely not to be the owner of a home
- 1.7 times as likely to have poor self-assessed health
- 1.6 times as likely to be currently not employed
- 1.6 times as likely to have experienced homelessness in the last 10 years

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<sup>3</sup> Conversely, an estimated odds ratio significantly less than 1 indicates that outcome is less likely to occur for the Stolen Generations proxy population than for the comparison group. An estimated odds ratio not significantly different from 1 means the outcome of interest is just as likely to occur for the Stolen Generations proxy population and for the comparison group.

- 1.6 times as likely not to have 'good health' (as measured using a composite health index, see Appendix C for further details on this composite health index)
- 1.5 times as likely to have experienced discrimination in the previous 12 months
- 1.5 times as likely to have poor mental health.



**Notes**

1. The symbol n.a. denotes data not available in that specific survey on the outcome of interest.
2. The colour scheme indicates whether the estimated odds ratio (OR) is close to 1 or statistically different from 1 at the 5% and 10% test levels. Gold denotes the OR is significantly different from 1 at the conventional 5% test level, consistent with the 95% confidence interval. Pink denotes the OR is significantly different from 1 at the 10% level, consistent with a wider 90% confidence interval. Light blue means the estimated OR is not significantly different from 1, even at the 10% test level (meaning the outcome measured does not vary significantly between the Stolen Generations proxy population and the comparison group).

Sources: AIHW analyses of ABS 2010a, 2010c, 2016a.

**Figure O2: Estimates of the effects of being removed for the cohort born before 1972 (odds ratios), on 20 selected outcomes, results from the 2002, 2008 and 2014–15 NATSISS**

The results over the three survey periods show that the Stolen Generations proxy population have significantly higher likelihoods of adverse outcomes occurring in all of these time periods. Three outcomes show a consistent pattern of significant differences in all three survey periods (gold colour in each of the three survey periods in Figure O2), with a higher likelihood for the Stolen Generations proxy population to experience these adverse outcomes. These were being arrested in the last five years, not being a homeowner, and experiencing violence in the last 12 months.

Five outcomes were reported in only two surveys. Of these, only one outcome—feeling discriminated against in the past 12 months—was significantly more likely to occur for the Stolen Generations proxy population relative to the comparison group in both survey periods.

## Differences in outcomes for the descendants

The results for the descendants of all people removed are for individuals who were not removed themselves but are descendants of elder relatives who were removed. This way, the effects of being descendants can be clearly examined separately from the effects of also being personally removed from family.

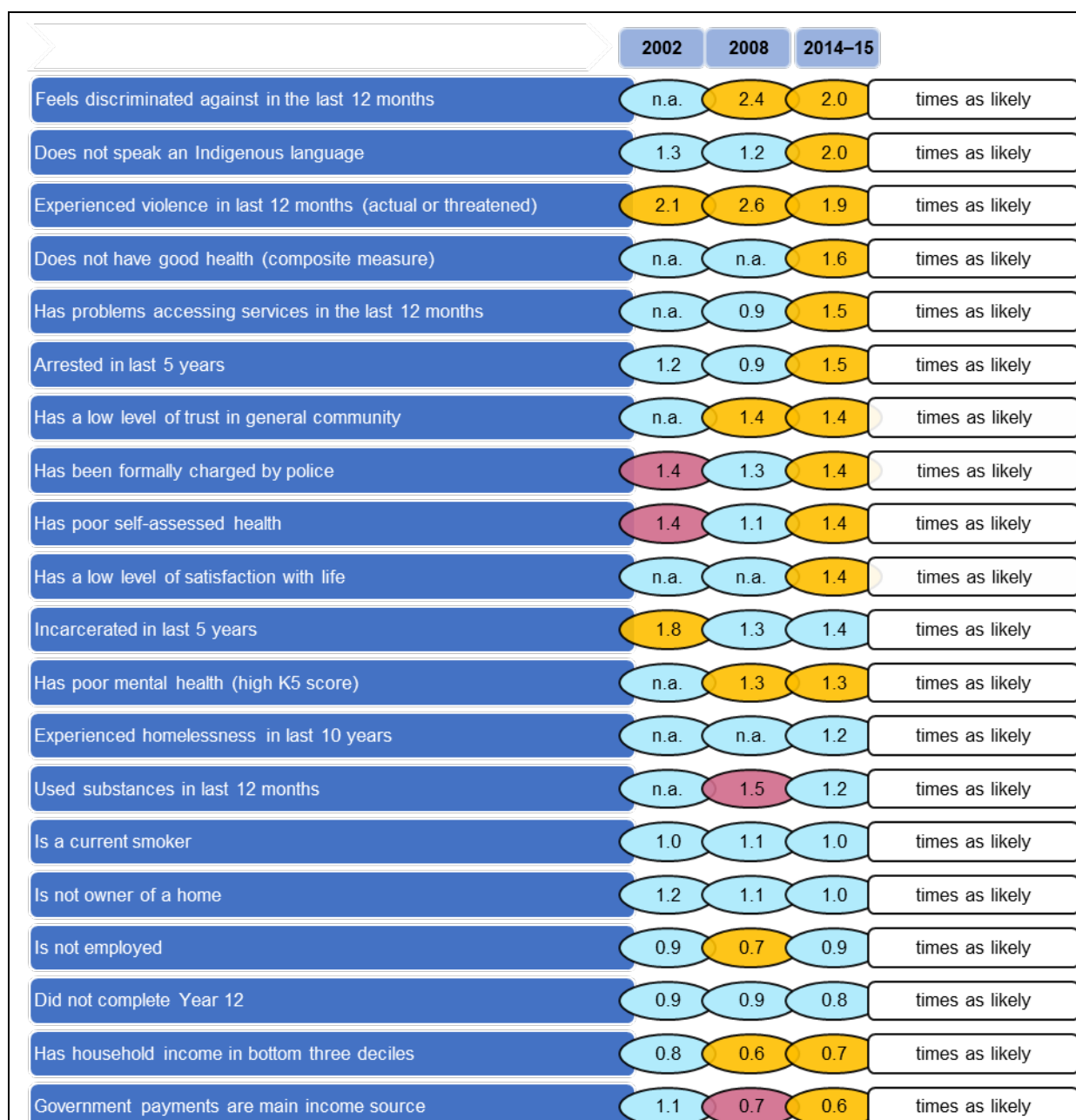
The full set of the multivariate regression results on the estimated effects of being a descendant of people removed from family for these 20 outcomes are shown in Figure O3. These results show a similar pattern of having higher likelihoods of adverse outcomes among the descendants compared with their reference group.

In 2014–15, 11 of the same 20 selected outcomes showed a significantly higher likelihood of these unfavourable outcomes occurring among the descendants. Compared with the reference group who did not experience any type of removal, the descendants were (Figure O3):

- 2 times as likely to have experienced discrimination in the last 12 months
- 2 times as likely not to speak an Indigenous language
- 1.9 times as likely to have experienced violence in the last 12 months
- 1.6 times as likely not to have 'good health' (as measured using a composite index, see Appendix C for further details)
- 1.5 times as likely to have problems accessing services in the last 12 months
- 1.5 times as likely to have been arrested in the last five years
- 1.4 times as likely to have a low level of trust in the general community
- 1.4 times as likely to have ever been formally charged by police
- 1.4 times as likely to have poor self-assessed health
- 1.4 times as likely to have a low level of satisfaction with their lives
- 1.3 times as likely to have poor mental health.

For two outcomes, compared with the reference group, Indigenous adults who reported to be descendants were significantly less likely to:

- live in a household with income in the bottom three deciles (0.7 times)
- have government payments as the main source of income (0.6 times).



**Notes**

1. The symbol n.a. denotes data not available in that specific survey on the outcome of interest.
2. The colour scheme indicates whether the estimated odds ratio (OR) is close to 1 or statistically different from 1 at the 5% and 10% test levels. Gold denotes the OR is significantly different from 1 at the conventional 5% test level, consistent with the 95% confidence interval. Pink denotes the OR is significantly different from 1 at the 10% level, consistent with the wider 90% confidence interval. Light blue means the estimated OR is not significantly different from 1 even at the 10% test level (meaning the outcome measured does not vary significantly between the descendants and the comparison group aged 18 and over).

Sources: AIHW analyses of ABS 2010a, 2010c, 2016a.

**Figure O3: Estimates of the effects of being descendants of all people removed (odds ratios), on 20 selected outcomes, results from 2002, 2008 and 2014–15 NATSISS**

Across all three survey periods:

- only one outcome—experience of violence in the past year—showed a consistent pattern of a significantly higher likelihood for the descendants in all periods
- three other outcomes showed significantly higher likelihood for the descendants in at least two survey periods with available data: feels discriminated against, has low level of trust in the general community, and has poor mental health
- three of the 20 outcomes consistently showed no significant difference between the descendants and the comparison group (when data are available for all three survey periods): being a current smoker, not owning a home, and not having completed Year 12
- on three other outcomes, the estimated results showed that the descendants tended to have more favourable results than the comparison group. These include a higher likelihood of being employed, a lower likelihood of having household income in the bottom three deciles, and a lower likelihood of having government payments as the main source of income. However, these relatively better outcomes for the descendants are not observed consistently at a statistically significant level in all three survey periods.

In general, the adverse effects of removal are more obvious in the comparisons between the Stolen Generations proxy population and their comparative age cohort who were not removed than between the descendants of people who were removed and other Indigenous adults who did not experience any type of removal from family.

## **Comparison with selected non-Indigenous outcomes**

Simple mean-value differences on a limited set of outcomes between the Stolen Generations proxy population (and between descendants of all people removed) and comparable cohorts of non-Indigenous Australians are also presented in this report. These comparisons are based on age-standardised rates. The differences (gaps) between the Stolen Generations proxy population and the comparable non-Indigenous reference group are substantially higher than the differences between the Stolen Generations proxy population and their Indigenous reference group in almost all of the 14 outcomes analysed.

In several instances, the difference in the size of the gap is extreme. For example, the age-standardised rate of home ownership was 25% for the Stolen Generations proxy population, compared with 42% for the Indigenous comparison group. This is a gap of 17 percentage points. However, for the non-Indigenous reference group, the age-standardised home ownership rate is substantially higher at 80%, leading to a larger gap of around 55 percentage points with the Stolen Generations proxy population.

Similar large differences are seen in the comparisons between the descendants of all people removed and their non-Indigenous reference group aged 18 and over.

# 1 Introduction

The Stolen Generations are acknowledged to be a particularly disadvantaged group of the Aboriginal and Torres Strait Islander population. Their forced removal from families and subsequent disconnection from Indigenous culture and land have been shown to have had widespread negative impact. The Human Rights and Equal Opportunity Commission's *Bringing them home* (BTH) report (HREOC 1997) documented many stories of individuals and families affected by the systematic policy of Australian governments to remove Aboriginal and Torres Strait Islander children from their families. That report also described the extent of harm created and the burden suffered, both by individuals who were removed and by their families and descendants.

The extent of harm from removal from family is also reflected in the findings from the Royal Commission into Institutional Responses to Child Sexual Abuse. In private sessions with commissioners, many Aboriginal and Torres Strait Islander victims disclosed that they were forcibly removed from their families as children, and spoke of experiencing racism and cultural abuse in addition to physical, emotional and sexual abuse (RCIRCSA 2017).

To coincide with the 20th anniversary of the BTH report, The Healing Foundation commissioned a study to review the principles and recommendations of the BTH report and to examine progress made on those recommendations in the contemporary policy landscape. The report on this review, *Bringing them home 20 years on: an action plan for healing* (The Healing Foundation 2017), outlined actions to meet the continuing and emerging needs and rights of the Stolen Generations—noting the paucity of evidence on their current needs.

The Australian Government then funded The Healing Foundation to undertake a demographic analysis and needs assessment aimed at identifying the size, characteristics and needs of the Stolen Generations, using both quantitative and qualitative data sources (as part of a broader Action Plan for Healing project).

The Australian Institute of Health and Welfare (AIHW) prepared this quantitative analysis for The Healing Foundation as part of the Action Plan for Healing project. It uses information from the Australian Bureau of Statistics (ABS) surveys of Aboriginal and Torres Strait Islander peoples to estimate the population, and to analyse the characteristics, of both individuals who reported having been removed from their families, and of descendants of relatives who were removed in previous generations.

This report has four main components:

1. estimates of the numbers, demographic characteristics and geographic location of the Aboriginal and Torres Strait Islander population born before 1972 who reported being removed from their families, as a proxy for the surviving members of the Stolen Generations
2. estimates of the numbers, demographic characteristics and geographic location of the Aboriginal and Torres Strait Islander population whose elder relatives were removed in the past, as a proxy for the descendants of the Stolen Generations
3. comparisons of differences in selected health, socioeconomic and cultural outcomes between the groups identified in (1) and (2) and similar Aboriginal and Torres Strait Islander people who did not experience any type of removal, and an account of the sources of these differences
4. comparisons of groups identified in (1) and (2) with the non-Indigenous population for some selected health and social outcomes.

While there is a growing consensus about the overall poor outcomes observed for the Aboriginal and Torres Strait Islander people removed from their families (for example, ABS 2011; De Maio et al. 2005; Stanley 2008; The Healing Foundation 2017), few studies have quantified (through detailed statistical analyses) the specific effects of having been removed. Some examples of studies that have done so are Dockery (2012) and Weatherburn & Snowball (2012) where having been removed was included as one of the explanatory variables in detailed analyses of specific wellbeing indicators and of being a victim of violence, respectively. A previous AIHW (2006) study on family violence among Aboriginal and Torres Strait Islander peoples noted those who had been removed were more likely to be a victim of physical or threatened violence. A recent study (Radford et al. 2017) reported that Indigenous people with high rates of childhood trauma, including those who were removed from their families, were more likely to develop dementia than other Indigenous adults.

This report fills some of the gaps in the literature by quantifying the specific effects of being removed from family in the age cohort selected as a proxy for the Stolen Generations. It documents differences in a wide range of health, socioeconomic and cultural outcomes (using multivariate regression analysis) between the Stolen Generations proxy population and comparable Indigenous Australians who were not removed from their families.

The report also examines the effects of removal on the descendants of relatives who were removed in previous generations. This component contributes to the literature on the extent of the intergenerational impacts of removal on the children and other descendants of people who had been removed (Peeters et al. 2014; Raphael et al. 1998; Silburn et al. 2006). This builds on the related wider literature documenting the life-long adverse effects and trans-generational consequences of the trauma and stress experienced during early childhood (Atkinson 2002; Shonkoff & Garner 2012; van Krieken 1999; van der Kolk 2007).

A novel aspect of this report is that the statistical analyses make use of the time series nature of the ABS surveys that collected a consistent set of information about Aboriginal and Torres Strait Islander people who were removed from their families. Data from five ABS surveys (collected between 2002 and 2014–15) were analysed using a synthetic age-cohort method, whereby the difference in the number of years between successive ABS survey periods were taken into account to ‘age’ the population of interest. This time series approach provides a more reliable perspective than analysis based on a single cross-sectional survey of differences between those who were removed from their families and those who were not removed. This approach also helps in assessing how the characteristics and needs of those who were removed from their families change as they age.

## 1.1 Data sources

Over recent decades, the ABS has undertaken two regular surveys that are specific to Aboriginal and Torres Strait Islander peoples:

- the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)
- the National Aboriginal and Torres Strait Islander Social Survey (NATSISS).

Both are large, nationally representative surveys of the Indigenous population.

The NATSIHS series collects detailed self-reported information on the prevalence of certain health conditions, selected health risk factors and the use of health services. For the most recent of these surveys, measures of health and nutrition status were included, as well as self-assessed health status. The most recent NATSIHS (ABS 2014b) was conducted in 2012–13; it sampled around 9,300 individuals, with around 5,500 being aged 18 and over.



The NATSISS series collects information across many key areas of social and economic outcomes, including a number of wellbeing measures developed specifically for the Indigenous population. These include measures of cultural practices and the maintenance of Indigenous languages (Biddle 2014). The most recent NATSISS (ABS 2016b) was carried out in 2014–15; it sampled 11,178 individuals, with around 6,600 aged 18 and over.

Some common information is collected in both the NATSISS and NATSIHS, which makes it feasible to analyse trends over time at shorter intervals. One of these common items is a series of questions asked of the adult survey respondents on whether they, or their relatives, have ever been removed from their family (see Box 1.1). This information can be used to estimate the numbers and characteristics of individuals who were removed (and their descendants) from 2002 to 2014–15.<sup>4</sup>

The focus of this report is almost exclusively on the analyses of the Indigenous-specific ABS surveys with questions on removal from family. Limited use has been made of the ABS General Social Survey 2014, and of administrative data from the AIHW Online Services Report on the total Indigenous and Stolen Generations clients who access social and emotional wellbeing support and Link Up services.

Other data sources have very limited information on the contemporary demography and characteristics of the surviving members of the Stolen Generations and are not analysed in this report.

#### **Box 1.1: ABS survey questions about removal from family**

The analyses for this report are based on responses to the following questions, which were asked (with minor differences in wording) of adult respondents to the 2002, 2008 and 2014–15 NATSISS and the 2004–05 and 2012–13 NATSIHS:

1. The next few questions are about whether you or any of your relatives have been removed or taken away from your families. I know this may be upsetting for some people. Is it all right to ask you some questions about this?
2. Have you been removed from your family by welfare or the government or taken away to a mission?
3. Have any of your relatives been removed from their family by welfare or the government or taken away to a mission?

If yes to above:

Are you able to tell me which of your relatives have been removed or taken away from their family (by welfare or the government or taken away to a mission)? (multiple responses allowed).

[Multiple responses selected from: Your child(ren); Your brothers and/or sisters; Your parents; Your (great-) grandparents; Your aunts and/or uncles; Your cousins; Your nieces and/or nephews; Other; Don't know who; or Don't want to answer.]

*Source:* ABS 2008.

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<sup>4</sup> Questions on removal from family were also asked in the first NATSISS, conducted in 1994; however, the published ABS report on that survey (ABS 1995) does not present counts and characteristics of those who were removed from their families. The 1994 data on the number of people who reported being removed, or who had relatives removed, are presented only in comparison to the results of the 2002 NATSISS (ABS 2004). The 1994 NATSISS was not analysed for this report.

## 1.2 Study cohorts

The Stolen Generations are identified specifically with the removal of children that occurred as a systemic part of government policies across Australian jurisdictions in the 20th century. The BTH report (HREOC 1997:31) framed that specific practice and time period as:

‘... between one in three and one in ten Indigenous children were forcibly removed from their families and communities in the period from approximately 1910 until 1970.’

### Identifying members of the Stolen Generations

The ABS survey questions do not ask respondents for details about the timing of, or reasons for, any type of removal from family that they report. However, 1972 is a commonly used watershed (for instance in Peeters et al. 2014) to distinguish between the removal of children who constitute the Stolen Generations and other types of removal of Aboriginal and Torres Strait Islander children since 1972.

The BTH report noted that, in 1972, several jurisdictions passed new legislation repealing the previous legislation that allowed for the systematic removal of Indigenous children from their families (HREOC 1997). For instance, South Australia enacted the *Community Welfare Act 1972* and established the Department of Community Welfare; and the separate legislation relating to Indigenous people, such as the *Aboriginal Affairs Act 1962–68*, was repealed. There were some lags in some jurisdictions in the changes or repeal of legislation and in the change of practices. Again, in 1972, Aboriginal legal services began representing Indigenous children and families in removal applications, which led to an immediate decline in the number of Indigenous children being removed (HREOC 1997).

Given the lack of other data sources to estimate numbers and characteristics of the Stolen Generations, a reasonable proxy measure to identify them in the ABS surveys is to focus on the removal of Aboriginal and Torres Strait Islander children that occurred before 1972. As the ABS surveys, however, do not collect information on the timing of the removal (that is, the calendar year in which it occurred), an alternative, but less reliable approach has been adopted in this study. That is, to focus on individuals who were born before 1972 and who reported having been removed from family, as a proxy for the Stolen Generations, even though the actual date of removal for such people is not known.

The fact that removal of children could occur at very young ages—including infants of only a few months old, as illustrated in a case study cited in The Healing Foundation (2017)—means that it is appropriate to apply the age cut-off of being born before 1972 to identify the potential Stolen Generation members in the ABS survey data.

The cohort of Indigenous people born before 1972 forms the base population from which the Stolen Generations can be identified. Those born before 1972 should be in the following age groups in the five survey periods: aged 30 and over in the 2002 survey, 32 and over in the 2004–05 survey, 36 and over in the 2008 survey, 40 and over in the 2012–13 survey and 42 and over in the 2014–15 survey. These age cut-offs provide an approximation of those born before 1972 because several of the ABS surveys were conducted over a two-year period and an exact match cannot be made between a birth-year and the age reported in the ABS surveys.

For ease of reference, this group born before 1972 who reported they had been removed from their families is referred to as the Stolen Generations proxy population throughout this report (see also Box 1.2).

### **Box 1.2: Key terms used in this report**

The terms in relation to experiences of removal used in this report are generally consistent with the ABS surveys and releases. In the ABS release of statistical analyses from these Indigenous-specific surveys (for example, ABS 2011), the expressions of 'people who were removed from family' and 'people whose relatives were removed from family' were adopted. While these expressions are also used in this report, for ease of reading and to better convey the purposes of this analysis, the following additional terms that have more specific meanings are also used in this report.

**Stolen Generations proxy population:** the group of Aboriginal and Torres Strait Islander survey respondents who were born before 1972 and who self-reported having been removed from their family.

**Reference group for the Stolen Generations proxy population:** the group of Aboriginal and Torres Strait Islander survey respondents who were born before 1972 but who self-reported *not* having been removed from their family.

**Family members of all people removed:** the group of Aboriginal and Torres Strait Islander survey respondents aged 18 and over who reported that any type of relative had been removed from their family.

**Descendants of all people removed:** the group of Aboriginal and Torres Strait Islander survey respondents aged 18 and over who reported that (an) elder relative(s) (that is, parents, great/grandparents, aunts or uncles) had been removed from their families.

Another sub-category of the descendants of all people removed excludes those individuals who also reported that they themselves had been removed from their own families (as well as having elder relatives who were removed).

The descendants of all people removed as defined in this report will include the descendants of the Stolen Generations proxy population in the cohort born before 1972.

**Reference group for the descendants of all people removed:** the group of Aboriginal and Torres Strait Islander survey respondents aged 18 and over who did not experience any type of removal (that is, who reported neither having been removed from their own families nor having any relatives removed).

## **Identifying descendants all people removed**

The ABS survey data cannot be used to identify only the descendants of the Stolen Generations (that is, descendants of people in the cohort born before 1972 who had been removed from their families). A broader measure is available which identifies individuals aged 18 and over at the time of the survey who reported that some members of their older generations (that is, great/grandparents, parents, or uncles and aunts) had been removed.

Many of these survey respondents who report that relatives in an older generation were removed will be the direct descendants of the Stolen Generations, but this is not a reliable enough proxy to label them as the descendants only of the Stolen Generations. Nothing is known about the time periods when these elder relatives were removed. Accordingly, in this report this group of individuals aged 18 and over who reported that relative(s) in an older generation had been removed is referred to more generally as the descendants of all people removed from their families (Box 1.2), and they will include the descendants of the Stolen Generations. In some tabulations of the descendants, those who themselves were removed from family are also included in order to present a total estimate of all people who reported having elder relatives removed.

People who reported that the only types of relative(s) who were removed were their own children, siblings, cousins, or nephews and nieces were not included as a descendant for the purpose of this report. To be classified as a descendant, the relative(s) who were removed have to be from an older generation.

There are several key issues to keep in mind in interpreting the results of the analysis of this report. These are noted in Box 1.3.

**Box 1.3: Key issues to consider in interpreting the analysis of this report**

There are several potential sources of error that affect the proxy estimates of the Stolen Generations provided in this report, based on considering removal from family that occurred in the cohort born before 1972. Because of the multiple potential sources of error, it is not feasible to assess the extent and direction of the overall bias in the estimates of the total number of the Stolen Generations proxy population (and of the descendants) given in this report. These issues are outlined below:

- a. Not knowing when the removal of a child born before 1972 happened (in some cases this could potentially be much later than 1972) can lead to some over-estimation of the population on this proxy measure of the Stolen Generations.
- b. The ABS survey questions do not specifically refer to 'forcible removal from family'. The specific question in the survey is: 'Have you been removed from your family by welfare or the government or taken away to a mission?' This may capture other types of removal of those born before 1972 that may not be associated with the historical context of the Stolen Generations. The ABS survey questions do not also explicitly distinguish between temporary and permanent removal of children from their families.
- c. There may also be under-reporting of the actual incidence of removal from family in the surveys due to the reluctance of those who were removed to disclose that particular detail, or as a result of their not knowing the full details or circumstances of their removal from family.
- d. The population-in-scope for the ABS surveys exclude individuals who lived in non-private dwellings at the time of the survey (which includes hotels, motels, hostels, hospitals, nursing homes, correction facilities and short-stay caravan parks). If the incidence of having been removed is higher in the population living in non-private dwellings, the population estimates and rates of being removed estimated from survey data collected only from private dwellings will be under-reported.

This report also provides estimates of the current descendants of all people reported to have been removed from their families. These estimates will include the descendants of the Stolen Generations, but these estimates of the larger group of descendants is not a reliable proxy for the descendants just of the Stolen Generations.

All information on removal from families collected in the ABS surveys are based on self-reporting by the survey respondents. The prompt cards used to elicit responses to these questions do not specifically refer to being a member of the Stolen Generations, or to being a direct descendant of the Stolen Generations.

The ABS provides data on the estimated population and characteristics of the Aboriginal and Torres Strait Islander people who were removed from their families from its surveys (for example, ABS 2004, 2011). The standard categories that ABS uses for their tabulations, however, are all people who report having been removed from their families, and all people who report having any relatives removed. Neither of these standard categories match the specific definitions used in this report for the Stolen Generations proxy population in the cohort born before 1972, and for the descendants aged 18 and over who had relatives from older generations removed.

## 1.3 Report structure

Chapter 2 presents the main results on the counts, geographic locations and demographic characteristics of the study cohorts developed for this report from the five ABS surveys. This includes information on Indigenous people born before 1972 who were removed, family members of all people removed, and descendants of all people removed.

For the Stolen Generations proxy population in the cohort born before 1972, Chapter 2 presents two different types of estimates of the size of this population. One set of estimates is drawn specifically from the relevant reference populations of each ABS survey. A second set of estimates of the Stolen Generations proxy population is based on consistent Indigenous population projections and back-cast estimates that are derived from a single (2011) Census. A similar set of estimates of the descendants based on consistent Indigenous projections and back-cast estimates of the population aged 18 and over is also derived.

Chapter 3 presents comparative data on the mean outcomes in several health, cultural and socioeconomic characteristics for the Stolen Generations proxy population and their reference group who were not removed. Some limited additional analyses based on the 2014–15 NATSISS only are also provided for the Stolen Generations proxy population who were aged 50 and over, and for those who reported having any type of disability.

Chapter 4 presents data on the characteristics of the descendants of all people removed (but who themselves were not removed) and compares these characteristics with a reference group of other Indigenous adults aged 18 and over who had neither been removed themselves nor had relatives who had been removed.

Chapter 5 presents the results of detailed multivariate regression analyses that seek to identify more clearly the specific effects of removal on a set of outcomes, controlling for the effects of other factors on these outcomes. Results in this chapter cover both the Stolen Generations proxy population in the cohort born before 1972 and the descendants of all people removed.

Chapter 6 presents the results of comparisons on a smaller set of outcomes between the Stolen Generations proxy population born before 1972 and a cohort of non-Indigenous Australians of a similar age for whom equivalent data are available. Similar comparisons are also presented for the descendants.

Chapter 7 presents further information from AIHW administrative data on services provided to the Stolen Generations and other Indigenous Australians who accessed Link Up services, and other social and emotional wellbeing support services. This information is sourced from the published Online Service Reports (for example, AIHW 2017). Link Up services are specifically designed to provide counselling support for members of the Stolen Generations and their families, and to assist in family tracing and reunions.

A set of appendixes provides more details on the types of removal from family that can be identified in the ABS surveys and on the specific methods used in this report, as well as additional discussion of the results of the multivariate regressions summarised in Chapter 5.

## 2 Estimates and demographic profile of the Stolen Generations proxy population and descendants

### At a glance

#### The Stolen Generations proxy population

- In the most recent 2014–15 NATSISS, the estimated number of the Stolen Generations proxy population in the cohort born before 1972 was 20,900, representing 13.5% of the Indigenous population aged 42 and over.
- The distribution of the Stolen Generations proxy population by sex was 56% women and 44% men. This distribution was consistent over the survey periods.
- In 2014–15, a large majority (79%) of the Stolen Generations proxy population lived in non-remote areas. All surveys showed a similar high percentage living in non-remote areas.
- In 2014–15, almost three-quarters (73%) of the Stolen Generations proxy population lived in either New South Wales (30%), Western Australia (22%) or Queensland (21%).
- Time series data from four of the ABS surveys on the proportion of people who were removed suggest an average rate of 11% of the cohort born before 1972 being removed from their families.
- If this average rate is extrapolated, based on 2018 Indigenous population data (among those aged 46 and over), the resulting estimate is that in 2018 there are around 17,150 people in the cohort born before 1972 who had been removed from their families (the Stolen Generations proxy population).

#### The descendants

- In 2014–15, the estimated number of descendants, aged 18 and over, of all people removed was around 114,800; this includes around 15,400 individuals who reported that they themselves were also removed from their families.
- The majority (84%) of the descendants lived in non-remote areas, and more than three quarters (77%) lived in either New South Wales (31%), Queensland (28%) or Western Australia (18%). These patterns are fairly consistent across all survey years.
- On average, around 54% of the descendants were women and 46% were men.
- The proportion of the adult population who reported they were descendants of all people removed has remained more or less stable—at around one-third of the total population aged 18 and over in these ABS surveys. The average value over the four surveys was 33%.
- Based on the estimated Indigenous population aged 18 and over in 2018, there are two alternative estimates of the number of the descendants of all people removed in 2018. These are 158,000 descendants aged 18 and over (based on the above average rate of 33%); and 133,400 descendants (based on a lower average rate of 28%). These estimates of the descendants include those who had also been personally removed from their own family.

## 2.1 Introduction

This chapter presents detailed analyses of time series data from the five ABS surveys on the total estimates and distribution by age, sex, remoteness and state/territory of usual residence for the Stolen Generations proxy population and for the descendants of all people removed. These data are usually presented in three different ways:

- (i) as estimated population in total, or in a specific category (for example, by sex)
- (ii) as proportions of the total population within each sub-category (called relative distribution), and
- (iii) as population rates of removal (those removed, and those who are descendants, as a proportion of the total relevant Indigenous population in that category).

The detailed estimates and demographic profiles presented in this chapter for the Stolen Generations proxy population and for the descendants are point estimates at each survey period (2002, 2004–05, 2008, 2012–13, 2014–15). These estimates are not strictly comparable over time because of changing levels of Indigenous identification in the overall Australian population. A second set of estimates of the Stolen Generations proxy population, and of the descendants, is also provided, based on a consistent time series of ABS Indigenous population projections and back-cast estimates derived from the 2011 Census.

## 2.2 Estimates of the Stolen Generations proxy population

Table 2.1 presents the estimated total Stolen Generations proxy population born before 1972 that are derived from the five ABS surveys. These surveys use a benchmark of the overall Indigenous population at the time of the survey (derived from the latest Census) to estimate sampling weights. These weights are then used to convert the sample counts of the number of people in the survey who reported they were removed to an overall estimate of such people in the benchmark population. These overall estimated numbers of the Stolen Generations proxy population in the cohort born before 1972 are in the first row of Table 2.1. The estimated total benchmark populations in this age cohort for each survey period are also reported in the table (row 2), and these are used as the denominator to estimate the proportion of the overall benchmark population who reported having been removed (row 3).

The estimates shown in Table 2.1 suggest that:

- the proportion of those who reported being removed in the cohort born before 1972, based on information collected during each survey, ranged between 9.3% (in the 2004–05 NATSIHS) and 16.4% (in the 2012–13 NATSIHS)
- the result from the 2012–13 NATSIHS is clearly different from the other surveys and the 16.4% rate of being removed reported for this cohort appears out of line with the other values; and no clear reasons have been provided for why the 2012–13 result differs so much from the other surveys
- the overall average of the proportion of this cohort who reported being removed, from the four surveys (excluding the outlier value of 2012–13), is around 11%.

Considering the estimates of the number of people who were removed in this age cohort, they range from 13,900 in the 2004–05 survey to 24,500 in 2012–13. In the most recent 2014–15 NATSISS, the estimated number of the Stolen Generations proxy population in the cohort born before 1972 was 20,900.

These are point estimates based on the ABS survey benchmark populations derived from three different Censuses: the 2001 Census (for the 2002 and 2004–05 surveys), the 2006 Census (for the 2008 survey) and the 2011 Census (for the 2012–13 and 2014–15 surveys).

An alternative way to derive the estimated number of the Stolen Generations proxy population in the cohort born before 1972, using a different reference population than the survey-specific benchmarks reported in Table 2.1, is presented in Section 2.6.

**Table 2.1: Estimated population and proportions of Indigenous Australians born before 1972, who reported being removed from their families, 2002 to 2014–15**

	2002 (aged 30 and over)	2004–05 (aged 32 and over)	2008 (aged 36 and over)	2012–13 (aged 40 and over)	2014–15 (aged 42 and over)	Average rate (excl. 2012–13)
Estimated population reporting having been removed	15,448	13,898	15,856	24,486	20,891	..
Estimated total Indigenous benchmark population (born before 1972) <sup>(a)</sup>	155,802	148,819	143,307	149,135	154,633	..
Removed people as % of total population (born before 1972)	9.9	9.3	11.1	16.4	13.5	11.0

.. not applicable

(a) The estimated total Indigenous population born before 1972 cited in this row is derived from the benchmark population of the corresponding ABS surveys. For 2014–15, the total of 154,633 differs from the total (158,577) noted in Figure O1 in the Overview because the total in this table excludes individuals for whom valid responses were missing on whether they were removed.

#### Notes

1. The column for 2012–13 is shaded to reflect that the results from this survey (the 2012–13 NATSIHS) are quite different from those for the other four surveys and possibly represent outlier values, especially in the estimates of the Stolen Generations proxy population.
2. The total number of Indigenous people aged 18 and over participating in each survey (the sample counts) are, respectively, 8,523 in 2002 NATSISS, 5,757 in 2004–05 NATSIHS, 7,163 in 2008 NATSISS, 5,482 in 2012–13 NATSIHS and 6,604 in 2014–15 NATSISS.

Sources: AIHW tabulations of ABS 2010a, 2010b, 2010c, 2015, 2016a.

## 2.3 Characteristics of the Stolen Generations proxy population

The following sections detail the analyses for the Stolen Generations proxy population in the cohort born before 1972 by age, sex, remoteness and state/territory of usual residence.

### Differences by age

Table 2.2 shows the estimates of the Stolen Generations proxy population by age from 2002 to 2014–15.

- The proportion of those removed was higher in the older age groups (Table 2.2) in every survey (except for the 65 and over age group in 2002, where the removed proportion—8.2%—was lower than that in the 50–64 and 40–49 age groups—15.0% and 10.2%, respectively).
- Nationally, approximately two-thirds of the Stolen Generations proxy population are aged 50 and over (13,800 individuals, which represents 14% of all Indigenous people aged 50 and over in the 2014–15 NATSISS).
- Nationally, in 2014–15, 17% of Indigenous people aged 65 and over were removed.



**Table 2.2: Estimated population and proportions of Indigenous Australians born before 1972, who reported removal from their families, by age, 2002 to 2014–15**

Year	Age group (years)	Estimated number reporting being removed	Distribution by age (%)	Percentage who were removed (rate of (being removed) by age
<b>2014–15</b>	42–49	7,062	33.8	12.2
	50–64	9,690	46.4	13.5
	65 and over	4,138	19.8	16.7
	<i>Total 50 and over</i>	<i>13,828</i>	<i>66.2</i>	<i>14.3</i>
	<b>Total 42 and over</b>	<b>20,891</b>	<b>100.0</b>	<b>13.5</b>
<b>2012–13</b>	40–49	9,472	38.7	13.9
	50–64	10,868	44.4	18.0
	65 and over	4,146	16.9	20.4
	<i>Total 50 and over</i>	<i>15,014</i>	<i>61.3</i>	<i>18.6</i>
	<b>Total 40 and over</b>	<b>24,486</b>	<b>100.0</b>	<b>16.4</b>
<b>2008</b>	36–49	7,677	48.4	9.4
	50–64	5,832	36.8	12.6
	65 and over	2,347	14.8	15.2
	<i>Total 50 and over</i>	<i>8,179</i>	<i>51.6</i>	<i>12.7</i>
	<b>Total 36 and over</b>	<b>15,856</b>	<b>100.0</b>	<b>11.1</b>
<b>2004–05</b>	32–49	8,745	62.9	8.6
	50–64	3,681	26.5	10.3
	65 and over	1,472	10.6	12.4
	<i>Total 50 and over</i>	<i>5,153</i>	<i>37.1</i>	<i>10.8</i>
	<b>Total 32 and over</b>	<b>13,898</b>	<b>100.0</b>	<b>9.3</b>
<b>2002</b>	30–39	4,492	29.1	7.1
	40–49	4,659	30.2	10.2
	50–64	5,340	34.6	15.0
	65 and over	958	6.2	8.2
	<i>Total 50 and over</i>	<i>6,298</i>	<i>40.8</i>	<i>13.3</i>
<b>Total 30 and over</b>	<b>15,448</b>	<b>100.0</b>	<b>9.9</b>	

Note: Data for the 2012–13 NATSIHS are shaded to indicate that the results from this survey are quite different from those for the other four and possibly represent outlier values, especially in the estimates of the Stolen Generations proxy population.

Sources: AIHW tabulations of ABS 2010a, 2010b, 2010c, 2015, 2016a.

## Differences by sex

Table 2.3 shows the estimates of the Stolen Generations proxy population by sex from 2002 to 2014–15.

- Among those who reported being removed, the distribution by sex was consistent over time; in 2014–15, and on average, around 56% were women and 44% were men.
- In 2014–15, in the cohort born before 1972, there were more Indigenous women (11,700) than men (9,200) who reported being removed from their families, representing 14% and 13% of the total population by sex, respectively. This difference in the percentages who were removed by sex is not statistically significant.

**Table 2.3: Estimated population and proportions of Indigenous Australians born before 1972, who reported removal from their families, by sex, 2002 to 2014–15**

Sex	2002 (aged 30 and over)	2004–05 (aged 32 and over)	2008 (aged 36 and over)	2012–13 (aged 40 and over)	2014–15 (aged 42 and over)
<b>Estimated number reporting being removed</b>					
Men	6,812	5,479	7,248	11,107	9,153
Women	8,635	8,419	8,608	13,379	11,738
<b>Total</b>	<b>15,448</b>	<b>13,898</b>	<b>15,856</b>	<b>24,486</b>	<b>20,891</b>
<b>Distribution by sex (%)</b>					
Men	44.1	39.4	45.7	45.4	43.8
Women	55.9	60.6	54.3	54.6	56.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Percentage who were removed (rate of being removed) by sex</b>					
Men	9.3	8.0	11.0	15.7	12.8
Women	10.5	10.5	11.1	17.1	14.1
<b>Total</b>	<b>9.9</b>	<b>9.3</b>	<b>11.1</b>	<b>16.4</b>	<b>13.5</b>

*Note:* The column for the 2012–13 NATSIHS is shaded to indicate that the results from this survey are quite different from those for the other four and possibly represent outlier values, especially in the estimates of the Stolen Generations proxy population.

*Sources:* AIHW tabulations of ABS 2010a, 2010b 2010c, 2015, 2016a.

## Differences by remoteness

In the NATSISS and NATSIHS data used for this report, remoteness of usual residence was classified as 'remote' or 'non-remote'.<sup>5</sup>

- The majority (79%) of the Stolen Generations proxy population born before 1972 was living in non-remote areas at the time of the 2014–15 survey. This pattern is consistent in all survey years.
- In 2014–15, the rate of being removed (the proportion of the Stolen Generations proxy population in the total population of Indigenous people born before 1972) was only slightly higher in non-remote areas (13.8%) compared with remote areas (12.5%). Non-remote areas consistently had a higher proportion who reported to be removed; however, the difference was statistically significant only in 2004–05 and 2008 (Table 2.4).

<sup>5</sup> Unit record data accessed via the ABS DataLab portal do not provide the full five-way categorisation of remoteness areas, only the broader distinction between remote and non-remote is available.

**Table 2.4: Estimated population and proportions of Indigenous Australians born before 1972, who reported removal from their families, by remoteness, 2002 to 2014–15**

Remoteness area	2002 (aged 30 and over)	2004–05 (aged 32 and over)	2008 (aged 36 and over)	2012–13 (aged 40 and over)	2014–15 (aged 42 and over)
<b>Estimated number reporting being removed</b>					
Remote	3,666	2,998	2,935	4,998	4,303
Non-remote	11,782	10,899	12,921	19,489	16,587
<b>Total</b>	<b>15,448</b>	<b>13,898</b>	<b>15,856</b>	<b>24,486</b>	<b>20,891</b>
<b>Distribution by remoteness (%)</b>					
Remote	23.7	21.6	18.5	20.4	20.6
Non-remote	76.3	78.4	81.5	79.6	79.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Percentage who were removed (rate of being removed) by remoteness</b>					
Remote	9.1	6.8	8.5	15.3	12.5
Non-remote	10.2	10.4	11.9	16.7	13.8
Difference (pp)	-1.2	-3.5*	-3.4*	-1.5	-1.3
<b>Total</b>	<b>9.9</b>	<b>9.3</b>	<b>11.1</b>	<b>16.4</b>	<b>13.5</b>

\* Denotes that the difference is significant at 5% test level; pp denotes percentage points.

Note: The column for the 2012–13 NATSIHS is shaded to indicate that the results from this survey are quite different from those for the other four and possibly represent outlier values, especially in the estimates of the number of people reporting being removed.

Sources: AIHW tabulations of ABS 2010a, 2010b, 2010c, 2015, 2016a.

## Differences by state and territory

Table 2.5 shows the estimates of the Stolen Generations proxy population by state and territory of their residence at the time of the ABS surveys, from 2002 to 2014–15. In these results the data for Tasmania and the ACT are presented together because these jurisdictions are combined in the ABS DataLab files. The survey respondents from Tasmania and the ACT can be separately identified only in the 2014–15 NATSIHS. For consistency in the presentation of the results, and also due to the ACT estimate of the Stolen Generations proxy population being unreliable as it is derived from a small sample size, the combined Tasmania/ACT category is used for all survey periods.

- In 2014–15, most Indigenous people born before 1972 who reported being removed lived in New South Wales (30%), Western Australia (22%) and Queensland (21%). These three jurisdictions together had almost three-quarters (73%) of the Stolen Generations proxy population born before 1972 (Table 2.5).
- In 2014–15, the reported rate of removal by jurisdiction was highest in Western Australia (24%), South Australia (16%) and Victoria (12%). These three jurisdictions consistently had the highest proportions of their populations born before 1972 reporting being removed in all survey years.
- Excluding the data from the 2012–13 survey, the average rate of removal reported in Western Australia by the cohort born before 1972 was 19%, followed by South Australia at 16%.

**Table 2.5: Estimated population and proportions of Indigenous Australians born before 1972, who reported removal from their families, by jurisdiction, 2002 to 2014–15**

State/territory	2002 (aged 30 and over)	2004–05 (aged 32 and over)	2008 (aged 36 and over)	2012–13 (aged 40 and over)	2014–15 (aged 42 and over)
<b>Estimated number reporting being removed</b>					
NSW	4,056	3,071	3,875	6,216	6,247
Vic	1,669	1,034	1,660	2,397	1,341
Qld	3,231	2,852	3,493	5,510	4,439
WA	3,211	3,885	3,731	5,797	4,643
SA	1,326	1,479	1,314	1,494	1,394
Tas/ACT	621	366	582	666	1,064
NT	1,332	1,211	1,202	2,405	1,764
<b>Total</b>	<b>15,448</b>	<b>13,898</b>	<b>15,856</b>	<b>24,486</b>	<b>20,891</b>
<b>Distribution by state/territory (%)</b>					
NSW	26.3	22.1	24.4	25.4	29.9
Vic	10.8	7.4	10.5	9.8	6.4
Qld	20.9	20.5	22.0	22.5	21.3
WA	20.8	28.0	23.5	23.7	22.2
SA	8.6	10.6	8.3	6.1	6.7
Tas/ACT	4.0	2.6	3.7	2.7	5.1
NT	8.6	8.7	7.6	9.8	8.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Percentage who were removed (rate of being removed) by state/territory</b>					
NSW	8.6	7.0	8.8	12.7	12.0
Vic	17.0	11.3	16.9	22.3	12.2
Qld	7.5	7.3	8.9	13.5	10.8
WA	14.4	17.9	19.7	31.2	23.8
SA	14.9	17.4	17.1	17.8	16.2
Tas/ACT	8.0	5.0	8.6	9.2	14.0
NT	7.9	6.4	7.3	16.7	12.0
<b>Total</b>	<b>9.9</b>	<b>9.3</b>	<b>11.1</b>	<b>16.4</b>	<b>13.5</b>

*Notes*

1. The column for the 2012–13 NATSIHS is shaded to reflect that the results from this survey are quite different from those for the other four and possibly represent outlier values, especially in the estimates of the number of people reporting being removed and in the rate of being removed by jurisdiction.
2. The data for Tasmania and the ACT are presented together because these jurisdictions are combined in the ABS DataLab files. The survey respondents from Tasmania and the ACT can be separately identified only in the 2014–15 NATSIHS. For consistency in the presentation of the results the combined Tasmania/ACT category is used for all survey periods. The ACT estimate of the Stolen Generations proxy population for 2014–15 in particular is not reliable, being based on a very small sample size of survey respondents aged 42 and over.
3. The rate of being removed by jurisdiction in the last panel of this table are likely to be less reliable than the estimated national rate of removal in this cohort born before 1972 because of the smaller number of individuals within each jurisdiction who report having been removed in these sample surveys.

Sources: AIHW tabulations of ABS 2010a, 2010b, 2010c, 2015, 2016a.

## 2.4 Estimates of the family members and descendants of all people removed

This section presents data on the total estimated population and demographic profile and location of the descendants of all people removed from the five surveys. The descendants who had elder relatives removed are the main focus of this section. For completeness, however, an initial tabulation is provided of all people aged 18 and over in these surveys who reported any relatives having been removed, including their own siblings/cousins or their own children (Table 2.6). These are referred to as family members of all people removed. The family members of all people removed can also report to have been removed themselves.

Table 2.6 gives the estimated numbers of family members of all people removed and their proportions, based on the benchmark Indigenous population from each of the surveys.

- The proportion of Indigenous Australian adults who report having any relatives removed has remained fairly constant at between 43% and 47% in the four surveys (excluding the 2012–13 survey, where it was 50%). The average proportion of those reporting having any relative removed in the four surveys is 45% of the population aged 18 and over.
- When converted to estimated numbers, in 2014–15, around 162,100 Indigenous people aged 18 and over reported they had some relatives removed. This is substantially higher than the equivalent estimate of 91,000 people in 2002.
- Unlike the estimates of the Stolen Generations proxy population in Table 2.1, which is based on a specific cohort of people born before 1972, the estimates of the family members of all people removed are expected to grow over time with the increase in the overall Indigenous population.

**Table 2.6: Estimated population and proportions of Indigenous Australians aged 18 and over, who reported to be family members of all people removed, 2002 to 2014–15**

	2002	2004–05	2008	2012–13	2014–15	Average rate (excl. 2012–13)
Estimated population of family members of all people removed	91,049	92,267	116,754	156,517	162,124	..
Estimated total population (aged 18 and over)	203,160	216,442	252,973	310,314	348,142	..
Family members as % of total population (aged 18 and over)	44.8	42.6	46.2	50.4	46.6	45.1

.. not applicable

### Notes

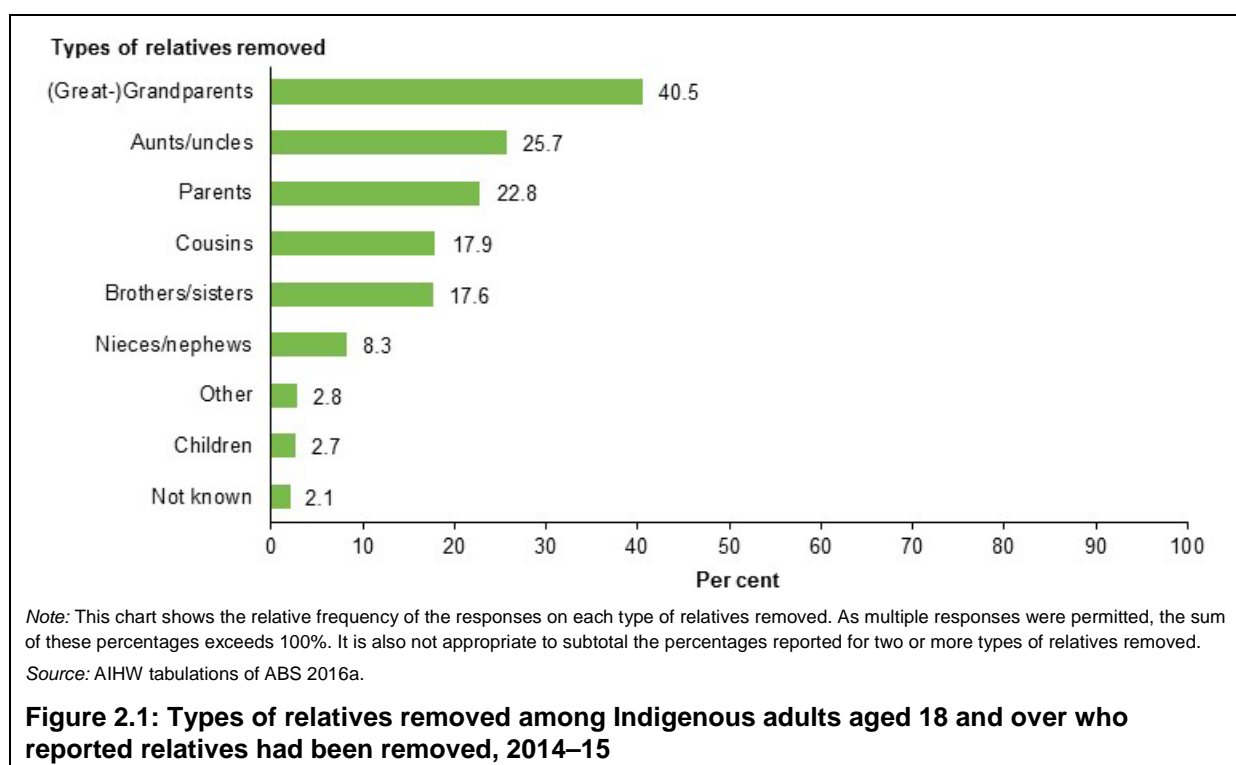
1. The estimated population of the family members of all people removed (the numerators) represent all people aged 18 and over who reported any relatives having been removed, including those who also reported that they themselves had been removed.
2. The total estimated population (the denominators) include only those respondents aged 18 and over for whom there were valid responses on both the questions about relatives being removed and about personally being removed.
3. The column for the 2012–13 NATSIHS is shaded to indicate that the results from this survey are quite different from those for the other four and possibly represent outlier values, especially in the estimated population of family members of all people removed, and as a percentage of the total population aged 18 and over.
4. The age cut-off of 18 and over has been adopted for consistency of the data across these ABS surveys—the removal status questions are asked only of people aged 18 and over in the health surveys while a lower age cut-off of 15 and over is used in the social surveys.

Sources: AIHW tabulations of ABS 2010a, 2010b, 2010c, 2015, 2016a.

## Types of relatives removed

Figure 2.1 shows the proportions of the types of relatives removed among all individuals aged 18 and over who reported that relatives had been removed in the 2014–15 NATSISS. Multiple responses were permitted for this question, so the sum of the percentages reported in Figure 2.1 exceeds 100%.

- The highest proportion of the type of relatives removed (41%) was for grandparents or great-grandparents, followed by aunts or uncles (26%) and parents (23%).
- Around 18% of Indigenous adults aged 18 and over identified brothers or sisters as having been removed; 18% also identified cousins as having been removed. The proportion of those who reported that the relative removed was their own child was 2.7%.



## Descendants of all people who were removed

The descendants of all people removed are those aged 18 and over, at the time of the survey, who identified the types of relatives removed from their families as being from an older generation (parents, grandparents/great-grandparents, aunts or uncles).

Table 2.7 presents the summary estimates of the descendants of all people removed.

Two types of estimates are provided. One includes people aged 18 and over who reported having elder relatives removed but that they themselves were not removed (series N1 in Table 2.7 refers to this subgroup). The other includes everyone aged 18 and over who reported having elder relatives removed, irrespective of their own removal history (series N2 in Table 2.7).

This is an important distinction as the subsequent analyses of the outcomes observed for the descendants (in chapters 4 and 5) focus only on individuals who themselves were not removed, but are descendants of elders removed in the past. For this group, the effects of being descendants can be clearly examined separately from the effects of their own removal.

**Table 2.7: Estimated population and proportions of Indigenous Australians aged 18 and over, who reported to be descendants of all people removed, 2002 to 2014–15**

	2002	2004–05	2008	2012–13	2014–15	Average rate (excl. 2012–13)
Estimated population of the descendants (excluding individuals who themselves were removed)—N1	61,319	63,385	75,397	97,809	99,361	..
Estimated population of the descendants (all people, including those who were themselves removed)—N2	69,701	70,064	85,141	118,028	114,760	..
Estimated total population aged 18 and over with valid responses on removal questions—D1	203,160	216,442	252,973	310,314	348,142	..
Estimated total population aged 18 and over, all people—D2	251,398	258,297	290,937	365,868	399,729	..
Rate (%) of being a descendant (excluding individuals who themselves were removed)—(R1 = N1 divided by D1)	30.2	29.3	29.8	31.5	28.5	29.5
Rate (%) of being a descendant (including individuals who themselves were removed)—(R2 = N2 divided by D1)	34.3	32.4	33.7	38.0	33.0	33.4
Rate (%) of being a descendant (including individuals who themselves were removed), but as a proportion of all people aged 18 and over—(R3 = N2 divided by D2)	27.7	27.1	29.3	32.3	28.7	28.2

.. not applicable

*Notes*

1. The initial population benchmarks (denoted as D1) include only those respondents aged 18 and over for whom there were valid responses on both the questions about relatives being removed and about personally being removed. An alternative population benchmark for these surveys, D2, is also provided, which represents all people aged 18 and over, irrespective of whether a valid response was recorded to the removal questions. Rates of being a descendant can be computed in reference to either of the population benchmarks D1 or D2.
2. The rates noted as R1 and R2 use D1 as the denominator, while R3 uses D2 as the denominator. A fourth rate not reported here is feasible to compute—as N1 divided by D2. This is the rate of being a descendant among all 18-year-olds, including those with missing responses on the removal questions, but excluding from the numerator those who were personally removed. The average of this rate is 24.9%.
3. The column for the 2012–13 NATSIHS is shaded to reflect that the results from this survey are quite different from those for the other four and possibly represent outlier values, especially in the estimates of the descendants of all people who were removed.
4. The age cut-off for those who are 18 and over has been adopted for consistency of the data across the ABS surveys—the removal status questions are asked only of people aged 18 and over in the health surveys while a lower age cut-off of 15 and over is used in the social surveys.

Sources: AIHW tabulations of ABS 2010a, 2010b, 2010c, 2015, 2016a.

When converting the estimated population of the descendants into percentage rates, two different base populations of those aged 18 and over (the denominator) are used. One includes only those survey respondents for whom there was a valid response on both questions about relatives being removed and about personally being removed (series D1 in Table 2.7). The second includes all people aged 18 and over from the survey benchmark populations, irrespective of whether a valid response was recorded to the removal question for any specific respondent (series D2).

The second base population is always larger than the first, and so will lead to a smaller estimated rate of being a descendant.

These two series represent different ways of treating the missing responses to the questions on removal in the ABS surveys. The proportion of such missing responses among people aged 18 and over was consistently high in these surveys, especially to the specific question about relatives being removed—it ranged from 13% to 19% of the respondents in this age group. A high proportion of missing responses creates the problem of imputing what the

actual removal status is among those with missing or invalid responses. Without any missing responses, the two denominators and the percentage rates calculated would be identical.

Estimates based on the smaller reference population, excluding individuals with missing responses on the removal questions, implicitly assume that the missing responses can be re-interpreted to assign the same rate of being a descendant for those with missing responses as the rate calculated for those with a valid (that is, yes or no) response.

Estimates based on the larger reference population, which includes in the denominator individuals with missing responses on the removal questions, implicitly assume that none of the individuals with missing responses can be descendants. This is a very unlikely scenario; however, rates based on the larger denominator are still useful as they provide a lower bound on the estimated proportions of being a descendant among all people aged 18 and over.

- In 2014–15, an estimated total of 114,800 Indigenous adults aged 18 and over had relatives from older generations who were removed (series N2 in Table 2.7).
- Of this total, around 15,400 also reported that they themselves were removed. This leads to an estimate of 99,400 Indigenous people aged 18 and over being descendants but who were not themselves removed (series N1 in Table 2.7).
- The percentage who are descendants, including individuals who themselves were removed, has remained constant at around one-third of the total population aged 18 and over (using the population benchmark denominator D1 that excludes all those with missing responses).
- In 2014–15, this proportion was 33.0%, and the average over the four survey periods (ignoring the high outlier value of 38.0% in 2012–13) is 33.4% (series R2 in Table 2.7).
- Excluding those who themselves were removed, the percentage of the population who are descendants drops slightly in each survey period (series R1 in Table 2.7). Excluding data for 2012–13, the average proportion over the four survey periods is 29.5%.
- The percentage who are descendants using the larger population benchmark (denominator D2 that includes all people aged 18 and over, but including in the numerator individuals who themselves were removed) is lower, with an average value of 28.2% over the four survey periods (series R3 in Table 2.7).

## 2.5 Characteristics of the descendants

The following sections detail the analyses for the descendants of all people removed by age, sex, remoteness and state/territory of usual residence. The analyses refer to the overall general population who are classified as being descendants, including those who themselves were also removed.

### Differences by age

Table 2.8 shows the estimated population, relative distribution and proportions who are descendants within each age group of the descendants from 2002 to 2014–15.

- The estimated number of descendants of all people removed increased over time for all age groups. However, the estimated proportions of Indigenous adults being descendants remained relatively constant for most age groups across the survey years.
- Except for 2004–05, the reported rate of being a descendant was highest in the 30–39 age group for all other survey years, ranging from 38% in 2008 to 40% in 2014–15 (Table 2.8), and lowest in respondents aged 65 and over for all survey years.



**Table 2.8: Estimated population and proportions of Indigenous Australians aged 18 and over, who reported to be descendants of all people removed, by age, 2002 to 2014–15**

Year	Age group (years)	Estimated number of descendants	Distribution by age (%)	Descendants as a proportion of the population in each age group <sup>(a)</sup> (%)
<b>2014–15</b>	18–29	38,195	33.3	29.8
	30–39	28,179	24.6	39.7
	40–49	23,587	20.6	36.9
	50–64	19,590	17.1	30.8
	65 and over	5,208	4.5	24.3
	<b>Total</b>	<b>114,760</b>	<b>100.0</b>	<b>33.0</b>
<b>2012–13</b>	18–29	40,009	33.9	35.5
	30–39	29,735	25.2	44.5
	40–49	24,489	20.7	40.5
	50–64	18,835	16.0	35.7
	65 and over	4,962	4.2	28.1
	<b>Total</b>	<b>118,028</b>	<b>100.0</b>	<b>38.0</b>
<b>2008</b>	18–29	29,759	35.0	32.5
	30–39	21,720	25.5	37.6
	40–49	17,065	20.0	35.8
	50–64	12,819	15.1	30.6
	65 and over	3,778	4.4	27.2
	<b>Total</b>	<b>85,141</b>	<b>100.0</b>	<b>33.7</b>
<b>2004–05</b>	18–29	26,300	37.5	35.4
	30–39	19,614	28.0	33.1
	40–49	13,073	18.7	32.0
	50–64	8,870	12.7	28.2
	65 and over	2,208	3.2	20.6
	<b>Total</b>	<b>70,064</b>	<b>100.0</b>	<b>32.4</b>
<b>2002</b>	18–29	25,287	36.3	36.1
	30–39	20,569	29.5	39.1
	40–49	13,007	18.7	33.3
	50–64	9,435	13.5	30.2
	65 and over	1,403	2.0	13.8
	<b>Total</b>	<b>69,701</b>	<b>100.0</b>	<b>34.3</b>

(a) These percentages are based on Series R2 in Table 2.7, which include among the descendant those who were themselves removed, as a proportion of the total population aged 18 and over who had valid responses to the removal questions in the surveys.

*Note:* Data for the 2012–13 NATSIHS are shaded to indicate that the results from this survey are quite different from those for the other four and possibly represent outlier values, especially in the estimates of the descendants of all people removed.

*Sources:* AIHW tabulations of ABS 2010a, 2010b, 2010c, 2015, 2016a.

## Differences by sex

- Among all people aged 18 and over who are descendants, a slightly higher percentage were women (55%) compared with men (45%) in 2014–15. This relative distribution has remained consistent over time. The average proportion over the survey periods was 54% women and 46% men.
- Around one-third (32%) of men aged 18 and over, and one-third of women (34%) aged 18 and over, were descendants in 2014–15 (Table 2.9).

**Table 2.9: Estimated population and proportions of Indigenous Australians aged 18 and over, who reported to be descendants of all people removed, by sex, 2002 to 2014–15**

Sex	2002	2004–05	2008	2012–13	2014–15
<b>Estimated number of descendants</b>					
Men	31,997	30,993	38,672	54,809	51,190
Women	37,704	39,071	46,469	63,219	63,570
<b>Total</b>	<b>69,701</b>	<b>70,064</b>	<b>85,141</b>	<b>118,028</b>	<b>114,760</b>
<b>Relative distribution by sex for descendants (%)</b>					
Men	45.9	44.2	45.4	46.4	44.6
Women	54.1	55.8	54.6	53.6	55.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Descendants as a proportion of the population aged 18 and over by sex (%)</b>					
Men	33.7	31.0	33.0	37.2	31.8
Women	34.8	33.5	34.2	38.8	34.0
<b>Total</b>	<b>34.3</b>	<b>32.4</b>	<b>33.7</b>	<b>38.0</b>	<b>33.0</b>

*Note:* The column for the 2012–13 NATSIHS is shaded to indicate that the results from this survey are quite different from those for the other four and possibly represent outlier values, especially in the estimates of the descendants of all people who were removed. There is no statistical difference by sex in the proportions of being descendants of all people removed.

*Sources:* AIHW tabulations of ABS 2010a, 2010b, 2010c, 2015, 2016a.

## Differences by remoteness

- In 2014–15, approximately 84% of the descendants of all people removed lived in non-remote areas, and 16% lived in remote areas (Table 2.10).
- The reported rate of being a descendant was consistently higher among people living in non-remote areas than among those living in remote areas. This difference was statistically significant in all survey years.
- In 2014–15, 36% of the adult Aboriginal and Torres Strait Islander population in non-remote areas reported to be descendants compared with about 23% in remote areas.

**Table 2.10: Estimated population and proportions of Indigenous Australians aged 18 and over, who reported to be descendants of all people removed, by remoteness, 2002 to 2014–15**

Remoteness Area	2002	2004–05	2008	2012–13	2014–15
<b>Estimated number of descendants</b>					
Remote	14,290	14,735	17,466	19,880	18,117
Non-remote	55,411	55,329	67,676	98,149	96,643
<b>Total</b>	<b>69,701</b>	<b>70,064</b>	<b>85,141</b>	<b>118,028</b>	<b>114,760</b>
<b>Relative distribution by remoteness for descendants (%)</b>					
Remote	20.5	21.0	20.5	16.8	15.8
Non-remote	79.5	79.0	79.5	83.2	84.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Descendants as a proportion of the population aged 18 and over by remoteness area (%)</b>					
Remote	25.3	22.4	25.8	27.9	22.7
Non-remote	37.8	36.7	36.5	41.1	36.0
Difference (pp)	12.5*	14.3*	10.7*	13.2*	13.3*
<b>Total</b>	<b>34.3</b>	<b>32.4</b>	<b>33.7</b>	<b>38.0</b>	<b>33.0</b>

\* Denotes the difference (gap) is significant at 5% test level using the 95% confidence intervals; pp denotes percentage points.

Note: The column for the 2012–13 NATSIHS is shaded to indicate that the results from this survey are quite different from those for the other four and possibly represent outlier values, especially in the estimates of the descendants of all people who were removed.

Sources: AIHW tabulations of ABS 2010a, 2010b, 2010c, 2015, 2016a.

## Differences by state and territory

Table 2.11 shows the estimated population of the descendants of all removed people by state and territory of their residence at the time of the ABS surveys. In these results too, the data for Tasmania and the ACT are presented together because these jurisdictions are combined in the ABS DataLab files.

- In 2014–15, most Indigenous adults who reported to be descendants of all people removed lived in New South Wales (31%), Queensland (28%) and Western Australia (18%). These three jurisdictions together had more than three-quarters (77%) of Indigenous adults aged 18 and over who reported being descendants (Table 2.11). The remainder of descendants (23%) lived in the other jurisdictions.
- Within each state and territory, the highest proportion of Aboriginal and Torres Strait Islander adults who reported being descendants occurred in Western Australia (46%), South Australia (38%) and Victoria (36%).
- The highest rate reported for being a descendant of all people removed in Western Australia is consistent with the fact that the highest rate of removal was also observed in Western Australia for the cohort born before 1972.

**Table 2.11: Estimated population and proportions of Indigenous Australians aged 18 and over, who reported to be descendants of all people removed, by jurisdiction, 2002 to 2014–15**

State/territory	2002	2004–05	2008	2012–13	2014–15
<b>Estimated number of descendants</b>					
NSW	15,102	14,163	21,453	30,830	35,731
Vic	4,306	4,578	6,166	10,254	8,816
Qld	23,936	23,024	24,483	35,887	32,410
WA	14,245	15,275	17,494	21,415	20,740
SA	4,118	4,377	5,100	7,507	7,263
Tas/ACT	2,092	1,808	2,541	3,482	3,233
NT	5,902	6,839	7,903	8,652	6,567
<b>Total</b>	<b>69,701</b>	<b>70,064</b>	<b>85,141</b>	<b>118,028</b>	<b>114,760</b>
<b>Relative distribution by jurisdiction for descendants (%)</b>					
NSW	21.7	20.2	25.2	26.1	31.1
Vic	6.2	6.5	7.2	8.7	7.7
Qld	34.3	32.9	28.8	30.4	28.2
WA	20.4	21.8	20.5	18.1	18.1
SA	5.9	6.2	6.0	6.4	6.3
Tas/ACT	3.0	2.6	3.0	3.0	2.8
NT	8.5	9.8	9.3	7.3	5.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Descendants as a proportion of the population aged 18 and over by jurisdiction<sup>(a)</sup> (%)</b>					
NSW	25.9	23.8	29.4	32.1	34.2
Vic	36.7	37.3	37.3	49.7	35.9
Qld	42.3	39.5	34.9	41.7	32.1
WA	45.6	44.9	50.1	51.5	46.1
SA	34.9	37.2	37.1	43.0	38.1
Tas/ACT	23.9	19.0	22.5	24.5	19.6
NT	23.8	22.1	23.7	25.3	17.5
<b>Total</b>	<b>34.3</b>	<b>32.4</b>	<b>33.7</b>	<b>38.0</b>	<b>33.0</b>

(a) These percentages are based on Series R2 in Table 2.7, which include among the descendant those who were themselves removed, as a proportion of the total population aged 18 and over who had valid responses to the removal questions in the surveys.

*Notes*

1. The column for the 2012–13 NATSIHS is shaded to indicate that the results from this survey are quite different from those for the other four and possibly represent outlier values, especially in the estimates of the descendants of all people who were removed, and in the estimated proportion of the population aged 18 and over who are descendants, by jurisdiction.
2. The data for Tasmania and the ACT are presented together because these jurisdictions are combined in the ABS DataLab files. The survey respondents from Tasmania and the ACT can be separately identified only in the 2014–15 NATSISS. For consistency in presentation of the results the combined Tasmania/ACT category is used for all survey periods.

Sources: AIHW tabulations of ABS 2010a, 2010b, 2010c, 2015, 2016a.

## 2.6 Consistent time series estimates of the Stolen Generations proxy population

This section presents an alternative set of estimates of the Stolen Generations proxy population in the cohort born before 1972, based on a consistent time series of Indigenous estimated resident population (ERP) derived from the 2011 Census. In this series, the total number of people born before 1972 will consistently decline over time due to mortality. Using a consistent reference population to which a rate of removal can be applied leads to internally consistent time series estimates of the number of people who were removed in this cohort.

These estimates are referred to as census-based estimates of the Stolen Generations proxy population compared with the survey-based estimates reported previously in Table 2.1 (and in Table 2.7 for the descendants). In these previous tables the reference or benchmark Indigenous population is drawn from the data of the nearest Census to that survey period; so the benchmark Indigenous populations for the five ABS surveys used in this report are drawn from three different Census periods (2001, 2006 and 2011).

Using these point-in-time estimates to compare changes over time in the estimates of the total number of people in the cohort born before 1972 who report being removed is not ideal as every Census has a different level of Indigenous identification in the overall population. These changes in identification make the benchmark Indigenous population derived, for instance, from the 2011 Census for the 2014–15 NATSISS, inconsistent with the benchmark Indigenous population derived from the 2006 Census for the 2008 NATSISS.

It is therefore preferable that data from one Census (including its consistent projections and back-casting) be used to provide time series consistent estimates of the Stolen Generations proxy population that span the period covered by the five ABS surveys. The time series comparable estimates of the Stolen Generations proxy population presented in this section (and in Section 2.7 for the descendants) are based on the consistent Indigenous population series derived from the 2011 Census (ABS 2014a). The projections and back-casts based on the 2016 Census are not yet available; the ABS has only released preliminary 2016 ERP of the Indigenous population based on the 2016 Census (ABS 2017).

Table 2.12 presents the census-based estimates of the Stolen Generations proxy population for the 2002 to 2014–15 survey periods, and the additional projected estimates for 2016 to 2018. These estimates reflect the same level of Indigenous identification based on the 2011 Census that are back-casted and projected forward to derive Indigenous population estimates consistent with that Census.

- The estimated total Indigenous population in the cohort born before 1972 is consistently declining over time, from 193,585 in 2002 to 164,055 in 2014–15, with a further decline to 155,942 people in 2018.
- The estimates of the total number of people in this cohort who had been removed are derived simply by applying the average rate of removal of 11% to the estimated total population born before 1972.
- The resulting estimates of the Stolen Generations proxy population show a small but steady decrease over time due to mortality in this age cohort. These estimates are 21,294 in 2002, 20,661 in 2004–05, 19,731 in 2008, 18,536 in 2012–13 and 18,046 in 2014–15.

- The estimated average rate of removal of 11% in the cohort born before 1972 can also be used to derive estimates of the Stolen Generations proxy population for 2016 to 2018, using 2011 Census-based ERP projections for those years. The resulting estimates are 17,670 in 2016, 17,414 in 2017 and 17,154 in 2018.

Appendix B presents fuller details on the method used for these census-based consistent estimates of the Stolen Generations proxy population.

**Table 2.12: Estimates of Indigenous Australians born before 1972 who were removed from their families, based on ABS time series of consistent Indigenous ERP derived from the 2011 Census, for various years, 2002 to 2018**

	2002 (aged 30 and over)	2004–05 (aged 32 and over)	2008 (aged 36 and over)	2012–13 (aged 40 and over)	2014–15 (aged 42 and over)	2016 (aged 44 and over)	2017 (aged 45 and over)	2018 (aged 46 and over)
Reference population time point	Jun 2002	Dec 2004	Jun 2008	Dec 2012	Dec 2014	Jun 2016	Jun 2017	Jun 2018
Total Indigenous population estimate	547,940	580,739	629,167	691,300	721,319	744,956	761,300	778,064
Total Indigenous population born before 1972	193,585	187,825	179,375	168,508	164,055	160,640	158,313	155,942
Average national rate of removal (%)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
<b>Total estimated number who were removed</b>	<b>21,294</b>	<b>20,661</b>	<b>19,731</b>	<b>18,536</b>	<b>18,046</b>	<b>17,670</b>	<b>17,414</b>	<b>17,154</b>

*Notes*

1. Estimates of the total Indigenous population in this table (and of the Indigenous population in the cohort born before 1972) are based on ABS 2014a (Series B). They are derived from the official Indigenous ERP estimates of the 2011 Census which are then projected forward and also back-cast to 2002.
2. These estimates of the total number of people in this cohort who were removed are derived by applying a percentage share (the 11% average rate of being removed) to the total Indigenous ERP in the cohort born before 1972.
3. This series also includes residents of non-private dwellings, who are excluded from the reference population benchmarks of the ABS surveys. No additional data source is available to estimate the rate of removal among Indigenous people who live in non-private dwellings. Hence, the survey-based estimates have been applied to that subgroup as well.
4. On average, around 4% of the total Indigenous population live in non-private dwellings (this can be approximated by tabulating the total count and percentage share of people in non-private dwellings from the Census count data, as in the 2016 Census TableBuilder files).

Sources: AIHW analysis of ABS 2010a, 2010b, 2010c, 2015, 2016a; ABS 2014a.

## 2.7 Consistent time series estimates of the descendants of all people removed

This section presents estimates of the number of descendants of all people removed aged 18 and over, based on a consistent set of Indigenous ERP derived from the 2011 Census. In this series, the total Indigenous population aged 18 and over at any specific period grows over time, as do the estimates of the descendants of all people removed.

Table 2.13 presents the results for the 2002 to 2014–15 survey periods, and for the additional years 2016 to 2018. These estimates of the number of descendants are derived by applying a percentage rate, estimated from the ABS survey data in Table 2.7 of the proportion of descendants to the total population aged 18 and over, to the census-based ERP for these years.

The estimates of the total Indigenous population aged 18 and over in each time period (indicated as series P in Table 2.13) grows steadily over this time period, from 297,564 in 2002 to 420,380 in 2014–15; it increases further to 473,070 in 2018 (ABS 2014a).

**Table 2.13: Estimates of Indigenous Australians aged 18 and over who reported to be descendants of all people removed, based on ABS time series of consistent Indigenous ERP derived from the 2011 Census, for various years, 2002 to 2018**

	2002	2004–05	2008	2012–13	2014–15	2016	2017	2018
Reference population time point	Jun 2002	Dec 2004	Jun 2008	Dec 2012	Dec 2014	Jun 2016	Jun 2017	Jun 2018
Total Indigenous population estimate	547,940	580,739	629,167	691,300	721,319	744,956	761,300	778,064
Total Indigenous population aged 18 and over—P	297,564	312,968	351,647	394,878	420,380	447,540	460,307	473,070
Average national rate of being a descendant (excludes missing responses in denominator) (%)	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4
Average national rate of being a descendant (includes missing responses in denominator) (%)	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2
<b>Total estimated descendants of all people removed—N2 (based on 33.4% rate applied to population P)</b>	<b>99,386</b>	<b>104,531</b>	<b>117,450</b>	<b>131,889</b>	<b>140,407</b>	<b>149,478</b>	<b>153,743</b>	<b>158,005</b>
<b>Total estimated descendants of all people removed—N3 (based on 28.2% rate applied to population P)</b>	<b>83,913</b>	<b>88,257</b>	<b>99,164</b>	<b>111,355</b>	<b>118,547</b>	<b>126,206</b>	<b>129,807</b>	<b>133,406</b>

*Notes*

1. Estimates of the total Indigenous population in this table (and of the Indigenous population aged 18 and over) are based on ABS 2014a (Series B). They are derived from the official Indigenous ERP estimates of the 2011 Census which are then projected forward and also back-cast to 2002.
2. The two estimated average percentage rates of being a descendant (33.4% and 28.2%) used in this table are derived from Table 2.7. (See their definitions in Section 2.4 in the text discussing Table 2.7). Estimates of the descendants of all people removed in this table will include people who were themselves removed from their families.
3. This series also includes residents of non-private dwellings, who are excluded from the reference population benchmarks of the ABS surveys. No additional data source is available to estimate the rate of being a descendant among Indigenous people who live in non-private dwellings. Hence, the survey-based estimates have been applied to that subgroup as well.
4. On average, around 4% of the total Indigenous population live in non-private dwellings (this can be approximated by tabulating the total count and percentage share of people in non-private dwellings from the Census count data, as in the 2016 Census TableBuilder files).

Sources: AIHW analysis of ABS 2010a, 2010b, 2010c, 2015, 2016a; ABS 2014a.

The proportion of missing responses to the questions on removal among people aged 18 and over was consistently high in these surveys, especially on the specific question about relatives being removed—ranging from 13% to 19% in the different surveys. Different treatments of the missing responses in the survey data change the relevant population aged 18 and over used as the denominator in estimating the percentage who are descendants of all people removed. When the missing responses are excluded from the denominator used to derive the percentage of descendants, it leads to an average rate of 33.4% over the four ABS survey periods. When the missing responses are included in the denominator used to derive the percentage of descendants, it leads to an average rate of 28.2% over the four survey periods (see Table 2.7).

- The estimated total number of descendants of all people removed using the 33.4% average rate ranges from 99,386 in 2002 to 140,407 in 2014–15, with a further increase to 158,005 people aged 18 and over in 2018 (series N2 in Table 2.13).
- The estimated total number of descendants of all people removed using the 28.2% average rate ranges from 83,913 in 2002 to 118,547 in 2014–15, with a further increase to 133,406 people aged 18 and over in 2018 (series N3 in Table 2.13).
- The estimates of the total number of descendants of all people removed based on the 28.2% average rate represent a lower bound value. This calculation assumes that all survey respondents with missing responses on the relatives' removal questions cannot be descendants.
- The estimates of the total number of descendants based on the 33.4% average rate, on the other hand, assume that those with missing responses in the survey data could be assigned to being a descendant at the same rate as among those with valid responses. When such a large proportion of the survey respondents have missing responses—approaching 20% in some specific instances—that assumption may not be appropriate.
- Both sets of estimates should therefore be interpreted with caution; both will also include people who were themselves removed from their families and who are also descendants.



### 3 Health and socioeconomic outcomes of the Stolen Generations proxy population

#### At a glance

#### Analysis from 2014–15 NATSISS

- Analysis of 38 selected health, cultural and socioeconomic outcomes shows that, in general, Aboriginal and Torres Strait Islander people born before 1972 who reported having been removed from family (the Stolen Generations proxy population) were more likely to experience adverse outcomes than people in the reference group (that is, people born before 1972 who did not report being removed from family). (The results in this chapter are simple mean values and their comparisons, and they do not control for the effects of other factors—see Chapter 5 for multivariate analyses.)
- Among those in the Stolen Generations proxy population: more than half (52%) have been charged at least once by the police; more than half (52%) also reported having poor self-assessed health; 42% had experienced homelessness at least once in their lifetime (and 20% in the last 10 years); 26% reported being a victim of actual or threatened physical violence in the last 12 months; and 22% had been incarcerated at least once in their lifetime (and 4% were incarcerated in the last five years).
- Two-thirds of the Stolen Generations proxy population reported that they lived with disability or restrictive long-term condition.
- Two-thirds of the Stolen Generations proxy population were aged 50 and over.
- A high proportion of the Stolen Generations proxy population aged 50 and over relied on government payments as the main source of income (79%), was not currently employed (69%, but only among those aged 50 to 64), did not own a home (76%), had been ever charged by police (50%), and had ever experienced homelessness (35%).

#### Time series analysis from 2002 to 2014–15

- Comparing the results from 2002 to 2014–15, the Stolen Generations proxy population consistently had poor socioeconomic outcomes on several indicators. The proportions of the Stolen Generations proxy population who had low incomes, relied on government payments as the main source of income, had not completed Year 12, and were not employed did not improve over time.
- Both rates of smoking and long-term risky alcohol consumption decreased since 2002 among the Stolen Generations proxy population. However the proportion reporting substance use increased.
- Though the Stolen Generations proxy population consistently had significantly high rates of incarceration and experience of threatened or actual physical violence, both of these rates had reduced over time.

## 3.1 Introduction

This chapter presents a detailed summary of selected health, socioeconomic and cultural outcomes and of problems in accessing services for the Stolen Generations proxy population—that is, Aboriginal and Torres Strait Islander people born before 1972 reporting to be removed from family—compared with their reference group—that is, Aboriginal and Torres Strait Islander people born before 1972 who did not report being removed from family—using the full time series of the five ABS surveys.

A range of outcomes were selected for this analysis. These include health status (including disability), health risk factors, education, employment, household income, life satisfaction, home ownership, experience of homelessness, being a victim of violence, contact with the justice system, problems in accessing services, and several cultural attributes. A total of 38 distinct outcomes were analysed, though several are closely related.

Section 3.2 summarises the mean values of the 38 outcomes for the Stolen Generations proxy population and the reference group. It presents the differences in these outcomes between the Stolen Generations proxy population and the reference group using rate difference—the absolute difference between the two populations, or the gap, in percentage points (or pp).

This chapter also presents further information on the Stolen Generations proxy population with disability and those aged 50 or over. It concludes with a time series analysis in Section 3.3 of selected characteristics from 2002 to 2014–15 for the Stolen Generations proxy population and the reference group.

The comparisons of the mean characteristics of the Stolen Generations proxy population and their reference group in this chapter look at each outcome individually, and do not adjust for other potential influences on these outcomes. The differences in these mean characteristics should not be interpreted to be the effects of being removed only. Chapter 5 presents more reliable estimates of the effects of being removed using a multivariate regression approach.

## 3.2 Health and socioeconomic outcomes: 2014–15 NATSISS

This section summarises the mean values on several health and socioeconomic outcomes for three different subgroups of interest: the overall Stolen Generations proxy population in the cohort born before 1972, those in this cohort who are both removed and have disability or a long-term health condition; and an older age-group of removed people aged 50 or over in 2014–15.

### Overall Stolen Generations proxy population

A significant proportion of the Stolen Generations proxy population in the cohort born before 1972 had adverse outcomes. These include (Table 3.1):

- more than half (52%) have been charged at least once by the police
- 52% reported poor or fair self-assessed health
- 42% have experienced homelessness at least once in their lifetime (and 20% in the last 10 years)
- 42% reported experiencing discrimination in the last 12 months
- 32% reported use of substances in the last 12 months

- 26% were victims of actual or threatened physical violence in the last 12 months
- 22.2% have been incarcerated at least once in their lifetime (and 3.8% were incarcerated in the last five years).

Table 3.1 also presents the mean differences (gaps) in 2014–15 in selected outcomes between the Stolen Generations proxy population and their reference group who were not removed. All the differences in the selected mean outcomes listed below are statistically significant at the 5% test level.

In 2014–15, the largest gap (rate difference) between these two groups were:

- ever being homeless (17 pp higher in the Stolen Generations proxy population)
- receiving government payments as main source of income (17 pp higher in the Stolen Generations proxy population)
- ever being charged by police (17 pp higher in the Stolen Generations proxy population)
- not being employed (including being both unemployed or not in the labour force, 15 pp higher in the Stolen Generations proxy population)
- being owner of a home (15 pp lower in the Stolen Generations proxy population)
- having poor self-assessed health (14 pp higher in the Stolen Generations proxy population).

A significantly lower percentage of the Stolen Generations proxy population than the reference group spoke an Indigenous language as the main language spoken at home (outcome 20 in Table 3.1). The Stolen Generations proxy population was only half as likely to speak an Indigenous language as the main language spoken at home (5.0%, compared with 10.8% in the reference group). However, on the related indicator of whether the Stolen Generations proxy population can speak any Indigenous language (outcome 21), their rate (23%) is slightly higher than the 20% for the reference group. This is an interesting result indicating that the effect of removal on language should distinguish between these two different abilities, which may possibly also be influenced by differences in the distribution of the Stolen Generations proxy population and the reference group by remoteness areas.

In several of the other 38 outcomes reported in Table 3.1, the Stolen Generations proxy population had a slightly more favourable result. Three are culture related: a higher proportion of the Stolen Generations proxy population recognize an area as their homeland or traditional country (84%), identify with a clan/tribal/or language group (71%), and were involved in cultural events and ceremonies in the last 12 months (67%). But the small favourable differences in these mean values are not statistically significant.

A significantly higher proportion of the Stolen Generations proxy population in the cohort born before 1972 lived alone (29%) in 2014–15 than the reference group (20%). (This is not an outcome tabulated in Table 3.1.) The proportion of being a lone person in the household increased with age for both groups, with higher rates in each age group for the Stolen Generations proxy population than for the reference group. Among those aged under 50, 21% of the Stolen Generations proxy population lived alone compared with 13% of the reference group. Among those aged 50–64, these rates increased to 31% for the Stolen Generations proxy population and 22% for the reference group. For those aged 65 and over, 39% of the Stolen Generations proxy population lived alone, compared with 32% of the reference group.

The differences in the proportion who live alone between the Stolen Generations proxy population and the reference group are not statistically significant when compared within specific age groups, mainly due to the small number of cases in each age group.

**Table 3.1: Comparisons of selected outcomes for the Stolen Generations proxy population and reference group, 2014–15 mean percentages**

No.	Outcome description	All removed (%)	Removed with a disability (%)	Reference group (%)	Mean gap (pp) <sup>(a)</sup>
<b>Socioeconomic outcomes</b>					
1	Has personal income in bottom three deciles	43.8	47.3	34.5	9.2*
2	Has household income in bottom three deciles	61.5	67.5	50.2	11.3*
3	Government payments are main source of income	70.3	76.8	53.4	16.8*
4	Did not complete Year 12	90.5	90.9	84.7	5.8*
5	Currently not employed (among working age up to 64)	62.3	69.7	47.0	15.2*
6	Is owner of a home	25.4	24.2	40.1	-14.7*
<b>Physical and mental health</b>					
7	Has poor or fair self-assessed health	52.4	59.6	38.2	14.2*
8	Has poor mental health—Kessler score (12–25)	41.0	47.0	31.1	9.9*
9	Has severe or profound core activity limitation	14.5	..	11.4	3.1
10	Has any disability or restrictive long-term condition	67.2	..	59.2	8.0*
11	Has high level of satisfaction with life	48.0	43.7	56.1	-8.1*
<b>Health risky behaviour</b>					
12	Current smoker	50.0	49.1	40.0	9.9*
13	Engaged in long-term risky alcohol consumption	14.4	14.1	10.3	4.1
14	Engaged in short-term risky alcohol consumption	25.0	23.8	25.8	-0.8
15	Has used substances (in last 12 months)	32.4	35.7	21.2	11.2*
<b>Language and culture</b>					
16	Identifies with clan, tribal, or language group	70.6	71.1	67.3	3.3
17	Recognises an area as homeland/traditional country	84.2	84.8	81.1	3.2
18	Involved in cultural events, ceremonies or organisations (in last 12 months)	67.2	63.7	62.4	4.8
19	Participated in cultural activities (in last 12 months)	58.8	59.1	59.7	-0.9
20	Speaks Indigenous language as main language at home	5.0	5.8	10.8	-5.8*

*(continued)*

**Table 3.1 (continued): Comparisons of selected outcomes for the Stolen Generations proxy population and reference group, 2014–15 mean percentages**

No.	Outcome description	All removed (%)	Removed with a disability (%)	Reference group (%)	Mean gap (pp) <sup>(a)</sup>
21	Speaks an Indigenous language	22.8	22.8	19.8	3.0
22	Understands an Indigenous language	24.8	24.5	21.1	3.7
<b>Life stressors</b>					
23	Experienced stress (by respondent, last 12 months)	73.5	72.8	67.3	6.1
24	Experienced stress (by respondents, friends or family in last 12 months)	87.3	84.7	82.6	4.8
25	Has experienced discrimination (in last 12 months)	41.9	40.5	31.1	10.8*
26	Experienced homelessness (ever in lifetime)	42.2	45.1	25.0	17.2*
27	Has experienced homelessness in last 10 years	20.4	19.5	10.7	9.8*
<b>Safety, law and justice</b>					
28	Was a victim of actual or threatened physical violence (in last 12 months)	25.6	26.9	16.6	8.9*
29	Was a victim of physical violence (in last 12 months)	12.9	12.4	8.7	4.2
30	Was a victim of threatened physical violence (in last 12 months)	20.2	21.8	11.8	8.4*
31	Was arrested in last five years	16.8	15.8	7.8	9.0*
32	Has ever been incarcerated	22.2	21.4	10.7	11.5*
33	Has been incarcerated in last five years	3.8	3.7	1.5	2.3*
34	Has ever been charged by police	52.4	56.4	35.8	16.6*
<b>Community functioning and social network</b>					
35	Able to get support from outside the household in times of crisis	88.6	85.3	90.1	-1.5
36	Able to have a say within community on important issues	30.9	30.4	30.4	0.5
37	Has high level of trust in general community	42.5	42.5	51.3	-8.8*
<b>Access to services</b>					
38	Has problem(s) accessing services	32.2	35.7	26.1	6.1

\* Denotes a significant difference in the mean gap (rate difference) at the 5% test level using the 95% confidence intervals, and . . denotes not applicable.

(a) The mean gap in Table 3.1 refers only to the comparison between the Stolen Generations proxy population and the reference group who were not removed. A separate comparative reference group for the Stolen Generations proxy population with disability is not included since they constitute more than two-thirds of the total Stolen Generations proxy population in this age cohort (see outcome 10).

Source: AIHW tabulations of ABS 2016a.

## Stolen Generations proxy population with disability

- In 2014–15, more than two-thirds (67%) of the Stolen Generations proxy population reported that they live with disability or a restrictive long-term condition (outcome 10 in Table 3.1). This rate was significantly higher than the 59% reported by the reference group.
- The prevalence of severe or profound core activity limitation (outcome 9 in Table 3.1) was slightly higher among the Stolen Generations proxy population (14.5%) than among the reference group (11.4%). This difference is not statistically significant.
- In the areas of employment status, self-assessed health, dependence on government payments, mental health, and household income level, the Stolen Generations proxy population in the cohort born before 1972 with disability or long-term health condition had higher rates of adverse outcomes by at least 6 percentage points than the Stolen Generations proxy population in general. For example, 70% of the Stolen Generations proxy population with disability were not employed, compared with 62% of the Stolen Generations proxy population in general, and 47% of the reference group.
- The percentage reporting poor self-assessed health status among the Stolen Generations proxy population with disability was also higher at 60% compared with 52% among the Stolen Generations proxy population in general, and 38% of the reference group.
- For most other outcomes, the mean values did not differ by more than 5 percentage points for the Stolen Generations proxy population with disability compared with the overall Stolen Generations proxy population.

## Stolen Generations proxy population aged 50 and over

Table 3.2 summarises the mean differences in selected outcomes between the Stolen Generations proxy population aged 50 and over and their reference group of the population aged 50 and over who were not removed. When the comparisons are limited to those aged 50 and over, the mean differences between the Stolen Generations proxy population and the reference group remained highest in:

- relying on government payments as the main income source (79% for the Stolen Generations proxy population aged 50 and over, leading to a gap of 21.1 pp, which is higher than the gap of 16.8 pp when comparing all people aged 42 and over who were removed with their reference group in Table 3.1)
- not being employed (69% for the Stolen Generations proxy population aged 50 to 64, leading to a gap of 20.4 pp, an increase from a gap of 15.2 pp in Table 3.1)
- owning a home (24% for the Stolen Generations proxy population aged 50 and over, leading to a gap of 18.9 pp, an increase from a gap of 14.7 pp in Table 3.1)
- has ever been charged by police (50% for the Stolen Generations proxy population aged 50 and over, a gap of 16.4 pp, which is similar to the gap in Table 3.1)
- has ever been homeless (35% for the Stolen Generations proxy population aged 50 and over, leading to a gap of 14.5 pp, a decrease from a gap of 17.2 pp in Table 3.1).

The differences between the Stolen Generations proxy population and the reference group in this age group in the outcomes related to substance use, experience of violence, Year 12 completion, level of trust in the general community and level of life satisfaction were no longer significant.

**Table 3.2: Comparisons of selected outcomes for the Stolen Generations proxy population and reference group aged 50 and over, 2014–15 mean percentages**

No.	Outcome description	Removed (50 and over) (%)	Reference group (50 and over) (%)	Mean gap (pp)
<b>Socioeconomic outcomes</b>				
1	Has personal income in bottom three deciles	45.1	36.3	8.7
2	Has household income in bottom three deciles	64.4	53.6	10.8*
3	Government payments are main source of income	78.6	57.5	21.1*
4	Did not complete Year 12	90.3	91.6	-1.3
5	Currently not employed (among working age up to 64)	68.7	48.3	20.4*
6	Is owner of home	24.2	43.1	-18.9*
<b>Physical and mental health</b>				
7	Has poor or fair self-assessed health	56.1	42.1	14.0*
8	Has poor mental health—Kessler score (12–25)	38.5	30.4	8.1*
9	Has severe or profound core activity limitation	18.1	12.7	5.5
10	Has any disability or restrictive long-term condition	68.5	63.6	5.0
11	Has high level of satisfaction with life	51.1	58.2	-7.1
<b>Health risky behaviour</b>				
12	Current smoker	45.8	35.7	10.1*
13	Engaged in long-term risky alcohol consumption	8.9	9.6	-0.7
14	Engaged in short-term risky alcohol consumption	19.4	21.1	-1.7
15	Has used substances (in last 12 months)	20.7	17.0	3.7
<b>Language and culture</b>				
16	Identifies with clan, tribal or language group	68.9	64.1	4.8
17	Recognises an area as homeland or traditional country	83.7	78.5	5.2
18	Involved in cultural events, ceremonies or organisations (in last 12 months)	63.2	59.3	3.9
19	Participated in cultural activities (in last 12 months)	57.3	56.4	0.9
20	Speaks an Indigenous language as main language at home	3.8	8.7	-4.9*

(continued)

**Table 3.2 (continued): Comparisons of selected outcomes for the Stolen Generations proxy population and reference group aged 50 and over, 2014–15 mean percentages**

No.	Outcome description	Removed (50 and over) (%)	Reference group (50 and over) (%)	Mean gap (pp)
21	Speaks an Indigenous language	22.3	17.9	4.4
22	Understands an Indigenous language	24.1	19.3	4.8
<b>Life stressors</b>				
23	Experience of stress (by respondent in last 12 months)	71.4	63.3	8.1
24	Experienced stress (by respondent, friends or family—in last 12 months)	84.9	80	4.9
25	Has experienced discrimination (in last 12 months)	38.3	26.8	11.5*
26	Experienced homelessness (ever in lifetime)	34.9	20.5	14.5*
27	Has experienced homelessness in last 10 years	14.2	8.0	6.2*
<b>Safety, law and justice</b>				
28	Was a victim of actual or threatened physical violence (in last 12 months)	16.9	12.6	4.3
29	Was a victim of physical violence (in last 12 months)	7.2	6.3	0.9
30	Was a victim of threatened physical violence (in last 12 months)	14.0	8.8	5.2*
31	Was arrested in last five years	11.4	5.2	6.2*
32	Has ever been incarcerated	19.5	9.6	9.9*
33	Has been incarcerated in last five years	n.p.	n.p.	..
34	Has ever been charged by police	49.6	33.2	16.3*
<b>Community functioning and social network</b>				
35	Able to get support from outside the household in times of crisis	89.7	89.5	0.2
36	Able to have a say within community on important issues	26.0	32.3	-6.2
37	Has high level of trust in general community	45.2	51.8	-6.6
<b>Access to services</b>				
38	Has problem(s) accessing services	32.4	24.1	8.4*

\* Denotes a significant difference in the mean gap (rate difference) at the 5% test level using the 95% confidence intervals.

.. not applicable

n.p. denotes data not reportable due to ABS limitation on reporting small counts

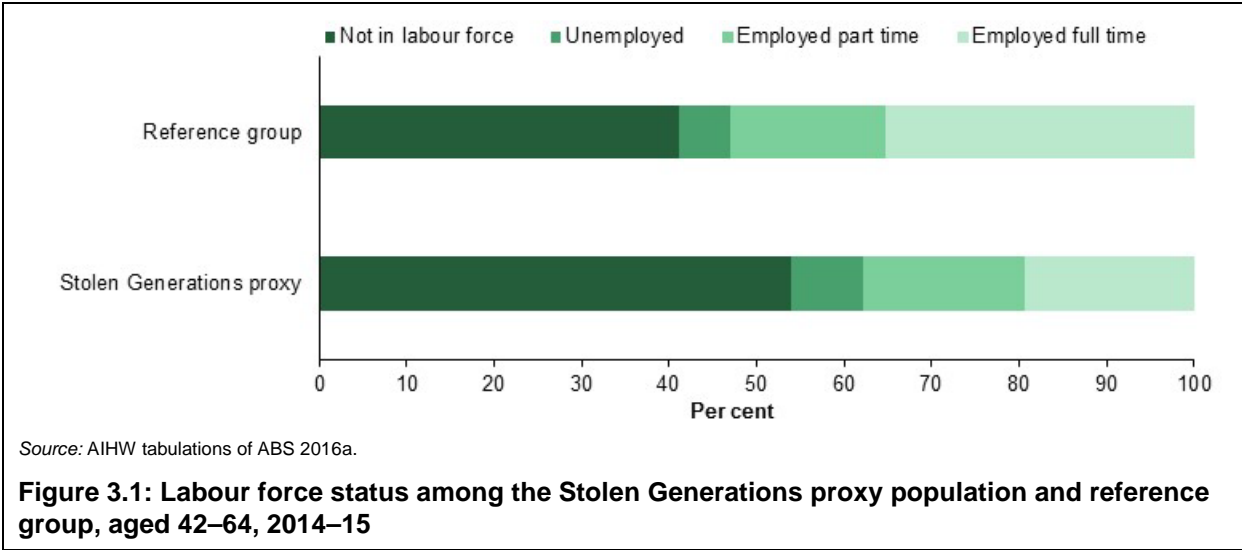
Source: AIHW tabulations of ABS 2016a.



The following sub-sections provide further details on the mean differences between the Stolen Generations proxy population and their reference group for a selected subset of outcomes from the 2014–15 NATSISS. It expands on the simple yes/no type of outcome measures used in tables 3.1 and 3.2 to include broader categories, or to provide extra information for some of these outcomes.

### Employment and labour force status

In 2014–15, 62% of the Stolen Generations proxy population was not employed compared with 47% for the reference group (outcome 5 in Table 3.1). For this outcome the age group analysed consists of those aged between 42 and 64 instead of all people aged 42 and over, as in the other outcomes. The Stolen Generations proxy population was more likely not to participate in the labour force and less likely to be engaged in full-time employment than the reference group (Figure 3.1).

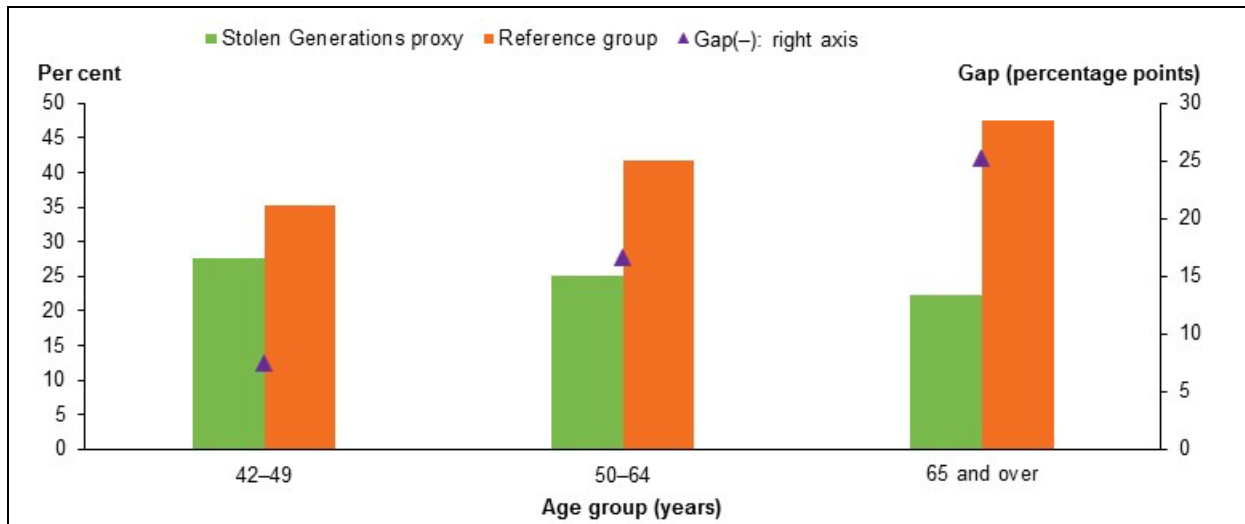


### Home ownership

The overall proportion of the Stolen Generations proxy population who are homeowners was 25% compared with 40% for the reference group (outcome 6 in Table 3.1). Home ownership rates in the reference group increased with age while those in the Stolen Generations proxy population decreased slightly (Figure 3.2), leading to an increase in the gap in home ownership with age.

Among those aged 65 and over in this cohort who reported being removed, only 22% were home owners in 2014–15 compared with 47% in the reference group.

Of those aged 50–64, the home ownership rate for those who reported being removed was 25% compared with 42% for the reference group.



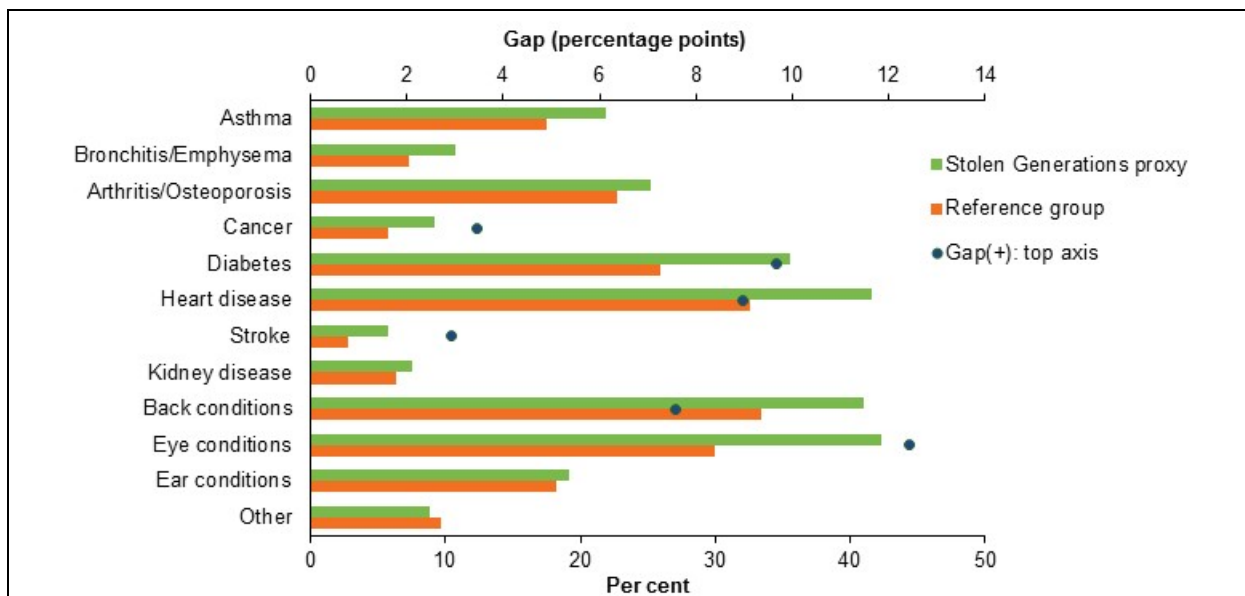
Note: Statistically significant gaps are presented in the figure as either triangles or circles to be read from the right-hand vertical axis. Gap values displayed as a triangle denote that the rate of the Stolen Generations proxy population is significantly lower than that of the reference group at 5% test level.

Source: AIHW tabulations of ABS 2016a.

**Figure 3.2: Proportion of people who owned a home, among the Stolen Generations proxy population and reference group, by age, 2014–15**

### Chronic health conditions

Indigenous people born before 1972 who were removed from their families were more likely than the reference group to report ever having had cancer, diabetes, heart disease, stroke, back conditions and eye conditions (Figure 3.3).



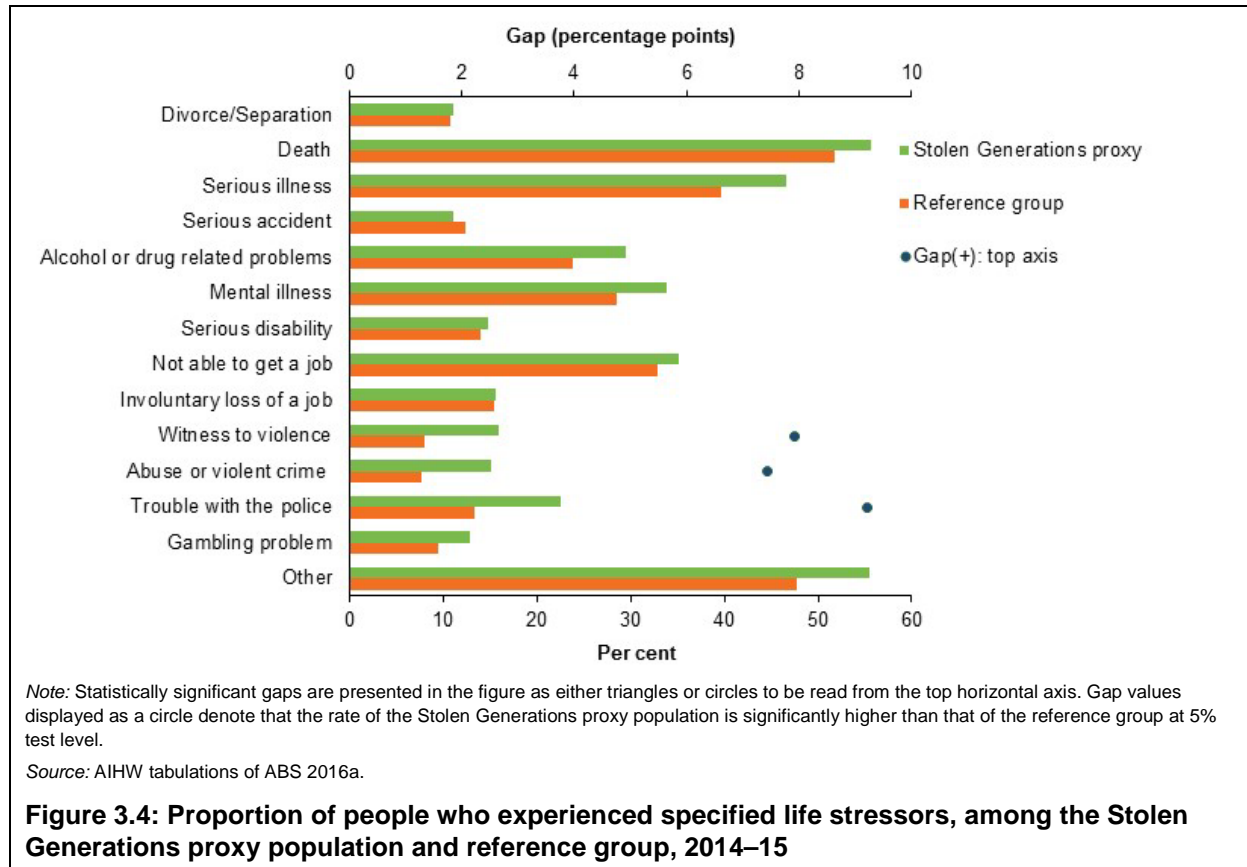
Note: Statistically significant gaps are presented in the figure as either triangles or circles to be read from the top horizontal axis. Gap values displayed as a circle denote that the rate of the Stolen Generations proxy population is significantly higher than that of the reference group at 5% test level.

Source: AIHW tabulations of ABS 2016a.

**Figure 3.3: Proportion of people with specified chronic health conditions, among the Stolen Generations proxy population and reference group, 2014–15**

## Life stressors

People who reported having been removed from family (or their close friends and family) were more likely to have experienced certain types of stressors in the previous 12 months, including being a witness to violence, being a victim of abuse or violent crime, and being in trouble with the police (Figure 3.4).

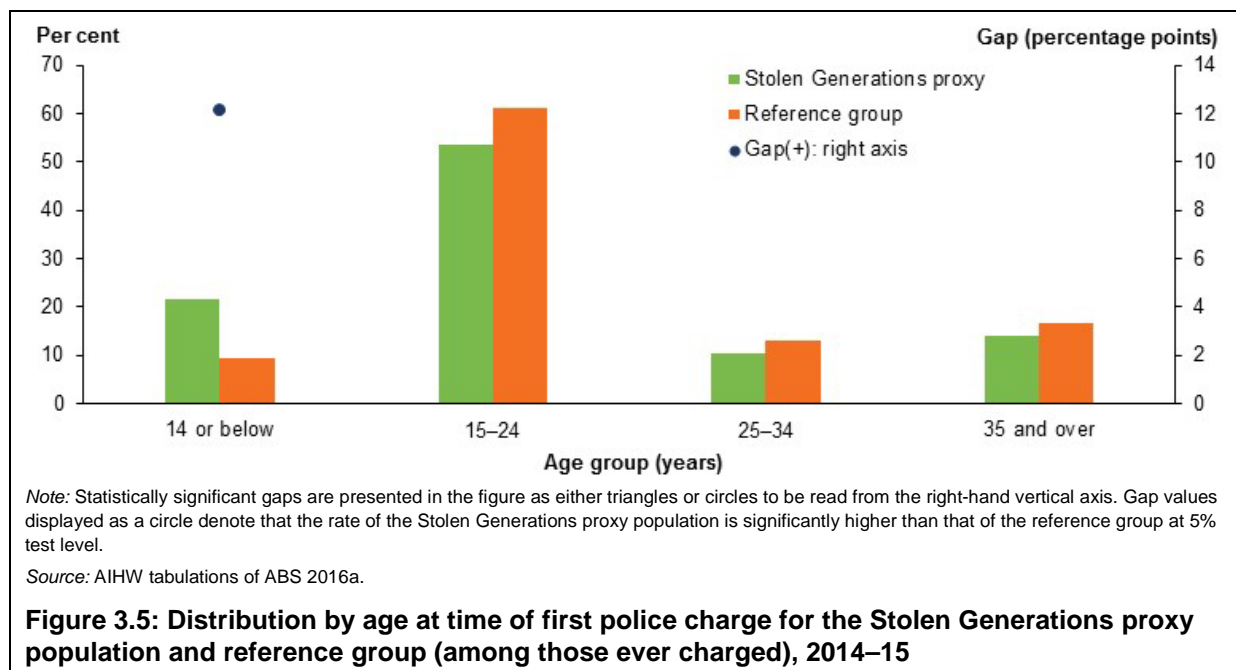


## Age first charged by police

In 2014–15, 52% of the Stolen Generations proxy population reported ever being charged by police, compared with 36% of the reference group (outcome 34 in Table 3.1).

Among those who had ever been charged by police, the proportion of the Stolen Generations proxy population who reported having their first charge in childhood (aged 14 or under) was 22%. This is significantly higher than in the reference group (10%).

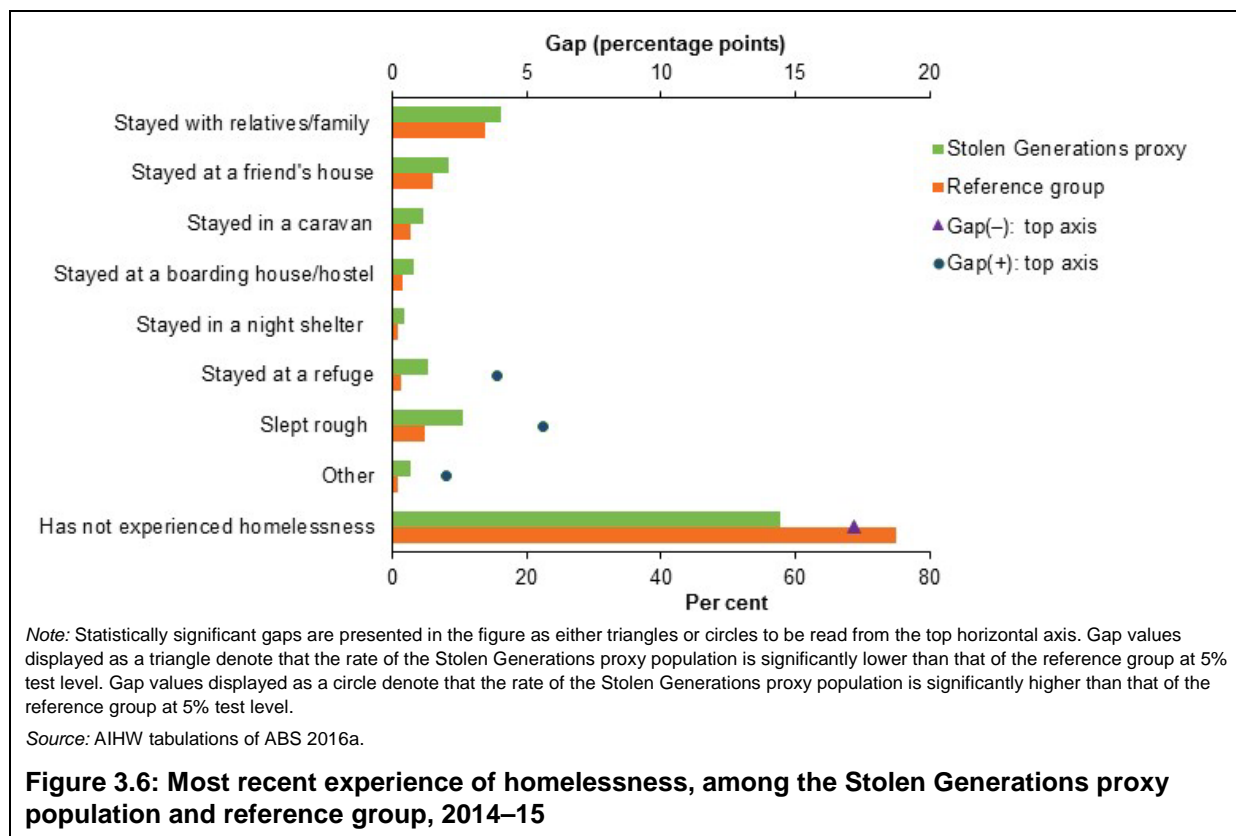
When the first formal charge occurred during adolescence and adulthood (aged 15 and over), the rates did not differ considerably between the two groups (Figure 3.5).



## Homelessness experience

In 2014–15, around 42% of the Stolen Generations proxy population reported that they had ever been homeless compared with 25% of the reference group (outcome 26 in Table 3.1). The Stolen Generations proxy population was almost twice as likely to report having been homeless in the previous 10 years as the reference group (20% compared with 11%, outcome 27 in Table 3.1).

During their most recent experience of being homeless, the Stolen Generations proxy population reported significantly higher rates of sleeping rough and staying at refuges than the reference group (Figure 3.6)



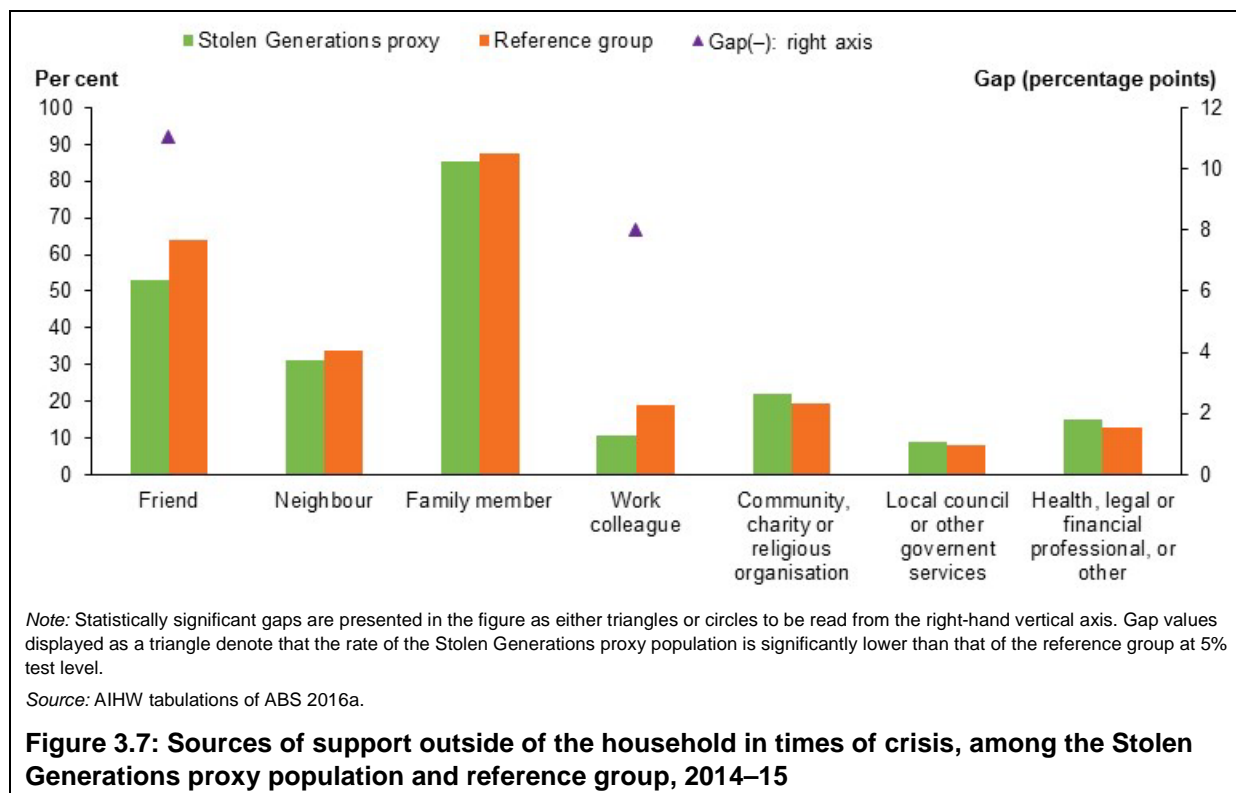
## Social networks

In 2014–15, around 89% of the Stolen Generations proxy population reported that they were able to get support from outside the household in times of crisis (outcome 35 in Table 3.1). This was similar to the rate of 90% reported by the reference group.

The majority of the Stolen Generations proxy population reported that they were able to get support from family members (85%), friends (53%) or neighbours (31%). Compared with the reference group, the Stolen Generations proxy population was significantly less likely to obtain support from:

- friends (53% compared with 64% for the reference group)
- work colleagues (11% compared with 19% for the reference group).

No significant differences were observed between the two groups for support from other sources (for example, family, neighbour, community, local council) (Figure 3.7).

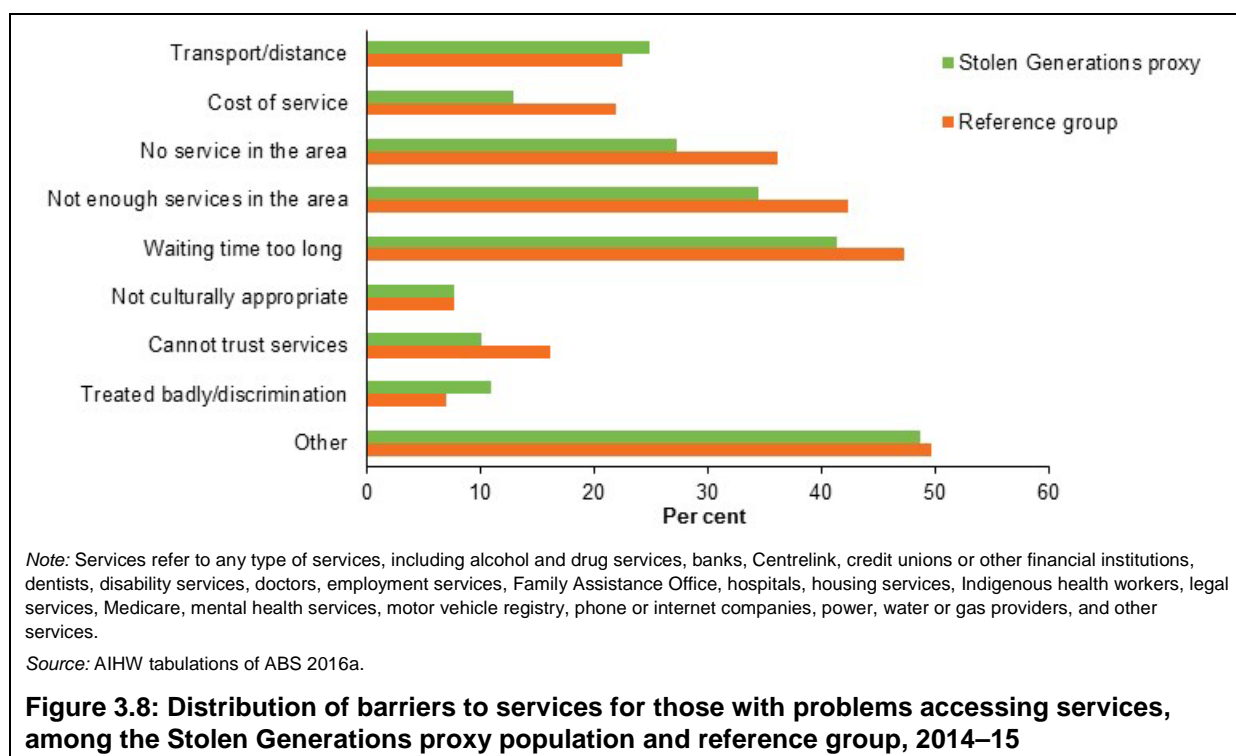


## Barriers to accessing services

In 2014–15, the Stolen Generations proxy population reported a slightly higher rate (32%) of having problems accessing services than the reference group (26%), but the difference is not significant (outcome 38 in Table 3.1). The specific individual barriers noted were also not significantly different between the two groups.

Among those who had problems accessing services, the most common barriers reported by both groups were (Figure 3.8):

- long waiting time
- insufficient services in the area
- no services in the area.



### 3.3 Time series analysis: 2002 to 2014–15

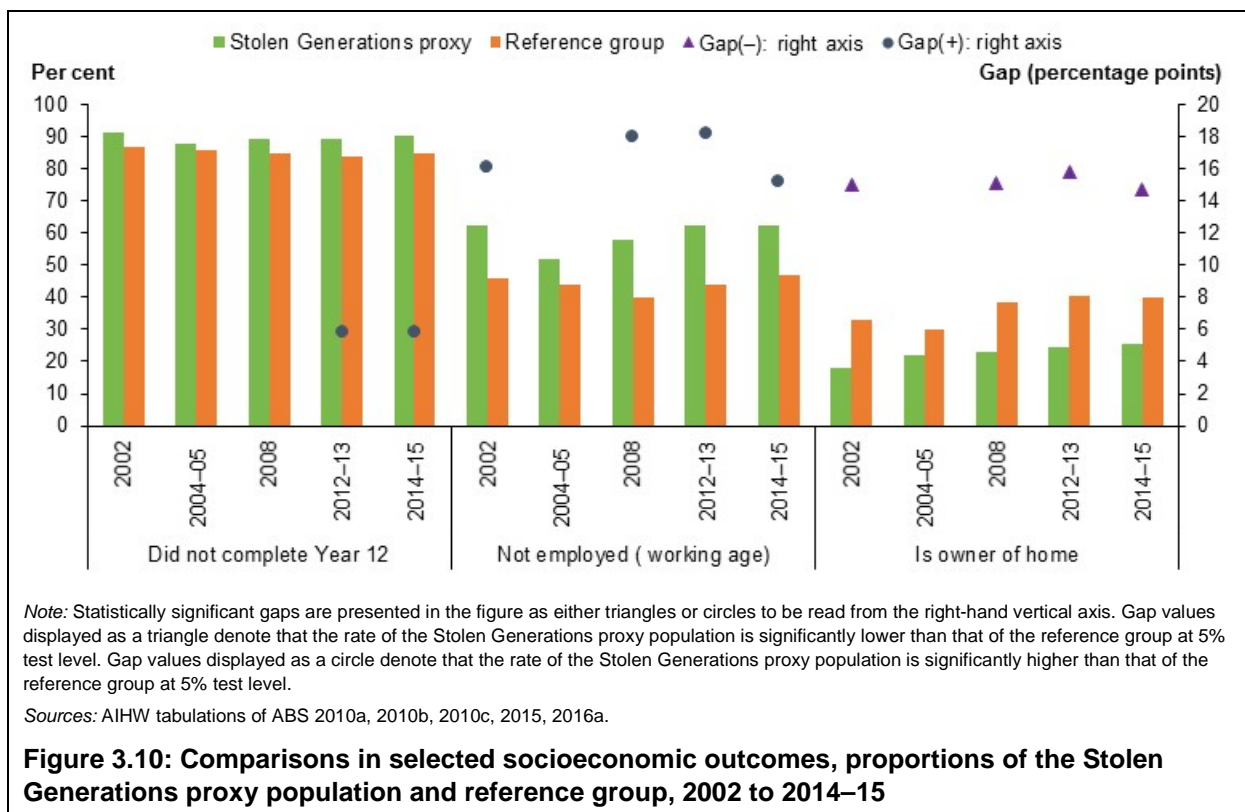
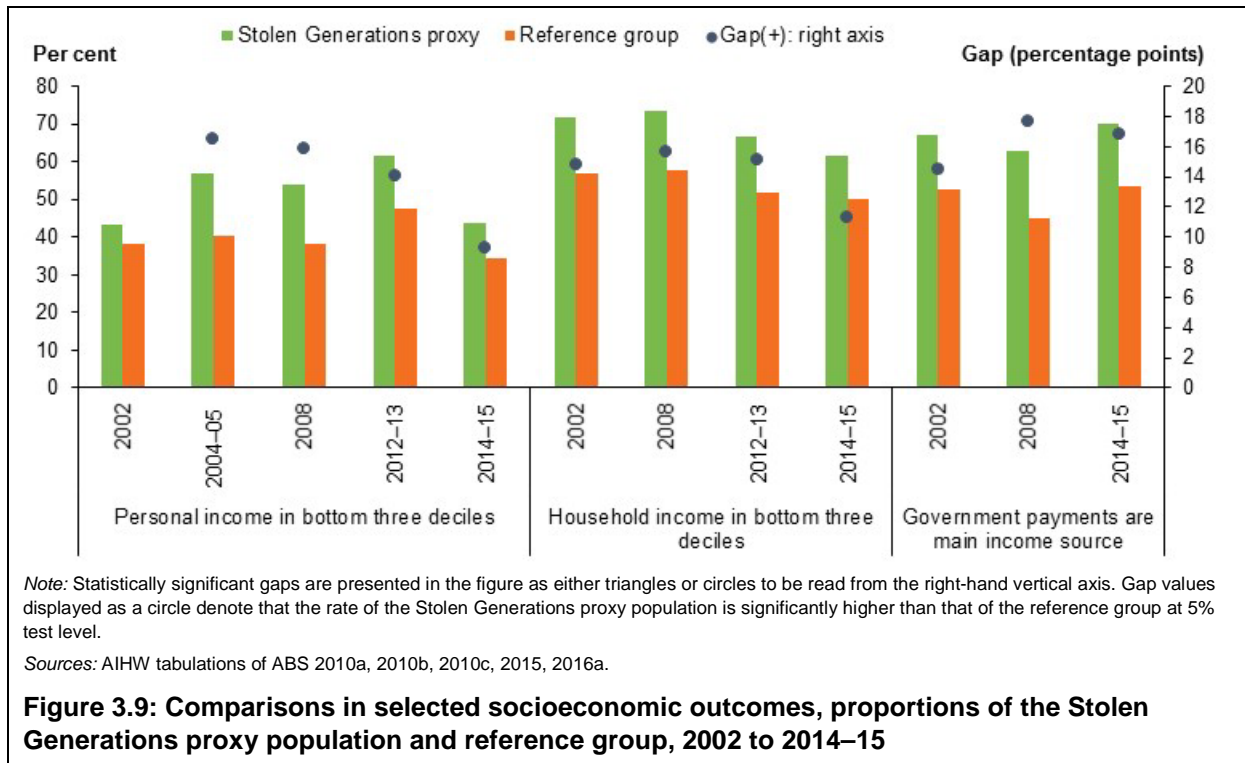
This section shows the key results on the comparative characteristics of the Stolen Generations proxy population and the reference group for each of the five ABS surveys from 2002 to 2014–15. These results provide information on how the characteristics of the Stolen Generations proxy population, and any differences from the reference group, have changed over time. These comparisons again do not control for the effects of differences in other factors between the Stolen Generations proxy population and their reference group.

#### Socioeconomic outcomes—worse for the Stolen Generations proxy population

Analysis of the five surveys showed consistent results over time in relation to socioeconomic outcomes. Compared with the reference group, the Stolen Generations proxy population was (figures 3.9 and 3.10):

- more likely to have personal income in the bottom three deciles (gaps of 5–16 pp)
- more likely to live in households with income in the bottom three deciles (gaps of 11–16 pp)
- more likely to have government payments as their main source of income (gaps of 15–18 pp)
- less likely to complete Year 12 or equivalent (gaps of 2–6 pp)
- less likely to be employed (gaps of 8–18 pp)
- less likely to be homeowners (gaps of 8–16 pp).

Over time, both the Stolen Generations proxy population and their reference group reported decreased rates of living in households with income in the bottom three deciles and increased rates of owning a home.



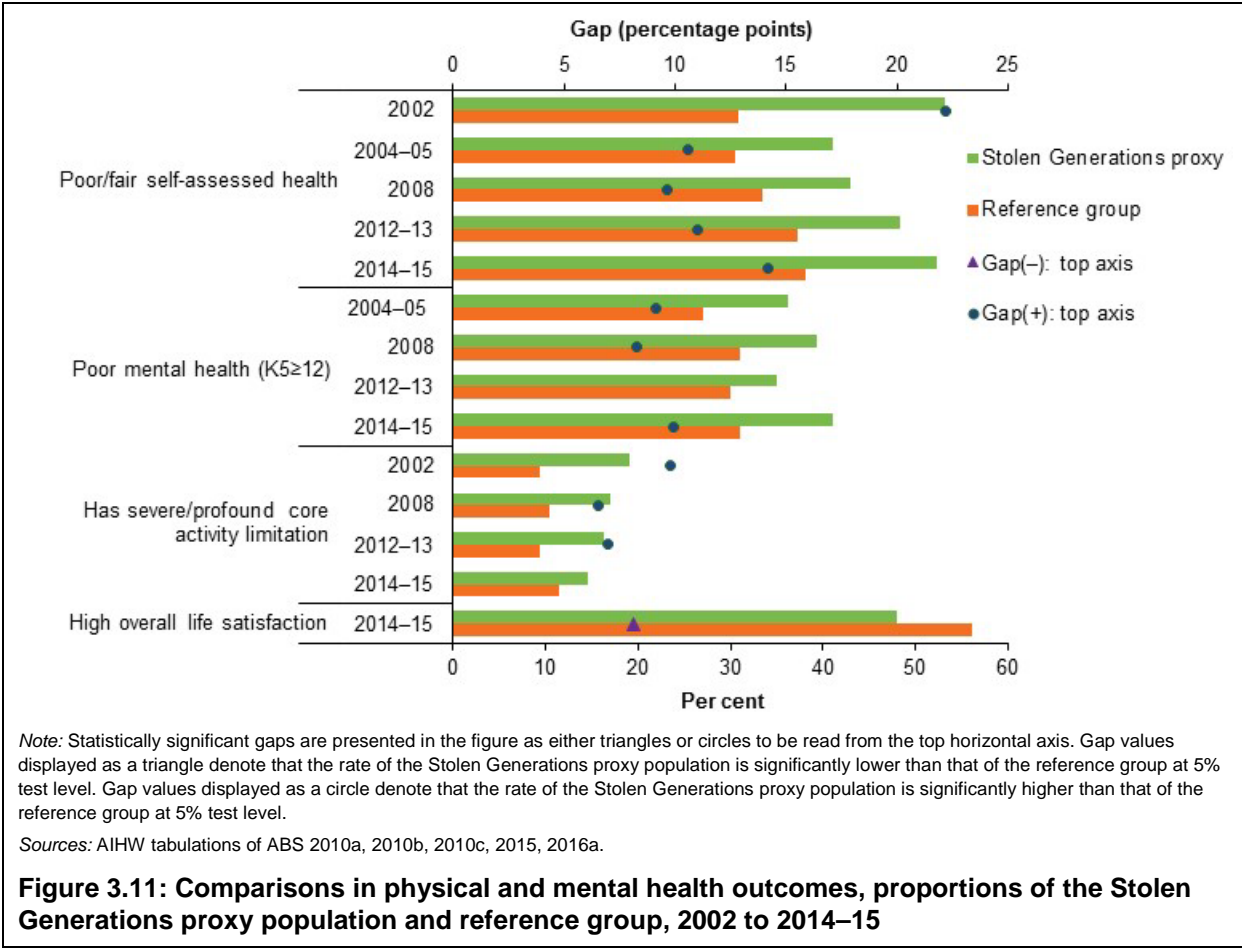


# Physical and mental health—worse for the Stolen Generations proxy population

A number of indicators of physical and mental health status showed poorer outcomes for the Stolen Generations proxy population in all surveys (Figure 3.11). Compared with the reference group, the Stolen Generations proxy population was:

- more likely to report fair or poor self-assessed health status (gaps of 10–22 pp)
- more likely to have moderate or high levels of psychological distress (gaps of 5–10 pp)
- more likely to have a severe or profound core activity limitation (gaps of 3–10 pp)
- less likely to report being very satisfied with their lives (gap of 8 pp, one data point).

While the rate of having poor self-assessed health by the Stolen Generations proxy population increased by more than 10 pp from 2004–05 to 2014–15, the proportion of the Stolen Generations proxy population with profound or severe core activity limitation decreased slightly over time.



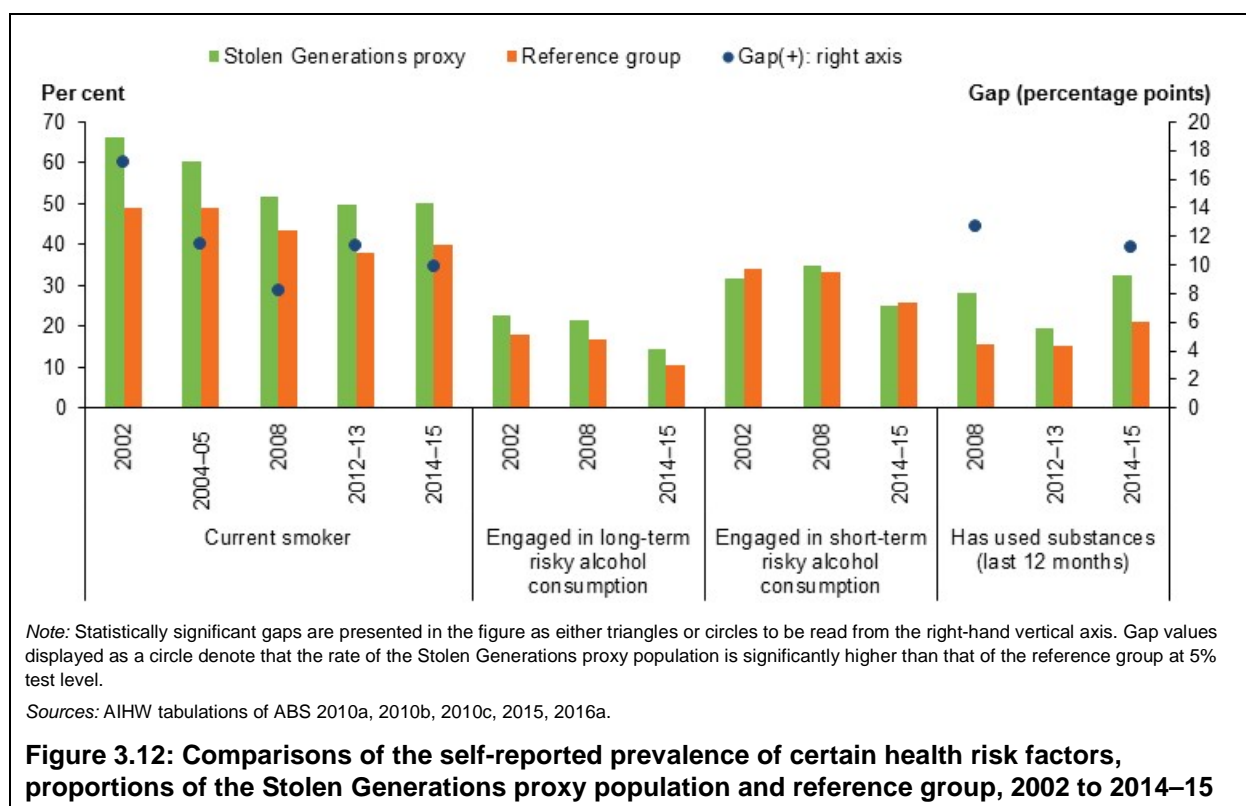
## Risky behaviours—higher risk among the Stolen Generations proxy population

Compared with the reference group, the Stolen Generations proxy population was:

- more likely to be smokers (gaps of 8–17 pp)
- more likely to engage in substance abuse (that is, use illicit drugs or misuse prescription drugs) (gaps of 4–13 pp).

The proportions of the Stolen Generations proxy population who were drinking alcohol at risky levels likely to cause long-term harm were slightly, but not significantly, higher than the reference group. There was no difference between the two groups in terms of the proportion drinking at risky levels likely to cause short-term harm.

For both groups, the proportions who smoked or drank alcohol at risky levels decreased over time, but the proportion reporting substance use increased (Figure 3.12).

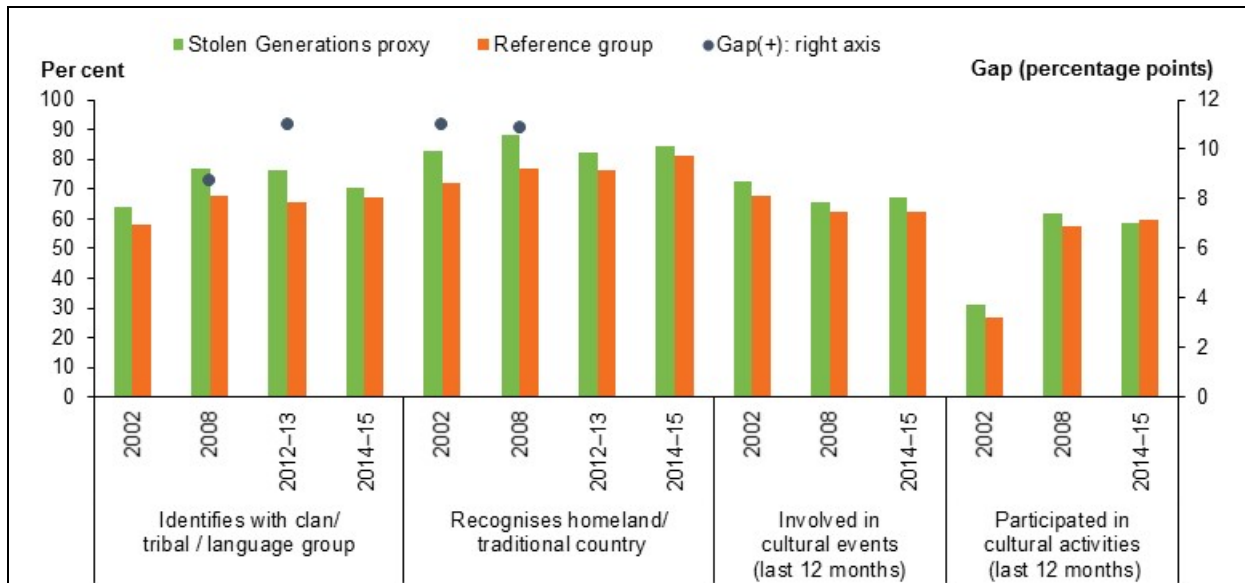


## Language and culture—similar between the two groups

The Stolen Generations proxy population was more likely to report that they identified with a clan, tribal or language group and that they recognised an area as homeland or traditional country than the reference group. These differences are significant in some of the earlier survey periods, but not in the 2014–15 survey for either of these variables (Figure 3.13).

The Stolen Generations proxy population was slightly, but not significantly, more likely to report involvement in cultural events, and to speak or understand an Indigenous language. They were significantly less likely than the reference group to report that they spoke an Indigenous language as their main language at home (Figure 3.14).

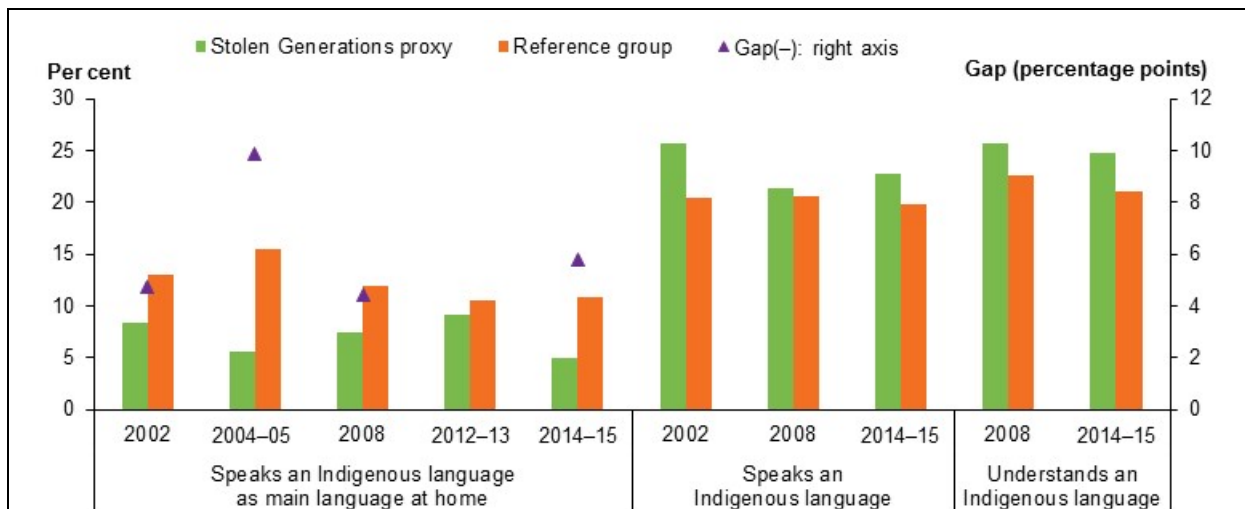
Between 2008 and 2014–15, the proportion of those who understand an Indigenous language dropped slightly for both groups.



Note: Statistically significant gaps are presented in the figure as either triangles or circles to be read from the right-hand vertical axis. Gap values displayed as a circle denote that the rate of the Stolen Generations proxy population is significantly higher than that of the reference group at 5% test level.

Sources: AIHW tabulations of ABS 2010a, 2010c, 2015, 2016a.

**Figure 3.13: Comparisons in cultural characteristics, proportions of the Stolen Generations proxy population and reference group, 2002 to 2014-15**



Note: Statistically significant gaps are presented in the figure as either triangles or circles to be read from the right-hand vertical axis. Gap values displayed as a triangle denote that the rate of the Stolen Generations proxy population is significantly lower than that of the reference group at 5% test level.

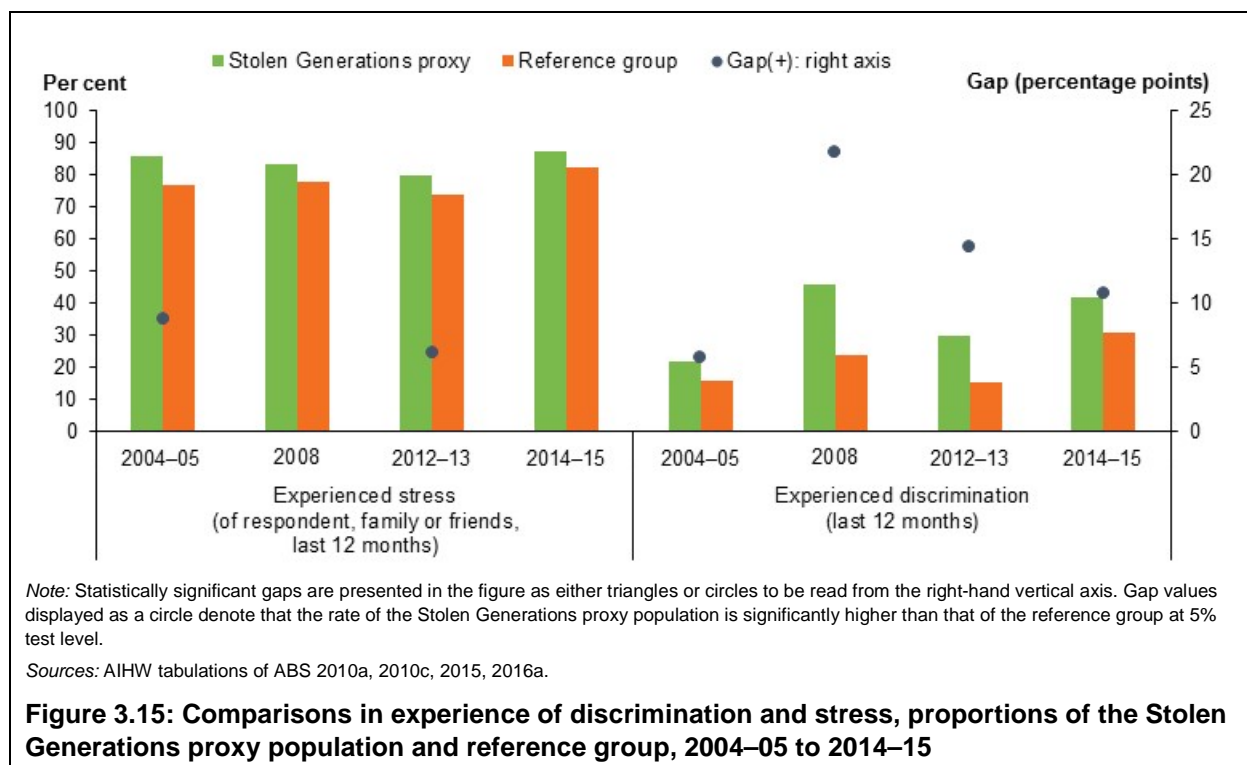
Sources: AIHW tabulations of ABS 2010a, 2010b, 2010c, 2015, 2016a.

**Figure 3.14: Comparisons in ability with Indigenous languages, proportions of the Stolen Generations proxy population and reference group, 2002 to 2014-15**

## Life stressors—more stress experienced by the Stolen Generations proxy population

In 2004–05 and 2012–13, a significantly higher proportion of the Stolen Generations proxy population reported that they, their families or friends had experienced stress in the past 12 months, compared with the reference group. Both groups reported higher rates in 2014–15 than in the previous years, but the difference (gap) between the two groups was not significant in 2014–15 (Figure 3.15).

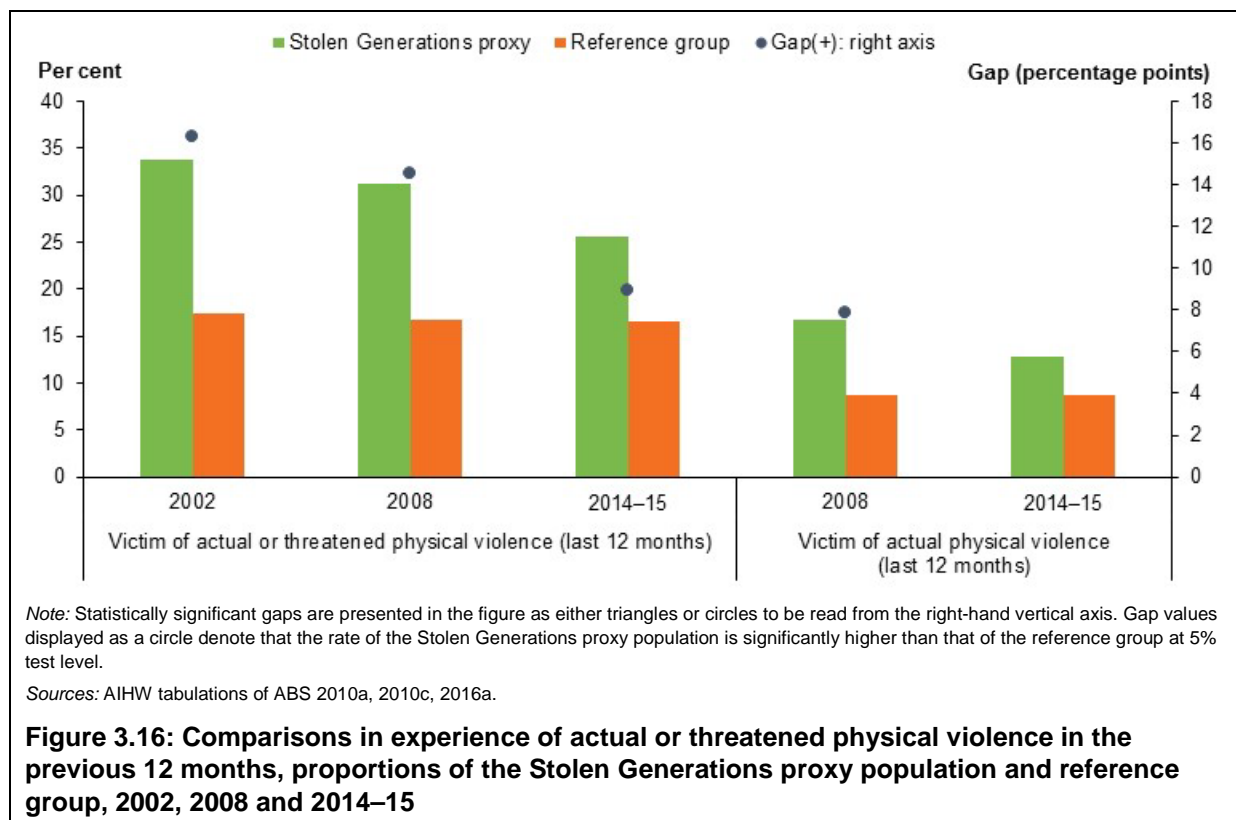
The Stolen Generations proxy population was significantly and persistently more likely than the reference group to report having felt discriminated against (because they were Indigenous) at least once in the previous 12 months.



## Safety, law and justice—poorer outcomes among the Stolen Generations proxy population

The Stolen Generations proxy population was significantly more likely than the reference group to report that they had been a victim of either actual or threatened physical violence in the previous 12 months. This rate has steadily reduced over time among the Stolen Generations proxy population from 33% in 2002 to 26% in 2014–15, while it was stable at around 17% for the reference group, meaning that the gap between the two groups narrowed between 2002 and 2014–15 (Figure 3.16).

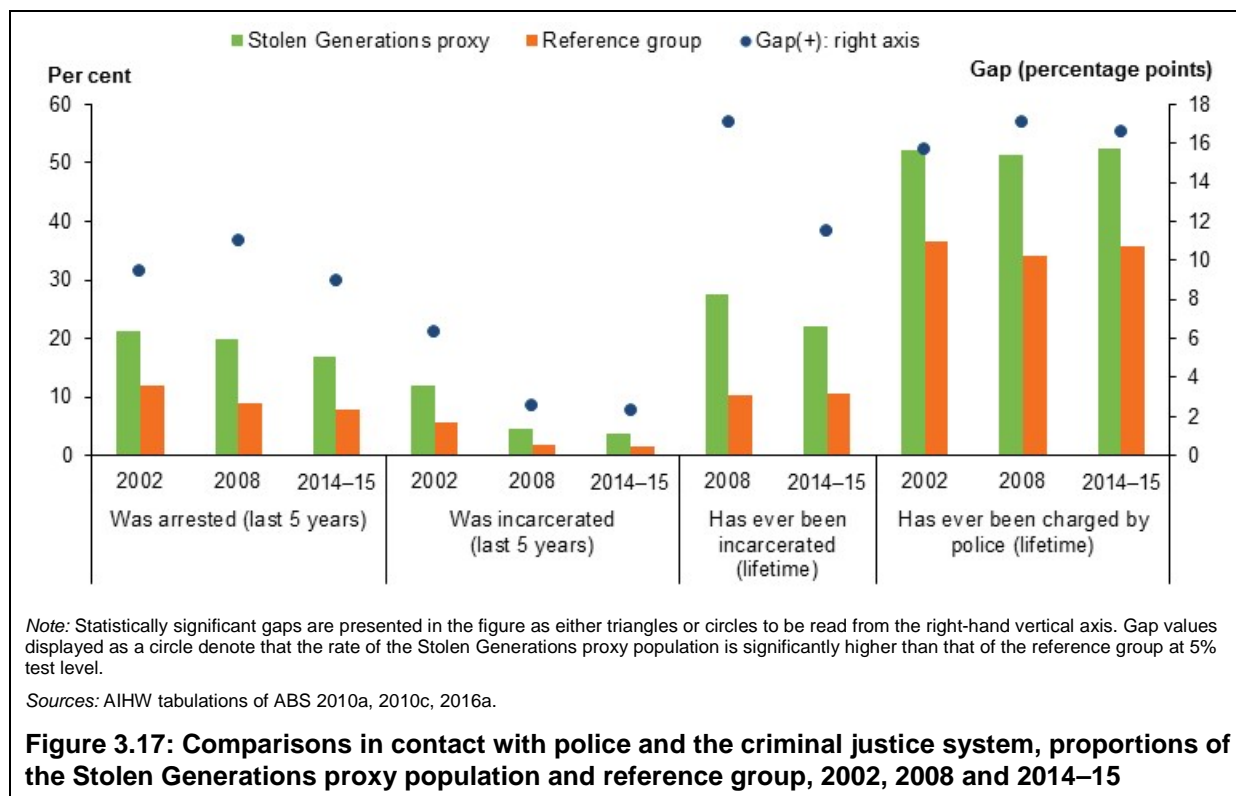
When only considering actual physical violence, in 2008, the Stolen Generations proxy population was significantly more likely to report experience of actual physical violence. This rate was no longer significantly different in 2014–15.



Contact with the police and criminal justice system was also persistently higher among the Stolen Generations proxy population than their reference group (Figure 3.17). The Stolen Generations proxy population was:

- more likely to have ever been charged by police (gaps of 16–17 pp)
- twice as likely to have been arrested in the previous five years (gaps of 9–11 pp)
- more than twice as likely to have ever been incarcerated (gaps of 12–17 pp)
- more likely to have been incarcerated in the previous five years (gaps of 2–6 pp).

Rates of being arrested or being ever incarcerated (or in the past five years), however, decreased consistently among the Stolen Generations proxy population since 2002.



## Community functioning and social networks—less trust from the Stolen Generations proxy population

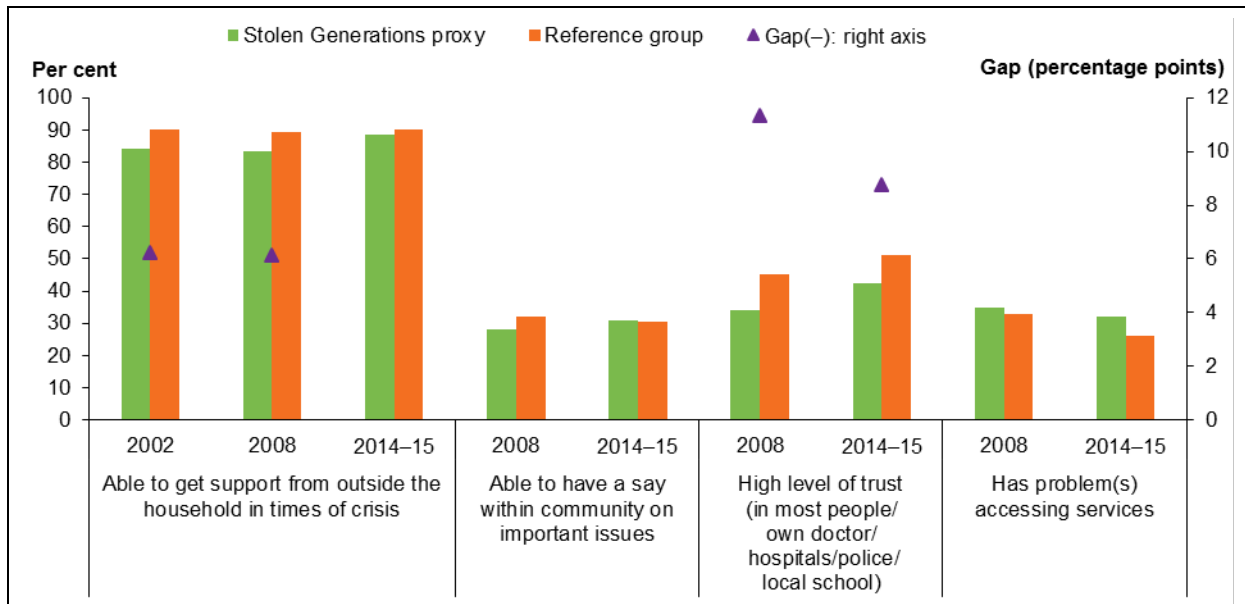
Responses on the sense of efficacy within the community did not differ significantly between the Stolen Generations proxy population and the reference group. For both groups, fewer than one-third felt that they had the ability to have a say within the community on important issues, all or most of the time, in 2008 and 2014–15 (Figure 3.18).

The level of trust in the community reported by both the Stolen Generations proxy population and the reference group increased between 2008 and 2014–15. However, the level of trust in the community was always significantly lower among the Stolen Generations proxy population. Four in ten (43%) of the Stolen Generations proxy population agreed that they had high level of trust in their community (that is, their own doctor, hospitals, the police or the local school) in 2014–15, compared with more than half (51%) of the reference group.

Overall, the ability to get support in times of crisis from outside the household was significantly lower for the Stolen Generations proxy population than the reference group, in 2002 and 2008. The gap became non-significant in 2014–15 due to the increased ability among the Stolen Generations proxy population to get support in times of crisis (an increase from 84% in 2002 to 89% in 2014–15).

## Problems in accessing services—similar between the two groups

The proportion of individuals reporting that they had experienced difficulty in accessing services (such as financial institutions, health services, government services and utilities) in the previous 12 months did not differ greatly between the Stolen Generations proxy population and the reference group in both 2008 and 2014–15 (Figure 3.18). Both groups reported lower rates of having problems accessing services in 2014–15 than in 2008. (These data were not available in earlier surveys.)



Note: Statistically significant gaps are presented in the figure as either triangles or circles to be read from the right-hand vertical axis. Gap values displayed as a triangle denote that the rate of the Stolen Generations proxy population is significantly lower than that of the reference group at 5% test level.

Sources: AIHW tabulations of ABS 2010a, 2010c, 2016a.

**Figure 3.18: Comparisons in community functioning, social networks and problem accessing services, proportions of the Stolen Generations proxy population and reference group, 2002, 2008 and 2014-15**

## 4 Health and socioeconomic outcomes of descendants

### At a glance

#### Analysis from 2014–15 NATSISS

- Analysis of 38 selected health, cultural and socioeconomic outcomes shows that, in general, Aboriginal and Torres Strait Islander people aged 18 and over who reported being descendants of all people removed were also more likely to experience adverse outcomes than comparable people in their reference group (that is, people who did not experience any type of removal from family). (The results in this chapter are simple mean values and their comparisons, and they do not control for the effects of other factors—see Chapter 5 for multivariate analyses.)
- Among the descendants: 75% had experienced stress in the past 12 months, 48% had experienced discrimination in the last 12 months, 41% had been ever charged by police, 34% had poor mental health, 34% had risky alcohol consumption (short-term) in the last 12 months, and 31% had used substances in the last 12 months.
- On the main socioeconomic outcomes, among the descendants: 67% did not own a home, 45% relied on government payments as main source of income, 43% were not employed, and 30% had personal income in the bottom three deciles.
- A relatively high proportion of the descendants identified with a clan/tribal/language group (72.7%) and was involved in cultural events and ceremonies in the past 12 months (72.5%); but much smaller proportions reported they could speak an Indigenous language (13.0%), or that they spoke an Indigenous language as the main language at home (3.1%).

#### Time series analysis from 2002 to 2014–15

- Comparing the results from 2002 to 2014–15, the descendants also consistently had adverse outcomes across a range of indicators.
- Descendants consistently had high rates of experiencing stress, discrimination and violence in the previous 12 months.
- Among the descendants, the proportions who reported use of substances and being ever charged by police both increased over time.
- Among the descendants, rates of smoking, engaging in risky alcohol consumption, and being incarcerated in the last five years, all decreased over the survey periods.

### 4.1 Introduction

This chapter presents a detailed summary of selected health, socioeconomic and cultural outcomes and of problems in accessing services for the Aboriginal and Torres Strait Islander people who are descendants of all people removed compared with their reference group. The descendants of all people removed were those aged 18 and over who had relatives from an older generation removed. The reference group are those individuals aged 18 and over who reported that they were not themselves removed from family nor had any of their relatives removed.

The same 38 outcomes described for the Stolen Generations proxy population in Chapter 3 are also used in the analyses of the descendants of all people removed. These include



health status (including disability), health risk factors, education, employment, household income, life satisfaction, home ownership, experience of homelessness, being a victim of violence, contact with the justice system, problems accessing services, and several cultural attributes.

Indigenous adults aged 18 and over who reported being both removed themselves and descendants are not included in the analysis in this chapter. All these individuals are classified as having themselves been removed from their families (and are included in the analysis presented in Chapter 3 if they were born before 1972).

Section 4.2 summarises the mean values of these 38 outcomes for the descendants of all people removed and the reference group, using the 2014–15 NATSISS. It presents the differences in these outcomes between the descendants and the reference group using rate difference—the absolute difference between the two populations, or the gap, in percentage points (or pp).

Section 4.3 presents a time series analysis of selected characteristics from 2002 to 2014–15 for the descendants of all people removed and the reference group.

The comparisons of the mean characteristics of the descendants of all people removed and their reference group in this chapter look at each outcome individually, and do not adjust for other potential influences on these outcomes. The differences in these mean characteristics should not be interpreted to be the effects only of being the descendants. Chapter 5 presents more reliable estimates of the effects of being the descendants of all people removed using a multivariate regression approach.

## 4.2 Health and socioeconomic outcomes: 2014–15 NATSISS

Descendants of all people removed reported high prevalence of experiencing adversity in several outcomes (Table 4.1). Among the descendants:

- 75% had experienced stress in the past 12 months
- 48% had experienced discrimination in the last 12 months
- 41% had ever been charged by police
- 34% had poor mental health
- 34% engaged in short-term risky alcohol consumption in the last 12 months
- 31% had used substances in the last 12 months.

Table 4.1 also reports the mean differences (gaps) in 2014–15 in selected outcomes between the descendants and the reference group. In 2014–15, the largest rate differences (gaps), and which are all statistically significant, between these two groups were in:

- experience of discrimination in the last 12 months (21 pp higher in the descendants)
- experience of ever being homeless (39% among the descendants, which is 18 pp higher than in the reference group)
- identification with clan/tribal/language group (15 pp higher in the descendants)
- involvement in cultural events, ceremonies or organisations in the last 12 months (14 pp higher in the descendants).

The relevant rate applicable to the descendants of all people removed on the last two of these outcomes was around 73%, indicating that those classified as descendants have been able to maintain their cultural connections on some relevant indicators. It is also possible that

individuals who identify more with their culture may be more likely to know about their history of removal from family.

With regard to other cultural factors, compared with the reference group, the descendants of all people removed reported:

- significantly higher rates for the outcomes pertaining to participation in cultural activities in the last 12 months (71% compared with 63%), and recognition of an area as homeland/traditional country (84% compared with 71%).
- significantly lower rates for speaking an Indigenous language as the main language spoken at home (3% compared 17% for the reference group), understanding an Indigenous language (14% compared with 25%), and speaking any Indigenous language at all (13% compared with 24%).

For some indicators, the mean outcome for the descendants of all people removed were more favourable than for the reference group. These include:

- a significantly lower proportion of the descendants who were not employed (43% compared with 48% for the reference group)
- a significantly higher proportion of home ownership (34% compared with 28% for the reference group)
- a significantly lower proportion of relying on government payments as the main source of income (45% compared with 53% for the reference group)
- significantly lower proportions of having both household and personal incomes in the bottom three deciles.

There was no significant difference between the descendants and the reference group in relation to Year 12 attainment, engagement in long-term or short-term risky alcohol consumption, having used substances in the past 12 months, being a current smoker and having been incarcerated (ever, and also within the last five years).

**Table 4.1: Comparisons of selected outcomes for the descendants of all people removed, 2014–15 mean percentage values**

No.	Outcome description	Descendants of all people removed	Reference group	Mean gap (pp)
<b>Socioeconomic outcomes</b>				
1	Has personal income in bottom three deciles	29.6	38.5	-8.8*
2	Has household income in bottom three deciles	43.2	49.6	-6.4*
3	Government payments are main source of income	44.5	52.9	-8.4*
4	Did not complete Year 12	67.5	70.6	-3.1
5	Currently not employed (among working age 18–64)	43.3	48.1	-4.7
6	Is owner of home	33.5	28.4	5.1*
<b>Physical and mental health</b>				
7	Has poor or fair self-assessed health	28.6	23	5.6*
8	Has poor mental health—Kessler score (12–25)	34.3	28.4	5.9*
9	Has severe or profound core activity limitation	7.7	6.2	1.5
10	Has any disability or restrictive long-term condition	46.3	41.4	4.9
11	Has high level of satisfaction with life	51.2	58	-6.9*
<b>Health risky behaviour</b>				
12	Current smoker	41.9	42.4	-0.5
13	Engaged in long-term risky alcohol consumption	9.5	10.6	-1.1
14	Engaged in short-term risky alcohol consumption	34.1	29.9	4.2
15	Has used substances (in last 12 months)	31.4	27	4.4
<b>Language and culture</b>				
16	Identifies with clan/tribal/language group	72.7	58	14.7*
17	Recognises an area as homeland or traditional country	83.8	71.2	12.6*
18	Involved in cultural events, ceremonies or organisations (in last 12 months)	72.5	58.1	14.4*
19	Participated in cultural activities (in last 12 months)	71.4	62.9	8.5*
20	Speaks an Indigenous language as main language at home	3.1	16.6	-13.5*

(continued)

**Table 4.1 (continued): Comparisons of selected outcomes for the descendants of all people removed, 2014–15 mean percentage values**

No.	Outcome description	Descendants of all people removed	Reference group	Mean gap (pp)
21	Speaks an Indigenous language	13.0	23.5	-10.6*
22	Understands an Indigenous language	14.1	24.5	-10.4*
<b>Life stressors</b>				
23	Experienced stress (by respondents in last 12 months)	74.7	63.7	11.0*
24	Experienced stress (by respondents, friends or family in last 12 months)	88.9	79.7	9.2*
25	Experienced discrimination (in last 12 months)	48.3	26.9	21.4*
26	Experienced homelessness (ever in lifetime)	39.1	21.1	18.0*
27	Experienced homelessness (in last 10 years)	23.1	14.0	9.1*
<b>Safety, law and justice</b>				
28	Was a victim of actual or threatened physical violence (in last 12 months)	29.0	16.2	12.8*
29	Was a victim of physical violence (in last 12 months)	15.8	8.7	7.1*
30	Was a victim of threatened physical violence (in last 12 months)	22.2	11.1	11.1*
31	Was arrested (in last five years)	15.0	13.1	1.9
32	Has ever been incarcerated	8.3	8.2	0.1
33	Was incarcerated (in last five years)	3.4	2.8	0.6
34	Has ever been charged by police	40.6	31.7	8.9*
<b>Community functioning and social network</b>				
35	Able to get support from outside the household in times of crisis	91.9	91.8	0.1
36	Able to have a say within community on important issues	27.9	24.6	3.2
37	Has high level of trust in general community	46.2	56.4	-10.2*
<b>Access to services</b>				
38	Has problem(s) accessing services	28.8	23.4	5.4*

\* Denotes a significant difference in the mean gap (rate differences) at the 5% test level using the 95% confidence intervals.

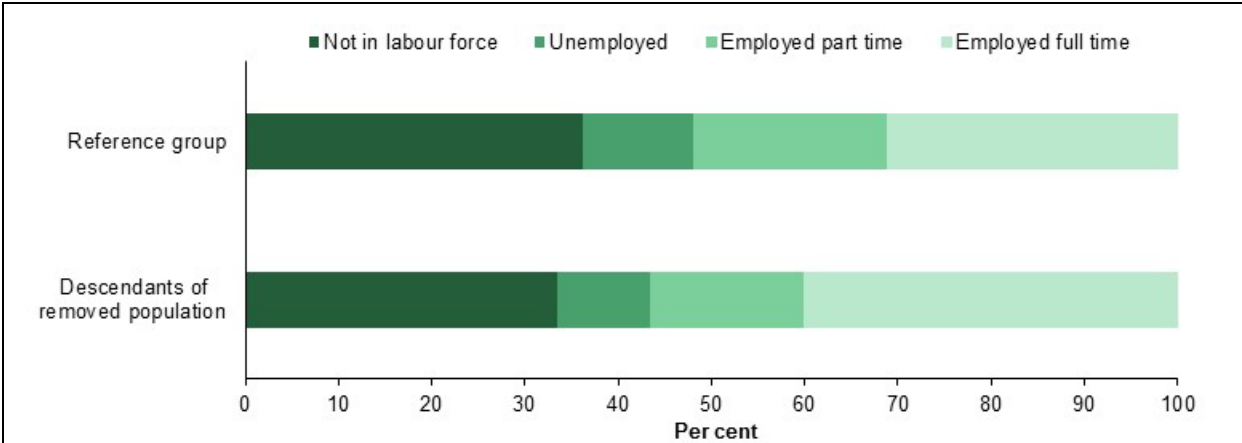
Source: AIHW tabulations of ABS 2016a.

The following sub-sections provide further details on the mean differences between descendants of all people removed and their reference group for a selected subset of outcomes from the 2014–15 NATSISS. It expands on the simple yes/no type of outcome measures used in Table 4.1 to include broader categories or to provide extra information for some of these outcomes, based on the selected categories of interest.

### Employment and labour force status

Indigenous adults who reported to be descendants had a lower rate of not being employed than the reference group (43% not currently employed compared with 48% in the reference group). This difference is statistically significant. (For this outcome the age group analysed consists of those aged 18–64 instead of all people aged 18 and over, as in the other outcomes.)

Differences in employment status for the descendants resulted mostly from their higher rate of being employed full time compared with the reference group (Figure 4.1).



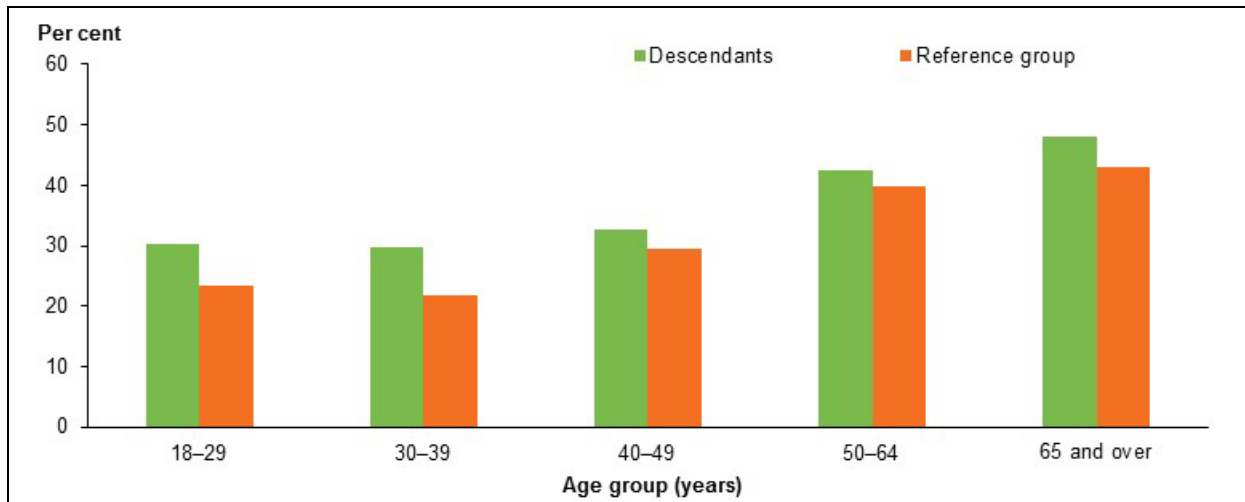
Source: AIHW tabulations of ABS 2016a.

**Figure 4.1: Labour force status among descendants of all people removed and reference group, aged 18–64, 2014–15**

### Home ownership

The rate of home ownership (including having a mortgage) is significantly higher among the descendants than the reference group (33%, compared with 28% in the reference group) at the aggregate level.

Home ownership rates increased with age for both the descendants and the reference group, with higher rates of home ownership in each age group for the descendants than for the reference group (Figure 4.2). However, the gaps in home ownership rates within each age group were not statistically significant, possibly due to smaller sample sizes in each age group.

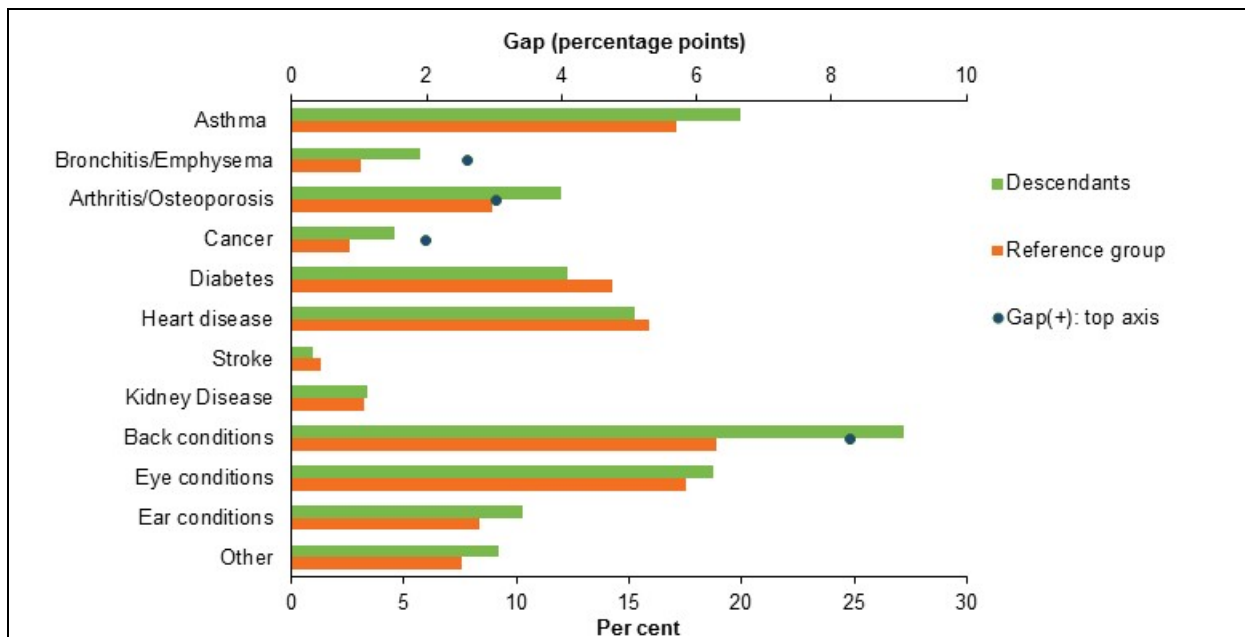


Source: AIHW tabulations of ABS 2016a.

**Figure 4.2: Proportion who owned a home, among descendants of all people removed and reference group, by age, 2014–15**

### Chronic health conditions

The descendants were significantly more likely to report having the following specific conditions: bronchitis/emphysema, arthritis/osteoporosis, back conditions and cancer than the reference group (Figure 4.3).



Note: Statistically significant gaps are presented in the figure as either triangles or circles to be read from the top horizontal axis. Gap values displayed as a circle denote that the rate of the descendants is significantly higher than that of the reference group at 5% test level.

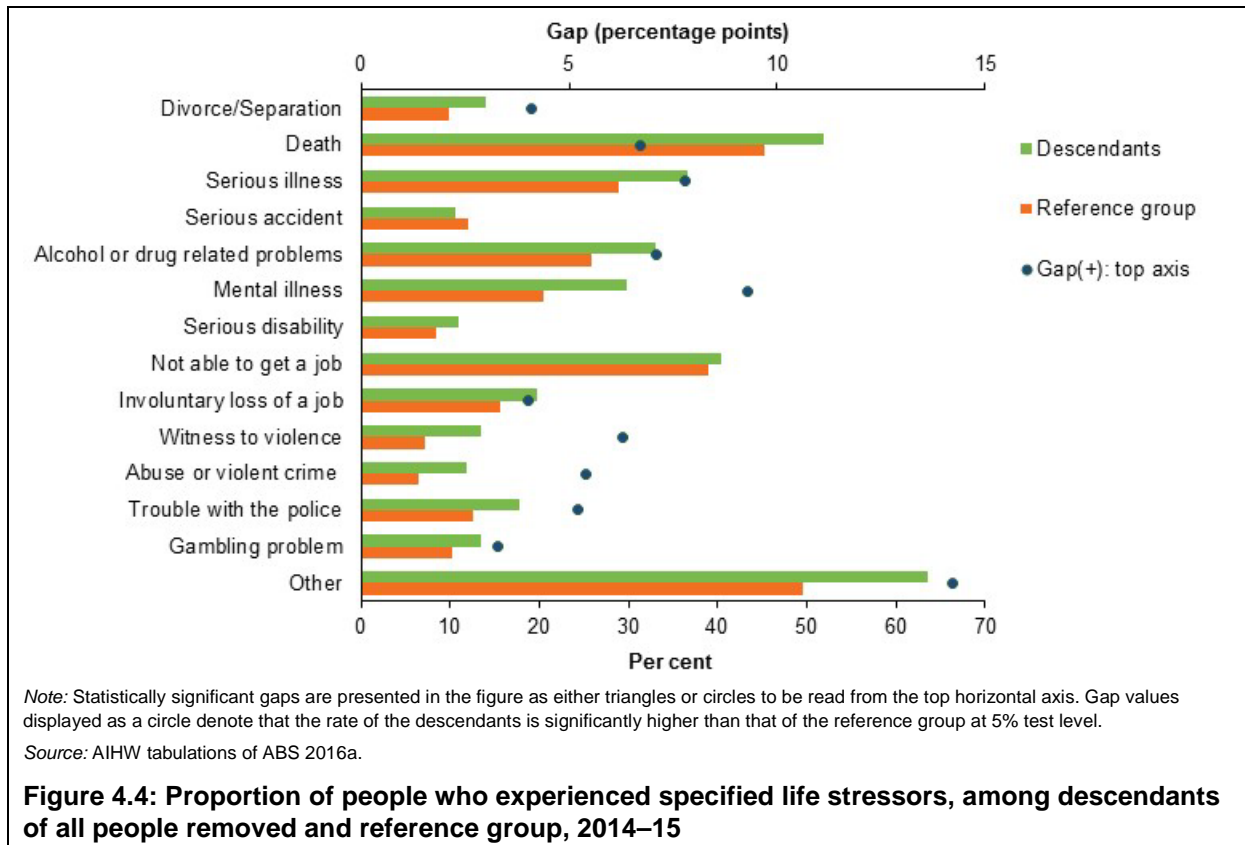
Source: AIHW tabulations of ABS 2016a.

**Figure 4.3: Proportion of people with specified chronic health conditions, among descendants of all people removed and reference group, 2014–15**

## Life stressors

Compared with the reference group, descendants (or their close friends and family) were significantly more likely to experience the following stressors: divorce or separation; death in the family; serious illness; alcohol or drug related issues; mental illness; unexpected loss of job; being a witness to violence; abuse or violent crime; trouble with the police; and gambling problems.

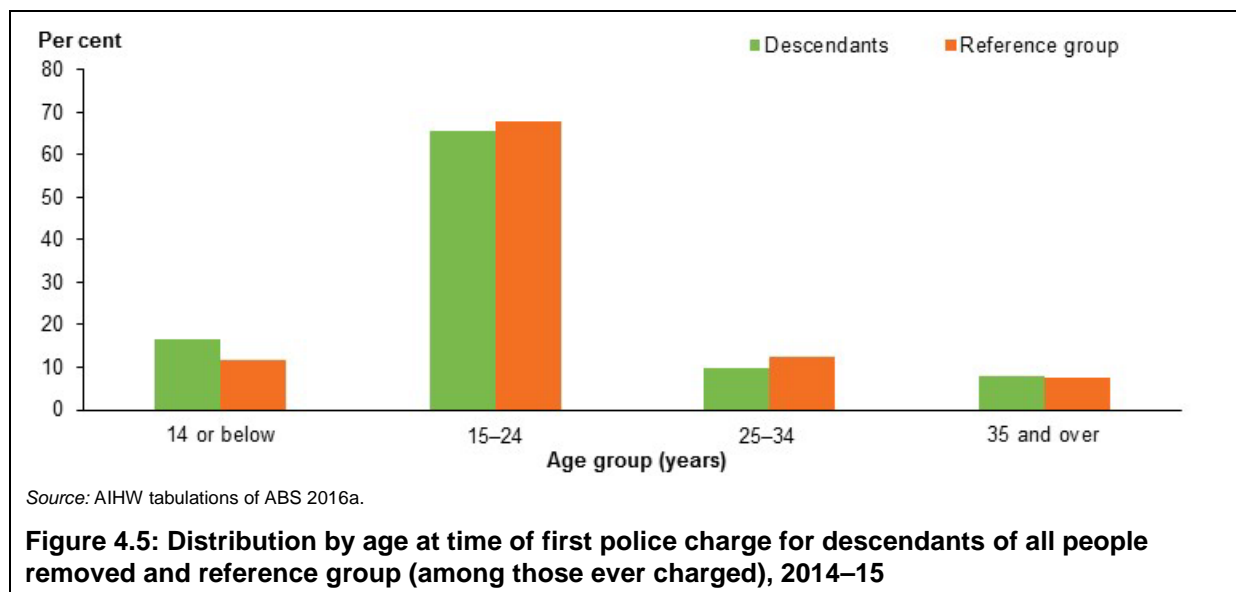
Descendants (or their close friends and family) experienced stress due to serious disability, serious accidents, and not being able to get a job at similar levels to the reference population (Figure 4.4).



## Age first charged by police

In 2014–15, around 41% of the descendants reported being ever charged by police, compared with 32% in the reference group.

Among those who had ever been charged by police, there was no significant difference in the age at which the first formal charge occurred between the descendants and the reference group (Figure 4.5).



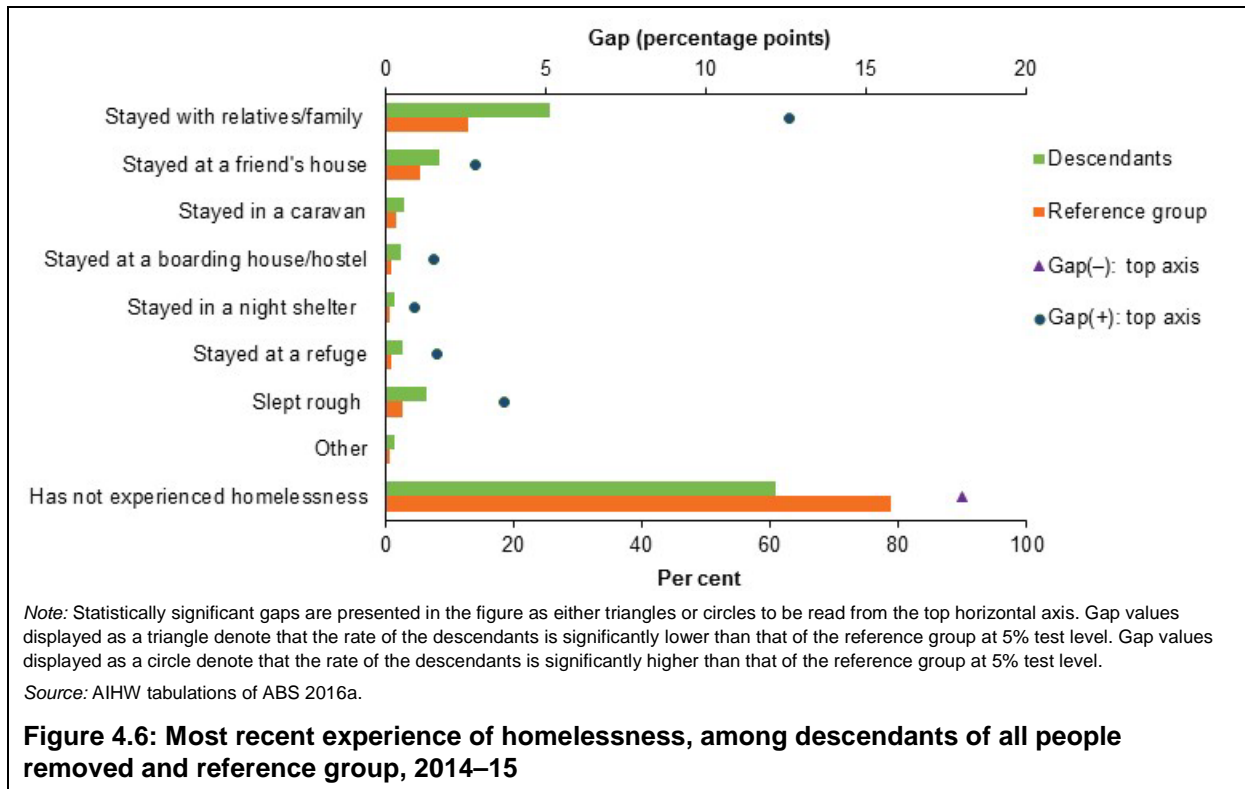
## Homelessness experience

In 2014–15, 39% of descendants had ever experienced homelessness in their lives, compared with 21% for the reference group. The descendants were also more likely to report having experienced homelessness in the previous 10 years (23% compared with 14% in the reference group).

During their most recent experience of being homeless, compared with the reference group, the descendants reported significantly higher rates for (Figure 4.6):

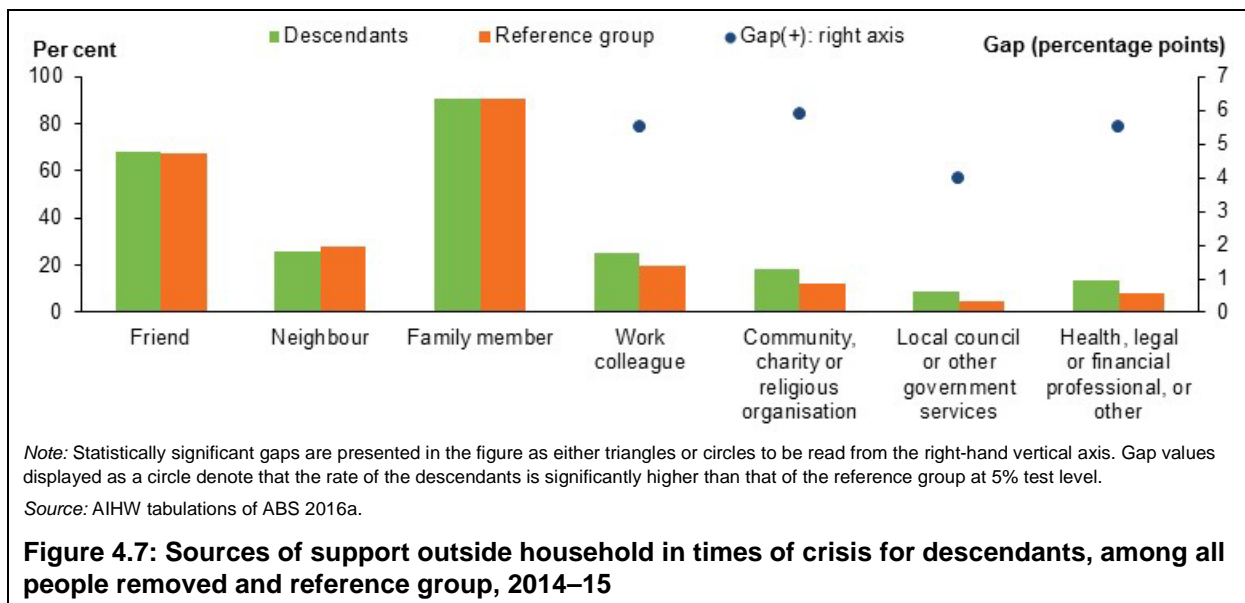
- stayed with relatives/family
- stayed at friend’s house
- stayed at a boarding house/hostel
- stayed in a night shelter
- stayed at a refuge
- slept rough.





## Social networks

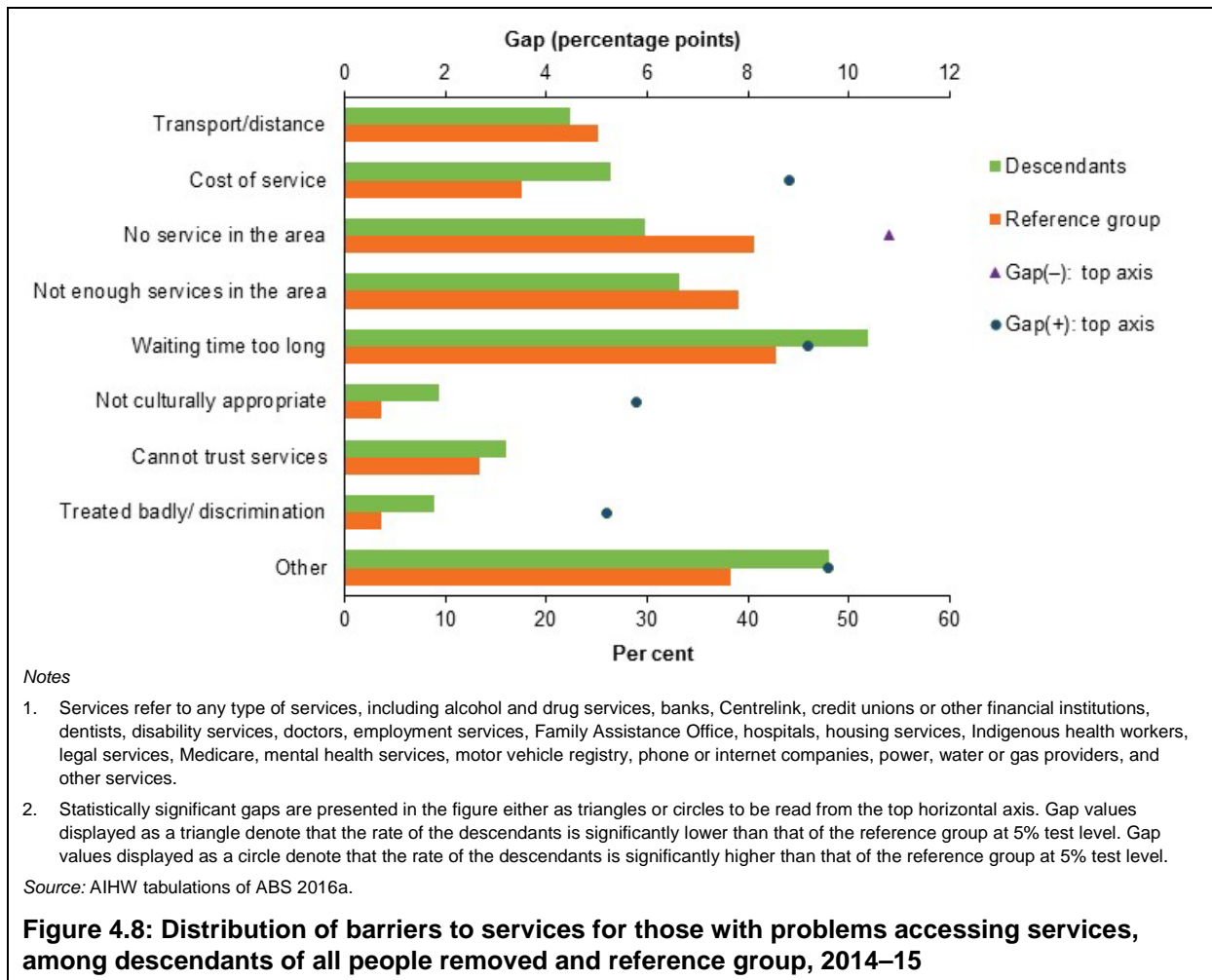
In 2014–15, around 92% of both the descendants and their reference group reported they were able to get support from outside the household in times of crisis. Descendants, however, reported significantly higher rates of being able to get support from specific sources—such as work colleagues; community, charity or religious organisation(s); local council or other government services; health, legal and financial professionals; or other unspecified sources—compared with the reference group (Figure 4.7).



## Barriers to accessing services

In 2014–15, the descendants reported a significantly higher rate of having problems accessing services (29%) than the reference group (23%). Among those who reported having problems in accessing services, the barriers most commonly reported were waiting time being too long and insufficient or no services in the area.

The types of service barriers with a statistically significant difference—which the descendants being more likely to report—were the cost of service, waiting time too long; services not culturally appropriate, and treated badly/discrimination (Figure 4.8).



## 4.3 Time series analysis: 2002 to 2014–15

This section shows the key results on the comparative characteristics of the descendants of all people removed and their reference group from each of the five ABS surveys from 2002 to 2014–15. These results provide information on how the characteristics of the descendants of all people removed and the differences with the reference group have changed over time. These comparisons again do not control for the effects of differences in other factors between the descendants and their reference group.

## Socioeconomic outcomes—better for descendants

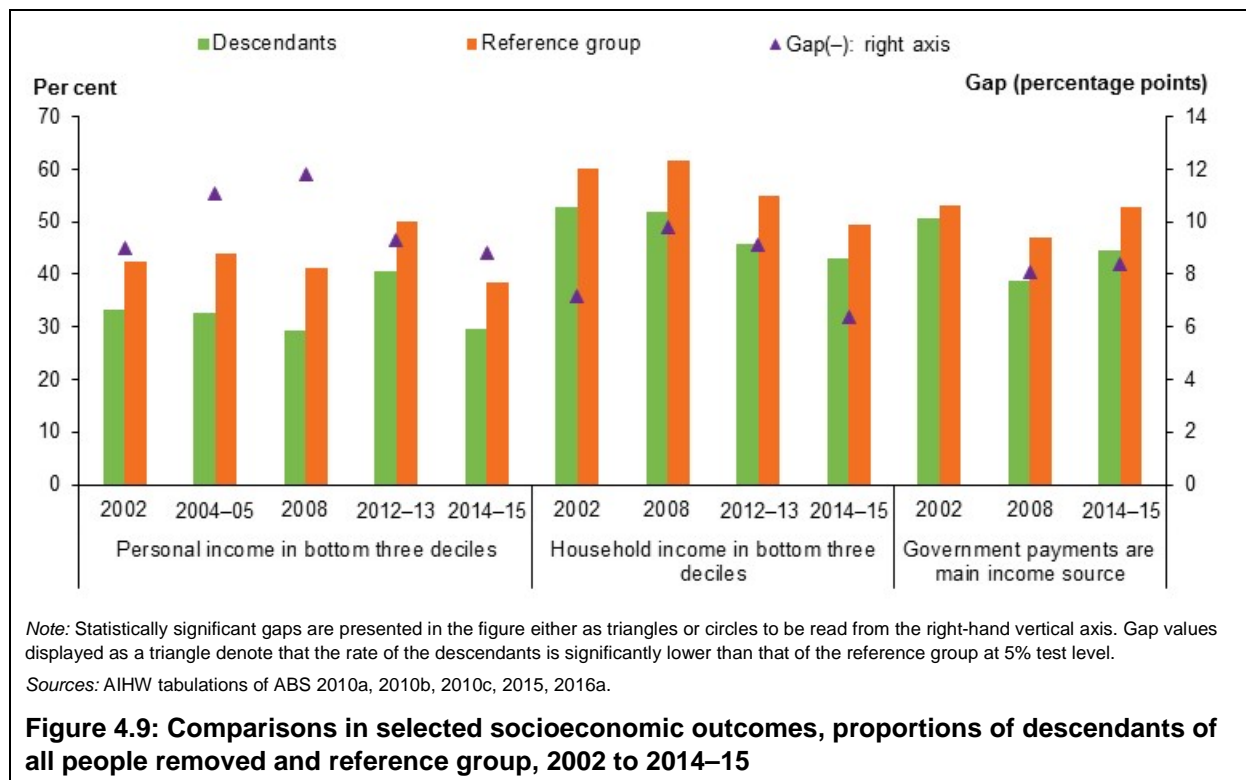
The results of the analyses were relatively consistent across the five survey periods for the selected socioeconomic outcomes. Compared with the reference group, Indigenous adults who reported to be descendants were (Figure 4.9):

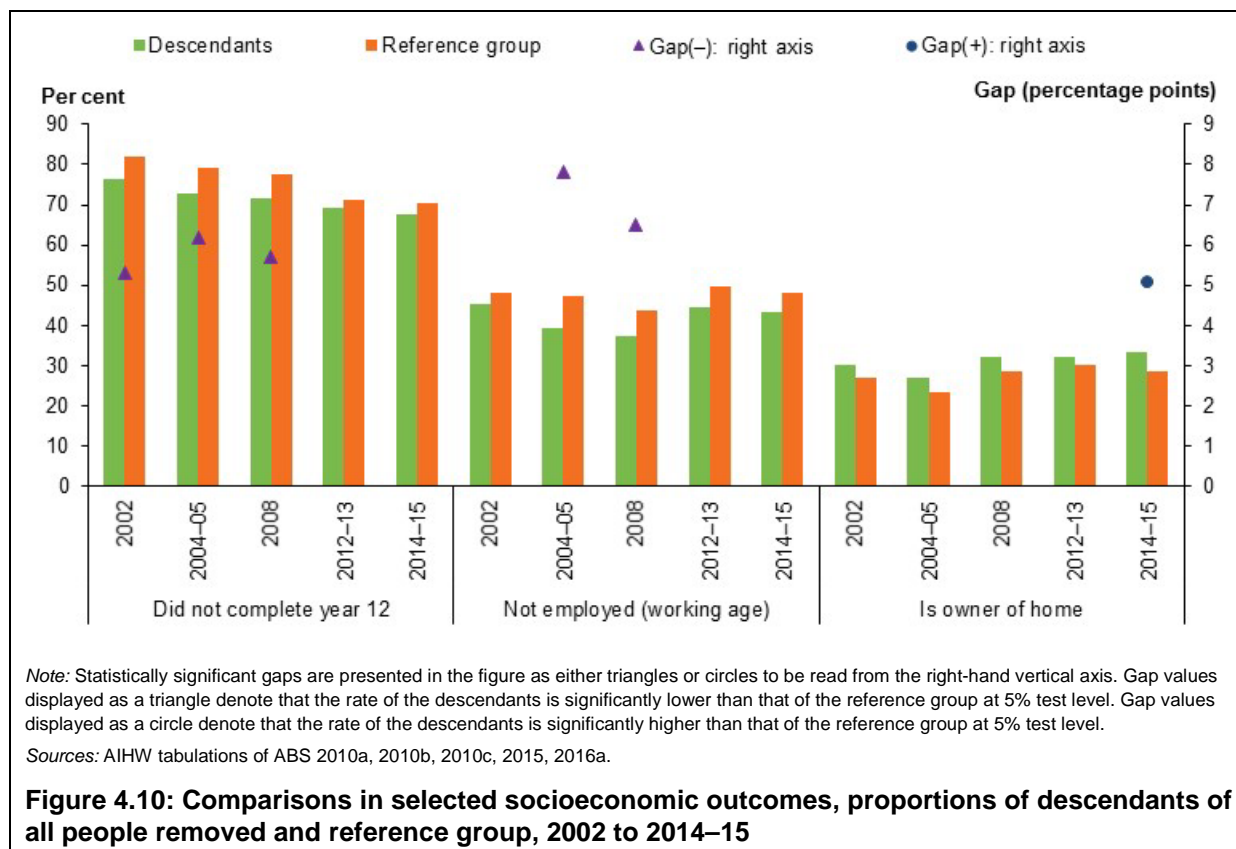
- less likely to have personal income in the bottom three deciles (gaps of 8–11 pp)
- less likely to live in households with income in the bottom three deciles (gaps of 8–10 pp)
- less likely to have government payments as their main source of income (gaps of 3–8 pp).

In the earlier years (2002 to 2008), descendants were less likely than the reference group not to have completed Year 12 or equivalent (gaps of 5–6 pp). However, more recently, the gaps have narrowed between the two groups. Both groups reported increased completion of Year 12 over time (Figure 4.10).

The proportion of the descendants who were not employed was significantly lower than that of the reference group in 2004–05 and 2008. This rate had increased since 2008 for both groups, resulting in a decrease in the gaps in 2012–13 and 2014–15.

Home ownership has also increased since 2008 for the descendants. The rate was significantly higher for the descendants in 2014–15. No differences in the rates of owning a home were observed in the previous years.

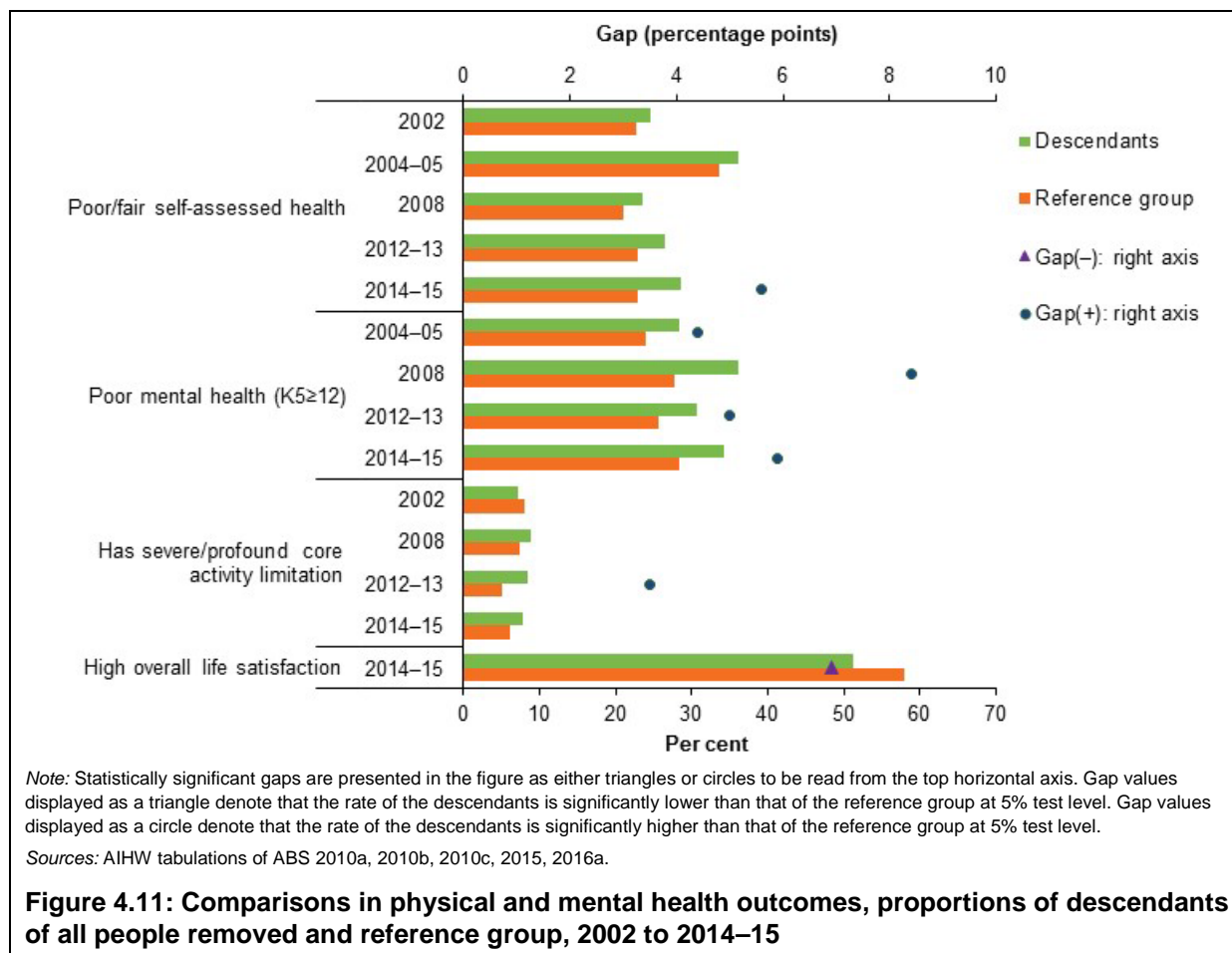




## Physical and mental health—worse for descendants

Several of the selected indicators of physical and mental health status showed poorer outcomes for the descendants in all surveys except in 2002 (Figure 4.11). Compared with the reference group, the descendants were:

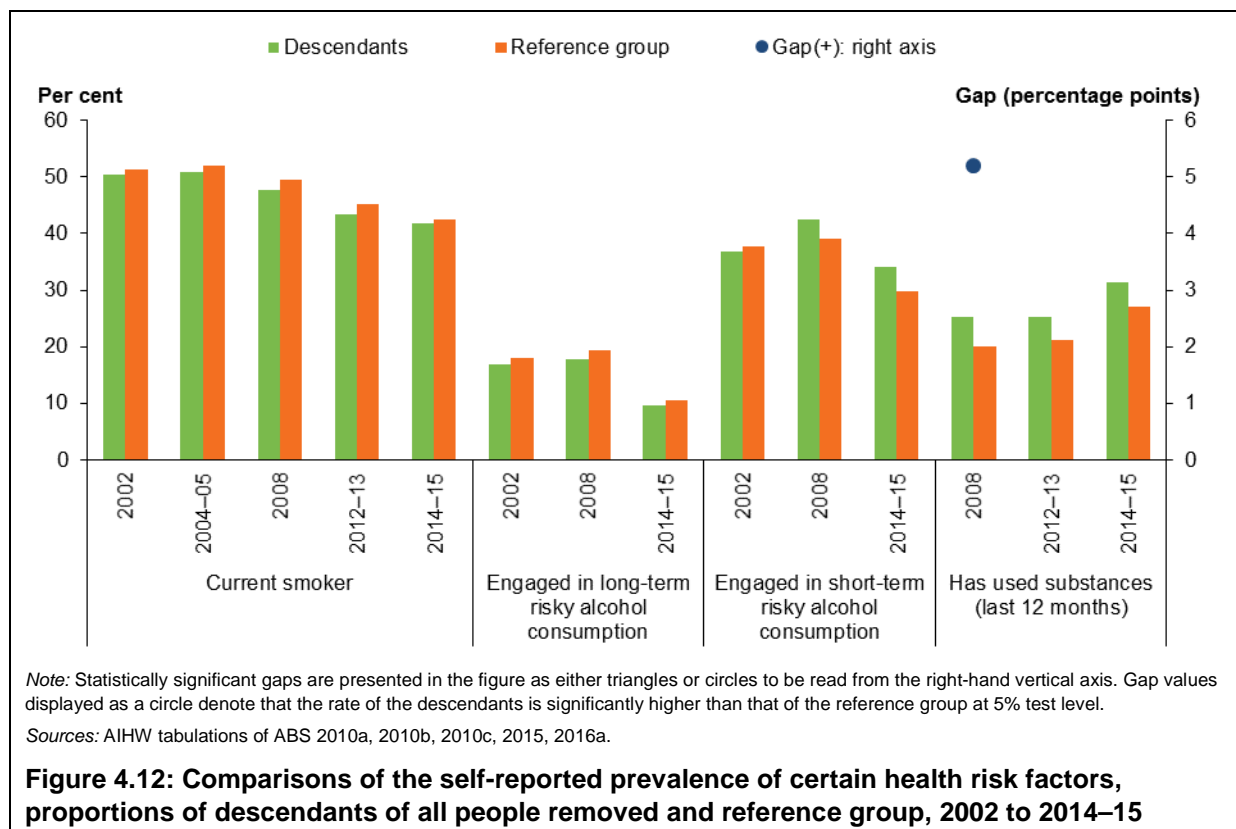
- more likely to report fair or poor self-assessed health status (gaps of 3–6 pp)
- more likely to have moderate or high levels of psychological distress (gaps of 5–8 pp)
- more likely to have a severe or profound core activity limitation (gaps of 2–4 pp)
- less likely to report a high level of satisfaction with their lives (gap of 7 pp).



## Risky behaviours—higher substance use among descendants

Compared with the reference group, the descendants were more likely to report substance use (illicit drugs or misuse of prescription drugs; gaps of 4–5 pp). However, only the initial result in 2008 showed a significant difference (Figure 4.12).

Rates of smoking and of consuming alcohol at levels posing long-term risk of harm were similar in the two groups and declined over time. Rates of consuming alcohol at levels posing short-term risk of harm also did not differ significantly.



## Language and culture—more identification with culture, but less connection to Indigenous language, for descendants

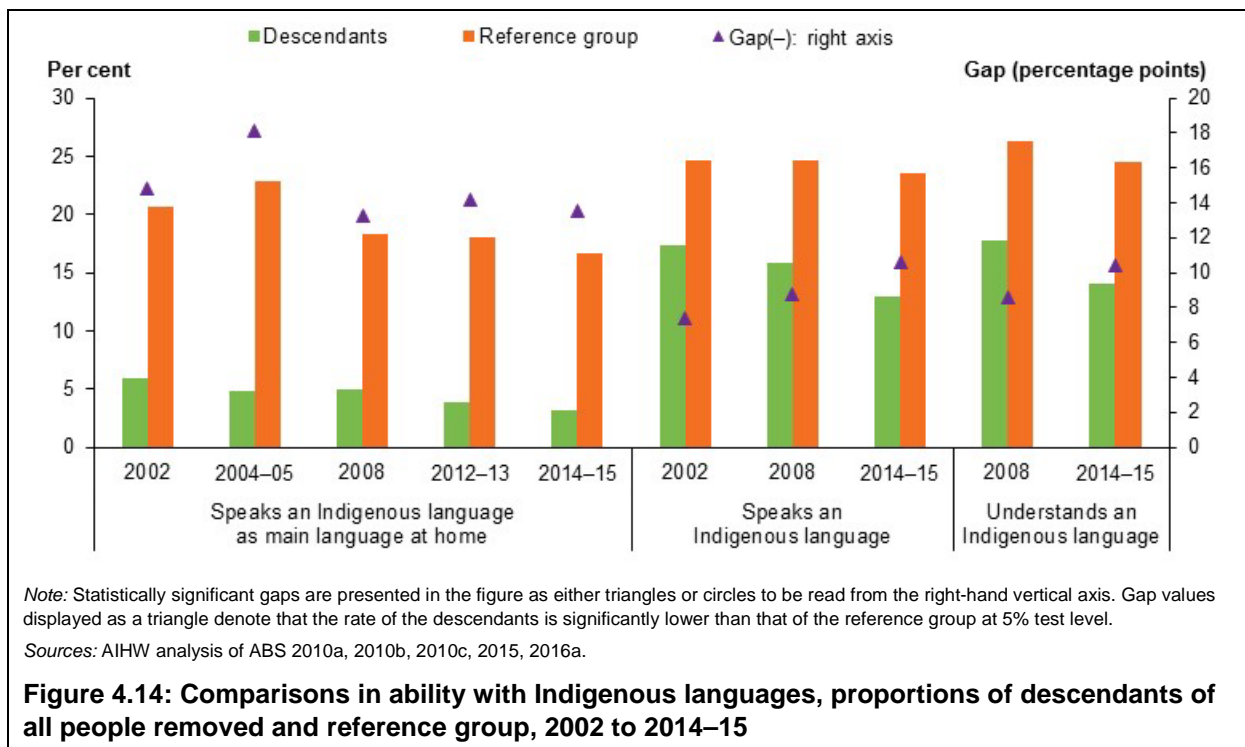
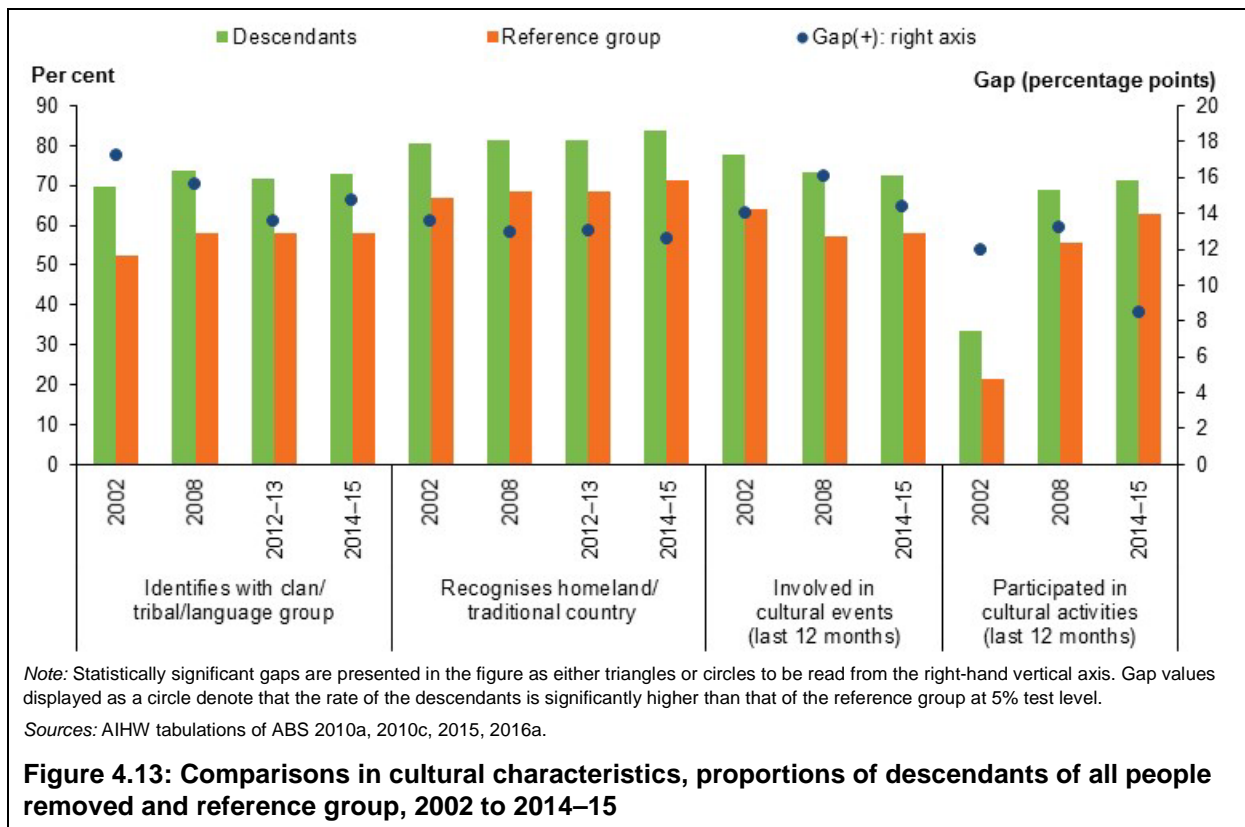
In all surveys, descendants were more likely than those in the reference group to report that they identified with a clan, tribal or language group (gaps of 15–17 pp), and that they recognised an area as homeland or traditional country (gaps of 13–14 pp). Both of these were significantly different between the two groups in all surveys.

The descendants were also more likely to report involvement in cultural events and participation in cultural activities (Figure 4.13). But they were less likely than the reference group to report that they spoke or understood an Indigenous language (gaps of up to 10–11 pp, respectively).

Compared with the reference group, a considerably lower proportion of the descendants reported speaking an Indigenous language as their main language at home (gaps of up to 14–18 pp) (Figure 4.14). The proportion who speak an Indigenous language as the main language at home has declined over time for both the descendants and the reference group.

The differences in language ability between the descendants and the reference group were significant for all three language outcomes across all surveys.

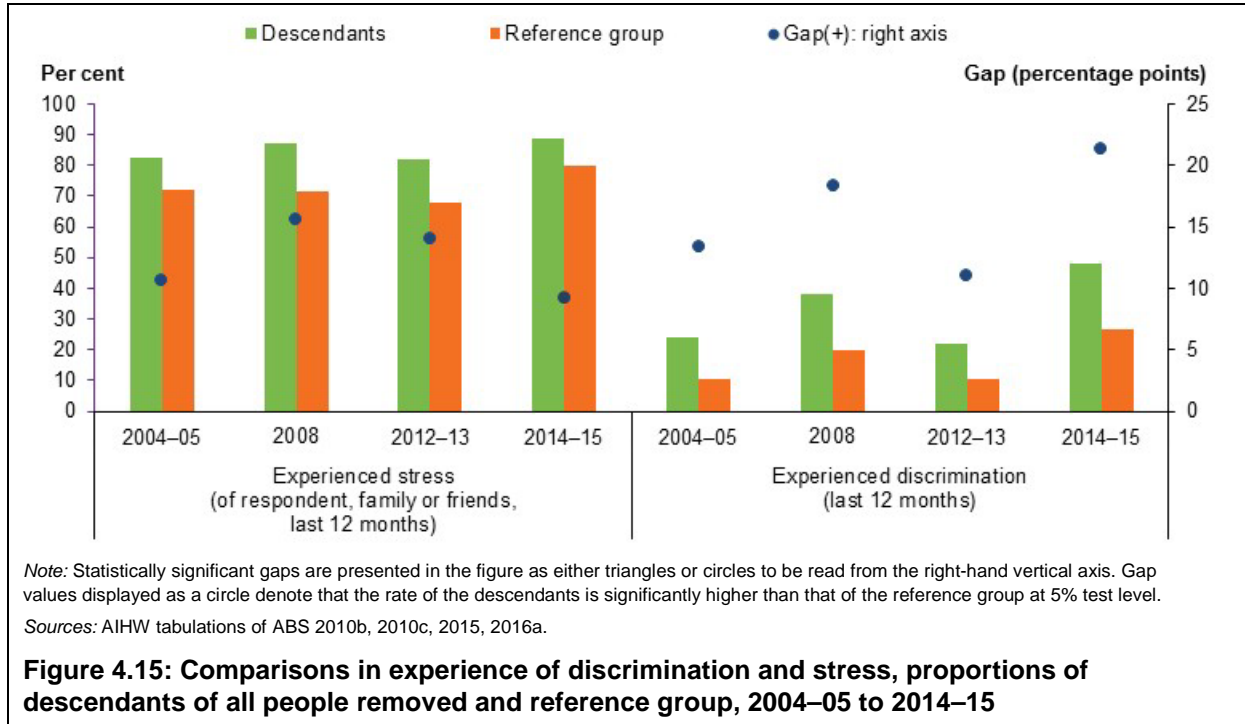
The proportion who were able both to speak and to understand an Indigenous language decreased over time for the descendants, whereas the proportion in these two outcomes remained relatively stable for the reference group.





## Life stressors—more stress experienced by descendants

Descendants were significantly more likely than the reference group to report having been treated unfairly (because they were Indigenous) and having experienced any stress in the previous 12 months in the four surveys since 2004–05 where this question was asked (Figure 4.15).

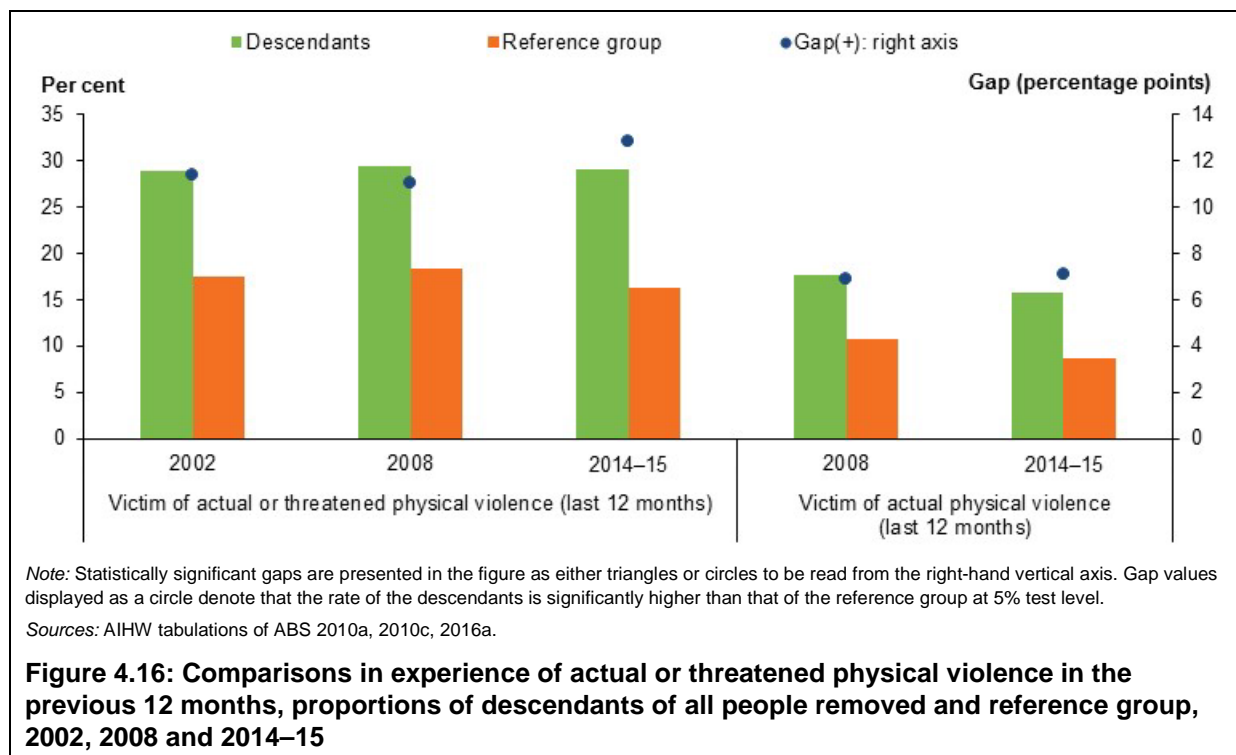


## Safety, law and justice—poorer outcomes among descendants

Descendants were significantly more likely than their reference group to report that they had been a victim of either actual or threatened physical violence in the previous 12 months. Between 2002 and 2014–15, this rate has remained relatively constant for both groups—at around 29% and 18%, respectively (Figure 4.16).

Between 2008 and 2014–15, descendants were significantly more likely than those in the reference group to report being a victim of actual physical violence. The gap remained constant over this time at 7 pp.



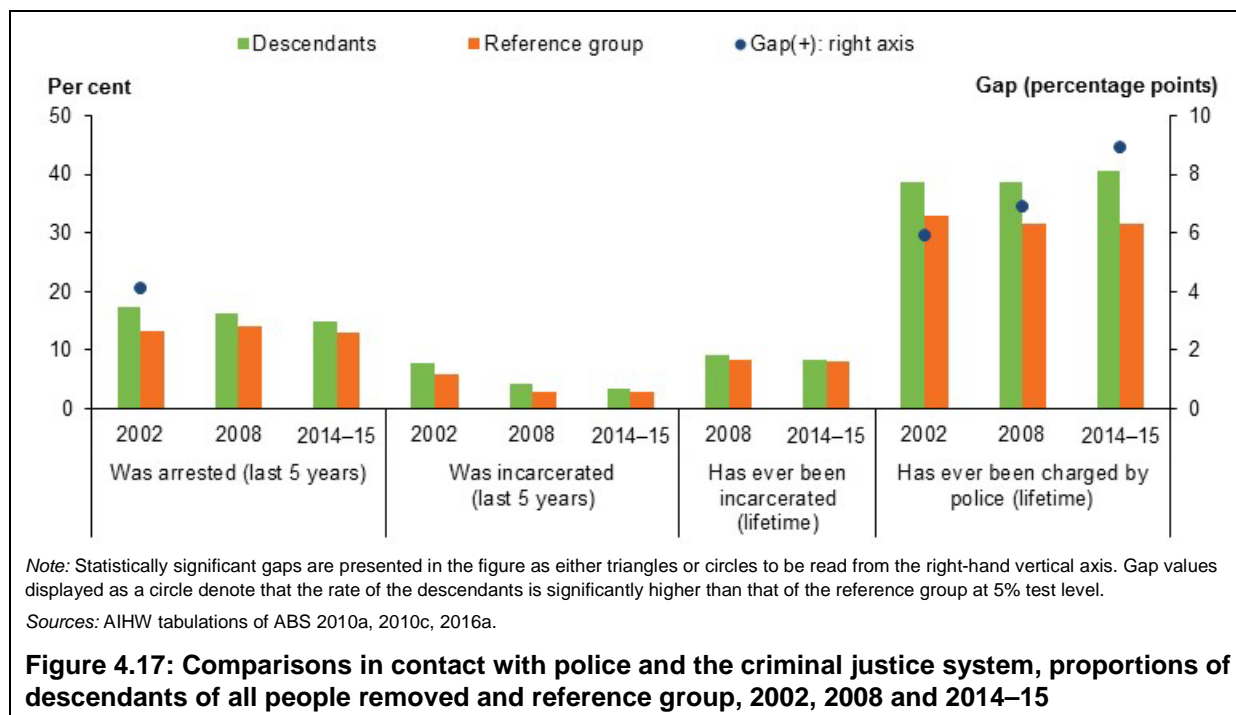


Some outcomes related to contact with the police and criminal justice system were persistently higher among the descendants compared with the reference group. Indigenous adults who reported to be descendants were (Figure 4.17):

- more likely to have ever been charged by police (gaps of 6–9 pp)
- more likely to have been arrested in the previous five years (gaps of 2–4 pp).

However, the gaps in the rates of incarceration in the two groups (ever incarcerated, or in the last five years only) were not significantly different in all survey periods.

The rate of ever being formally charged by police reported by the descendants increased since 2002. However, the rate of being arrested or incarcerated in the previous five years decreased for the descendants.



## Community functioning and social networks—less trust among descendants

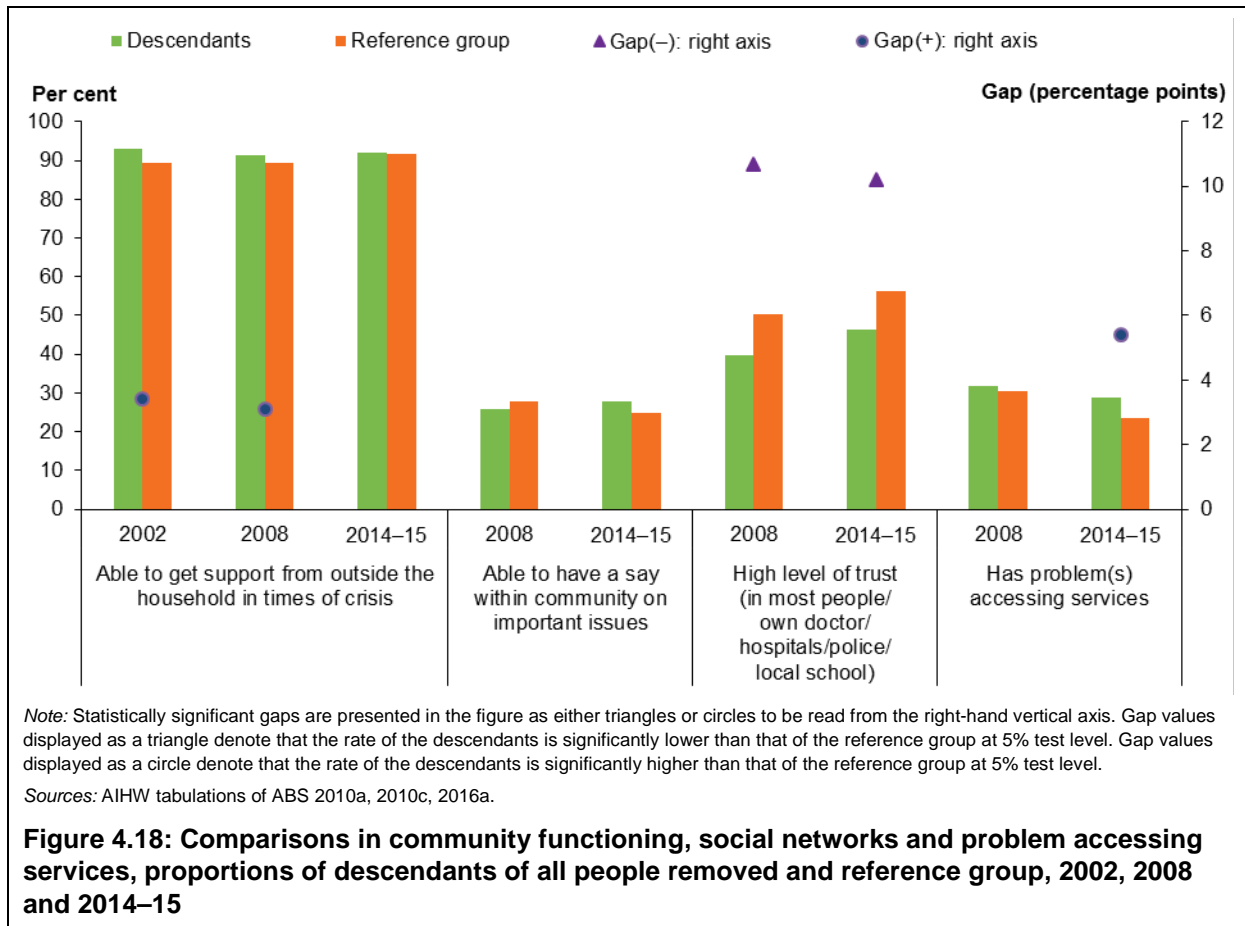
The ability to receive support from outside the household in times of crisis and to speak on community matters was similar for the descendants and the reference group in 2014–15. However, in 2002 and 2008, there was a significantly higher proportion of Indigenous adults who reported being able to receive support from outside the household among the descendants compared with the reference group.

There has been an increasing trend in the proportion of both the descendants and the reference group who have trust in their community (that is, their doctor, hospitals, the police, the local school and in most other people). This proportion was lower for the descendants, with a significant gap of around 10 pp in both 2008 and 2014–15, compared with the reference group (Figure 4.18).

## Problems in accessing services—more for descendants

In 2014–15, the descendants were more likely than the reference group to have experienced problems in accessing services (such as financial institutions, health services, government services and utilities)—29% compared with 23%. This difference is statistically significant (Figure 4.18).

However, both the descendants and their reference group reported a lower rate of having problems in accessing services in 2014–15 than in 2008.



## 5 Effects of being removed or being a descendant

### At a glance

#### Stolen Generations proxy population

- In 2014–15, the Stolen Generations proxy population was significantly more likely to have an adverse outcome in 12 of the 20 indicators examined in this chapter, compared with the reference group who were not removed, even after controlling for the differences in many other contributing factors to these outcomes.
- Compared with the reference group, the large significant effects of removal were estimated to be: 3.3 times as likely to have been incarcerated in the last five years, 2.2 times as likely to have been ever formally charged by police, 2 times as likely to have been arrested in the last five years, 1.8 times as likely to have government payments as their main income source, 1.7 times as likely to have experienced actual or threatened physical violence in the previous 12 months, and 1.7 times as likely not to be a home owner.
- In addition, in 2014–15, the effect of being removed also significantly impacted on: having poorer self-assessed health, poorer health (using a composite measure), poorer mental health, not being employed, having experienced homelessness, and having experienced discrimination in the past 12 months.
- Statistically significant effects of removal were also seen in the estimated results for the other two survey periods (2002 and 2008).
- For four of the 20 outcomes—low level of trust in the general community, low level of life satisfaction, not completing Year 12, and not speaking an Indigenous language—the effect of being removed was not generally statistically significant in all three periods.

#### Descendants of all people removed

- In 2014–15, descendants of all people removed were also significantly more likely to have an adverse outcome in 11 of the same 20 indicators examined in this chapter, compared with their reference group, even after controlling for the differences in many other factors contributing to these outcomes.
- Compared with their reference group, the large significant effects of being a descendant were estimated to be: 2 times as likely to have felt discriminated against in the last 12 months, 2 times as likely not to speak an Indigenous language, 1.9 times as likely to have experienced actual or threatened physical violence in the last 12 months, 1.6 times as likely not to have good health (using a composite measure), 1.5 times as likely to have problems accessing services in the last 12 months, and 1.5 times as likely to have been arrested in the last five years.
- In addition, in 2014–15, the effect of being a descendant also significantly impacted on: having a low level of trust in the general community, being ever charged by police, having poorer self-assessed health and mental health, and low life satisfaction.
- Three of the 20 outcomes consistently showed no significant difference between the descendants of all people removed and the reference group. These were being a current smoker, not owning a home, and not having completed Year 12.

## 5.1 Introduction

Chapters 3 and 4 compared the characteristics of the Stolen Generations proxy population and of the descendants of all people removed with their respective reference groups on a range of outcomes. These were simple comparisons, looking at each outcome individually, and not adjusting for other potential influences on these outcomes. The analyses in this chapter use a technique called multivariate regression analysis, which describes the relationship between a particular outcome and several explanatory variables at the same time. Box 5.1 provides some more detail about this method.

The multivariate analysis is carried out separately for a set of 20 selected outcomes, chosen from the previous list of 38 outcomes reported in Chapter 3 (and 4). The 20 are selected on the basis of which outcomes showed relatively larger differences in the simple comparative analyses of chapters 3 and 4. Data from three survey periods (2002, 2008 and 2014–15 NATSISS) are analysed for each of the 20 selected outcomes.

Although multivariate regression analysis looks at several variables at the same time, the results presented in this chapter are for the effect of the removal status variable only (either being a removed person in the cohort born before 1972, in Section 5.2, or being a descendant of a removed person, in Section 5.3). For each outcome, the results shown in this chapter can be interpreted as the estimated effect of removal on that outcome, after controlling for the effects of other factors that might be related to the outcome.

The purpose of this chapter is not to develop specialized regression models for each of the 20 outcomes chosen, but to analyse a wide range of outcomes over which the persistent effects of removal can be identified through a simple but sound modelling approach with a selected common set of candidate explanatory variables. These other explanatory variables are listed in Box 5.2. They are included as required in the model for a specific outcome in order to isolate more clearly the direct effects of being removed, or of being a descendant, by controlling for the potential effects of the other key determinants of that outcome.

The choice of this set of explanatory variables follows similar modelling work, based on the 2014–15 NATSISS, carried out in AIHW (2018) on the key factors that drive changes in the Indigenous outcomes behind the current Closing the Gap targets. The estimates of the effects of these other variables are not of direct interest in this chapter and are not reported here, but some discussion of these selected results are in Appendix D.

The results in this chapter are presented as odds ratios. The odds of an outcome is not exactly the same as the likelihood (or probability) of that outcome occurring, but these two concepts are closely related. For simplicity of language, the results on the estimated odds ratios reported in this chapter on the effects of removal are interpreted as the difference in the likelihood of an outcome occurring between the Stolen Generations proxy population and the reference group who were not removed (or between the descendants and their reference group), after controlling for other factors.

- An odds ratio higher than 1 indicates that the outcome is more likely to occur in the Stolen Generations proxy population than in the reference group.
- An odds ratio of less than 1 indicates that the outcome is less likely to occur in the Stolen Generations proxy population than in the reference group.
- An odds ratio of 1 indicates no difference between the two groups.

The further away the odds ratio is from 1, the stronger is the effect of being removed or being a descendant on the outcome of interest. Standard statistical procedures are applied to test if the estimated odds ratios for the effects of being removed, or for the effects of being a descendant, are significantly different from 1.

### **Box 5.1: Multivariate regression method in brief**

- All the 20 selected outcomes analysed are defined as yes/no (or binary) categorical variables. They classify the valid responses into two possible categories (for instance, being employed or not employed; being in good health or not being in good health).
- A logistic regression approach was used, which is appropriate for this type of data on the outcome being modelled. They estimate the effects of different explanatory factors on the odds of an individual being in one of the two categories of the outcome variable.
- A separate logistic regression model was estimated for each outcome variable. Each model included an indicator for whether an individual reported being removed (in Section 5.2) or being a descendant of all people removed (Section 5.3), along with other variables that are potential determinants of the outcome of interest.
- Given the depth of coverage of the NATSISS, a wide range of explanatory variables are available to include in the multivariate regression model for each of the 20 outcomes analysed. A set of key 25 explanatory variables was identified for use in these models, selected from the available literature, and they are listed in Box 5.2.
- Since these key explanatory variables will also include some of the 20 outcomes being analysed, the explanatory variables will differ slightly across the 20 models estimated. It is necessary to exclude from the model for a specific outcome that same variable or its close substitute as an explanatory variable.
- Another reason for the differences in the explanatory variables selected for a specific model is the expected direction of the causal relationships. For instance, it is reasonable to include being a current smoker in the set of explanatory variables in the model for the self-assessed health outcome. This is the main expected causal mechanism. So when smoking itself is the outcome being modelled, self-assessed health is not included as an additional explanatory variable (because that estimated relationship would still reflect more strongly the effect of smoking on health, rather than any possible causal mechanism running from health to smoking).
- The same set of explanatory variables, however, is used in the regression model for a specific outcome when estimating the effects of being removed in the cohort born before 1972 and the effects of being a descendant among those aged 18 and over.
- The sample size for each model consists of the number of survey respondents for whom valid responses were recorded for the particular outcome variable of interest and for all of the explanatory variables. Sample sizes, and thus the reflected population sizes, are not necessarily the same for each of the outcomes analysed.
- The sample sizes in the ABS surveys on people removed in the age cohort born before 1972 do not support more robust model estimation strategies where all aspects of the inter-relationship among the 20 outcomes analysed are controlled for in a more general way, whereby the outcome and some of the model's explanatory variables can be determined jointly. Future work can use more robust estimation techniques to verify more precisely the effects of removal than what have been estimated in this report.
- The results in this chapter on the effects of being removed, or of being a descendant, represent the average effect observed in the estimation sample, after controlling for the effects of other explanatory variables. More extensive analysis to test whether the effects of removal varied with the other explanatory factors, such as with age, sex, or remoteness areas, was not undertaken due to the small sample sizes for these further breakdowns, and also due to the sheer volume of the analysis already carried out.
- The 20 outcomes of interest, the two types of study cohorts analysed, and three time periods of data, result in up to 120 separate regression models estimated.

### **Box 5.2: Set of explanatory variables used in the multivariate regression models**

The following **demographic and location** variables were common to all estimated models:

- removal status
- sex
- remoteness classification (categorised only as remote or non-remote)
- age categories
- marital status
- number of dependents
- additional indicator for being a Torres Strait Islander (Queensland sample only).

These additional explanatory variables were included selectively in each of the models:

#### **Socio-economic factors**

- *highest education level*
- *is currently employed*
- *household income level (by decile ranking)*
- over-crowded housing condition (as adequacy of the number of bedrooms)

#### **Health status**

- *self-assessed health categories*
- has disability or a long-term health condition

#### **Health risk factors**

- *is a current smoker*
- risky alcohol consumption (long-term guidelines)
- adequacy of daily fruit or vegetable intake

#### **Language and cultural factors**

- difficulty in speaking English
- prior involvement of cultural activities
- main language spoken at home is Indigenous
- living in a homeland

#### **Miscellaneous factors**

- *prior arrest (in last five years)*
- *has experience of actual or threatened physical violence*
- *prior experience of homelessness (in last 10 years)*
- recent experience of stress (in last 12 months)
- indicator for mixed household type (with non-Indigenous members).

The eight explanatory factors shown in *italics* in the above list are also outcomes being modelled. These factors, however, may have multiple categories when used as an explanatory variable, but always have only two categories when used as an outcome. For example, several levels of highest educational qualification are defined when education is used as an explanatory variable, but the outcome modelled for education is whether a person has Year 12 qualification or not.

## 5.2 Effects of being removed

There was a significantly higher likelihood of adverse outcomes faced by the Stolen Generations proxy population for a wide range of outcomes, even after controlling for the differences in many other contributing factors to these outcomes. The estimated odds ratio (OR) results from the multivariate analysis on the effects of being removed for the cohort born before 1972—compared with their reference group for the selected outcomes from the 2002, 2008 and 2014–15 NATSISS—are summarised in Figure 5.1.

In addition, the multivariate analysis was conducted for one more outcome derived only from the 2014–15 survey. This is a composite measure of good health that covers multiple dimensions of health, from subjective to objective indicators, in order to represent the overall wellbeing of Indigenous Australians. Under this measure, 14% of the Stolen Generations proxy population was assessed to have good health compared with 26% of the reference group in 2014–15. Further details on how the composite health variable is derived are provided in Appendix C.

### Impact of being removed on the likelihood of adverse outcomes: 2014–15

In 2014–15, the Stolen Generations proxy population experienced higher odds of an adverse outcome in 12 of the 20 outcomes examined (using the conventional 5% test level corresponding to a 95% confidence interval, marked in gold colour in Figure 5.1).

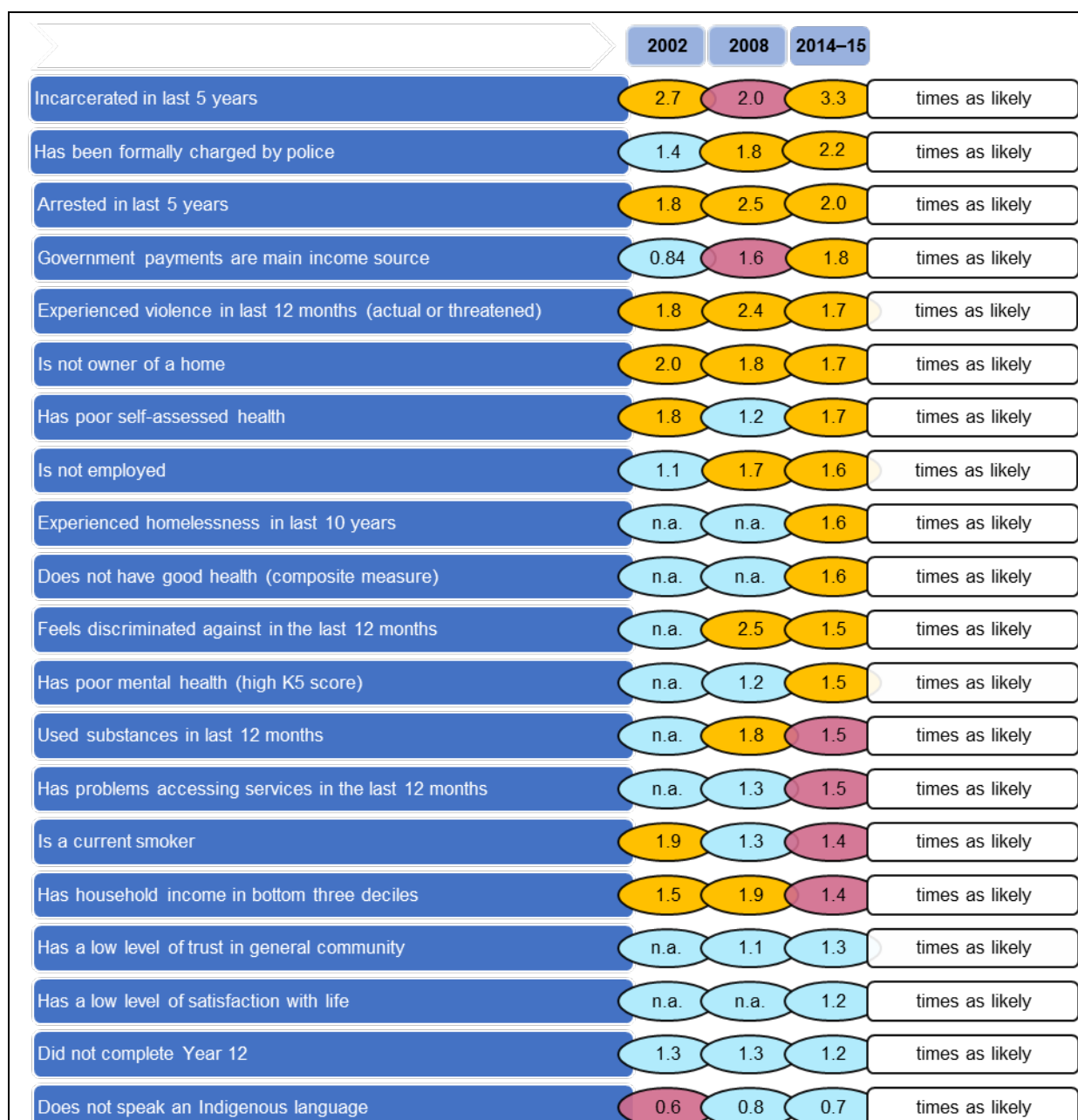
Compared with the reference group, the Stolen Generations proxy population was:

- 3.3 times as likely to have been incarcerated in the last five years
- 2.2 times as likely to have ever been formally charged by police
- 2 times as likely to have been arrested in the last five years
- 1.8 times as likely to have government payments as their main income source
- 1.7 times as likely to have been a victim of actual or threatened physical violence in the previous 12 months
- 1.7 times as likely not to be the owner of a home
- 1.7 times as likely to have poor self-assessed health
- 1.6 times as likely to be currently not employed
- 1.6 times as likely to have experienced homelessness in the last 10 years
- 1.6 times as likely not to have 'good health' (based on the composite health measure)
- 1.5 times as likely to have experienced discrimination in the previous 12 months
- 1.5 times as likely to have poor mental health (high K5 score).

The Stolen Generations proxy population in 2014–15 was marginally more likely than the reference group to have used substances (illicit drugs or misused medications) in the previous 12 months, to have problems accessing services in the last 12 months, to be a current smoker, and to live in households with income in the bottom three deciles. (The odds ratios for these outcomes are marked in pink colour in Figure 5.1.)

For four of the 20 outcomes (had a low level of trust in the general community, had a low level of satisfaction with life, did not complete Year 12 and does not speak an Indigenous language), the effect of being removed was not statistically significant.





**Notes**

1. The symbol n.a. denotes data not available in that specific survey on the variable of interest.
2. The colour scheme indicates whether the estimated odds ratio (OR) is close to 1 or statistically different from 1 at the 5% and 10% test levels. Gold denotes the OR is significantly different from 1 at the conventional 5% test level, consistent with the 95% confidence interval. Pink denotes the OR is significantly different from 1 at the 10% level, consistent with the wider 90% confidence interval. Light blue means the estimated OR is not significantly different from 1 (meaning the outcome measured does not vary significantly between those who were removed from their families and the reference group in this age cohort who were not removed).

Sources: AIHW analysis of ABS 2010a, 2010c, 2016a.

**Figure 5.1: Odds ratio estimates of the effects of being removed for the cohort born before 1972, on 20 selected outcomes, results from the 2002, 2008 and 2014–15 NATSISS**

## **Time series analysis 2002 to 2014–15**

Three outcomes showed a consistent pattern of significant differences in all three survey periods, with a higher likelihood for the Stolen Generations proxy population to experience these adverse outcomes. These were being arrested in the last five years, not being a homeowner, and experiencing violence in the last 12 months.

Some outcomes were reported in only two surveys. Of these five (feels discriminated against, has poor mental health, used substances, problems accessing services, low level of trust in the community), only one indicator—feeling discriminated against in the past 12 months—had a significantly higher likelihood to occur in the Stolen Generations proxy population relative to the reference group in both survey periods.

The estimated odds ratios are consistently lower than 1 on the outcome ‘does not speak an Indigenous language’. This indicates that in general the Stolen Generations proxy population are more likely to speak an Indigenous language, but the estimated odds ratio are not statistically significant at the conventional 5% test level in any of the three survey periods.

## **5.3 Effects of being a descendant**

The estimated odds ratio on the effects of being a descendant of all people removed for the same set of 20 selected outcomes from the 2002, 2008 and 2014–15 NATSISS are summarised in Figure 5.2.

The additional analysis on the composite measure of good health was also conducted for the descendants. Under this measure, 33% of the descendants were assessed to have good health compared with 38% of the reference group in 2014–15.

### **Impact of being a descendant on the likelihood of adverse outcomes: 2014–15**

The results for the descendants show a similar pattern of having significantly higher odds of adverse outcomes in 11 of the same 20 outcomes in 2014–15. However, the list of outcomes where the descendants have the greatest adversity differ slightly from the similar list of outcomes observed for the Stolen Generations proxy population. Compared with the reference group, Indigenous adults who reported to be descendants were:

- 2 times as likely to feel discriminated against in the last 12 months
- 2 times as likely not to speak an Indigenous language
- 1.9 times as likely to be a victim of threatened or physical violence in the last 12 months
- 1.6 times as likely not to have good health (based on a composite health measure)
- 1.5 times as likely to have a problem accessing services in the last 12 months
- 1.5 times as likely to have been arrested in the last five years
- 1.4 times as likely to have a low level of trust in the general community
- 1.4 times as likely to have ever been formally charged by police
- 1.4 times as likely to have poor self-assessed health
- 1.4 times as likely to have a low level of satisfaction with their lives
- 1.3 times as likely to have poor mental health (high K5 score).

For two of the outcomes, compared with the reference group, Indigenous adults who reported to be descendants were significantly less likely to:

- live in households with income in the bottom three deciles (0.7 times)
- have government payments as the main source of income (0.6 times).

For the remaining seven outcomes—was incarcerated in the last five years, experienced homelessness in the last 10 years, used a substance in the last 12 months, being a current smoker, not owning a home, not currently employed, and not completing Year 12 or equivalent—there was no significant effect of being a descendant relative to the reference group.

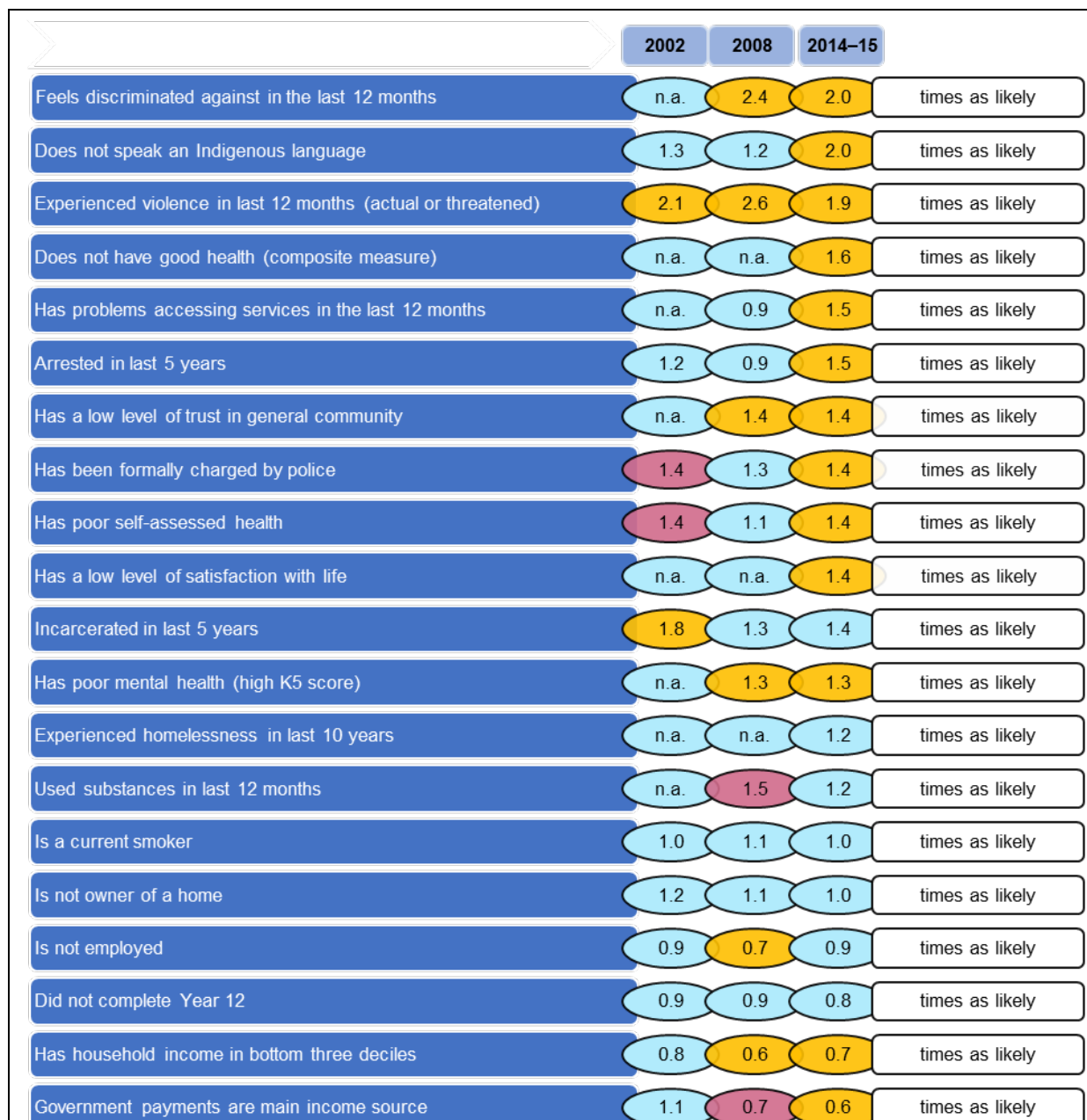
## **Time series analysis 2002 to 2014–15**

Only one outcome—experience of violence in the last 12 months—showed a consistent pattern of significant differences in all three survey periods, with a higher likelihood for the descendants to experience violence. Three other outcomes showed significantly higher odds for the descendants relative to the reference group in at least two survey periods with available data—feels discriminated against in the last 12 months, has low level of trust in the general community, and has poor mental health.

Three of the 20 outcomes consistently showed no significant difference between the descendants and the reference group (when data are available for all three survey periods). These were being a current smoker, not owning a home, and not having completed Year 12.

On three outcomes, the descendants had significantly lower odds of experiencing these adverse outcomes (that is, the descendants were more advantaged than the reference group) in at least one survey period. These include a higher likelihood of being employed, a lower likelihood of having household income in the bottom three deciles, and a lower likelihood of having government payments as the main source of income. However, these lower odds are not observed in all three survey periods, nor are they consistently significant.

In general, the adverse effects of removal are more obvious in the comparisons between the Stolen Generations proxy population and their reference group who were not removed, than between the descendants and other Indigenous adults who had not experienced any type of removal.



**Notes**

1. The symbol n.a. denotes data not available in that specific survey on the variable of interest.
2. The colour scheme indicates whether the estimated odds ratio (OR) is close to 1 or statistically different from 1 at the 5% and 10% test levels. Gold denotes the OR is significantly different from 1 at the conventional 5% test level, consistent with the 95% confidence interval. Pink denotes the OR is significantly different from 1 at the 10% level, consistent with the wider 90% confidence interval. Light blue means the estimated OR is not significantly different from 1 (meaning the outcome measured does not vary significantly between the descendants and their reference group aged 18 and above).

Sources: AIHW analysis of ABS 2010a, 2010c, 2016a.

**Figure 5.2: Odds ratio estimates of the effects of being descendants, on 20 selected outcomes, results from 2002, 2008 and 2014–15 NATSISS**

## 6 Comparisons with the non-Indigenous population

### At a glance

- Comparisons are made of the age-standardised rates for a limited set of 14 outcomes between the Stolen Generations proxy population and a cohort of non-Indigenous Australians aged 40 and over, and between the descendants and a cohort of non-Indigenous Australians aged 18 and over.
- Age-standardised rates are also computed for the Indigenous reference groups previously defined.
- The non-Indigenous data are sourced from the 2014 General Social Survey (GSS), and compared with the Indigenous data from the 2014–15 NATSISS. Comparisons are limited by the few outcomes measured in a similar way in the NATSISS and GSS.

### Stolen Generations proxy population

- The Stolen Generations proxy population consistently had less favourable results than the non-Indigenous reference group in 13 of 14 outcomes.
- The largest differences between the Stolen Generations proxy population and the non-Indigenous comparison group occurred in lower rate of home ownership, higher reliance on government payments as main source of income, lower rate of being employed, lower rate of completing Year 12, and having lower household income.
- In terms of long-term health conditions, the prevalence of diabetes and heart disease were substantially higher in the Stolen Generations proxy population, compared with the non-Indigenous reference group.

### Descendants of all people removed

- Descendants of all people removed also consistently had less favourable results than the non-Indigenous reference group in the same 13 of the 14 outcomes.
- The largest differences between the descendants and the non-Indigenous comparison group occurred in lower rate of completing Year 12, lower rate of home ownership, higher reliance on government payments as main source of income, lower rate of being employed, and having lower levels of household income.
- On six outcomes the descendants did relatively better than their Indigenous reference group based on age-standardised rates. These outcomes are: being employed, having completed Year 12, having higher household income and personal income levels, relying less on government payments as main source of income, and owning a home.

### 6.1 Introduction

This chapter presents simple comparisons of the mean values on a limited set of outcomes for the Stolen Generations proxy population and a comparable cohort of non-Indigenous Australians. Similar comparisons are also presented for the descendants of all people removed and a comparable age cohort of non-Indigenous Australians.

Chapter 3 showed large differences in many of the selected outcomes between the Stolen Generations proxy population born before 1972 and a comparable cohort of Indigenous Australians who were not removed. This was also the case for the descendants of all people

removed (Chapter 4) compared with their reference group. Comparing outcomes for the Stolen Generations proxy population and for the descendants with the non-Indigenous population is still of interest because comparing the effects of being removed from family only with other Indigenous Australians who were not removed can be restrictive.

The results of the comparative analysis are presented simply as rate differences and as rate ratios. The former are the absolute difference between the two populations, or the gap, in percentage points on the mean value of an outcome; and the latter are the ratio of the mean values of an outcome between the two groups being compared.

Data for non-Indigenous Australians are sourced from the 2014 General Social Survey (GSS). Box 6.1 reviews comparability of data between the 2014 GSS for non-Indigenous Australians and the 2014–15 NATSISS for the Stolen Generations proxy population.

The comparisons of the mean characteristics in this chapter look at each outcome individually, and do not adjust for other potential influences on these outcomes, unlike the analysis in Chapter 5.

#### **Box 6.1: Comparing GSS and NATSISS data**

- The non-Indigenous data are sourced from the 2014 General Social Survey (GSS). The GSS is a regular ABS survey that collects information at a national level on the personal and household characteristics of people aged 15 and over on a range of social and economic dimensions. It was first conducted in 2002 and has since been conducted every four years.
- The non-Indigenous data extracted from the GSS are provided by the ABS as part of the 2014–15 NATSISS TableBuilder files specifically to enable comparisons between Indigenous and non-Indigenous Australians.
- The TableBuilder format, however, limits the scope of the comparative analyses to simple bivariate tabulations of differences between the two groups. More detailed statistical analyses, such as regression modelling which controls for the effects of other factors, cannot be conducted within TableBuilder.
- Although unit record GSS data can be accessed in other ways that do allow regression modelling, these files lack an Indigenous identifier and so the analysis of the unit record data cannot be limited to non-Indigenous respondents only.

Other limitations exist when using the GSS as the data source for the non-Indigenous reference group compared with the Indigenous population in the Indigenous-specific ABS surveys. Some of these limitations are:

- The GSS is not strictly comparable in coverage with the NATSISS since the GSS excludes people living in *Very remote* locations. However, this is less of a concern for the analyses in this chapter since the GSS data reported here are only with reference to the non-Indigenous population. The relatively small proportion of non-Indigenous Australians living in *Very remote* areas means that their effect on the national estimates for the non-Indigenous population is likely to be small.
- There is a small discrepancy in the age cut-off for the non-Indigenous population due to the limitations of the GSS data available in the ABS TableBuilder portal. Age is grouped into five-year categories; and the '40 and over' age group in 2014 is chosen as the closest comparable age group for the '42 and over' age group from the 2014–15 NATSISS.

To allow a more meaningful comparison of the differences in outcomes between the Stolen Generations proxy population and the non-Indigenous population reference group, age-standardisation<sup>6</sup> is needed because of the observed differences in the age structures of the Indigenous and non-Indigenous populations. Age-standardisation was not needed when comparing the different groups within the Indigenous population described in earlier chapters. For completeness, Table 6.1 also reports the age-standardised rates for the Indigenous reference groups previously defined so that they are comparable with the other age-standardised rates. Because of age-standardisation, data presented in this chapter on the mean values for any of the Indigenous subgroups should not be compared with those presented in earlier chapters which were not age-standardised.

## 6.2 Comparison between Stolen Generations proxy population and non-Indigenous Australians

The age-standardised mean values for a set of 14 outcomes described in Chapter 3 from the 2014–15 NATSISS (and which are also found in the 2014 GSS) are presented in Table 6.1. The first two groups compared are Indigenous people aged 42 and over from the 2014–15 NATSISS (coinciding with the cohort born before 1972) who reported being removed from their families, and those in the Indigenous reference group who did not report being removed. The third group included in Table 6.1 is the comparable non-Indigenous population aged 40 and over from the 2014 GSS.

Table 6.1 also shows two sets of differences (or gaps) in the outcomes: differences between the Stolen Generations proxy population and the Indigenous reference group, and the differences between the Stolen Generations proxy population and the non-Indigenous reference group.

As expected, for almost all of the 14 outcomes in Table 6.1, the difference between the Stolen Generations proxy population and the comparable non-Indigenous reference group is substantially higher than the difference between the Stolen Generations proxy population and their Indigenous reference group. One exception occurs in the age-standardised rates for outcome 13 where slightly higher percentages of the Stolen Generations proxy population (31%) and the Indigenous reference group (32%) report they have a say within the community on important issues, than the non-Indigenous reference group (26%). Another exception occurs in one of the sub-indicators in outcome 14 about specific health conditions. The non-Indigenous reference group has a slightly higher rate of cancer at 7.4% compared with the 7.1% rate for the Indigenous reference group, but the rate for the Stolen Generations proxy population is the highest at 9.1%.

In several instances, the difference in the size of the gaps is high. For example, the rate of home ownership (including having a mortgage) was 25% for the Stolen Generations proxy population, compared with 42% for the Indigenous reference group (age-standardised). This is a gap of 17 percentage points. However, for the non-Indigenous reference group, the age-standardised home ownership rate is substantially higher, at 80%, leading to a gap with the Stolen Generations proxy population of around 55 percentage points.

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<sup>6</sup> The method adopted is direct standardisation, which takes the age-specific rates (that is, the mean values of the outcomes within a specific age group) and calculates the aggregate average rates for each of the comparison groups assuming that they all had the same age distribution as the standard population. The standard population used is the 30 June 2001 Standard Population released by the ABS (ABS 2013). Age groups used for age-standardisation in Table 6.1 are 42–44, 45–49, 50–54, 55–59, 60–64 and 65 and over. A wider set of age groups was used for age-standardisation of the results in Table 6.2 for the descendants.

**Table 6.1: Comparison of selected characteristics of the Stolen Generations proxy population born before 1972 and comparable Indigenous and non-Indigenous populations, based on age-standardised rates, 2014–15 and 2014**

Outcomes	Mean rates (age-standardised %)			Gap (pp) between removed Indigenous cohort and:	
	Removed in Indigenous cohort born before 1972 <sup>(a)</sup>	Not removed Indigenous reference group <sup>(a)</sup>	Non-Indigenous reference group <sup>(b)</sup>	Indigenous reference group	Non-Indigenous reference group
1. Not employed	62.0	47.4	23.9	14.6	38.1
2. Did not complete Year 12	91.2	87.1	56.8	4.1	34.4
3. Poor self-assessed health	53.4	40.1	20.4	13.3	33.0
4. Personal income in bottom 3 deciles	45.5	36.3	27.1	9.2	18.4
5. Household income in bottom 3 deciles	65.7	54.3	30.9	11.4	34.7
6. Government payments as main source of personal income	73.2	59.6	27.4	13.7	45.8
7. Is a home owner	24.7	41.7	80.2	-17.0	-55.4
8. Has disability or restrictive long-term condition	67.8	62.2	41.6	5.7	26.3
9. Has disability (severe/profound core activity restriction)	16.1	12.4	6.7	3.6	9.4
10. Experienced stress (by respondents in last 12 months)	72.9	64.6	62.4	8.3	10.5
11. Experienced homelessness (lifetime)	40.1	21.7	12.1	18.4	28.0
12. Able to get support in times of crisis	89.0	90.4	93.4	-1.4	-4.3
13. Has a say within community on important issues	31.0	31.6	25.7	-0.6	5.3
14. Has a specific health condition:					
Has asthma	22.0	17.9	10.6	4.1	11.4
Has bronchitis / emphysema	12.0	8.1	5.8	3.9	6.2
Has arthritis / osteoporosis	28.4	25.8	22.4	2.6	6.1
Has cancer	9.1	7.1	7.4	2.0	1.7
Has diabetes	37.8	28.8	10.1	9.0	27.7
Has heart disease	44.2	36.9	9.9	7.3	34.3
Has stroke	6.3	3.8	1.6	2.5	4.7
Has kidney disease	7.9	7.3	2.6	0.6	5.3
Has back pain / back problems	41.1	34.4	28.2	6.8	12.9

(a) With the exception of outcome 1 ('not employed'), data for both Indigenous comparison groups are for those aged 42 and over from the 2014–15 NATSISS. For outcome 1, data are for those aged 42–64.

(b) With the exception of outcome 1 ('not employed'), data for the non-Indigenous reference group are for those aged 40 and over from the 2014 GSS. For outcome 1, data are for those aged 40–64.

*Notes*

1. The gap (rate difference) is calculated for both the difference in rates between the Stolen Generations proxy population and their Indigenous reference group, as well as the difference between the Stolen Generations proxy population and the non-Indigenous reference group. Statistical significance of these differences are not reported.

2. The population used for age-standardisation is the Standard Population released by the ABS for 30 June 2001 (ABS 2013).

Sources: AIHW tabulations of ABS 2014c, 2016a.



Similar large differences between the Stolen Generations proxy population and the non-Indigenous comparison group are also evident for many other outcomes, including:

- the percentage of people who rely on government payments as the main source of income was 73% for the Stolen Generations proxy population compared with 60% for Indigenous Australians aged 42 and over in the reference group. In comparison, 27% of non-Indigenous Australians reported that they rely on government payments as the main source of income, resulting in a gap between the Stolen Generations proxy population and the non-Indigenous population of around 46 percentage points
- the proportion who reported not being employed has a gap of 38 pp between the Stolen Generations proxy population and the non-Indigenous reference group: the proportion who were not employed was 24% for non-Indigenous Australians aged 40 and over, 47% in the Indigenous reference group aged 42 and over, and 62% in the Stolen Generations proxy population
- the proportion who reported having household income in the bottom three deciles (gap of 35 pp between the Stolen Generations proxy population and the non-Indigenous reference group)
- the proportion who reported not completing Year 12 (gap of 34 pp between the Stolen Generations proxy population and the non-Indigenous reference group)
- the proportion of respondents reporting specific long-term health conditions (outcome 14), was consistently higher among the Stolen Generations proxy population:
  - the prevalence of diabetes was 10% in the non-Indigenous reference group, 29% in the Indigenous reference group and 38% in the Stolen Generations proxy population
  - the prevalence of asthma was 11% in the non-Indigenous reference group, compared with 18% in the Indigenous reference group and 22% in the Stolen Generations proxy population.

When expressed as rate ratios, compared with non-Indigenous adults born before 1972, the Stolen Generations proxy population was (not controlling for the effects of other factors):

- 4.5 times as likely to have had heart disease
- 3.9 times as likely to have had a stroke
- 3.3 times as likely to have experienced homelessness (lifetime)
- 3.0 times as likely to have kidney disease
- 2.6 times as likely to have poor self-assessed health.

### **6.3 Comparison between descendants of all people removed and non-Indigenous Australians**

Table 6.2 presents the age-standardised mean values for the same set of outcomes as in Table 6.1 but for three different groups: the descendants of all people removed, the Indigenous reference group for the descendants, and the non-Indigenous reference group for the descendants. All three groups relate to people aged 18 and over. The descendants of all people removed in this analysis exclude those who also reported to have been removed themselves from their families.

Table 6.2 compares the difference in the mean values (the gap) between the descendants and the Indigenous reference group, and between the descendants and the non-Indigenous reference group.

**Table 6.2: Comparison of selected characteristics of the descendants of all people who were removed and comparable Indigenous and non-Indigenous populations, people aged 18 and over, based on age-standardised rates, 2014–15 and 2014**

Outcomes	Mean rates (age-standardised) (%)			Gap (pp) between descendants and:	
	Descendants of all people removed <sup>(a)</sup>	Indigenous reference group <sup>(a)</sup>	Non-Indigenous reference group <sup>(a)</sup>	Indigenous reference group	Non-Indigenous reference group
1. Not employed	43.6	47.6	22.6	-4.1	21.0
2. Did not complete Year 12	72.9	76.3	41.2	-3.5	31.7
3. Poor self-assessed health	33.6	27.3	15.5	6.3	18.1
4. Personal income in bottom 3 deciles	28.4	37.7	25.7	-9.3	2.7
5. Household income in bottom 3 deciles	46.7	52.1	25.3	-5.4	21.4
6. Government payments as main source of personal income	50.2	56.6	21.1	-6.4	29.1
7. Is a home owner	36.2	30.9	67.5	5.3	-31.4
8. Has any disability or restrictive long-term condition	51.7	47.8	30.7	3.9	21.1
9. Has disability (severe or profound core activity restriction)	9.9	7.6	4.5	2.2	5.4
10. Experienced stress (by respondents in last 12 months)	72.6	62.1	63.2	10.5	9.4
11. Experienced homelessness (lifetime)	34.7	20.4	13.8	14.2	20.9
12. Able to get support in time of crisis	91.0	91.6	94.9	-0.6	-3.9
13. Has a say within community on important issues	27.4	27.0	24.5	0.3	2.8
14. Has a specific health condition:					
Has asthma	20.0	16.6	11.3	3.3	8.7
Has bronchitis / emphysema	7.2	4.3	4.3	2.9	2.9
Has arthritis / osteoporosis	19.2	12.7	13.1	6.5	6.1
Has cancer	7.0	3.7	4.5	3.3	2.5
Has diabetes	18.9	19.3	6.1	-0.4	12.8
Has heart disease	24.3	22.5	5.5	1.8	18.8
Has stroke	1.6	2.0	1.0	-0.4	0.6
Has kidney disease	5.9	4.4	1.6	1.5	4.3
Has back pain / back problems	29.6	23.1	20.7	6.5	8.9

(a) With the exception of outcome 1 ('not employed'), data in this table are for those aged 18 and over. For outcome 1, data are for those aged 18–64 only.

*Notes*

1. The rate difference (gap) is calculated for both the difference in rates for the examined outcomes between the descendants and their Indigenous reference group as well as the difference between the descendants and the non-Indigenous reference group. Statistical significance of these differences are not reported.
2. The population used for age-standardisation is the Standard Population released by the ABS for 30 June 2001 (ABS 2013).

Sources: AIHW tabulations of ABS 2014c, 2016a.

Similar to the outcomes observed for the Stolen Generations proxy population, for almost all of the 14 outcomes in Table 6.2, the gap between the descendants and the non-Indigenous reference group is larger than the gap between the descendants and the Indigenous reference group. One exception occurs again for outcome 13, where slightly higher percentages of the descendants (27%) and the Indigenous reference group (27%) report they have a say within the community on important issues than the non-Indigenous reference group (25%).

Among these outcomes, the largest gaps between descendants and the comparable non-Indigenous group occurred in completing Year 12 (32 pp), home ownership (31 pp), and reliance on government payments (29 pp).

In six instances, there were better outcomes for descendants than their Indigenous reference group, but the descendants consistently had worse outcomes than the non-Indigenous reference group. These six outcomes are employment status, Year 12 completion, personal income level ranking, household income level ranking, home ownership and dependence on government payments.

With regards to the outcome about specific health conditions, the prevalence of each health condition is generally highest among the descendants compared with the other two reference groups. Moreover, the gap between descendants and the comparable non-Indigenous group is higher than the gap between descendants and the Indigenous reference group in 6 out of the 9 selected conditions. (The exceptions occur in the rate of having bronchitis/emphysema, arthritis/osteoporosis, and cancer).

Expressed as rate ratios, compared with non-Indigenous adults aged 18 and over, the descendants of all people removed were (not controlling for the effects of other factors):

- 4.4 times as likely to have heart disease
- 3.7 times as likely to have kidney disease
- 3.1 times as likely to have diabetes
- 2.5 times as likely to have experienced homelessness (lifetime)
- 2.2 times as likely to have a severe or profound core activity restriction.

# 7 Social and emotional wellbeing and Link Up services

## At a glance

- The AIHW collects annual data from organisations funded by the Australian Government to provide one or more types of health services—including social and emotional wellbeing (SEWB) support and Link Up services. These administrative data include counts of the total number of Aboriginal and Torres Strait Islander and Stolen Generations clients who access SEWB and Link Up services.
- The AIHW Online Service Report for 2015–16 shows that there was a total of around 16,800 Indigenous clients who had accessed any form of social and emotional wellbeing services in 2015–16, including Link Up services.
- In 2015–16, 10.1% of all clients of these services were classified as ‘First Stolen Generations’ (1,900 clients), and around 16.5% were ‘Second Stolen Generations’ or ‘Third Stolen Generations’ (3,100 clients combined).
- The share of the ‘First Stolen Generations’ in the total clients of these services has increased slightly from 8.4% in 2012–13.
- In 2015–16, 75% of ‘First Stolen Generations’ clients lived in *Major cities*, followed by 9.8% in *Outer regional* and 7.3% in *Very remote* areas.
- There have been consistently more female than male clients among all Stolen Generations clients.
- In 2015–16, around 3,000 (or 16%) of the total SEWB service clients were assisted with family tracing and reunion support under Link Up services.

## 7.1 Introduction

The AIHW collects annual data from organisations funded by the Australian Government to provide one or more health services—including primary care, maternal and child health care, social and emotional wellbeing services, and substance use services—to Indigenous Australians. Data collected include the types of health services provided, the total number of individual clients seen, and Indigenous background of the clients (AIHW 2017).

Social and emotional wellbeing (SEWB) services are part of the service mix provided by some of these organisations. SEWB services aim to improve the health, wellbeing and resilience of Aboriginal and Torres Strait Islander individuals, families and communities; they also include Link Up services to assist the Stolen Generations to trace and, where possible, to reunite with their families.

This chapter summarises the data for SEWB and Link Up services from the 2015–16 Online Service Report (OSR) (AIHW 2017), and compares them with equivalent data from the 2012–13 OSR report (AIHW 2014a).

The OSR reports provide some data on categories of Indigenous clients using these services. They are classified as ‘First Stolen Generations’, ‘Second Stolen Generations’, ‘Third and subsequent Stolen Generations’ and ‘Other Indigenous’. It is not clear how each service obtains the client information to make these assessments, and if there is a specific and consistent time period or age profile adopted to define who are in these categories.

Also, not all service providers are able to categorise their clients into whether they are members of the Stolen Generations and to which generation they belong.

Hence the specific counts reported in the tables and charts below using these separate categorisations of the Stolen Generations clients should be treated with caution.

## 7.2 Social and emotional wellbeing services

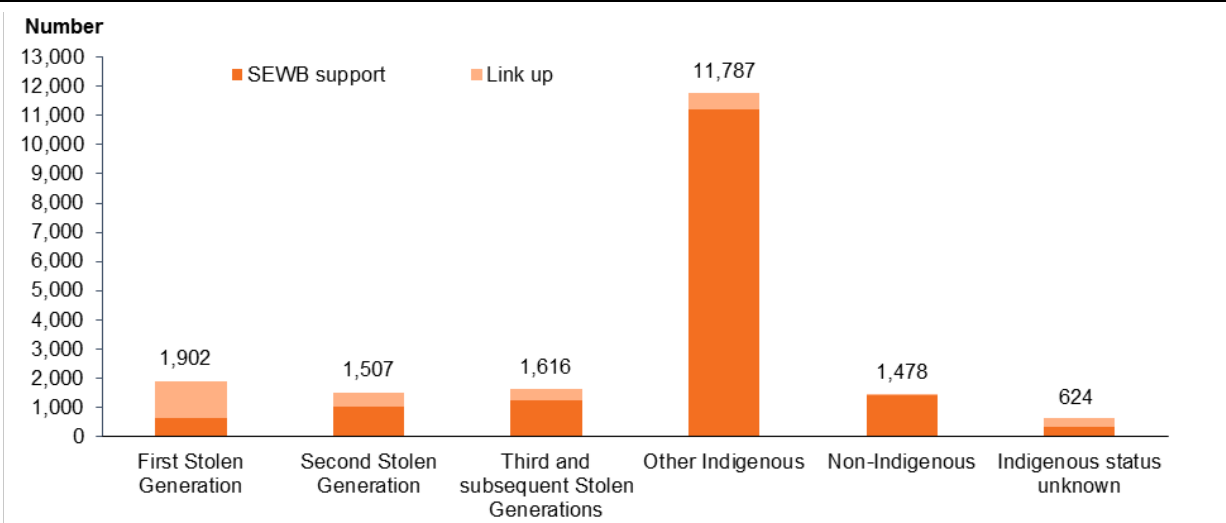
In 2015–16, 93 organisations were funded to provide SEWB services. Of these, 86 (92.0%) provided SEWB support services and 7 (7.5%) provided Link up services (AIHW 2017).

The total number of clients in 2015–16 was around 18,900, an increase from 17,700 in 2012–13. The number of Indigenous clients increased by 14% to 16,812 in 2015–16 from around 14,500 in 2012–13 (tables 7.1 and 7.2).

In 2015–16, 10.1% (1,900 clients) of total clients were classified as ‘First Stolen Generations’, 8.0% (1,500 clients) were classified as ‘Second Stolen Generation’, and 8.5% (1,620 clients) were classified as ‘Third and subsequent Stolen Generations’ (Figure 7.1).

The share of total clients visiting SEWB services who are ‘First Stolen Generations’ has risen since 2012–13 (from 1,487, or 8.4%), but the share of the ‘Second Stolen Generations’ and ‘Third Stolen Generations’ has declined (from 4,659, or 26.3%).

Among all Indigenous clients of SEWB services (16,812) in 2014–15, 11.3% were classified as ‘First Stolen Generation’.



Source: AIHW 2017.

**Figure 7.1: Number of clients of SEWB services, by Indigenous status and type of services, 2015–16**

The majority (75.0% or 1,435 clients) of ‘First Stolen Generation’ clients in 2015–16 lived in *Major cities*, followed by 9.8% (or 186 clients) in *Outer regional* and 7.3% (or 138 clients) in *Very remote* areas. The distribution of the ‘Second Stolen Generation’ and ‘Third Stolen Generations’ was less skewed, with 41.0% living in *Major cities*, 22.0% in *Very remote*, 19.0% in *Outer regional*, 13.0% in *Inner regional* and 4.9% in *Remote* areas (Table 7.3).

There have been consistently more female than male clients for all Stolen Generations clients, with 6 in 10 clients being women.

## 7.3 Link Up services

A total of 3,006 (or 16%) SEWB service clients were assisted with family tracing and reunion support under Link Up services in 2015–16. Of these, 1,262 (or 42%) were 'First Stolen Generations', and 827 (or 28%) 'Second Stolen Generations' and 'Third Stolen Generations' (Table 7.1).

Similar to the SEWB service profile overall, there were more female than male Link Up clients among all Stolen Generations clients. For every 10 clients, around 4 were men and 6 were women.

**Table 7.1: Number of clients of social and emotional wellbeing services, by service type, Indigenous status and sex, 2015–16**

Service type/Generation	Males		Females		Sex not recorded		Total	
	Number	%	Number	%	Number	%	Number	%
<b>SEWB support</b>								
First Stolen Generation	262	4.4	364	4.2	14	1.0	640	4.0
Second Stolen Generation	350	5.9	602	7.0	85	6.1	1,037	6.5
Third and subsequent Stolen Generations	405	6.8	666	7.8	188	13.4	1,259	7.9
Other Indigenous	4,213	70.9	5,909	69.0	1,080	77.1	11,202	70.4
<i>Total Indigenous</i>	<i>5,230</i>	<i>88.1</i>	<i>7,541</i>	<i>88.0</i>	<i>1,367</i>	<i>97.6</i>	<i>14,138</i>	<i>88.9</i>
Non-Indigenous	562	9.5	833	9.7	25	1.8	1,420	8.9
Indigenous status unknown	147	2.5	194	2.3	9	0.6	350	2.2
<i>Total</i>	<i>5,939</i>	<i>100.0</i>	<i>8,568</i>	<i>100.0</i>	<i>1,401</i>	<i>100.0</i>	<i>15,908</i>	<i>100.0</i>
<b>Link Up</b>								
First Stolen Generation	485	38.6	777	44.4	0	0.0	1,262	42.0
Second Stolen Generation	167	13.3	303	17.3	0	0.0	470	15.6
Third and subsequent Stolen Generations	137	10.9	220	12.6	0	0.0	357	11.9
Other Indigenous	308	24.5	277	15.8	0	0.0	585	19.5
<i>Total Indigenous</i>	<i>1,097</i>	<i>87.3</i>	<i>1,577</i>	<i>90.1</i>	<i>0</i>	<i>0.0</i>	<i>2,674</i>	<i>89.0</i>
Non-Indigenous	24	1.9	34	1.9	0	0.0	58	1.9
Indigenous status unknown	135	10.7	139	7.9	0	0.0	274	9.1
<i>Total</i>	<i>1,256</i>	<i>100.0</i>	<i>1,750</i>	<i>100.0</i>	<i>0</i>	<i>0.0</i>	<i>3,006</i>	<i>100.0</i>
<b>Total SEWB</b>								
First Stolen Generation	747	10.4	1,141	11.1	14	1.0	1,902	10.1
Second Stolen Generation	517	7.2	905	8.8	85	6.1	1,507	8.0
Third and subsequent Stolen Generations	542	7.5	886	8.6	188	13.4	1,616	8.5
Other Indigenous	4,521	62.8	6,186	60.0	1,080	77.1	11,787	62.3
<i>Total Indigenous</i>	<i>6,327</i>	<i>87.9</i>	<i>9,118</i>	<i>88.4</i>	<i>1,367</i>	<i>97.6</i>	<i>16,812</i>	<i>88.9</i>
Non-Indigenous	586	8.1	867	8.4	25	1.8	1,478	7.8
Indigenous status unknown	282	3.9	333	3.2	9	0.6	624	3.3
<b>Total</b>	<b>7,195</b>	<b>100.0</b>	<b>10,318</b>	<b>100.0</b>	<b>1,401</b>	<b>100.0</b>	<b>18,914</b>	<b>100.0</b>

Source: AIHW 2017.

**Table 7.2: Total number of clients of social and emotional wellbeing services, by Indigenous status and sex, 2012–13**

Indigenous status	Males		Females		Sex not recorded		Total <sup>(a)</sup>	
	Number	%	Number	%	Number	%	Number	%
Indigenous								
First Stolen Generation	533	9.0	909	10.6	44	1.4	<b>1,487</b>	<b>8.4</b>
Second Stolen Generation	884	14.9	1,022	11.9	323	10.4	<b>2,229</b>	<b>12.6</b>
Third and subsequent Stolen Generations	776	13.0	1,000	11.6	653	21.0	<b>2,430</b>	<b>13.7</b>
Other Indigenous	3,275	55.1	4,880	56.7	205	6.6	<b>8,361</b>	<b>47.2</b>
<i>Total Indigenous</i>	<i>5,468</i>	<i>91.9</i>	<i>7,811</i>	<i>90.8</i>	<i>1,225</i>	<i>39.4</i>	<b>14,507</b>	<b>81.9</b>
Non-Indigenous	375	6.3	581	6.8	3	0.1	<b>959</b>	<b>5.4</b>
Indigenous status unknown	104	1.7	211	2.5	1,942	62.4	<b>2,259</b>	<b>12.7</b>
<i>Total</i>	<i>5,947</i>	<i>100.0</i>	<i>8,603</i>	<i>100.0</i>	<i>3,110</i>	<i>100.0</i>	<b>17,725</b>	<b>100.0</b>

(a) Due to suppression of some of the underlying cell counts in the original source, the totals do not sum for all rows.

Source: AIHW 2014a.

**Table 7.3: Number of clients of social and emotional wellbeing services, by Indigenous status, Stolen Generation and remoteness area, 2015–16**

Indigenous status	Major cities	Inner regional	Outer regional	Remote	Very remote	Total <sup>(a)</sup>
Indigenous						
First Stolen Generation	1,435	104	186	39	138	<b>1,902</b>
Second Stolen Generation	690	181	313	55	268	<b>1,507</b>
Third and subsequent Stolen Generations	599	239	265	98	415	<b>1,616</b>
Other Indigenous	2,618	2,054	2,060	2,810	2,245	<b>11,787</b>
<i>Total Indigenous</i>	<i>5,342</i>	<i>2,578</i>	<i>2,824</i>	<i>3,002</i>	<i>3,066</i>	<b>16,812</b>
Non-Indigenous	150	203	141	741	243	<b>1,478</b>
Indigenous status unknown	46	130	109	333	6	<b>624</b>
<i>Total<sup>(a)</sup></i>	<i>5,538</i>	<i>2,911</i>	<i>3,074</i>	<i>4,076</i>	<i>3,315</i>	<b>18,914</b>

(a) Due to suppression of some of the underlying cell counts in the original source, the totals do not sum for all columns and rows.

Source: AIHW 2017.

# Appendix A: Full typology of removal from family reported in the 2002 and 2014–15 NATSISS

The combination of questions asked in the ABS Indigenous-specific surveys on whether an individual was personally removed or had relatives removed (and the expected large overlap between these two subgroups) permit a detailed typology of the various combinations of removal from family relevant for an individual. As well, the special interest in this report on the Stolen Generations through the proxy measure of people born before 1972 who were removed, and on the descendants of all people removed, add two other dimensions to the possible typology of removal from family to apply to the ABS survey responses.

One key distinction made is between individuals removed from the cohort who were born before 1972 and the younger cohort born in or after 1972. Then, a subsequent distinction is made among those who reported that relatives were removed on the basis of the type of relatives removed—that is, whether they were from an older generation or from the same/younger generation as the survey respondent.

## Categories of removal from family and removal of relatives

The tabulations on the full typology of removal from family are presented in Table A1 from the 2002 and the 2014–15 NATSISS. The specific outcomes from this typology from the 2014–15 NATSISS only are also highlighted in Figure A1.

The main categories of removal from family that are mutually exclusive are represented in four categories in Table A1—corresponding to rows 4, 8, 14 and 18 (the other rows represent subtotals, or further subdivisions, of these four primary categories). These categories are:

- total who were personally removed in cohort born before 1972 (row 4)
- total who were personally removed in cohort born in or after 1972 (row 8)
- total reporting relatives were removed, but not personally removed (row 14)
- total who did not experience any type of removal from family (row 18).

The estimated total population presented in Table A1 (and Figure A1) are for all Indigenous people aged 18 and over in the survey benchmark, including those who did not record valid responses to the questions on removal in these surveys. These total survey benchmark populations for those aged 18 and over are shown in the last row (21) of Table A1. All percentages in that table are in relation to that total benchmark of Indigenous people aged 18 and over in each of these two surveys. These percentages ignore the small adjustments in the denominator to account for responses that were not clearly stated, or that were refused by the respondents, for any specific question related to classifying them according to this typology. A common denominator used for all percentages reported in the table makes it easier to assess the relative size of these sub-categories.

The benchmark population of all Indigenous people aged 18 and over in these surveys has increased considerably from around 251,400 in the 2002 NATSISS to 399,700 in 2014–15. In 2014–15, a total of 20,891 people born before 1972 reported being personally removed; this represented 5.2% of the total population aged 18 and over (row 4). Most of those who were personally removed also reported removal of relatives (16,021 in row 2 out of the 18,127 individuals for whom information on removal of relatives is available, or 88.0%).



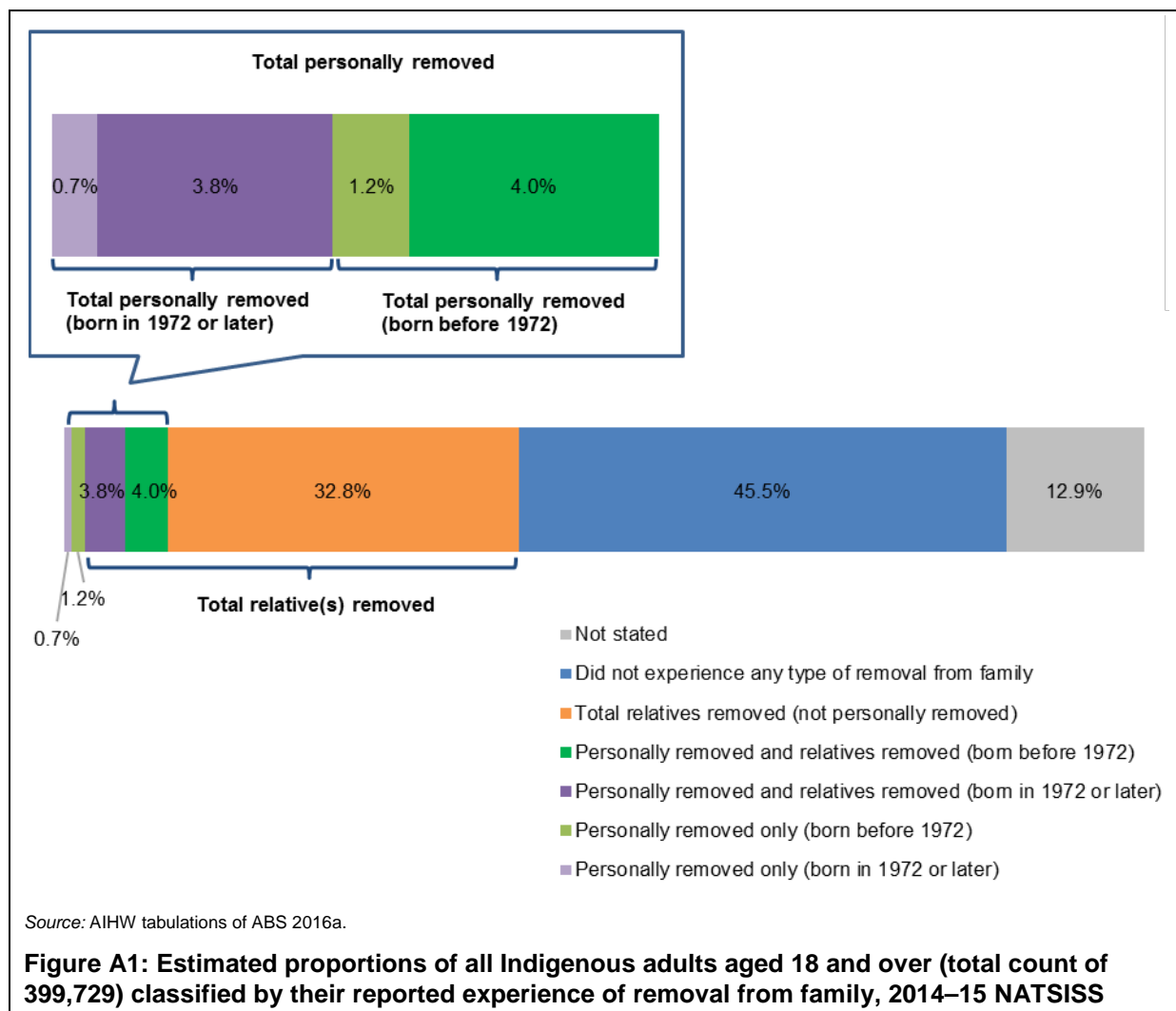
**Table A1: Experience of personal removal and removal of relatives among people aged 18 and over, 2002 and 2014–15**

Row no.		2002		2014–15	
		Number	%	Number	%
<b>Cohort born before 1972</b>					
1	Personally removed, but no relatives removed	2,129	0.8	2,106	0.5
2	Personally removed, and relative(s) removed	12,401	4.9	16,021	4.0
3	Personally removed, unknown if relatives removed	918	0.4	2,764	0.7
4	<i>Total personally removed</i>	<i>15,448</i>	<i>6.1</i>	<i>20,891</i>	<i>5.2</i>
<b>Younger cohort born 1972 or later (aged 18 and over)</b>					
5	Personally removed, but no relatives removed	1,473	0.6	2,149	0.5
6	Personally removed, and relative(s) removed	3,933	1.6	15,072	3.8
7	Personally removed, unknown if relatives removed	431	0.2	774	0.2
8	<i>Total personally removed</i>	<i>5,837</i>	<i>2.3</i>	<i>17,995</i>	<i>4.5</i>
<b>Combined cohorts (aged 18 and over): by type of relatives removed</b>					
9	Elder relatives removed	69,701	27.7	114,760	28.7
10	Other relatives removed	21,348	8.5	47,364	11.8
11	<i>Total relatives removed</i>	<i>91,049</i>	<i>36.2</i>	<i>162,124</i>	<i>40.6</i>
<b>Combined cohorts (aged 18 and over): by all types of removal experience</b>					
12	Total personally removed (= rows 4+8)	21,284	8.5	38,886	9.7
13	Relatives removed, and personally removed	16,334	6.5	31,093	7.8
14	Relatives removed, but not personally removed	74,716	29.7	131,031	32.8
15	Elder relatives removed, but not personally removed	61,319	24.4	99,361	24.9
16	Other relatives removed, but not personally removed	13,396	5.3	31,670	7.9
17	<i>Total relatives removed</i>	<i>91,049</i>	<i>36.2</i>	<i>162,124</i>	<i>40.6</i>
18	Did not experience any type of removal from family	108,509	43.2	181,763	45.5
<b>Reference population (aged 18 and over)</b>					
19	With valid responses to questions on both personal removal and relatives being removed (= rows 4+8+14+18 minus rows 3 and 7)	203,160	80.8	348,142	87.1
20	With invalid responses to questions on either personal removal or relatives being removed	48,238	19.2	51,587	12.9
21	Total reference population	251,398	100.0	399,729	100.0

*Note:* Estimates in this table are among all people aged 18 and over. All percentages reported use the total population aged 18 and over (that is, row 21 in the table) as the denominator, even if responses on some questions used to classify this typology were missing. In the more detailed analyses in Chapter 2, and elsewhere in the main report, the percentages reported are adjusted to exclude 'not stated' and 'refused' responses, where appropriate, from the denominators; so small discrepancies may occur between this table and tables in the main report.

*Sources:* AIHW tabulations of ABS 2010a, 2016a.

The number of people in the younger cohort born in or after 1972 who reported being personally removed in 2014–15 (17,995 in row 8) was only slightly less than the number for the cohort born before 1972 (20,891). This indicates a need to be cautious in interpreting the data on removal from family in these ABS surveys since a large number of younger people continue to report themselves as being removed. Those personally removed in the younger cohort represent 4.5% of the total population aged 18 and over—and this percentage has increased from 2.3% in 2002. A large proportion (15,072 in row 6 of the 17,221 for whom information on removal of relatives is available, or 88.0%) of those personally removed in the younger cohort also report that their relatives were removed.



The 2014–15 NATSISS results show that there were roughly 131,000 people in the category of not being personally removed but having relatives removed, representing around 33% of the reference population of 18 and over (row 14 of Table A1). This percentage has also increased since 2002 (30%). Adding all the sub-categories of individuals who report removal of relatives leads to a total count of 162,124 in 2014–15 (row 11, or the equivalent row 17), representing around 41% of the total population aged 18 and over. This percentage, too, increased between 2002 (36%) and 2014–15.

Given the interest in also identifying the descendants of all people removed, the final subgroup of individuals in the typology of Table A1 relate to those who only had elder relative(s) removed, excluding those with other types of relatives removed. There was a total of 114,760 such people in 2014–15, reporting their elder relative(s) had been removed, representing 29% of the population aged 18 and over (row 9). This subgroup can be further refined by excluding the overlap between being a descendant and being personally removed. Excluding those who were removed themselves, the total count of people who reported to be descendants of elder relative(s) who were removed was estimated to be 99,361 in 2014–15 (row 15), or 25% of the population aged 18 and over.

## Subgroups for comparative analyses

Finally, the typology of removal from family reported in Table A1 can be used to showcase clearly the two main subgroups of interest for the analysis in this report and how the relevant subgroups for the comparative analyses have been defined.

The primary subgroup of interest is those who were themselves removed among those born before 1972 (the total of 20,891 in row 4 of Table A1). This subgroup is the closest proxy for the Stolen Generations. A more detailed accounting of the time series data in the five ABS surveys for this subgroup was provided in Chapter 2. Chapters 3 and 5 provided comparative analyses of the outcomes on a range of health, socioeconomic and cultural characteristics for this subgroup, compared with other Indigenous people in the same age cohort (born before 1972) but who were not removed.

In the comparisons in these chapters, no further account was taken of whether the removed individuals also had relatives removed or not. That is, the further subgroups of rows 1, 2 and 3 in Table A1 are not separately distinguished in the detailed analysis of this report, which focused only on the total number of people reporting being removed themselves among those born before 1972 (row 4). Those who were removed from family were then compared with people born before 1972 who were not removed themselves. Removal of relatives is feasible in both components of this comparison. However, no extra steps are taken to also tailor this comparison based on a common experience of relatives being removed, since the effect of being personally removed can be legitimately assumed to be the dominant effect.

The second subgroup of interest in this report are the descendants of all people removed (that is, those who reported their relatives from older generations had been removed). In this case, we further refine that subgroup to include or exclude those who were also themselves removed (the counts in rows 9 and 15 of Table A1, respectively). The estimates of the descendants given in Section 2.4 of Chapter 2 provided both options, including or excluding those who were also themselves removed (Table 2.7).

However, the analysis in chapters 4 and 5 on the comparative outcomes on a range of health, socioeconomic and cultural characteristics for the descendants excludes those who also reported to have been personally removed. The remaining subgroup (total of 99,361 in row 15 of Table A1, denoted as 'elder relatives removed, but not personally removed') serves as a proxy for the descendants of all people who were removed from family in analysing their relative outcomes.

The reference group selected for comparison with the descendants of all people removed excludes individuals who have experienced any type of removal (either of themselves or of their relatives). This leads to a purer comparison of the effects of experiencing the removal of elder relatives without the extra effect of having also been personally removed.

The more detailed accounting of the time series data in the five ABS surveys for the descendants of all people removed was presented in Chapter 2, but one more adjustment had to be made in that chapter. The ABS surveys differ in the age group to whom the removal status questions are put—it is people aged 18 and over in the health surveys, while a lower age cut-off of 15 and over is used in the social surveys. Therefore, the cut-off of age 18 and over had to be adopted for consistency of the data across all five ABS surveys. That higher cut-off is adopted in the detailed analyses in Chapter 2 and in all subsequent sections on the comparative analyses of the characteristics and outcomes of the descendants in chapters 4, 5 and 6.

# Appendix B: Method for census-based estimates of Stolen Generations proxy population

The census-based estimates of the total number of people who were removed in the cohort born before 1972 are the result of the multiplication of two components: (1) the projected Indigenous population in that cohort based on a common level of Indigenous identification consistent with the 2011 Census ERP (that is, the denominators); and (2) the estimated rates of being removed from family to apply for that population in any specific time period (that is, the multipliers).

## Component (1): base population denominators

### Issues with base populations for time series comparison

In any of these ABS Indigenous-specific surveys, statistical weights are designed and applied to the sample counts to ensure the survey estimates conform to the benchmark population distribution (rather than the survey sample distribution itself). The population benchmarks are based on projections of the latest available Indigenous ERP at the time of the survey, excluding residents living in non-private dwellings. Private dwellings are houses, flats, home units and any other structures used as private places of residence at the time of the survey. Non-private dwellings include hotels, motels, hostels, hospitals, nursing homes, correction facilities and short-stay caravan parks, etc. All residents of non-private dwellings are generally excluded from the scope of ABS sample surveys, including the NATSISS and the NATSIHS.

A summary of the population benchmarks for the Indigenous surveys used in this report is provided in Table B1. It clearly shows that the population benchmarks are derived from three different censuses (2001, 2006 and 2011), thus reflecting different underlying Indigenous identification levels. This is evidenced by much larger estimates of Indigenous populations under the more recent survey periods than would be consistent with natural increase only.

For instance, the projected total Indigenous population in 2008, based on the 2006 Census ERP, was 539,361, while the back-casted estimate in 2008, based on the level of Indigenous identification derived from the 2011 Census ERP, was 629,167. This is a difference of around 17% with the original 2008 ERP used to develop the population benchmark for the 2008 NATSISS. Such differences in the reference population unfortunately carry over to the estimates from the different ABS surveys of the total number of people who were removed.

**Table B1: Summary of the population benchmarks in the ABS Indigenous-specific surveys 2002 to 2014–15**

Indigenous survey	Population benchmark
NATSISS 2002	Projected Indigenous population estimates as at 31 December 2002, based on the 2001 Census
NATSIHS 2004–05	Projected Indigenous population estimates as at 31 December 2004, based on the 2001 Census
NATSISS 2008	Projected Indigenous population estimates as at 31 December 2008, based on the 2006 Census
NATSIHS 2012–13	Indigenous population estimates as at 30 June 2011, based on the 2011 Census
NATSISS 2014–15	Projected Indigenous population estimates as at 31 December 2014, based on the 2011 Census

Sources: ABS 2004, 2006, 2009, 2014b, 2016b.

The calculations for a consistent set of the Indigenous ERP are updated after the release of results for a new Census. Based on the estimated final ERP for the Census year, the ABS develops new future demographic assumptions. These assumptions are then applied to the latest Census ERP to project the annual estimates of Indigenous populations for future years (of around 10 to 14 years), and to also back-cast the estimates for the previous 10 to 14 years. These time series projections and back-cast estimates then reflect purely demographic changes that apply to an underlying population with an unchanging level of Indigenous identification. This series can then be used as an alternative reference population base relevant for the time periods in which the NATSISS and the NATSIHS were conducted.

## Options for new population bases

There are three possible options to adjust the Indigenous population estimates to imply consistent Indigenous identification:

1. replace the populations wherever not already based on the 2011 Census ERP by the projected/back-casted populations based on the 2011 Census ERP
2. replace the populations by projected/back-casted populations based on the 2016 Census ERP
3. replace the populations for any particular survey by the interpolated population estimates from two adjacent Census ERP for that particular year.

The choice for the adjustment of the population bases (that is, denominators) should reflect the most recent Indigenous identification. As well, the adjustment should be able to be applied for the data from at least 2002 to 2018 for the purpose of this report.

For this report, option 1 was adopted. Although the ABS has released a preliminary version of the Indigenous ERP based on the 2016 Census (ABS 2017), option 2 is not feasible yet since projections and back-casted estimates based on the final 2016 Census Indigenous ERP are not available. Option 1 provides a clearer perspective than option 3 on the projections and back-casted estimates based on ERP data from a single year, and the level of Indigenous identification based on that single Census year.

The projected/back-casted Indigenous populations from the 2011 Census are sourced from the ABS published report *Estimates and projections, Aboriginal and Torres Strait Islander Australians, 2001 to 2026* (ABS 2014a). The Series B estimates have been used, and this series provides an annual (end-June) estimate of the Indigenous ERP by single year of age and sex from 2001 to 2026, based on actual data from the 2011 Census.

One additional adjustment to the population denominators is for the time period of the estimates. The ABS projections of Indigenous ERP, based on the 2011 Census, are all estimated as at 30 June of 2001 through to 30 June 2026. For the 2004–05, 2012–13 and 2014–15 survey periods, in order to adjust the ERP to coincide with their two-year collection cycle, the ERP data have been converted to end-December of the year in between the two years of the survey period. The December ERP is the average of the two closest June estimates in the ABS series (for example, the December 2014 ERP estimate is the average of the June 2014 and June 2015 ABS series estimates).

Note that the census-based ERP for the cohort born before 1972 are much higher than the benchmark populations from the ABS surveys in Table 2.1. For instance, the survey benchmark in the 2014–15 NATSISS for all Indigenous people born before 1972 was 154,633 (Table 2.1). However, the ERP for this cohort, based on the 2011 Census level of identification projected to December 2014, is 164,055. The increase occurs not only because the identification level is adjusted to the higher level prevailing in the 2011 Census, but also

because residents living in non-private dwellings are included in the census-based ERP, while they are excluded from the survey benchmark populations.

## **Component (2): rate of removal multiplier**

The estimates in Chapter 2 (as in Table 2.12) applied the average national rate of being removed from family (11%) from the ABS surveys to the reference Indigenous population in that age cohort.

An alternative set of estimates could have been derived by applying the observed period-specific national rate of removal that was estimated from each specific survey period. These rates were also reported in Table 2.1. However, using the 11% average rate is preferable because it can be applied to periods other than those covered by the surveys, such as for 2016 and 2018. Also, a common rate of being removed from family applied to each year of the slowly declining Indigenous ERP in this cohort leads to the estimates of the removed population born before 1972 also declining steadily over time.

## **Consistent time series estimates of the Stolen Generations proxy population in the cohort born before 1972**

Table B2 presents the 2011 Census ERP-based estimates of the population in the cohort born before 1972 who were removed for the 2002 to 2014–15 survey periods, together with the additional projected estimates for 2016 to 2018, applying the average 11% rate of being removed derived from the ABS surveys to all periods. These estimates reflect the common level of Indigenous identification that is based on the 2011 Census. Table B2 is equivalent to Table 2.12 in Chapter 2.

The estimates of the total population in the cohort born before 1972 who were removed can also be derived for time periods not covered by the ABS surveys or projected into the future, as long as the 2011 Census-based ERP are available by single year of age for that year. That ABS data series (ABS 2014a) has been used in Table B2 to project this population of removed people in the cohort born before 1972 to calendar years 2016, 2017 and 2018.

A longer period of projections beyond 2018 for estimating the population in the cohort born before 1972 who were removed (by using the average 11% rate of being removed) is not advisable. This average is derived from survey data from the 2002 to 2014–15 period, and should not be applied to population estimates much beyond the range of the survey periods.<sup>7</sup>

The estimates of the total surviving population in the cohort born before 1972 who were removed in Table B2 show an expected pattern: the number of removed individuals in the cohort born before 1972 is declining slowly over time, from an estimate of 21,294 in 2002 to an estimate of 17,154 in 2018. This represents a decline of almost 20% over this 16-year period, reflecting the underlying mortality rate for this age cohort assumed in the ABS ERP calculations based on the 2011 Census.

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<sup>7</sup> The proportion of removed individuals in the cohort born before 1972 who are surviving in each successive year (that is, what is called the 'rate of being removed' in these derivations) will not, in fact, remain constant from year to year. The potential discrepancy between an actual rate of being removed applicable for a given time period and the average rate of being removed based on several past surveys can increase as one gets further away from the survey time periods over which the average was computed.

**Table B2: Estimates of Indigenous Australians born before 1972 who were removed from their families based on ABS time series of consistent Indigenous ERP derived from the 2011 Census, for various years, 2002 to 2018**

	2002 (aged 30 and over)	2004–05 (aged 32 and over)	2008 (aged 36 and over)	2012–13 (aged 40 and over)	2014–15 (aged 42 and over)	2016 (aged 44 and over)	2017 (aged 45 and over)	2018 (aged 46 and over)
Estimation status	Back-cast	Back-cast	Back-cast	Projection	Projection	Projection	Projection	Projection
Reference population time point	Jun 2002	Dec 2004	Jun 2008	Dec 2012	Dec 2014	Jun 2016	Jun 2017	Jun 2018
Total Indigenous population estimate	547,940	580,739	629,167	691,300	721,319	744,956	761,300	778,064
Total Indigenous population born before 1972	193,585	187,825	179,375	168,508	164,055	160,640	158,313	155,942
Average national rate of removal (%)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
<b>Total estimated number who were removed</b>	<b>21,294</b>	<b>20,661</b>	<b>19,731</b>	<b>18,536</b>	<b>18,046</b>	<b>17,670</b>	<b>17,414</b>	<b>17,154</b>

*Notes*

1. The estimates of the total Indigenous population in this table (and of the Indigenous population born before 1972) are from ABS 2014a (Series B). This series also includes residents of non-private dwellings, who are excluded from the reference population benchmarks of the ABS surveys.
2. These estimates of the total number of people in this cohort who were removed are derived by applying a percentage share (the 11% average rate of being removed) to the total Indigenous ERP in the cohort born before 1972. No additional data source is available to estimate the rate of removal among Indigenous people who live in non-private dwellings. Hence, the survey-based estimates have been applied to that subgroup as well.

Sources: AIHW analysis of ABS 2010a, 2010b, 2010c, 2015, 2016a; ABS 2014a.

As noted in ABS (2014a), the ERP projections presented are not intended as predictions or forecasts; rather, they illustrate the growth and change in population that would occur if assumptions made about future demographic trends were to prevail over the projection period. The same statement holds for the projections/back-cast of the total population in the cohort born before 1972 who were removed presented in Table B2 (and in Table 2.12 in the main report).

A final caveat to the estimation method adopted in this report—whereby a survey-based rate of being removed is applied to a census-based ERP—is that the potential difference in the rates of being removed between Indigenous people living in private dwellings and in non-private dwelling is ignored. The survey-based estimate(s) of the rate of being removed are derived only from a sample of residents of private dwellings, but that same rate is applied to the full Census-based ERP that includes residents of non-private dwellings.<sup>8</sup>

A similar approach was also used to derive census-based consistent time series estimates of the descendants of all people removed. The full results were presented in Table 2.13 in Chapter 2.

<sup>8</sup> This method implies that residents living in non-private dwellings have the same rate of removal as those in private dwellings. However, this assumption cannot be confirmed with any available data since no additional data source is available to estimate the rate of removal among Indigenous people who live in non-private dwellings. On average, around 4% of the total Indigenous population live in non-private dwellings (this can be approximated by tabulating the total count and percentage share of people in non-private dwellings from the Census count data, as in the 2016 Census TableBuilder files).

# Appendix C: Components of the composite health variable

For the multivariate regression analyses in Chapter 5, a composite health measure was also developed from the 2014–15 NATSISS as an additional outcome for which the effects of being removed, and the effects of being a descendant of all people removed, were estimated. The composite health measure presents a broader perspective of health and wellbeing than the other health indicators also analysed in Chapter 5—self-assessed health, mental health, and disability status.

Mindful of the World Health Organization’s definition of health—namely, that it is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity (WHO 1948)—the composite health measure was designed to cover multiple dimensions of health, from subjective self-reported assessments to objective medical conditions, and covering both physical and mental dimensions, in order to represent the overall health of Indigenous Australians.

The composite health measure is an index comprising four health components. It is calculated by aggregating the individual health components into a composite health score, as defined in Box C1. Then this score is converted into a binary ‘good health’ indicator by applying a cut-off score to distinguish being in ‘good health’ from not in ‘good health’.

## Box C1: Definition of composite health score

*Composite health score*

$$= \text{Self assessed health score} - \text{Morbidity score} \\ - \frac{(\text{Emotional distress score} - 2)}{2} - \text{Disability score}$$

$$\text{Good health indicator} = \begin{cases} \text{Yes,} & \text{if composite health score} \geq 2.5 \\ \text{No,} & \text{if composite health score} < 2.5 \end{cases}$$

The composite health measure defined in this report extends the previous AIHW’s definition of a composite health score developed in AIHW (2014b). The AIHW undertook a more recent analysis using the older definition of a composite health score for the Department of the Prime Minister and Cabinet on the sources of health disparity between the Indigenous and non-Indigenous populations, using data from the NATSIHS 2012–13 and the Australian Health Survey 2011–12. The results were published in the Aboriginal and Torres Strait Islander Health Performance Framework 2017 report (AHMAC 2017).

The extension to the new composite health measure consists of two parts. The first part is the addition of an extra component of a disability score to the composite measure; and the second part is to apply a new cut-off score, given the addition of a new component, to convert the aggregate composite health score into a binary variable distinguishing between having good health and not having good health on this composite score.

In the 2014–15 NATSISS, around 40% of Indigenous Australians aged 15 and over (175,800) reported that they had ‘excellent’ or ‘very good’ health on the self-assessed measure. In the composite good health measure developed for this analysis, 34% of this reference population (152,400) are assessed to be in ‘good health’.



# Appendix D: Summary of multivariate regression results by outcomes

The discussion of the multivariate logistic regression results in Chapter 5 noted that all of the regression models estimated for this report included a wide range of explanatory variables, in addition to the specific variable of interest indicating removal status. The results presented in Chapter 5 focussed only on the estimated effects of removal on the 20 outcomes modelled (and the effects of being a descendant on these same outcomes). The estimates of the effects of these other explanatory variables were not of direct interest in that chapter and were not reported there.

This appendix supplements the discussion of the multivariate regression results of Chapter 5 by summarising the significant effects of the other variables for each of the selected outcomes. The results are discussed in terms of the estimates of the odds ratio (OR) that apply to a specific explanatory variable in increasing or decreasing the likelihood of observing a specific outcome that was modelled.

The generic set of explanatory variables used in the multivariate regression models was listed in Box 5.2 in Chapter 5. There were 25 individual variables which were candidates to be used in the model for a specific outcome, but some variation did occur in which variables were included in the final estimated model for a specific outcome. There, however, was a common set of 7 demographic and location variables used as explanatory variables in every model estimated (removal status, sex, remoteness classification categorised only as remote or non-remote, age categories, marital status, number of dependents, and an indicator for Torres Strait Islander status).

Logistic regression modelling estimates the odds of an event occurring (represented by the binary independent variable) for varying levels of the explanatory variables. The odds of an outcome is not exactly the same as the likelihood (or probability) of that outcome occurring, but these two concepts are closely related. For simplicity of language, the results on the estimated odds ratios reported in this appendix (and in Chapter 5, on the effects of removal) are interpreted as the difference in the likelihood of an outcome with varying levels of each explanatory variable, after controlling for other factors.

The results are discussed separately below for the models estimated for the cohort of persons born before 1972, in which their removal status was one of the explanatory variables; and for models estimated for the adult population aged 18 and over, where being a descendant was one of the explanatory variables.

This appendix covers only the results from the 2014–15 NATSISS, including on the outcome of being in good health on the composite health score. The full set of regression results are not provided even in this appendix due to the large volume of the output with models estimated for 20 outcomes for each of the two study cohorts.

## D.1 Regression results on outcomes for the cohort born before 1972

The following section provides more detailed discussion of the regression model results for the outcomes modelled for the entire cohort of Indigenous people born before 1972, to supplement the analysis in Section 5.2 on the effects of being removed in this cohort.

## Employment

This outcome was modelled only for people aged 42–64 in the 2014–15 survey.

Men and married people were less likely to be not employed (ORs of 0.65 and 0.38, respectively). People with 4 or more dependants were twice as likely as those without dependants not to be employed.

Education increased the likelihood of being employed; the higher the education level attained, the less likely a person was not employed. Those with a Year 12 certificate alone were not more likely to be employed relative to having a lower level of education; but those with higher than Year 12 education levels were significantly less likely not to be employed.

Having difficulty communicating in English, having poor self-assessed health, being a person with disability, or having been arrested in the previous five years were all associated with a higher likelihood of not being employed. Having been arrested in the previous five years resulted in being 3 times as likely not to be employed.

In 2014–15, the effect of being removed on employment status was statistically significant, with those who were removed 1.6 times as likely not to be currently employed as their reference group.

## Year 12 completion

Among the Indigenous cohort born before 1972, the older a person was, the more likely that person reported not having completed Year 12.

Having poor self-assessed health and engaging in risky alcohol consumption were associated with a lower likelihood of completing Year 12.

Conversely, having higher household income was associated with a higher likelihood of completing Year 12.

Further, Torres Strait Islander people were more likely to have Year 12 completion than Aboriginal Australians (OR of 2.8).

In 2014–15, the effect of being removed on Year 12 completion was not statistically significant.

## Self-assessed health

Being aged between 50 and 64 was significantly associated with having poor or fair self-assessed health compared with the youngest age group in this cohort (aged 42–49). Other factors found to reduce the likelihood of having poor or fair health included:

- being married (OR of 0.68)
- being in the middle or upper third of household income values (ORs of 0.58 and 0.43, respectively)
- living in remote areas (OR of 0.76, significant at the 90% confidence level).

In 2014–15, the effect of being removed on self-assessed health status was statistically significant, with those who were removed 1.7 times as likely to have a poor self-assessed health as their reference group.

## **Mental health**

Men, older people (aged 65 and over) and people who were married are significantly less likely to report poor mental health (classified as high or very high psychological distress on the K5 scale).

People with very good or excellent self-assessed general health were twice as likely to not have poor mental health as those with self-assessed health reported as good, fair or poor.

Disability had a significant negative impact on the mental health of an Indigenous person. Having severe core activity limitation or having experienced stress in the past 12 months could result in a 2 to 3 times higher likelihood, respectively, to report poor mental health.

Indigenous Australians born before 1972 with risky alcohol consumption had substantially higher odds of having poor mental health than those with low to moderate risk alcohol consumption, or no risk at all.

In 2014–15, the effect of being removed on mental health status was statistically significant, with those who were removed 1.5 times as likely to have a poor mental health as their reference group.

## **Satisfaction with life**

In the cohort born before 1972, those aged 65 and over, who were married or living in remote areas were more likely to report having a high level of satisfaction with life than the cohort aged under 65, who were not married or who lived in non-remote areas.

Factors found to increase the likelihood of reporting a low level of life satisfaction included:

- not being employed (OR of 1.7, compared with those employed)
- having severe/profound core activity limitation (OR of 1.8, compared with those who do not)
- engaging in alcohol consumption at low/medium risk level (OR of 1.5, compared with those without any risk).

In 2014–15, the effect of being removed on the level of life satisfaction was not statistically significant.

## **Smoking status**

The Indigenous cohort born before 1972 living in remote areas was more likely to smoke than those in non-remote areas. Smoking behaviour was decreasing with age, with people aged 65 and over being only one-fifth as likely to smoke as those aged 42–49. As well, those who are married were less likely to smoke than those who were not.

Income and education levels were negatively associated with smoking status. The higher the income a person's family received, or the higher the education a person attained, the less likely that person was to smoke.

Risky alcohol consumption and being arrested in the last five years significantly increased the likelihood of being a current smoker.

In 2014–15, the effect of being removed on smoking status was not statistically significant at the conventional 5% test level (but significant at the 10% test level corresponding to a 90% confidence interval).

## Substance use

Indigenous men born before 1972 were more likely to have used a substance in the previous 12 months than women. This was also seen for those living in non-remote areas, younger age groups, the unmarried, those with two or three dependants (compared with those without dependants).

Other factors that increased the likelihood of substance use included:

- engaging in risky alcohol consumption (ORs of 1.7 for low/medium risk level, and 4.1 for high risk level, compared with no risk)
- being arrested in the previous five years (OR of 2.3, compared with those who have not).

In 2014–15, the effect of being removed on substance use in the previous 12 months was not statistically significant at the conventional 5% test level (but significant at the 10% test level corresponding to a 90% confidence interval).

## Indigenous language

Indigenous Australians born before 1972 living in remote areas were more likely to speak an Indigenous language than those in non-remote areas. Torres Strait Islander people were also more likely to speak an Indigenous language than Aboriginal Australians (OR of 6.9).

One key factor that increased the likelihood of not being able to speak an Indigenous language was living in a mixed household with non-Indigenous Australians (OR of 3.3, compared with those living in a household with only Indigenous members).

In 2014–15, the effect of being removed on the ability to speak an Indigenous language was not statistically significant.

## Experience of discrimination

Non-remote areas were associated with more perceived discrimination. Indigenous Australians born before 1972 living in a non-remote area were more likely to have felt discriminated against in the past 12 months than those living in a remote area (OR of 1.5).

Those who were aged 65 and over claimed significantly lower levels of experience of discrimination than the other age groups in this cohort (OR of 0.3).

Experience of discrimination was more likely to be reported by those:

- having difficulty in English communication (OR of 2.2)
- having experienced homelessness in the last 10 years (OR of 1.7)
- having been arrested in the previous five years (OR of 1.6).

On the other hand, Indigenous people living in a mixed household with non-Indigenous people (OR of 0.7) or speaking an Indigenous language as the main language at home (OR of 0.6) were less likely to report experience of discrimination.

In 2014–15, the effect of being removed on experience of discrimination was statistically significant, with those who were removed 1.5 times as likely to have felt discriminated against in the last 12 months as their reference group.

## Experience of homelessness

The prevalence of homelessness was significantly lower in remote areas than in non-remote areas. The Indigenous population born before 1972 in remote areas was only half as likely to experience homelessness in the past 10 years as those in non-remote areas.

Increasing age, being married, and higher household income reduced the likelihood of experiencing homelessness in the past 10 years. Those who were married or those with high household income were only half as likely to report such experience.

However, having three or more dependants (OR of 3.2), being a victim of actual or threatened physical violence (OR of 2.5), having disability (OR of 1.9) and having been arrested (OR of 2.2) significantly increased the likelihood of having experienced homelessness.

In 2014–15, the effect of being removed on experience of homelessness was statistically significant, with those who were removed 1.6 times as likely to have experienced homelessness in the last 10 years as their reference group.

## Victim of violence

The likelihood of being a victim of actual or threatened physical violence in the previous 12 months reduced substantially with increase in age. This likelihood was also significantly lower among those who were married.

Whether an individual in this age cohort experienced actual or threatened physical violence was significantly associated with risky alcohol behaviour and record of prior arrest. Indigenous people consuming alcohol with low to moderate risk were twice as likely to be a victim of violence in the past 12 months as those who did not consume alcohol. Having being arrested in the past five years tripled the likelihood.

Indigenous people born before 1972 with poor self-assessed health, or having severe or profound core activity limitations were also significantly more likely to report that they were victims of violence.

In 2014–15, the effect of being removed on experience of violence was statistically significant, with those who were removed 1.7 times as likely to have experienced actual or threatened physical violence in the last 12 months as their reference group.

## Arrest

The likelihood of having been arrested in the last five years was significantly higher in men, in remote areas, and for the unmarried. The likelihood of being arrested significantly decreased with age.

Other factors that significantly increased the likelihood of being arrested included:

- having experienced violence in the last 12 months (OR of 3.9)
- engaging in risky alcohol consumption (ORs of 1.8 for low/medium risk level, and 3.7 for high risk level, compared with no risk).

The likelihood of been arrested was significantly reduced with increasing levels of household income. Indigenous people born before 1972 living in a household with income in the top three deciles were only one-fifth as likely to have been arrested as those with household income in the bottom three deciles.

In 2014–15, the effect of being removed on prior arrest was statistically significant, with those who were removed twice as likely to have been arrested in the last five years as their reference group.

## **Incarceration**

The likelihood of being incarcerated in the last five years was significantly higher in men, in remote areas, and for the unmarried. The likelihood of being incarcerated decreased substantially with age.

One significant factor associated with the likelihood of being incarcerated was whether this person lived in a homeland. Indigenous Australians born before 1972 living in their homelands had only one-third of the likelihood of being incarcerated compared with those not living in homelands.

In 2014–15, the effect of being removed on prior incarceration was statistically significant, with those who were removed 3.3 times as likely to have been incarcerated in the last five years as their reference group.

## **Trust in general community**

The Indigenous cohort born before 1972 who live in remote areas were more likely to have a high level of trust in the general community than those living in non-remote areas. Factors that reduced level of trust included:

- having poor self-assessed health (OR of 2.5 for reporting a low level of trust, compared with those having excellent or good health)
- having experienced violence in the past 12 months (OR of 2.1 for reporting a low level of trust, compared with those who have not experienced violence).

The Indigenous cohort born before 1972 who had difficulty with English were more likely to report a higher level of trust in the general community than those who did not have difficulty with English. This was also true for Indigenous Australians who lived in a mixed household compared with those who did not.

In 2014–15, the effect of being removed on level of trust in general community was not statistically significant.

## **Composite health**

Good health under the composite measure was estimated to be more likely among the younger age groups (in the cohort born before 1972), men, married and Indigenous people living in remote areas.

Education level and labour force status were key determinants of composite good health. Indigenous Australians born before 1972 with Year 12 or equivalent were 1.6 times as likely to be in good health as those who had not completed Year 12 or equivalent. Being employed doubled the likelihood of having good health under the composite measure.

Engaging in risky alcohol consumption had a marginally significant adverse impact on composite health. Long-term alcohol risk increased the likelihood of not being in good health by 1.6 times.

In 2014–15, the effect of being removed on composite health outcome was statistically significant, with those who were removed 1.6 times as likely not to have good health.

## Household income level

(The measure of household income modelled is adjusted for household size.)

Those aged 65 and over were significantly more likely to have low household income. However, being married significantly reduced the likelihood of having household income in the lowest three deciles.

Other factors found to increase the likelihood of having low household income were:

- having four or more dependants (OR of 2.9 compared with having no dependant)
- having difficulty with English (OR of 2.1 compared with having no difficulty)
- having poor health (OR of 2.0 compared with excellent or very good health).

Two factors found to decrease the likelihood of having low household income were:

- having completed Year 12 (OR of 0.5 compared with not having completed Year 12)
- living in a mixed household with non-Indigenous people (OR of 0.4 compared with those not living in mixed households).

In 2014–15, the effect of being removed on having low household income level (in the bottom three deciles) was not statistically significant at the conventional 5% test level (but significant at the 10% test level corresponding to a 90% confidence interval).

## Reliance on government payments

Women were significantly more likely to rely on government payments as their main income source than men. This was also found to be true among the unmarried and those aged 65 and over.

Other factors that increased the likelihood of relying on government payments as the main income source were:

- having four or more dependants
- having difficulty with English
- having fair or poor self-assessed health
- living with disability or long-term condition
- having been arrested in the past five years.

Education was found to significantly reduce reliance on government payments. Indigenous people who had completed diplomas /degrees (or above) were only 0.2 times as likely to have government payments as their main income source as those who did not complete Year 12.

In 2014–15, the effect of being removed on reliance upon government payments was statistically significant, with those who were removed 1.8 times as likely to have government payments as their main source of income, as their reference group.

## Home ownership

Indigenous Australians born before 1972 living in non-remote areas, in the older age groups (that is, aged 65 and over) or married were significantly more likely to own a home.

Higher income and education levels significantly increased the likelihood of being a homeowner. On the other hand, experience of being arrested significantly reduced one's likelihood of owning a home.

In 2014–15, the effect of being removed on home ownership was statistically significant, with those who were removed 1.7 times as likely not to be a homeowner as their reference group.

## **Police charge**

Indigenous men were significantly more likely to have been formally charged by police than Indigenous women.

Factors that significantly increased the likelihood of getting charged by police were:

- having four or more dependants (OR of 2.5 compared with having no dependants)
- having poor or fair self-assessed health (OR of 2.0 compared with having excellent or very good self-assessed health)
- engaging in high-risk alcohol consumption (OR of 8.0 compared with no risk)
- living in a homeland (OR of 1.7 compared with those who are not)
- having experienced violence in the last 12 months (OR of 2.0 compared with those who have not).

However, Indigenous people born before 1972 who lived in a mixed household with non-Indigenous Australians were less likely to have been charged by police than those who lived in an Indigenous household.

In 2014–15, the effect of being removed on police charge was statistically significant, with those who were removed 2.2 times as likely to have ever been charged by police.

## **Problems in accessing services**

Among Indigenous Australians born before 1972, those aged 65 and over were found to be less likely to report having problems accessing services.

Poor general health and experience of violence also created barriers to accessing services. Indigenous people with poor self-assessed health were twice as likely to report having problems accessing services in the last 12 months than those having excellent or very good health. The twice as likely rate also applies to Indigenous people who had suffered violence in the last 12 months.

In 2014–15, the effect of being removed on having problems in accessing services was not statistically significant at the conventional 5% test level (but significant at the 10% test level corresponding to a 90% confidence interval).

## **D.2 Regression results on outcomes for the Indigenous population aged 18 and over**

The following section provides more detailed discussion of the regression model results, based on the 2014–15 NATSISS, for the outcomes modelled for the adult Indigenous population aged 18 and over, to supplement the analysis in Section 5.3 on the effects of being a descendant of all people who were removed.

### **Employment**

This outcome was modelled only for people aged 18–64.

Indigenous men were more likely than women to be employed, and married people more likely than the unmarried to be employed.



Other factors that significantly increased the likelihood of not being employed included:

- having severe or profound activity limitation (4.6 times as likely)
- having been arrested in the past five years (2.7 times as likely)
- having difficulties in speaking English (2 times as likely)
- living in a remote area (1.4 times as likely compared with those in non-remote areas)
- having poor or fair self-assessed health (1.4 times as likely as those reporting excellent or very good self-assessed health)
- having 2 to 3, or 4 or more dependants (1.6 and 2.4 times as likely, respectively, as those with no dependants).

In 2014–15, the effect of being a descendant on employment status was not statistically significant.

## **Year 12 completion**

Increasing age was significantly associated with a lower likelihood of completing Year 12, with people aged 35–44, 45–54, 55–64 and 65 and over being 1.5, 4.0, 7.0 and 12 times less likely, respectively, to have completed Year 12 compared with people aged 18–24.

Other factors found to be associated with a higher likelihood of not completing Year 12 included:

- having good, fair, or poor self-assessed health (1.7, 2.0 and 2.5 times less likely than those who reported their self-assessed health as excellent or very good)
- having long-term risky alcohol consumption at high risk level (OR of 3.4 compared with those who did not drink)
- having been arrested in the previous five years (OR of 2.5).

Indigenous Australians aged 18 and over in the medium and high decile rankings of household income categories, or who lived in a mixed household with non-Indigenous people, were significantly more likely to have completed Year 12.

In 2014–15, the effect of being a descendant on Year 12 completion was not statistically significant.

## **Self-assessed health**

The likelihood of having poor or fair self-assessed health increased significantly with age: with people aged 25–34, 35–44, 45–54, 55–64 and 65 and over being 1.8, 2.7, 3.5, 3.3 and 2.7 times, respectively, more likely to report poor or fair self-assessed health compared with those aged 18–24.

Other factors found to decrease the likelihood of reporting poor or fair health included:

- living in remote areas (OR of 0.7)
- being married (OR of 0.6)
- completing diploma/degree, or above (OR of 0.6 compared with those who completed Year 11 or below).

In 2014–15, the effect of being a descendant on self-assessed health status was statistically significant, with the descendants 1.4 times as likely to have poor self-assessed health as their reference group.

## **Mental health**

Men, older people (aged 45 and over) and the married were significantly less likely to report poor mental health (measured as high or very high psychological distress based on the K5 score).

Disability significantly increased the likelihood of having poor mental health of an Indigenous person. People with a severe or profound core activity limitation were 2.8 times as likely to report poor mental health.

Indigenous Australians aged 18 and over with high levels of risky alcohol consumption had significantly higher likelihood of reporting poor mental health than those with low to moderately risky alcohol consumption or no risk at all.

In 2014–15, the effect of being a descendant on mental health status was statistically significant, with the descendants 1.3 times as likely to have poor mental health as their reference group.

## **Satisfaction with life**

Indigenous Australians living in remote areas, men, those aged 65 and over, and married people were more likely to feel satisfied with life.

Factors that significantly increased the likelihood of having a low level of life satisfaction included:

- not being employed (OR of 2.0)
- having a severe or profound core activity limitation (OR of 1.8)
- consuming alcohol at levels posing a long-term health risk (OR of 1.7 for moderate risk and 2.2 for high risk).

In 2014–15, the effect of being a descendant on level of life satisfaction was statistically significant, with the descendants 1.4 times as likely to have a low level of life satisfaction.

## **Smoking status**

Factors associated with a significantly higher likelihood of being a current smoker included:

- living in a remote area (OR of 1.6 compared with those in a non-remote area)
- consuming alcohol at levels posing a long-term health risk (OR of 1.5 for moderate-risk alcohol consumption and 3.8 for high-risk consumption, compared with no risk)
- having been arrested in the last five years (OR of 3.1).

Factors associated with a significantly lower likelihood of being a current smoker included:

- older age (OR of 0.4 for those aged 65 and over compared with those aged 18–64).
- having completed Year 12 (OR of 0.4 for those who have completed Year 12 or above compared with those who only completed Year 11 or below)
- having high household income (OR of 0.6 and 0.4 for those living in a household in the medium, or high deciles, respectively, compared with the bottom three deciles).

In 2014–15, the effect of being a descendant on smoking status was not statistically significant.

## **Substance use**

Factors significantly associated with a higher likelihood of substance use in the last 12 months included:

- being male (OR of 1.4)
- having been arrested in the last five years (OR of 1.6)
- having been a victim of physical violence in the last 12 months (OR of 1.9)
- consuming alcohol at levels posing a long-term health risk (OR of 1.3 for moderate risk and 3.8 for high risk, compared with no risk).

Indigenous adults living in remote areas, in older age groups, and who were married, had dependants, and spoke an Indigenous language at home were significantly less likely than the Indigenous adults not in these categories to report using a substance in the last 12 months.

In 2014–15, the effect of being a descendant on substance use in the last 12 months was not statistically significant.

## **Indigenous language**

Indigenous Australians living in remote areas were more likely than those living in non-remote areas to speak an Indigenous language. The same result was found for Indigenous Australians who are Torres Strait Islanders (from among the survey respondents in Queensland only) who are substantially more likely to speak an Indigenous language than Aboriginal adults.

Living in a household with non-Indigenous people significantly reduced the likelihood of being able to speak an Indigenous language.

In 2014–15, the effect of being a descendant on the ability to speak an Indigenous language was statistically significant, with the descendants being 2 times as likely to speak an Indigenous language as their reference group.

## **Experience of discrimination**

Factors significantly associated with a higher likelihood of experiencing discrimination in last 12 months included:

- having been homeless in the last 10 years (OR of 1.4)
- having been arrested in the last five years (OR of 2.3)
- consuming alcohol at levels posing a long-term health risk (OR of 1.3 for moderate risk and 1.9 for high risk, compared with no risk).

Indigenous Australians aged 18 and over living in remote areas, men, and those living in a mixed household with non-Indigenous Australians were significantly less likely to report experiencing discrimination in the past 12 months.

In 2014–15, the effect of being a descendant on experience of discrimination was statistically significant, with the descendants being 2 times as likely to have felt discriminated against in the last 12 months.

## Victim of violence

Married Indigenous Australians aged 18 and over were significantly less likely to have experienced actual or threatened physical violence in the last 12 months than unmarried people.

Other factors that were associated with a higher likelihood of experiencing violence were:

- having 4 or more dependants (OR of 1.8 compared with having no dependants)
- having poor self-assessed health (OR of 2.3 compared with those reporting excellent or very good self-assessed health)
- engaging in risky alcohol consumption (OR of 2.0 for low/medium risk level and 2.4 for high risk level, compared with no risk)
- having been arrested in the last five years (OR of 3.5 compared with those who have not).

Torres Strait Islander people were significantly less likely to have experienced violence than Aboriginal Australians.

In 2014–15, the effect of being a descendant on experience of violence was statistically significant, with the descendants 1.9 times as likely to have experience actual or threatened physical violence as their reference group.

## Experience of homelessness

Factors associated with a significantly higher likelihood of being homeless in the last 10 years included:

- being aged 25–34 (OR of 1.8 compared with those age 18–24)
- having been a victim of actual or threatened violence in the last 12 months (OR of 2.0)
- having been arrested in the last five years (OR of 2.3).

Indigenous Australians aged 18 and over living in remote areas, those who were married and those speaking an Indigenous language at home were significantly less likely to report being homeless in the last 10 years.

In 2014–15, the effect of being a descendant on experience of homelessness in the last 10 years was not statistically significant.

## Arrest

Factors associated with a significantly higher likelihood of being arrested in the last five years included:

- being male (OR of 2.9)
- having been a victim of actual or threatened violence in the last 12 months (OR of 3.8)
- consuming alcohol at levels posing a long-term health risk (OR of 1.5 for moderate-risk and 3.7 for high-risk alcohol consumption, compared with no risk).

Indigenous Australians in older age groups, with higher educational attainment and with higher household income were less likely to report having been arrested in the last five years.

In 2014–15, the effect of being a descendant on prior arrest was statistically significant, with the descendants 1.5 times as likely to have been arrested in the last five years as their reference group.

## **Incarceration**

Factors associated with a significantly higher likelihood of being incarcerated in the last five years included:

- being male (OR of 6.4)
- living in a remote area (OR of 2.6)
- having difficulties speaking English (OR of 2.0)
- consuming alcohol at levels posing a long-term health risk (OR of 2.1 for moderate risk and 2.9 for high risk).

Indigenous Australians with higher educational attainment and those who were married were less likely to report being incarcerated in the last five years.

In 2014–15, the effect of being a descendant on prior incarceration was not statistically significant.

## **Trust in general community**

People living in remote areas were more likely to trust their general community compared with those in non-remote areas.

Respondents who experienced actual or threatened physical violence were twice as likely to report having a low level of trust in the general community.

The likelihood of having a low level of trust in the general community increased with decreasing levels of self-assessed health status.

In 2014–15, the effect of being a descendant on level of trust in general community was statistically significant, with the descendants 1.4 times as likely to have a low level of trust in general community as their reference group.

## **Composite health**

Good health under the composite measure for Indigenous adults was estimated to be more likely among the younger age groups, the married, those who had completed Year 12 and above, those who were currently employed and those living in remote areas.

Engaging in risky alcohol consumption had a marginally significant adverse impact on composite good health. Long-term risky alcohol consumption increased the likelihood of an Indigenous person aged 18 and over not to be in good health by 1.8 times.

In 2014–15, the effect of being a descendant on the composite good health outcome was statistically significant, with the descendants being 1.6 times as likely not to have a good health under this composite measure as their reference group.

## **Household income level**

(The measure of household income modelled is adjusted for household size.)

The likelihood of an Indigenous adult having household income in the lowest three deciles increased with remoteness of usual residence, being aged 65 and over, having two or more dependants or having a severe/profound core activity limitation. Difficulty in speaking English increased the likelihood of having low household income at a marginally significant level.

In contrast, married Indigenous adults were less likely to have low household income than the unmarried. Indigenous adults living in a mixed household with non-Indigenous Australians were also less likely to have household income in the low deciles.

In 2014–15, the effect of being a descendant on household income level was statistically significant, with the descendants 0.7 times as likely (that is, less likely) to live in a household with income in bottom three deciles as their reference group. In other words, the descendants were more advantaged on this outcome than their reference group.

## **Reliance on government payments**

The likelihood of an Indigenous adult relying on government payments as the main source of income was significantly higher for women, being aged 65 and over, for the unmarried and for those having two or more dependants (compared with having no dependents).

Factors that increased the likelihood of having government payments as the main source of income included:

- having difficulty in speaking English (OR of 1.8 compared with having no difficulty)
- having fair or poor self-assessed health (ORs of 1.7 and 4.2, respectively, compared with having excellent or very good health)
- having severe or profound core activity limitation (OR of 3.9 compared with those without)
- having been arrested in the previous five years (OR of 2.6 compared with those who have not)
- having experienced violence in the last 12 months (OR of 1.5 compared with those who have not).

Factors that decreased the likelihood of having government payments as the main source of income included:

- increasing levels of education
- living in a mixed household with non-Indigenous Australians.

In 2014–15, the effect of being a descendant on reliance upon government income was statistically significant, with the descendants 0.6 times as likely (that is, less likely) to rely on government income as main source of income, as their reference group. In other words, the descendants were more advantaged on this outcome than their reference group.

## **Home ownership**

Indigenous Australians who lived in non-remote areas, in older age groups of 55 and over, or who were married were significantly more likely to own a home.

Higher income and education levels significantly increased the likelihood of being a homeowner.

There also was a significant association between home ownership and language spoken at home. Indigenous people aged 18 and over who spoke an Indigenous language as the main language at home were 6.1 times as likely not to own a home as those who spoke English or other languages as their main language at home.

In 2014–15, the effect of being a descendant on home ownership was not statistically significant.

## Police charge

Men were significantly more likely to have been formally charged by police than women. By age, the highest likelihood of being charged was observed among 35–44 year olds.

Indigenous adults were more likely to be charged by police if they:

- reported their self-assessed health as fair or poor (OR of 1.4 compared with those reporting excellent or very good self-assessed health)
- engaged in risky alcohol consumption (OR of 1.8 for low/medium risk level and 5.4 for high risk level, compared with no level of risk)
- lived in a traditional homeland (OR of 1.4 compared with those who do not)
- had been a victim of violence in the last 12 months (OR of 2.9 compared with those who have not).

Factors that significantly reduce the likelihood of an Indigenous adult being formally charged by police included:

- increasing levels of education
- living in a mixed household with non-Indigenous Australians
- speaking an Indigenous language as the main language at home.

In 2014–15, the effect of being a descendant on police charge was statistically significant, with the descendants 1.4 times as likely to have ever been charged by police as their reference group.

## Problems accessing services

Indigenous women and Indigenous adults living in remote areas were more likely to report having problems in accessing services. Indigenous Australians aged 65 and over were found to be less likely to report such problems compared with other age groups.

Other factors that increased the likelihood of having problems in accessing services included:

- having poor self-assessed health (OR of 1.8 compared with those with excellent or very good health)
- having experienced violence in the last 12 months (OR of 1.9 compared with those who have not)
- being a Torres Strait Islander (OR of 1.8 compared with Aboriginal Australians).

The likelihood of having problems in accessing services was significantly reduced with higher household income levels. Indigenous adults reporting household income in the highest three deciles are only half as likely to report such problems as those having household income in the bottom three deciles.

In 2014–15, the effect of being a descendant on problems in accessing services was statistically significant, with the descendants 1.5 times as likely to have experienced problem(s) accessing services in the last 12 months as their reference group.

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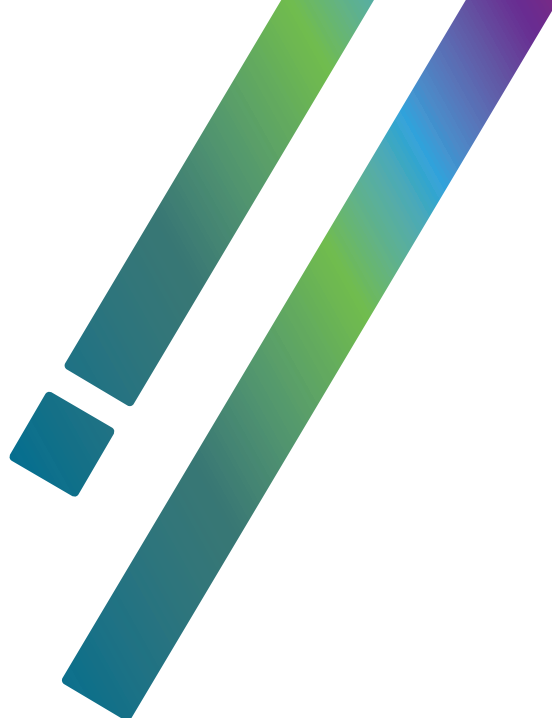
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This report provides estimated numbers and demographic characteristics of the Stolen Generations and descendants using a series of ABS surveys. It also presents a range of health and socioeconomic outcomes for the Stolen Generations and descendants, and differences with Indigenous and non-Indigenous comparison groups, to examine the effects of removal from families. The findings in the report will be useful to assess the needs of the Stolen Generations and their families.

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