

VicHealth Indicators Survey 2015

Supplementary report: Disability

The VicHealth Indicators Survey is a Victorian population-level survey conducted every four years. Selected findings from the VicHealth Indicators Survey 2015 were published in 2016. This report provides a closer look at the health and wellbeing of people with disability.

Summary of key findings



PERCEPTIONS OF SAFETY

People with disability were only half as likely to feel safe walking alone during the day as people without disability.



PERCEPTIONS OF NEIGHBOURHOOD

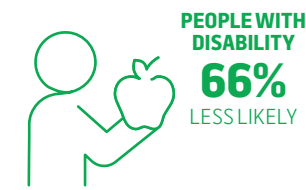
People with disability were around 25% less likely to feel positively about their local neighbourhood than people without disability.



PHYSICAL ACTIVITY

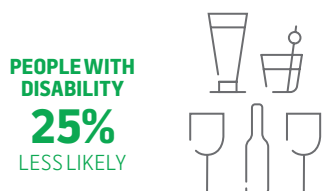
People with disability were 40% less likely to be physically active than people without disability.

The gap widens with age: 18–34 20% less likely; 35–64 30% less likely; 65+ nearly 50% less likely.



HEALTHY EATING

People with disability were one third more likely to eat takeaway food regularly than people without disability.



ALCOHOL



People with disability were 25% less likely to drink alcohol at levels that put them at risk of short-term harm (5+ drinks) than people without disability.

There was no difference in drinking at very high-risk levels (11+) or in alcohol culture between people with disability and people without disability.

Introduction

Almost one in five Australians live with disability (ABS 2016a). Disability may occur at any time in a person's life or be present from birth. Some disabilities are obvious; others are invisible. Despite the high proportion of Australians with disability, there is limited population-based Australian research comparing the health of people with and without disability.

Disability is a complex, contested and evolving concept. One of the important challenges in research and policy on disability is agreement on definitions of disability and how it is measured. Definitions are important because they can directly affect the lives of people with disability, for example, through eligibility criteria for programs, services and benefits (VicHealth 2014).

Disability has been conceptualised using two approaches: the medical model of disability and the social model of disability (Barnes 1991; Oliver 1996). Historically, disability was viewed using the medical model, where disability was a feature of a person that occurs due to injury, disease or a health condition that requires medical treatment. The social model of disability was developed to challenge this concept, whereby disability is socially produced as a result of factors that need a societal response, such as discrimination and physically inaccessible environments.

The *United Nations Convention on the Rights of Persons with Disability* (UNCRPD) defines disability as long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others (United Nations 2007). This definition includes the impairment itself and the barriers presented by society, such as discriminatory attitudes and behaviours or lack of accessibility to buildings. For example, a person with extreme near-sightedness who has no access to corrective lenses may not be able to perform daily tasks and would have limited education and employment opportunities. This same person with prescription glasses could perform all tasks without problems and would not experience the same limited opportunities for education or employment, and the associated socioeconomic benefits.

Measuring disability

There is no universally accepted way to collect information about disability. Although the Australian Bureau of Statistics (ABS) has developed short and long modules about disability that are based on the World Health Organization International Classification of Functioning, Disability and Health (WHO 2002), these are not used routinely in surveys because even the short module takes several minutes to administer and has only been used in face-to-face interviews (ABS 2010). In fact, many population surveys don't report on disability at all.

The VicHealth Indicators Survey included a single question about self-reported disability, health condition or injury that has lasted, or is likely to last, six months or more which restricts everyday activities.¹

In reporting the health status of people with disability, it is recognized that there are many different ways to classify disability, and that people with disability are not an homogeneous group. Common to all people with disability is their differential experience of the social determinants of health compared to their peers without disability.

The health of people with disability

As a group, Australians with disability experience significantly poorer health than people without disability. This includes poorer self-rated health, higher rates of long-term health conditions and higher prevalence of risk factors (AIHW 2016c) for health conditions. There are a variety of reasons for this, some of which may be directly related to a person's disability. People with disability also achieve lower levels of labour force participation, educational achievement and income than people without disability (Kavanagh et al. 2013).

It is well accepted that health follows a social gradient, whereby people with the highest levels of social and economic advantage have the best health outcomes, and people with the highest levels of social and economic disadvantage have the poorest health outcomes (VicHealth 2015). People with disability are commonly among the most socially and economically disadvantaged people in Australia, so it's not surprising that there is a disparity in health outcomes (VicHealth 2014). Further, research from the Household Income and Labour Dynamics in Australia survey (HILDA) suggests that when adults acquire a disability, having financial resources, employment, social support and affordable housing protects them from experiencing a large decline in mental health (Kavanagh et al. 2015; Kavanagh et al. 2016; Aitken et al. 2017a; Aitken et al. 2017b). This suggests that addressing the adversities people with disability experience will promote their health and wellbeing.

¹ This report uses 'disability' to describe people who have a self-reported disability, health condition or injury that has lasted, or is likely to last, six months or more, and that restricts their everyday activities.

Wellbeing

Wellbeing is defined as the balance point between an individual's physical, psychological and social resources and the physical, psychological and social challenges they face (Dodge et al. 2012). When individuals have more challenges than resources, the balance dips, along with their wellbeing, and vice-versa. Wellbeing can be measured objectively (e.g. by household income, education, leisure time, life expectancy) or subjectively (e.g. through life satisfaction and quality of life surveys).

The Personal Wellbeing Index (PWI) is a tool used to assess subjective wellbeing, that is, how people perceive their wellbeing. The PWI is the principal indicator of the Australian Unity Wellbeing Index, which has been collecting subjective wellbeing data since 2001 to track and measure how satisfied Australians' are with their lives (Cummins et al. 2003). The PWI assesses satisfaction with life across seven subdomains. Scores can be aggregated to provide a single index of subjective wellbeing.

According to the PWI, the average subjective wellbeing among Australians is 75 points. The survey mean scores have only varied by 3.1 points since 2001 (Capic et al. 2017). While information about how disability affects wellbeing is not collected each year, the specific topic for Survey 26 of the PWI series was the consequence of long-term illness or disability on wellbeing (Cummins et al. 2011a). Among the 37.5 per cent of respondents who indicated that they had had to visit the doctor on a regular basis because of a serious medical condition, an injury, or a psychological condition, subjective wellbeing was 73 points. People who said they hadn't, had a subjective wellbeing of 77 points. Of the people who reported having a chronic health condition, those with medical conditions and injuries had a wellbeing score of 73.7, and those with psychological conditions had a score of 68.9 (Cummins et al. 2011a). Australian women generally have higher subjective wellbeing than men (Cummins et al. 2011b; Capic et al. 2016), including women with a chronic health condition compared to men with a chronic health condition (Cummins et al. 2011a).

There is now considerable evidence that shows the importance of social capital and positive neighbourhood environments in promoting health and wellbeing (Kawachi 2008; Murayama et al. 2012). While there is limited Australian evidence about perceptions of neighbourhood among people with disability, analysis of the 2010 General Social Survey found that people with disability had poorer self-rated health and lower social capital than people without disability, particularly in relation to access to financial and emotional support (Mithen et al. 2015).

Safety, violence and discrimination

Analyses of the ABS Personal Safety Survey 2012 found that at the population level, women and men with disability experience much higher levels of all forms of violence (physical and sexual violence, stalking and harassment, and partner emotional abuse) than their same-gender peers without disability.

Men with disability experience higher levels of physical violence than men without disability while women with disability experience higher levels of partner abuse than women without disability (Krnjacki et al. 2016).

Recent analyses of the 2015 Survey of Disability, Ageing and Carers shows that one in seven Australians with disability experienced discrimination or unfair treatment in the past 12 months, with people with severe and profound disability and/or intellectual and psychosocial impairments faring the worst (Krnjacki et al. 2017).

Physical activity and healthy eating

Being overweight or obese is associated with an increased risk of developing chronic disease (NHMRC 2013). Overweight and obesity rates are high in Australia, with data from 2014–15 indicating that two in three adults (63.4%) were overweight or obese (ABS 2016b). There are significant differences in the rates of overweight/obesity by disability status, with people with profound or severe core activity limitation more likely to be overweight and obese (74.2 per cent) than people with other disability or restrictive long-term health condition (71.8 per cent) and people with no disability (60.9 per cent) (ABS 2016b).

It is likely that the increased risk of overweight and obesity among people with disability is partly due to inadequate physical activity. Overall, two in three (66.2%) Australians reported no/low physical activity levels, compared with nine in ten (90.2%) Australians with profound or severe disability and three quarters (76.2%) of people with other disability (ABS 2016b).

Data from population-based studies on fruit and vegetable consumption show that there are similar dietary patterns for those with and without a disability. Findings from the National Health Survey 2014–15 show that 93 per cent of Australians had inadequate vegetable consumption and 50 per cent had inadequate fruit consumption (ABS 2016b). The proportions were similar for people with and without disability and did not vary by severity of disability (ABS 2016b).

Alcohol consumption

Harm associated with alcohol use, including short-term harm and long-term health consequences, is well documented (Rehm et al. 2010). The risk of injury increases as more alcohol is consumed during a single session, with risks predominantly associated with self-injury or injuries to other people who are affected by the drinker's behaviour.

National data suggest that people with disability have lower levels of alcohol consumption than people without disability. Half of Australians without disability (48.0%) reported drinking alcohol at levels that put them at risk of short-term harm in the previous year, compared with one-third of people with disability (33.5%) and less than one in five people with severe disability (18.0%) (ABS 2016b).

There is limited evidence of how risky alcohol consumption varies by the type of impairment. However, it has been reported that Victorians with intellectual disability are significantly more likely than Victorians without an intellectual disability to abstain from alcohol consumption (65.8% compared to 18.0% respectively) (Haider et al. 2013).

Focus of this supplementary report

Although *VicHealth Indicators Survey 2015: Selected Findings* reports differences in response proportions by disability, its data provided an opportunity to examine differences between people with and without disability across several domains in more detail, including wellbeing and safety, mental wellbeing, physical activity, healthy eating, and alcohol consumption. In this report, we also explore how gender is associated with these health domains.

VicHealth Indicators Survey 2015

The VicHealth Indicators Survey is a population-level survey focused on behaviours and attitudes associated with chronic disease risk. It has been conducted every four years since 2007. In 2015, data were collected from more than 22,000 Victorian adults (18 years and older) via telephone interviews using a dual-frame survey design involving randomly generated mobile and landline phone numbers. Full details of the data collection method and measures used in the VicHealth Indicators Survey are provided in *VicHealth Indicators Survey 2015: Selected Findings* (VicHealth 2016b).

Respondents were asked whether they had a disability, health condition or injury that has lasted, or is likely to last, six months or more which restricts your everyday activities? Of the 22,819 Victorian adults who were interviewed, 6,306 answered yes, 16,384 answered no, 63 answered 'don't know', and 66 preferred not to answer. A range of validated scales and survey items were used to collect data on all health and wellbeing indicators. Respondents were also asked to provide sociodemographic data.

Because the prevalence of disability increases with age, it is also important to separate some of the differences that might be due to age from those related to disability. In this report, results were adjusted for age so we can be more confident about whether some of the previously reported differences relate to disability or age.

Characteristics of people with disability in the VicHealth Indicators Survey 2015

Of the 6306 respondents with disability, there were similar proportions of men² (27%) and women (28%). This is a higher proportion of people with disability than reported in other surveys, likely due to the different definitions of disability in different survey use. For example, the Survey of Disability, Aging and Carers uses the ABS long module on disability and reports a proportion of 18.3 per cent (ABS 2016a), whereas the Personal Safety Survey uses the ABS short module and reports a proportion of 32 per cent (Krnjacki L et al. 2016). Compared to respondents without disability, those with disability were more likely to be older, born in Australia, and declare Aboriginal or Torres Strait Islander status (see Table 1). More people with disability experienced socioeconomic disadvantage, low educational attainment and were unemployed than people without disability. People with disability were more likely to live outside metropolitan regions than people without disability.

Table 2 shows the number of participants by age and gender. When interpreting results, it's important to note that the number of people with disability in each age group varies substantially. There are large numbers of men and women in the 35-64 and 65 years and older age groups, but a much lower number in the youngest age group. This means that we have greater power to detect statistically significant differences between people with and without disability in the 35 years and older age groups, even when the magnitude of the difference is small. In contrast, among people less than 35 years, a difference may not be statistically significant (due to lower statistical power) because the numbers of men and women reporting disability were relatively small (199 men and 162 women).

Table 1: Demographics

	With disability		Without disability	
	Number	Proportion	Number	Proportion
Victoria	6306	100.0%	16384	100.0%
Gender				
Male	2523	40.0%	6785	41.4%
Female	3775	59.9%	9574	58.4%
Other	8	0.1%	25	0.2%
Age				
18–24	139	2.2%	1075	6.6%
25–34	222	3.5%	1743	10.6%
35–44	404	6.4%	2217	13.5%
45–54	835	13.2%	2848	17.4%
55–64	1557	24.7%	3265	19.9%
65–74	1693	26.8%	3167	19.3%
75+	1450	23.0%	2038	12.4%
Education				
Some high school or less	1985	31.5%	3506	21.4%
Completed high school	598	9.5%	1744	10.6%
TAFE/Certificate/Diploma	1997	31.7%	4837	29.5%
University	1214	19.3%	5422	33.1%

² In this report we use men to refer to respondents who identified as 'male' and women to refer to respondents who identified as 'female'. VicHealth recognises that some people's gender identities or physical characteristics do not fit into binary categories of male or female, or do not reflect the biological sex they were assigned at birth.

Table 1: Demographics

	With disability		Without disability	
	Number	Proportion	Number	Proportion
Main activity				
Employed	1753	27.8%	9526	58.1%
Unemployed	183	2.9%	304	1.9%
Student	99	1.6%	572	3.5%
Home duties	345	5.5%	905	5.5%
Retired	3022	47.9%	4788	29.2%
Main language spoken at home				
English	5666	89.9%	13771	84.1%
Other	635	10.1%	2565	15.7%
Country of birth				
Australian born	5096	80.8%	12384	75.6%
Country of English speaking background	538	8.5%	1318	8.0%
Country of non-English speaking background	672	10.7%	2682	16.4%
Aboriginal status				
Aboriginal and/or Torres Strait Islander	69	1.1%	119	0.7%
Non-Aboriginal	6205	98.4%	16223	99.0%
Sexuality				
Heterosexual	5850	92.8%	15514	94.7%
Non-heterosexual	294	4.7%	594	3.6%
Income				
Less than \$20,000	646	10.2%	858	5.2%
\$20,000–\$39,999	2567	40.7%	3494	21.3%
\$40,000–\$59,999	800	12.7%	2365	14.4%
\$60,000–\$79,999	439	7.0%	1759	10.7%
\$80,000–\$99,999	305	4.8%	1471	9.0%
\$100,000 or more	554	8.8%	3701	22.6%
Household structure				
Single person household	2012	31.9%	3020	18.4%
Couple household	2319	36.8%	5724	34.9%
Household with children	1258	19.9%	5779	35.3%
– Single parent with dependent children	168	2.7%	431	2.6%
– Couple parent with dependent children	583	9.2%	3694	22.5%
Share or group household	312	4.9%	978	6.0%
Geography				
Metropolitan	1388	22.0%	5193	31.7%
– Inner metro	222	3.5%	969	5.9%
– Middle metro	826	13.1%	3071	18.7%
– Outer metro	340	5.4%	1153	7.0%
Interface	657	10.4%	2106	12.9%
Regional city	914	14.5%	2105	12.8%
Large shire	1864	29.6%	4091	25.0%
Small shire	1483	23.5%	2889	17.6%
Location				
Capital city	2172	34.4%	7687	46.9%
Rest of state	4134	65.6%	8697	53.1%
Internet at home				
Yes	4743	75.2%	14311	87.3%
SEIFA (index of disadvantage)				
1 – Low (most disadvantaged)	1867	29.6%	3745	22.9%
2	1712	27.1%	3813	23.3%
3	1059	16.8%	3046	18.6%
4	808	12.8%	2545	15.5%
5 – High (least disadvantaged)	850	13.5%	3202	19.5%

Please note that proportions do not always equal 100% where respondents choose not to provide a response to demographic questions.

Statistical analysis

To determine the relationships between disability and the indicator of interest, a statistical technique called regression analysis was performed using the statistical software R. This helps us to estimate the influence of predictor variables on each of the outcome variables of interest after controlling for the influence of other relevant variables. For example, it was previously reported in *VicHealth Indicators Survey 2015: Selected Findings* (VicHealth 2016b) that life satisfaction scores were higher among women and improved with age. Therefore, to determine how having a disability (the comparison group) affects life satisfaction compared to not having a disability (the reference group), we adjusted for the influences of age and gender by including them in the model as predictors.

Continuous variables were analysed using linear regression analysis, with results presented in Figures as adjusted beta coefficients with 95 per cent confidence intervals. Negative values indicate lower scores compared to the reference group, and positive values indicate higher scores compared to the reference group.

Binary variables were analysed using logistic regression analysis, with results presented in Figures as odds ratios with 95 per cent confidence intervals. Values under 1 indicate reduced odds compared to the reference group, and values over 1 indicate increased odds compared to the reference group.

The reporting of differences between categories is noted only when such differences are statistically significant, based on a p-value less than 0.05.

Table 2: Number of people with disability by gender and age-group

Age group	Men		Women		Total	
	Number	Proportion	Number	Proportion	Number	Proportion
18–34	162	2.57	199	3.16	361	5.74
35–64	1128	17.93	1666	26.48	2794	44.41
65+	1232	19.58	1905	30.28	3137	49.86
Total	2522	40.08	3770	59.92	6292	100.00

How to interpret the figures

Figure 1 Example figure

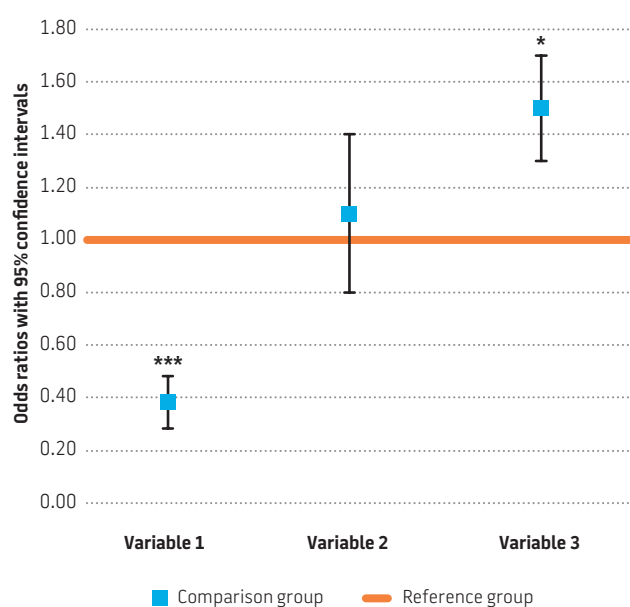
Estimated odds ratios or coefficients for the comparison group (for example, women) are shown in blue, with error bars indicating the 95 per cent confidence intervals. The reference group against which these are estimated (for example, men), is shown in orange.

Odds ratios that are above the orange line indicate higher likelihood in the comparison group than in the reference group. Odds ratios below the orange line indicate a lower likelihood in the comparison group than in the reference group.

Coefficients above the orange line indicate association with higher scores in the comparison group than in the reference group. Coefficients below the orange line indicate association with lower scores than those in the reference group.

Stars indicate a statistically significant difference compared to the reference group; more stars indicate a stronger significance. If there are no stars, there is no statistically significant difference between the comparison and reference groups. One star indicates a statistically significant difference with a p value less than 0.05, two stars indicates a p value less than 0.01, three stars indicates a p value less than 0.001.

Figure 1 Example figure



Findings

Wellbeing and safety

Subjective wellbeing and life satisfaction are important determinants of people’s health and wellbeing. Victorians with disability report lower levels of subjective wellbeing and life satisfaction than Victorians without disability.

Subjective wellbeing

This survey assessed subjective wellbeing using the Personal Wellbeing Index (Cummins et al. 2003). The index asks respondents to rate their satisfaction with life across seven domains: health; future security; personal relationships; standard of living; what you are currently achieving in life; feelings of safety; and feeling part of the community. Satisfaction is rated on a scale of 0 to 10, where 0 indicates ‘Completely dissatisfied’ and 10 indicates ‘Completely satisfied’.

In the general Victorian population, scores for overall subjective wellbeing were higher for women and among older Victorians (VicHealth 2016b). When adjusted for the effects of age and gender, people with disability scored significantly lower for subjective wellbeing than people without disability (approximately nine points lower out of 100; see Figure 2a). When examining the differences in subjective wellbeing between men and women with disability, there was no significant difference (Figure 2b).

People with disability scored significantly lower than people without disability across all seven subdomains of subjective wellbeing (Figure 3a). The greatest difference was for satisfaction with health, where people with disability scored almost two points lower (out of 10) than people without disability. Among people with disability, women scored significantly higher than men for satisfaction with what they are achieving in life and their personal relationships. However there were no differences between men and women with disability for the other five subdomains (Figure 3b).

Figure 2a Associations between subjective wellbeing and disability

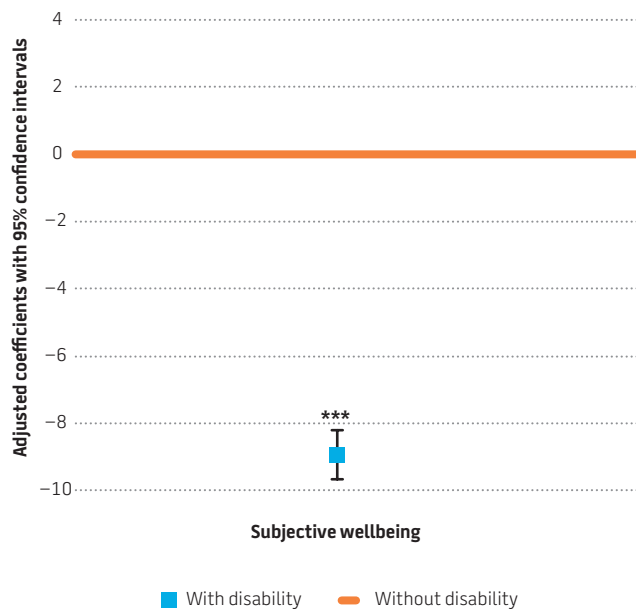
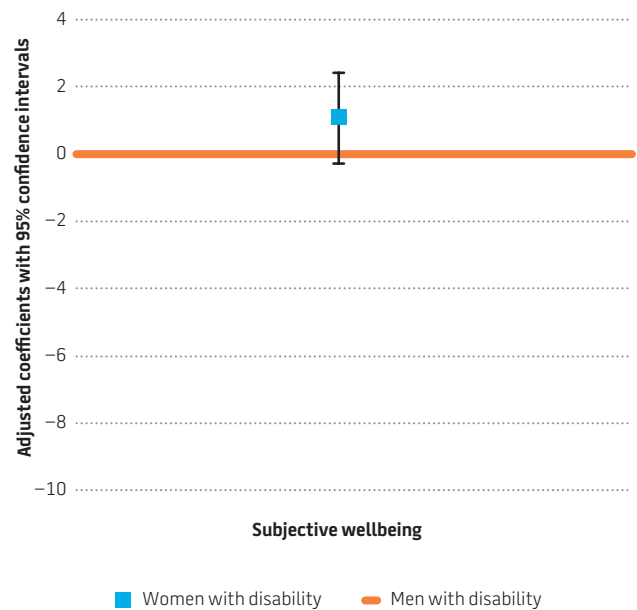


Figure 2b Associations between subjective wellbeing and gender in people with disability



Positive coefficients (data points above the orange line) indicate association with higher scores in the comparison group (blue, indicated in legend) than in the reference group (orange, indicated in legend). Negative coefficients (data points below the orange line) indicate association with lower scores than those in the reference group.

Stars indicate a statistically significant difference; more stars indicate a stronger statistical significance. *p<0.05; **p<0.01; ***p<0.001

All models are adjusted for the effects of age. Model a) is also adjusted for gender.

Figure 3a Associations between subjective wellbeing subdomains and disability

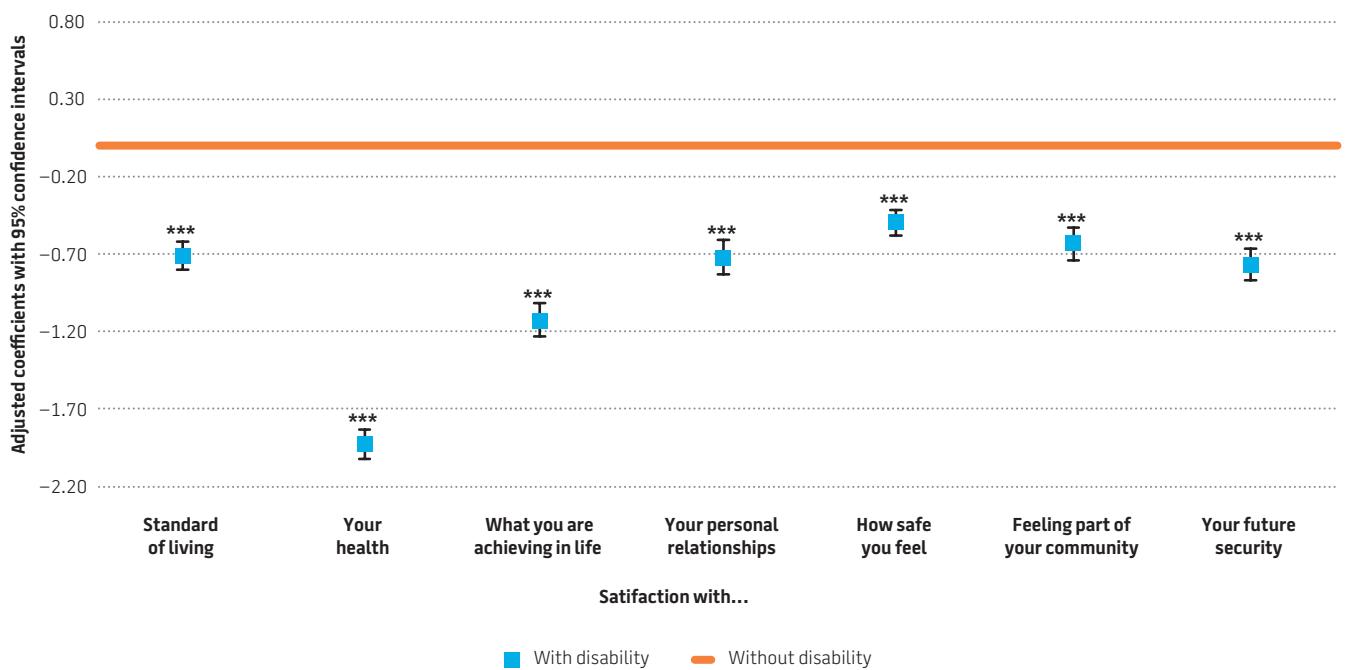
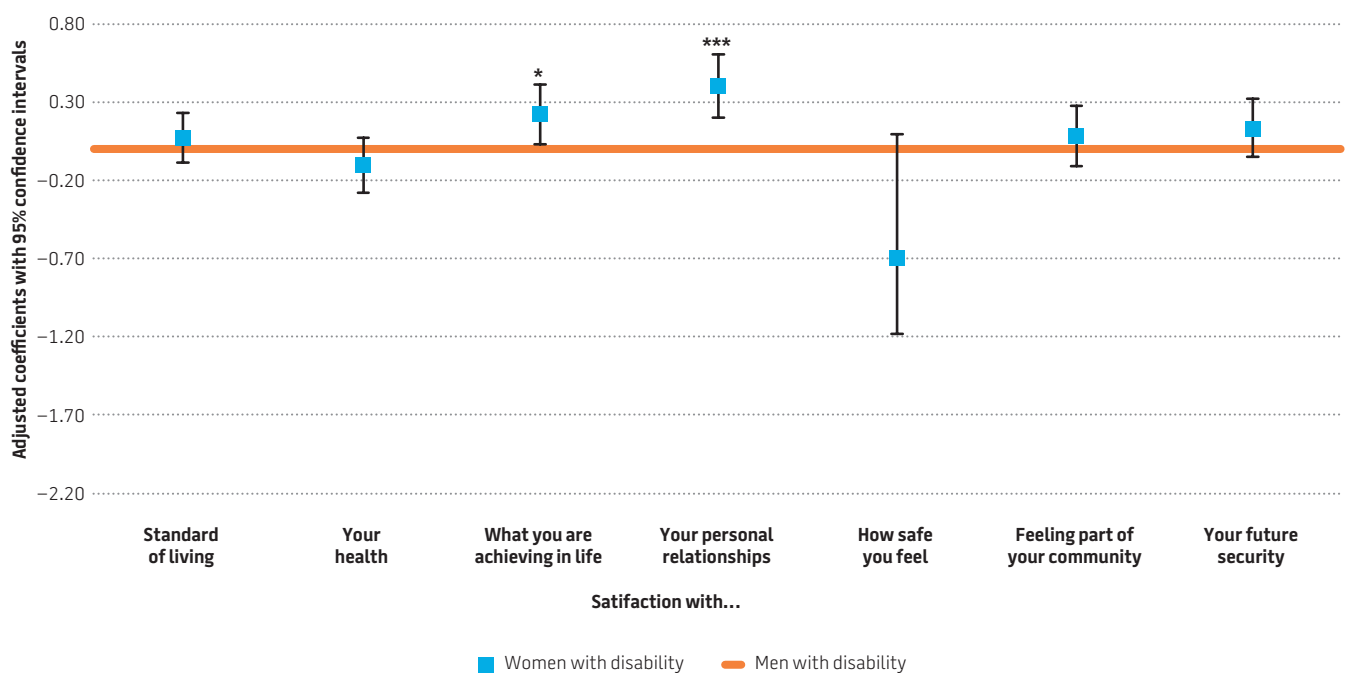


Figure 3b Associations between subjective wellbeing subdomains and gender in people with disability



Positive coefficients (data points above the orange line) indicate association with higher scores in the comparison group (blue, indicated in legend) than in the reference group (orange, indicated in legend). Negative coefficients (data points below the orange line) indicate association with lower scores than those in the reference group.

Stars indicate a statistically significant difference; more stars indicate a stronger statistical significance. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

All models are adjusted for the effects of age. Model a) is also adjusted for gender.

Satisfaction with life as a whole

General life satisfaction was measured by asking participants to rate their satisfaction with life as a whole on a scale from 0 to 10, where 0 indicates 'Completely dissatisfied' and 10 indicates 'Completely satisfied'.

People with disability scored significantly lower in satisfaction with life as a whole compared to people without disability (approximately 1 point lower out of 10; see Figure 4a). There was no difference in life satisfaction between men and women with disability (Figure 4b).

Figure 4a Associations between satisfaction with life as a whole and disability

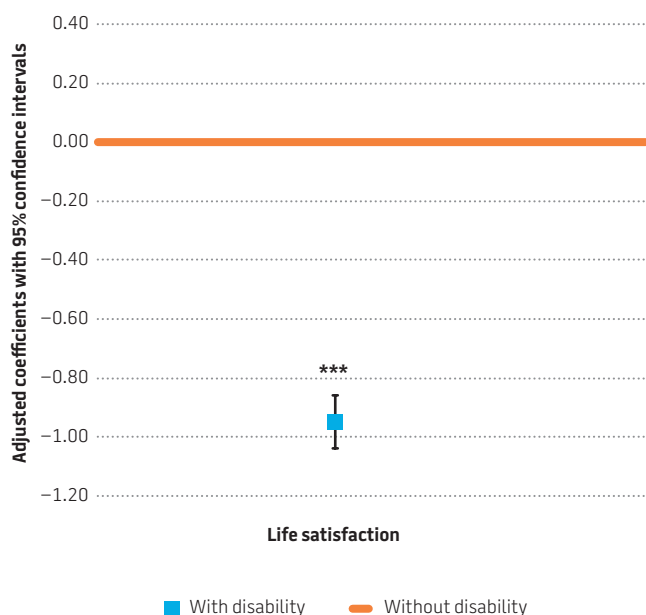
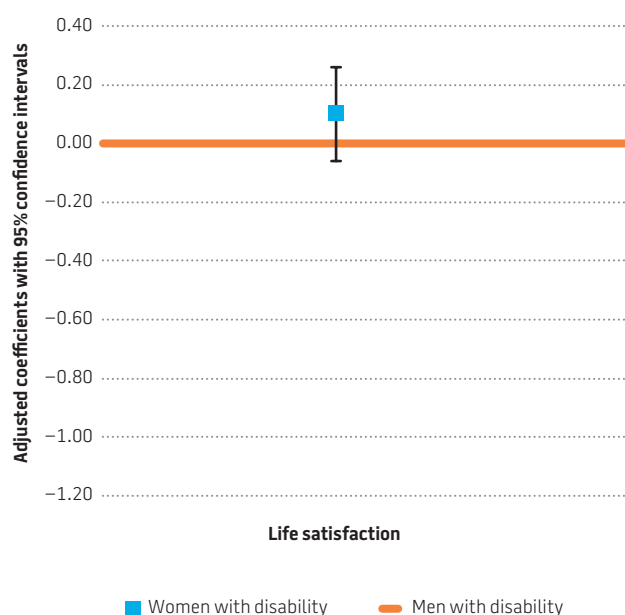


Figure 4b Associations between satisfaction with life as a whole and gender in people with disability



Positive coefficients (data points above the orange line) indicate association with higher scores in the comparison group (blue, indicated in legend) than in the reference group (orange, indicated in legend). Negative coefficients (data points below the orange line) indicate association with lower scores than those in the reference group.

Stars indicate a statistically significant difference; more stars indicate a stronger statistical significance. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

All models are adjusted for the effects of age. Model a) is also adjusted for gender.

Perception of safety

Perception of safety while walking alone during the day and perception of safety while walking alone after dark were measured on a 5-point Likert scale, where 1 indicates 'Very safe' and 5 indicates 'Very unsafe'.

When adjusted for the effects of age and gender, people with disability were only half as likely to feel safe walking alone during the day, and a third less likely to feel safe walking alone after dark, than people without disability (Figure 5a). This pattern was consistent for both men and women with disability (Figure 5b and c).

Figure 5a Odds of feeling safe walking alone in the community for people with disability compared to people without disability

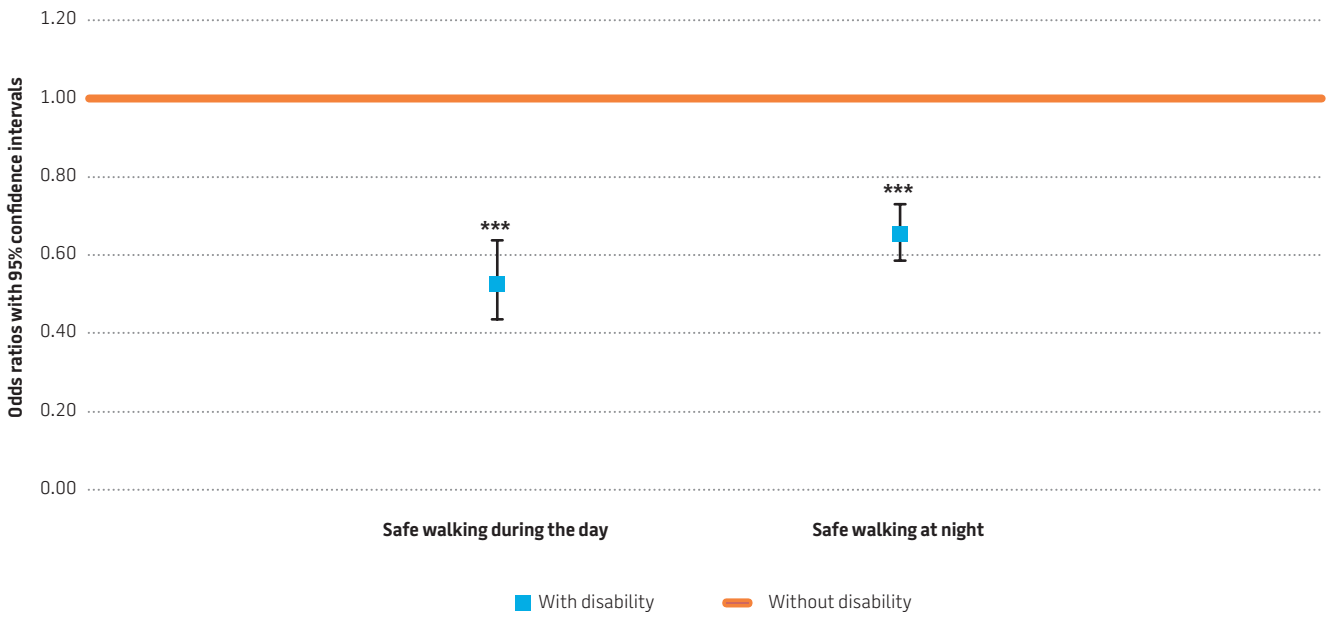


Figure 5b Odds of feeling safe walking alone in the community for men with disability compared to men without disability

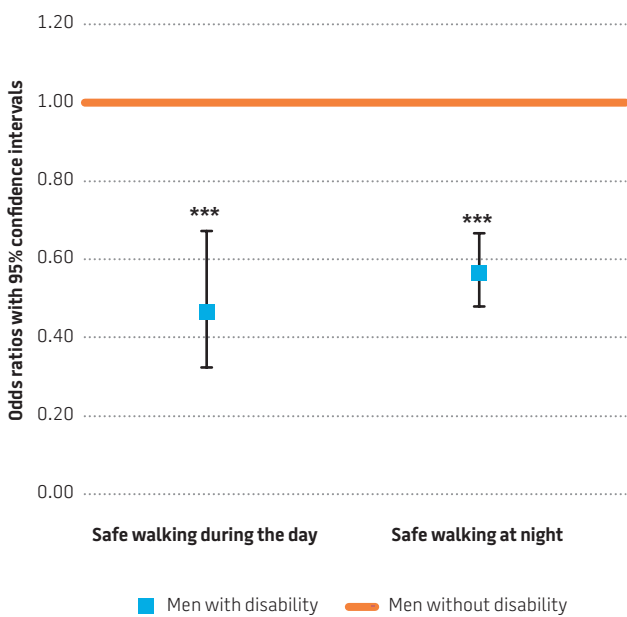
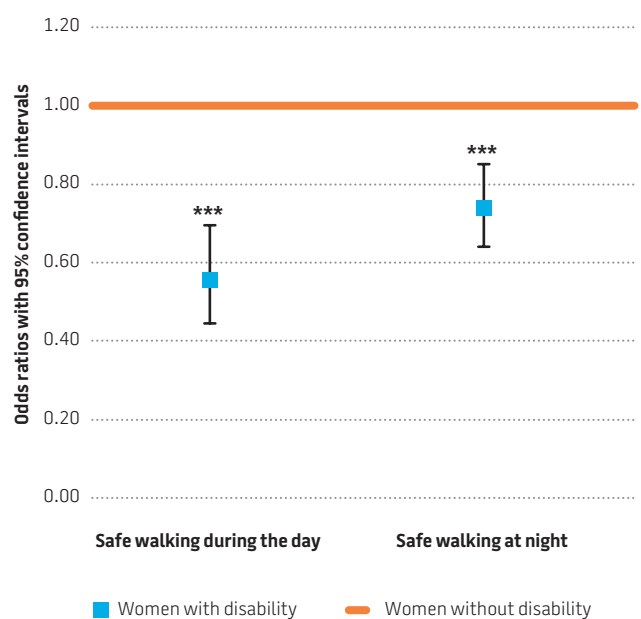


Figure 5c Odds of feeling safe walking alone in the community for women with disability compared to women without disability



Odds ratios above one (data points above the orange line) indicate a higher likelihood in the comparison group (blue, indicated in the legend) than in the reference group (orange, indicated in the legend). Odds ratios below one (data points below the orange line) indicate a lower likelihood than in the reference group.

Stars indicate a statistically significant difference; more stars indicate a stronger statistical significance: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

All models are adjusted for the effects of age. Model a) is also adjusted for gender.

Mental wellbeing

Resilience

The resilience indicator is a score on a scale of 0–8, where 8 represents the highest possible level of resilience. The indicator is derived using the abbreviated Connor–Davidson Resilience Scale (CD-RISC2)(Vaishnavi et al. 2007), a two-item measure with published psychometric properties.

People with disability had significantly lower levels of resilience than people without disability (approximately 0.6 points lower out of 8; see Figure 6a). There was no difference in resilience between men and women with disability (Figure 6b).

Figure 6a Associations between resilience and disability

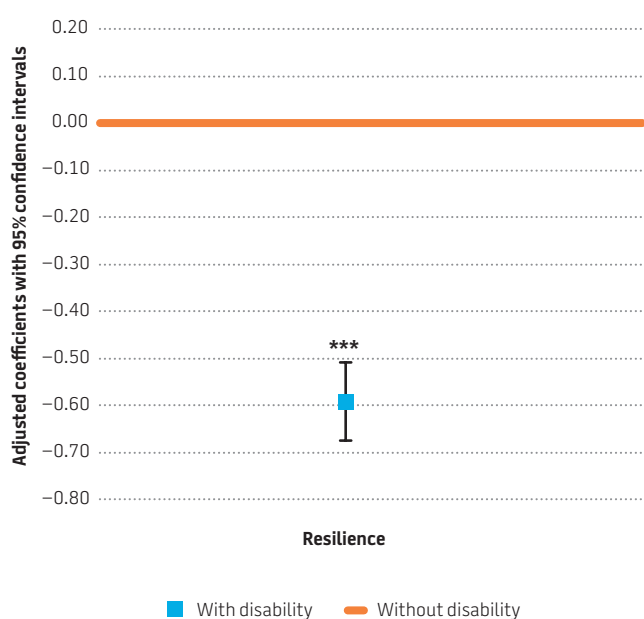
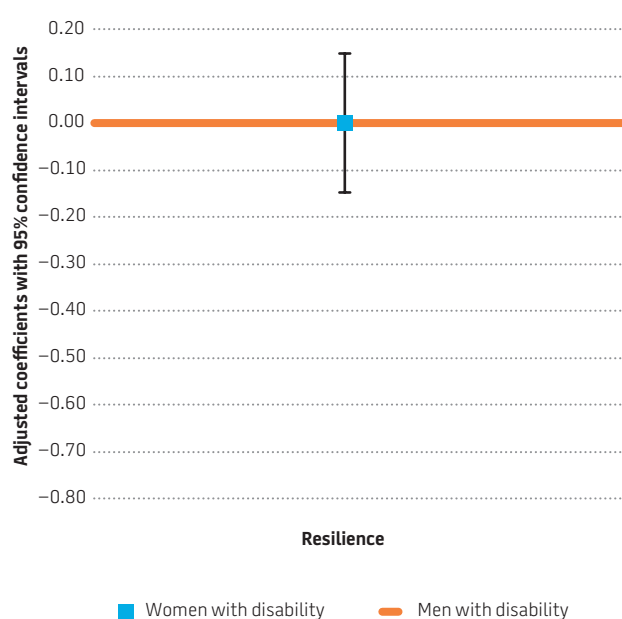


Figure 6b Associations between resilience and gender in people with disability



Positive coefficients (data points above the orange line) indicate association with higher scores in the comparison group (blue, indicated in legend) than in the reference group (orange, indicated in legend). Negative coefficients (data points below the orange line) indicate association with lower scores than those in the reference group.

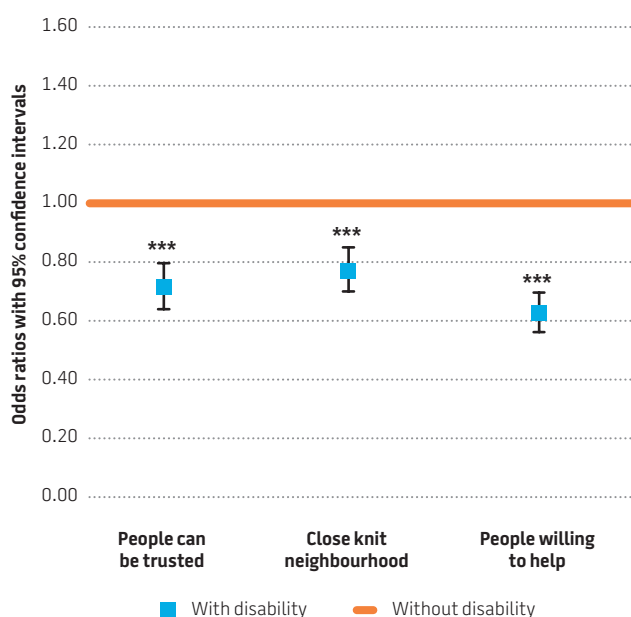
Stars indicate a statistically significant difference; more stars indicate a stronger statistical significance. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

All models are adjusted for the effects of age. Model a) is also adjusted for gender.

Social capital and perceptions of neighbourhood

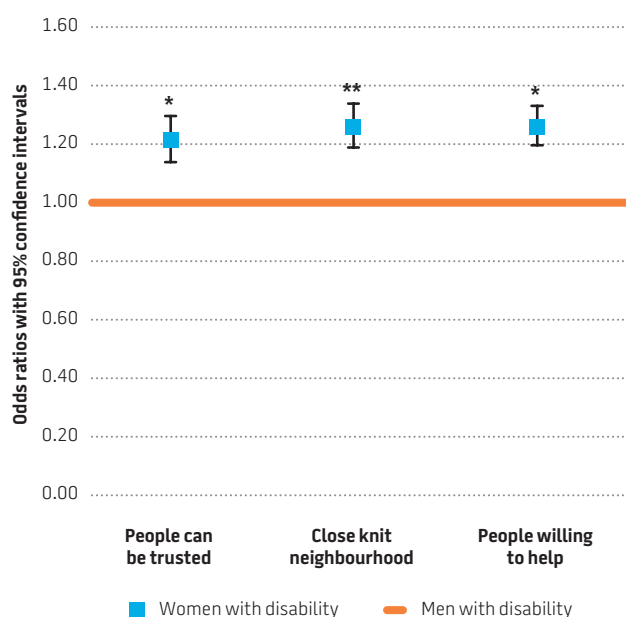
This survey assessed social capital using three indicators that relate to social connection and people’s perception of their local neighbourhood. Respondents were asked to rate their agreement with three statements on a scale from 1 to 7, where 1 is ‘strongly disagree’ and 7 is ‘strongly agree’. The statements were: ‘people in this neighbourhood can be trusted’; ‘this is a close knit neighbourhood’ and ‘people around here are willing to help their neighbours’.

Figure 7a Odds of agreeing with statements related to neighbourhood for people with disability compared to people without disability



People with disability were less likely to agree with all three statements (between 20 and 40 per cent less likely) than people without disability (Figure 7a). Women with disability were about 20 per cent more likely to have positive perceptions of neighbourhood than men with disability, as indicated by agreement with the three statements (Figure 7b).

Figure 7b Odds of agreeing with statements related to neighbourhood for women with disability compared to men with disability



Odds ratios above one (data points above the orange line) indicate a higher likelihood in the comparison group (blue, indicated in the legend) than in the reference group (orange, indicated in the legend). Odds ratios below one (data points below the orange line) indicate a lower likelihood than in the reference group.

Stars indicate a statistically significant difference; more stars indicate a stronger statistical significance: *p<0.05; **p<0.01; ***p<0.001

All models are adjusted for the effects of age. Model a) is also adjusted for gender.

Gender equality within relationships

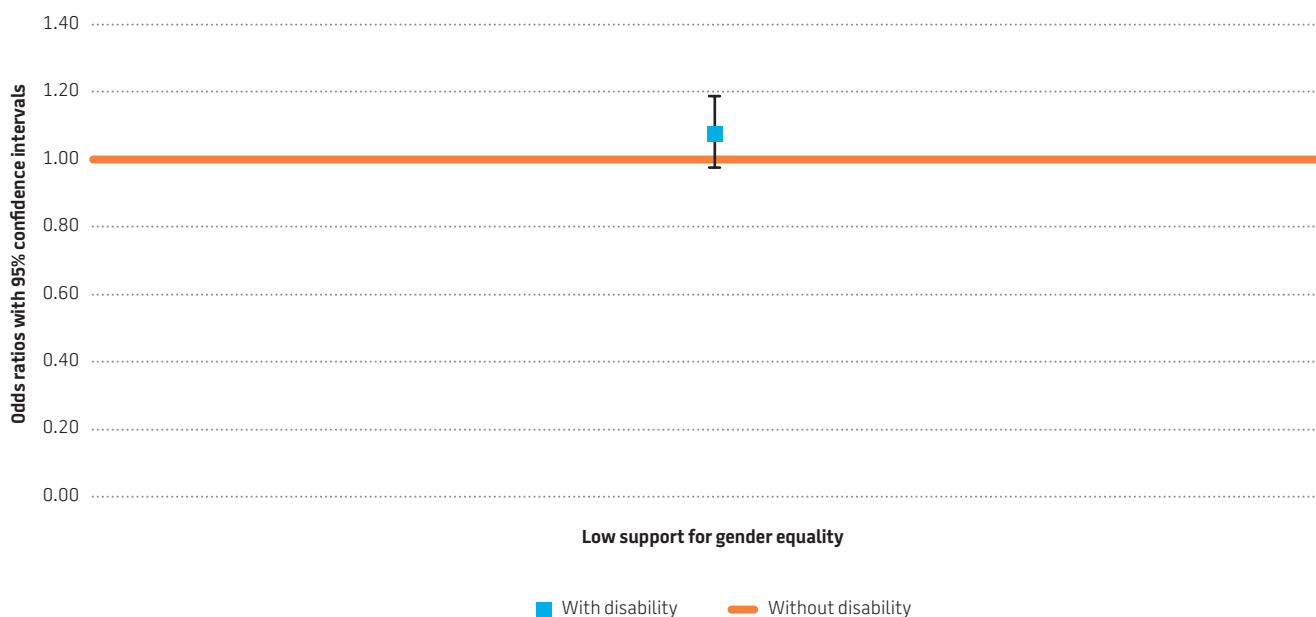
Gender norms, roles and relations are important contributing factors to mental, physical and social health and wellbeing (WHO 2015). Attitudes towards gender equality within relationships are an important measure of community support for respectful and equal relationships.

Attitudes were measured using an indicator based on the Gender Inequality in Relationships Scale (Harris et al. 2015), which asks respondents about their level of agreement with two statements: “Men should take control in relationships and be the head of

the household” and “Women prefer a man to be in charge of the relationship”. Agreement with each statement was measured on a 5-point Likert Scale, where 1 indicates ‘Strongly agree’ and 5 indicates ‘Strongly disagree’. The score for each item is multiplied by 10, then added together to produce a total score out of 100. Low support for gender equality is defined as a total score equal to or less than 70.

There were no differences in level of support for gender equality between people with and without disability (Figure 8).

Figure 8 Odds of reporting low support for gender equality in relationships for people with disability compared to people without disability



Odds ratios above one (data points above the orange line) indicate a higher likelihood in the comparison group (blue, indicated in the legend) than in the reference group (orange, indicated in the legend). Odds ratios below one (data points below the orange line) indicate a lower likelihood than in the reference group.

Stars indicate a statistically significant difference; more stars indicate a stronger statistical significance: *p<0.05; **p<0.01; ***p<0.001

All models are adjusted for the effects of age. Model a) is also adjusted for gender.

Physical activity and healthy eating

Being physically active and eating a healthy diet are vital for physical, mental and social health and wellbeing. People with disability were less physically active, consumed less fruit and vegetables, and consumed more takeaway food than people without disability.

In Australia, unhealthy diet and physical inactivity are responsible for a significant proportion of the chronic disease burden (AIHW 2016b). Differences in physical activity and healthy eating between Victorians with and without disability are described below.

Physical activity

Using a validated single item measure, respondents were asked how many days in a usual week they participate in physical activity for at least 30 minutes (Milton et al. 2013). Here we report on people who were considered active, that is, people who were physically active for at least 30 minutes on four or more days a week.

Respondents who participated in physical activity at least once a week were also asked about the three main types of physical activity they usually did. Here we explore whether the activity was organised (e.g. a fitness class or sport organised by a club, association or other organisation) or non-organised (e.g. walking or cycling).

People with disability were approximately 35 per cent less likely to be active than people without disability (Figure 9a). This difference was more pronounced among women than men. Men with disability were approximately 20 per cent less likely to be active than men without disability (Figure 9b), whereas women with disability were approximately 40 per cent less likely to be active than women without disability (Figure 9c).

Adults aged 35 years and older were less active than younger adults with disability (18 to 35 years) (Figure 9d). Younger adults with disability were only slightly less likely to be active and were no less likely to participate in non-organised physical activity than younger adults without disability. Younger adults with disability were, however, less likely to engage in organised physical activity than younger adults without disability. From the age of 35 years, people with disability were significantly less likely to be physically active and participate in organised and non-organised physical activity than people without disability. It is important to note that the sample size was much lower and the confidence intervals of each estimate were wider for younger adults with disability (18 to 34 years) than older age groups with disability (35 years or older).

Figure 9a Odds of being physically active, and participating in organised or non-organised physical activity, for people with disability compared to people without disability

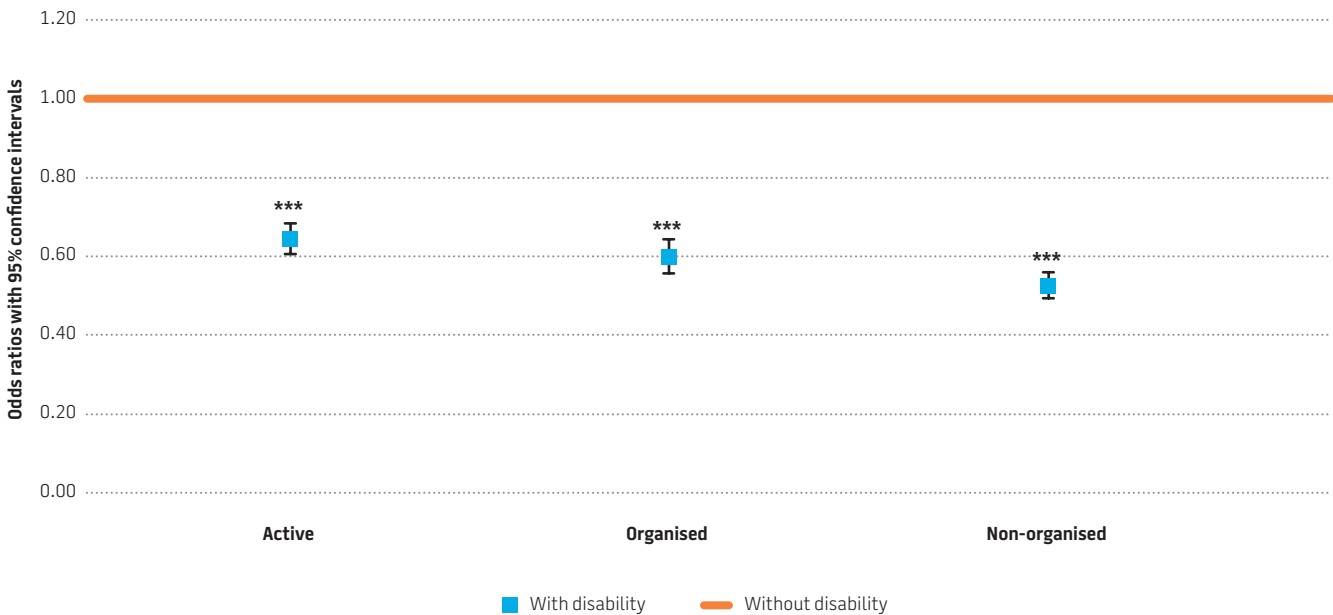


Figure 9b Odds of being physically active, and participating in organised or non-organised physical activity for men with disability compared to men without disability

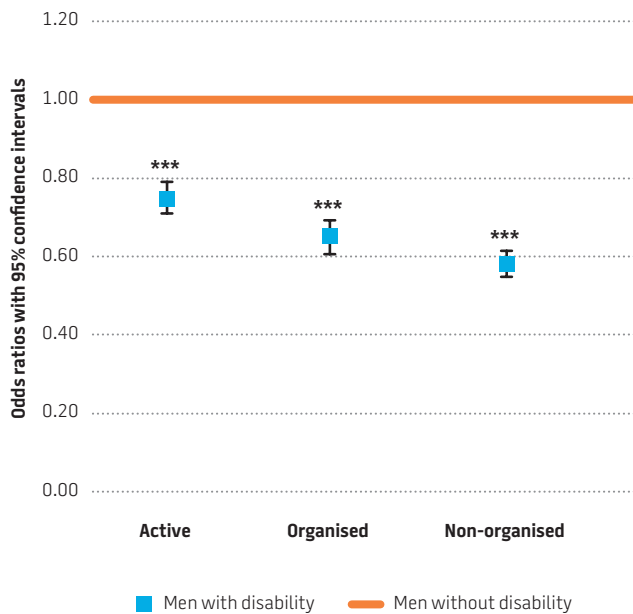


Figure 9c Odds of being physically active, and participating in organised or non-organised physical activity, for women with disability compared to women without disability

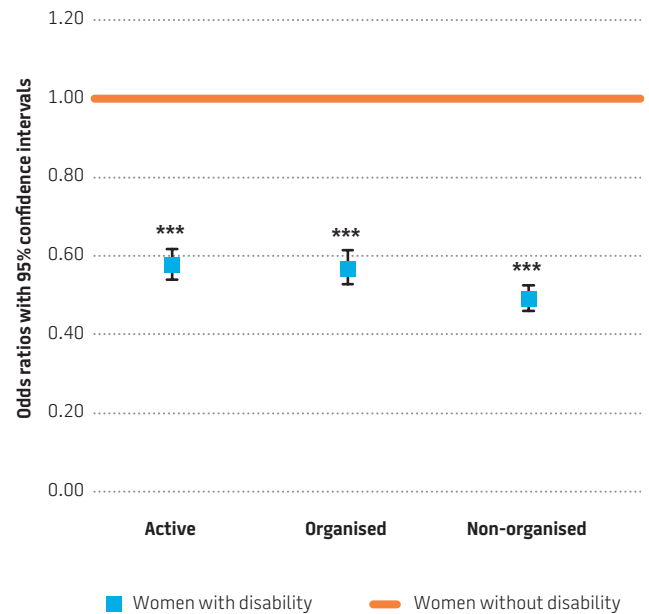
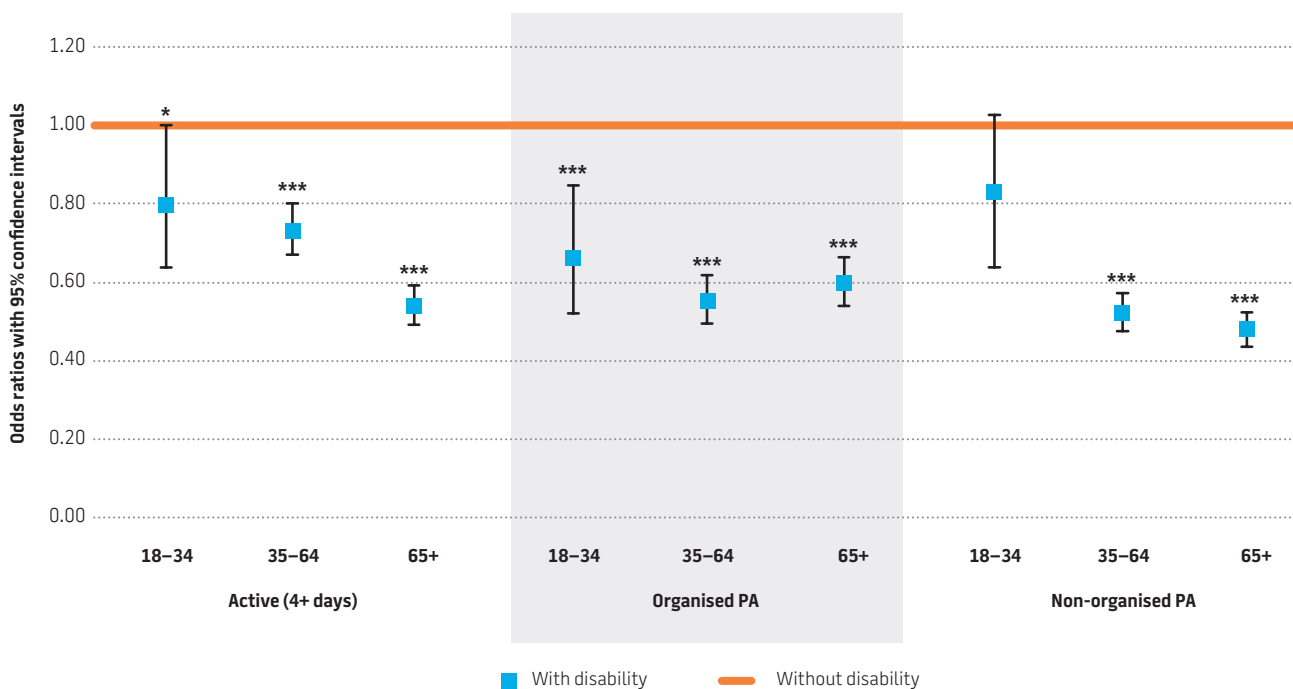


Figure 9d Odds of being physically active, and participating in organised or non-organised physical activity for people with disability compared to people without disability, by age group



Odds ratios above one (data points above the orange line) indicate a higher likelihood in the comparison group (blue, indicated in the legend) than in the reference group (orange, indicated in the legend). Odds ratios below one (data points below the orange line) indicate a lower likelihood than in the reference group.

Stars indicate a statistically significant difference; more stars indicate a stronger statistical significance: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

All models are adjusted for age. Models a) and d) are also adjusted for gender.

Healthy eating

Takeaway food consumption was measured as a proxy indicator for unhealthy, discretionary food intake. The indicator reports on regular consumption of takeaway meals and snacks (defined as more than three times per week). Fruit and vegetable consumption was calculated by asking respondents how many serves of fruit and vegetables they usually eat per day. A serve of vegetables was defined as a half cup of cooked vegetables or one cup of salad vegetables. Potato crisps and vegetable juice did not count towards vegetable consumption. A serve of fruit was defined as one medium piece or two small pieces of fruit, or one cup of diced fruit pieces. Fruit juice consumption did not count towards daily fruit consumption.

People with disability were about 30 per cent more likely to report regular takeaway consumption than people without disability (Figure 10a). When analysed separately by gender, the increased takeaway consumption remained for men. However, women with disability were no more likely than women without disability to consume takeaway (Figure 10c). When analysed separately by age, the only difference was for people with disability aged 65 years or over (Figure 10d).

Fruit and vegetable consumption among Victorians was low, at 1.6 serves of fruit and 2.2 serves of vegetables per day (VicHealth 2016b). Among people with disability, consumption was slightly but significantly lower than people without disability (Figure 11a). This difference was apparent among men and women with disability (Figure 11b and c). When analysed by age, fruit and vegetable consumption did not differ between young adults (18 to 34 years) with and without disability. Fruit consumption among older adults (65 years or over) with and without disability also didn't vary (Figure 11d).

Figure 10a Odds of regular takeaway food consumption for people with disability compared to people without disability

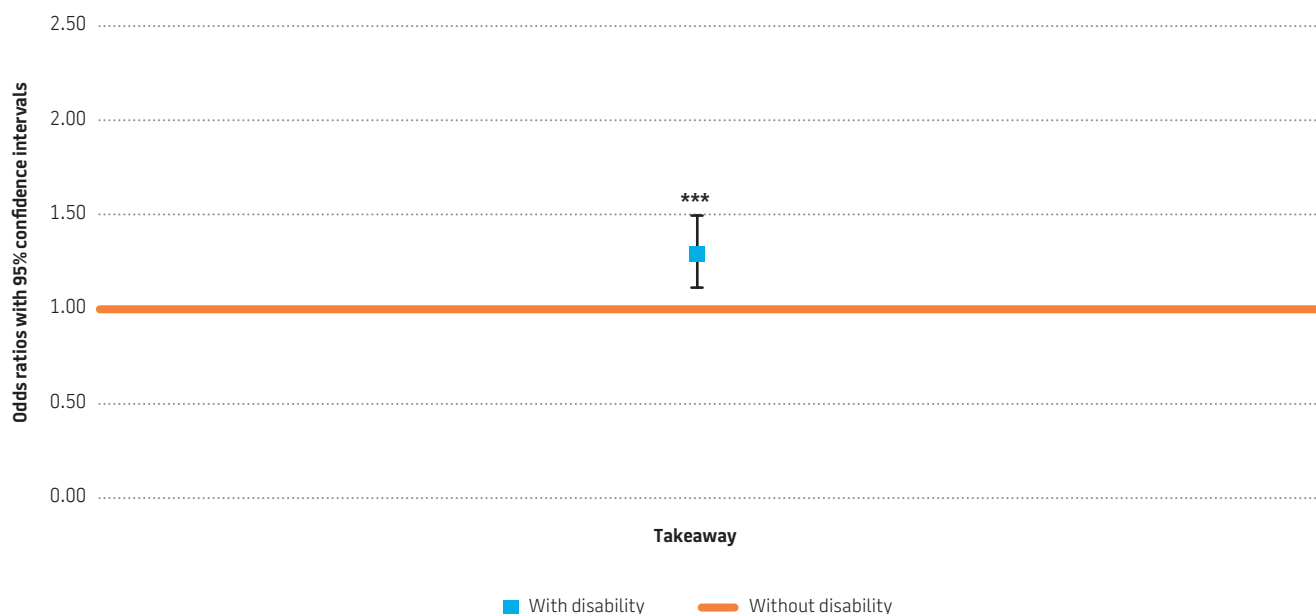


Figure 10b Odds of regular takeaway food consumption for men with disability compared to men without disability

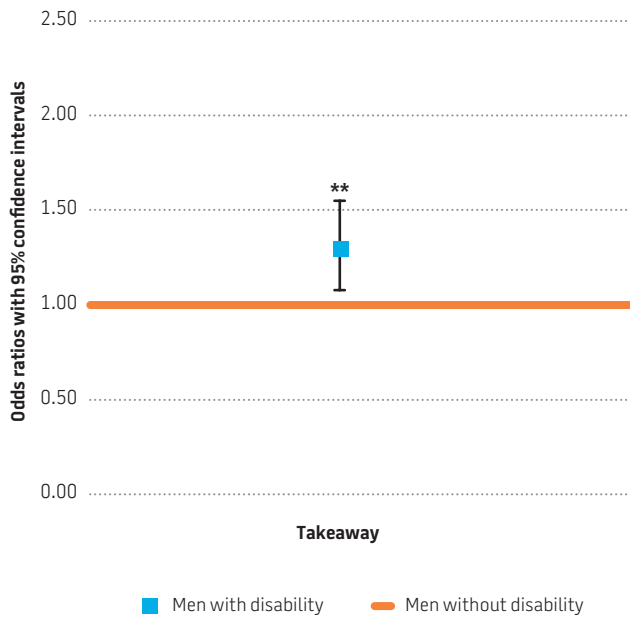


Figure 10c Odds of regular takeaway food consumption for women with disability compared to women without disability

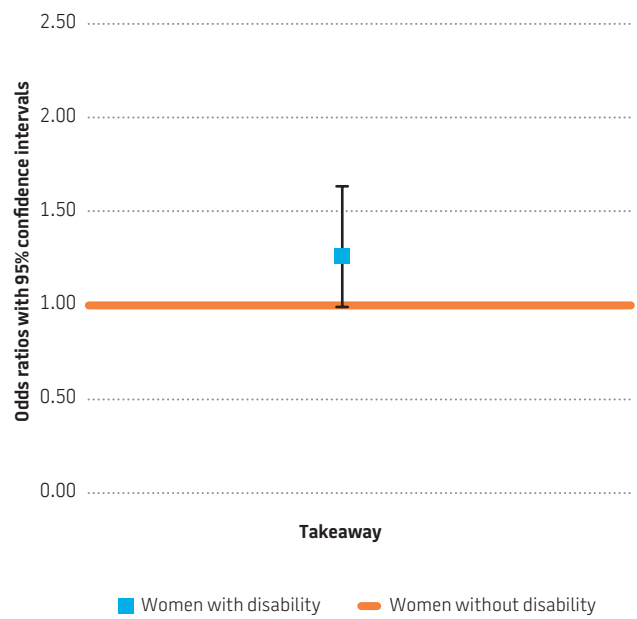
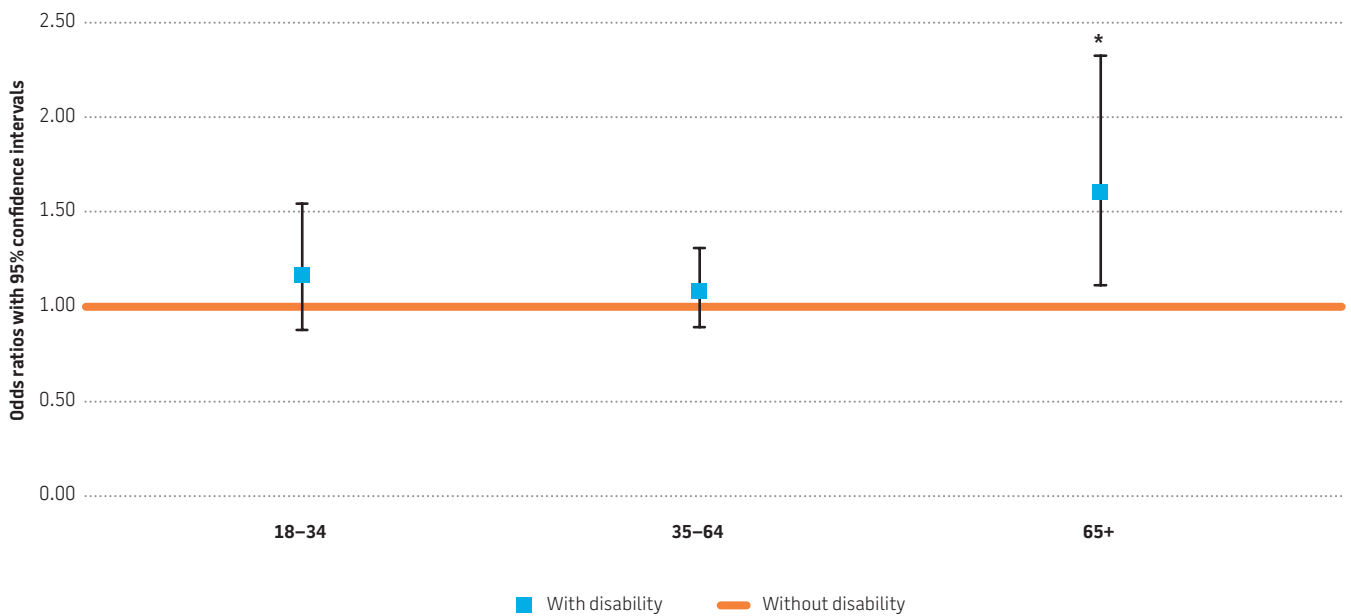


Figure 10d Odds of regular takeaway food consumption for people with disability compared to people without disability, by age in years



Odds ratios above one (data points above the orange line) indicate a higher likelihood in the comparison group (blue, indicated in the legend) than in the reference group (orange, indicated in the legend). Odds ratios below one (data points below the orange line) indicate a lower likelihood than in the reference group.

Stars indicate a statistically significant difference; more stars indicate a stronger statistical significance: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Models a), b) and c) are adjusted for age. Models a) and d) are also adjusted for gender.

Figure 11a Associations between fruit and vegetable consumption and disability

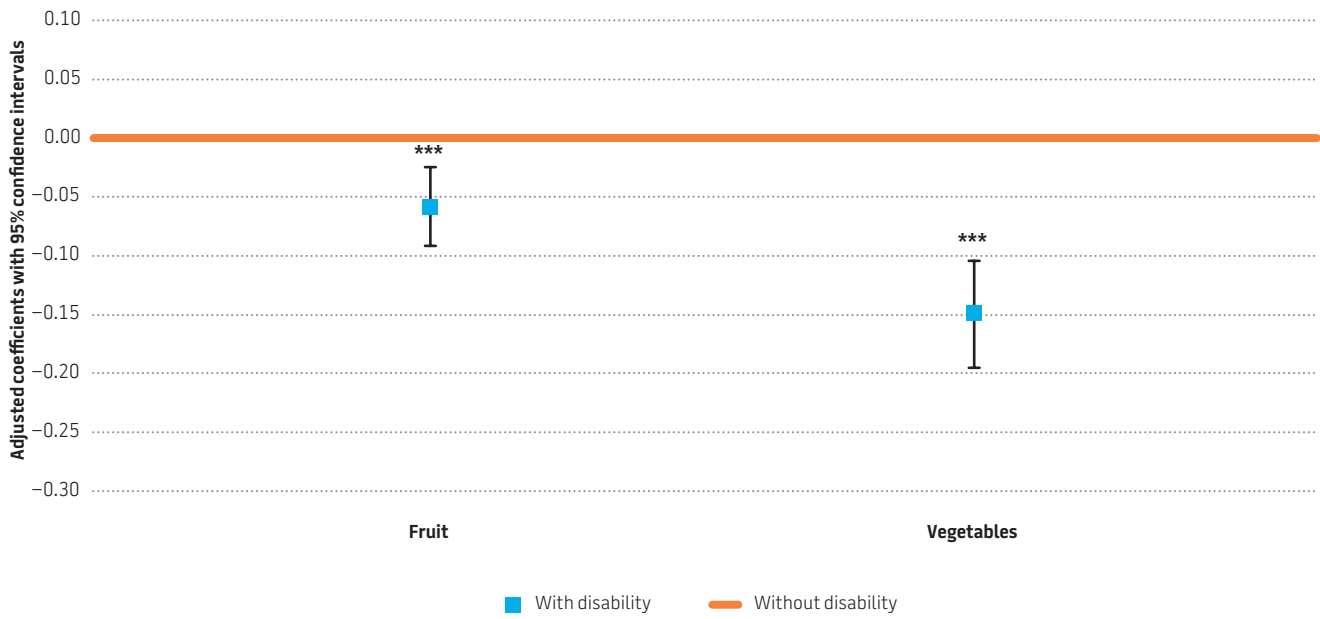


Figure 11b Associations between fruit and vegetable consumption and disability in men

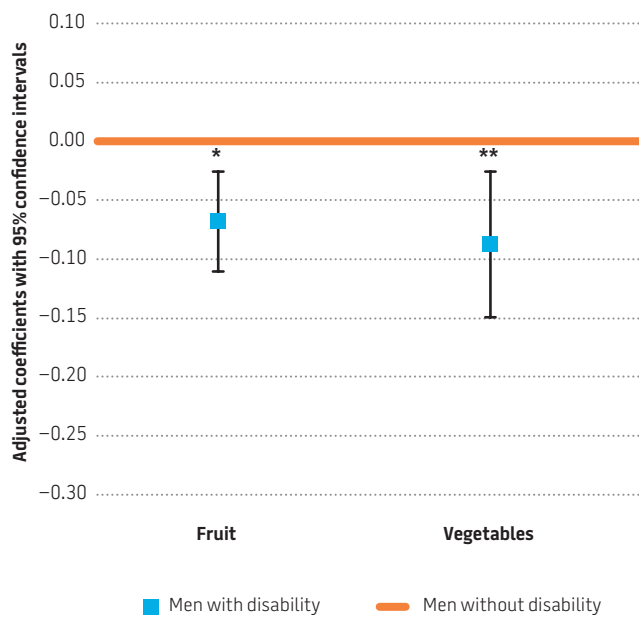


Figure 11c Associations between fruit and vegetable consumption and disability in women

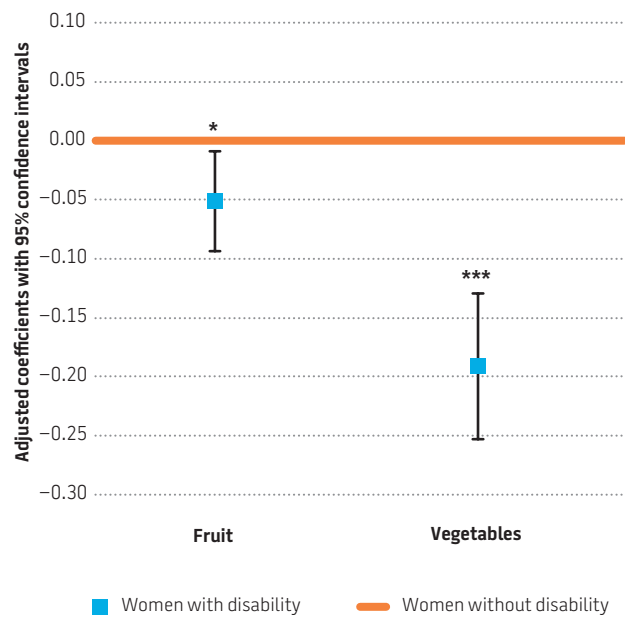
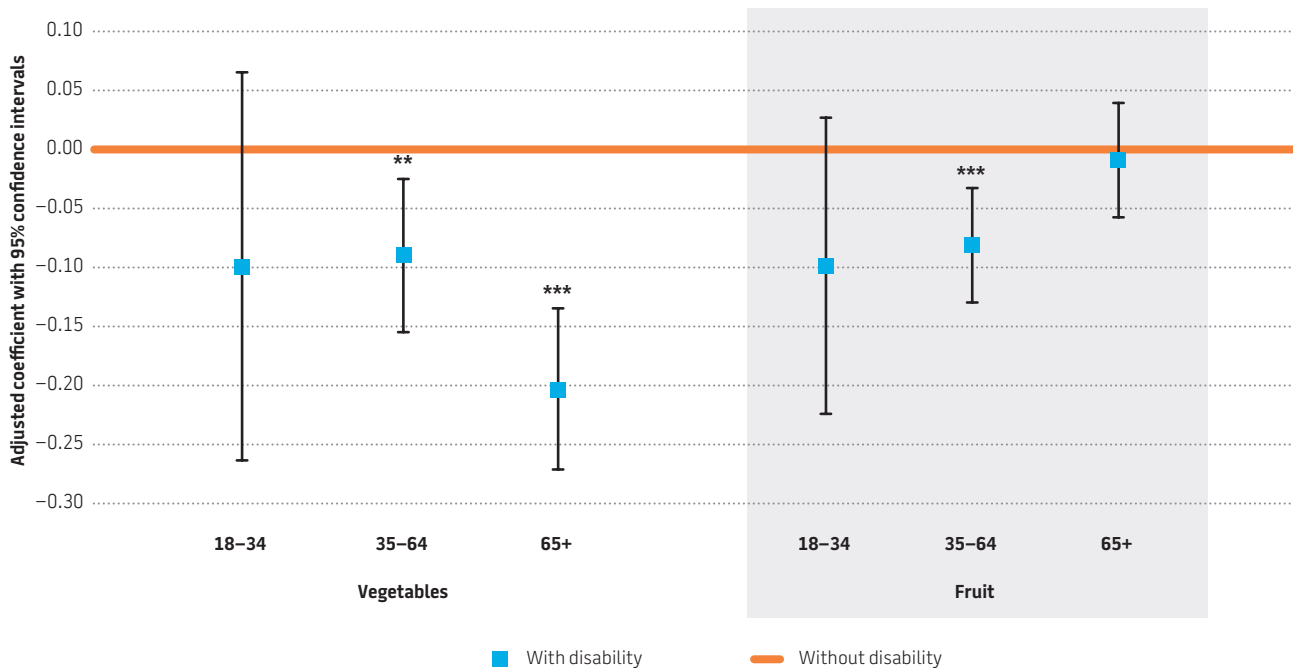


Figure 11d Associations between fruit and vegetable consumption and disability, by age in years



Positive coefficients (data points above the orange line) indicate association with higher scores in the comparison group (blue, indicated in legend) than in the reference group (orange, indicated in legend). Negative coefficients (data points below the orange line) indicate association with lower scores than in the reference group.

Stars indicate a statistically significant difference; more stars indicate a stronger statistical significance. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Models a), b) and c) are adjusted for age. Models a) and d) are also adjusted for gender.

Alcohol

Alcohol is a drug that causes significant harm in the Victorian community. People with disability are less likely to drink at levels that put them at risk of short-term harm than people without disability.

Harms associated with alcohol use include the development of chronic health conditions, such as cancer or substance use disorder, and short-term harms, including injury from accidents, violence or abuse (AIHW 2016a). The VicHealth Indicators Survey 2015 (VicHealth 2016b) measured alcohol consumption by asking how often respondents consumed levels of alcohol that put them at risk (five or more standard drinks in a single sitting) or at very high risk (11 or more standard drinks in a single sitting) of short-term, alcohol-related harm each month.

Respondents were also asked a question related to alcohol culture: whether they agreed that ‘getting drunk every now and then is okay’. VicHealth defines ‘alcohol culture’ as the way people drink, including the formal rules, social norms, attitudes and beliefs around what is and is not socially acceptable for a group of people before, during and after drinking (VicHealth 2016a).

When adjusted for gender and age, people with disability were 25 per cent less likely than people without disability to report levels of alcohol consumption that put them at risk (five or more drinks) of harm per month (Figure 12a). There was no difference in alcohol consumption at very high risk (11 or more drinks) levels or in agreement with the statement ‘getting drunk every now and then is okay’ (Figure 12a). This was consistent for men and women with disability.

Figure 12a Odds of being at risk of short-term harm from alcohol each month for people with disability compared to people without disability

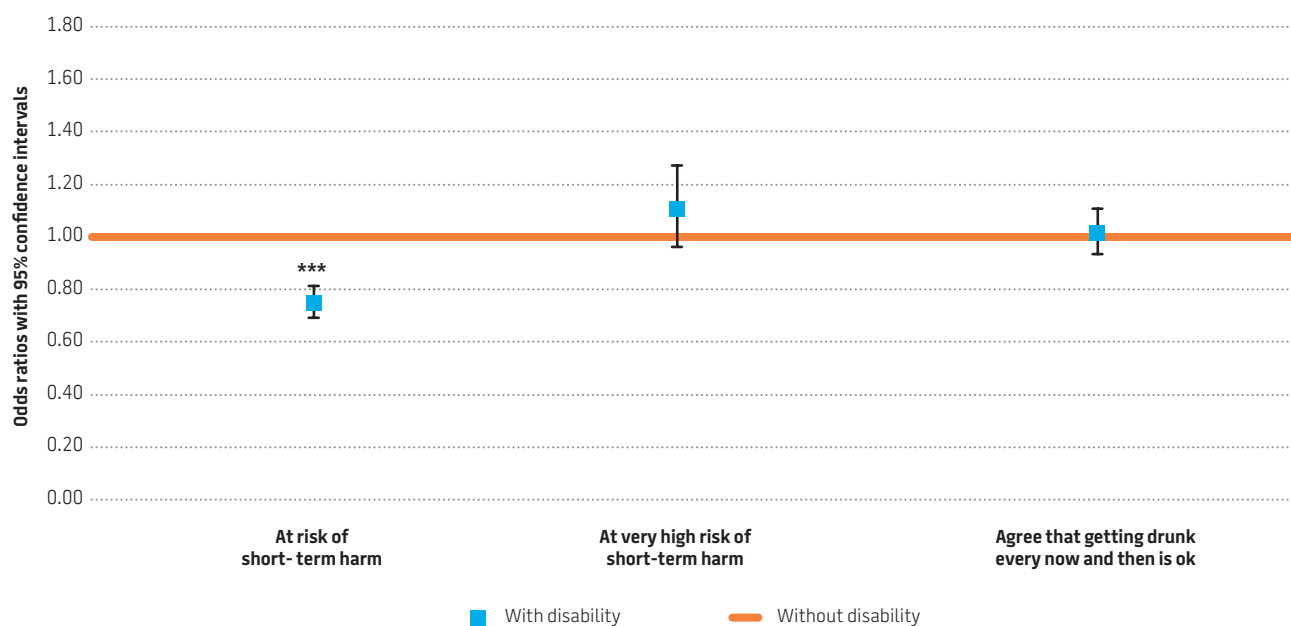


Figure 12b Odds of being at risk of short-term harm from alcohol each month for men with disability compared to men without disability

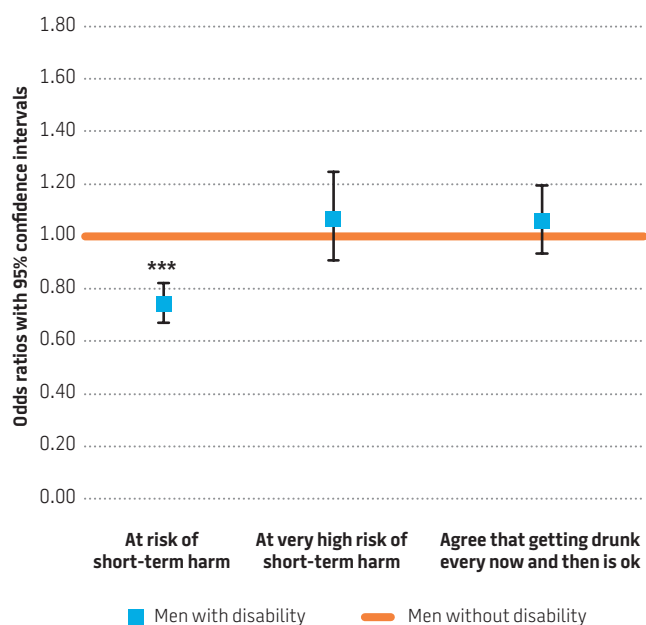
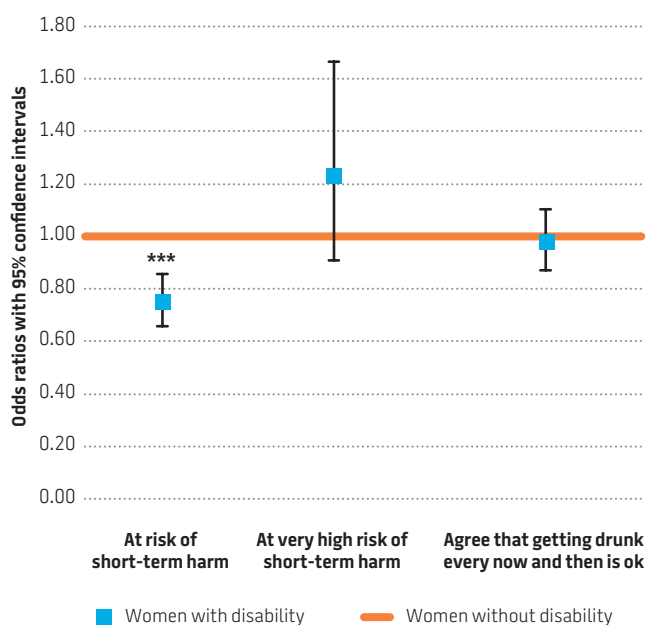


Figure 12c Odds of being at risk of short-term harm from alcohol each month for women with disability compared to women without disability



Odds ratios above one (data points above the orange line) indicate a higher likelihood in the comparison group (blue, indicated in the legend) than in the reference group (orange, indicated in the legend). Odds ratios below one (data points below the orange line) indicate a lower likelihood than in the reference group.

Stars indicate a statistically significant difference; more stars indicate a stronger statistical significance: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

All models are adjusted for age. Model a) is also adjusted for gender.

Summary and conclusions

The VicHealth Indicators Survey 2015 showed that inequities in health and wellbeing existed between Victorians with disability and those without. Victorians with disability reported poorer wellbeing and diet, and lower levels of life satisfaction, resilience, neighborhood social capital, and physical activity than Victorians without disability. While Victorians with disability were less likely than Victorians without disability to drink alcohol at levels that put them at high risk of short-term harm, there was no difference in drinking at very high risk of short-term harm and in alcohol culture. Interestingly, the gender differences in subjective wellbeing and life satisfaction observed among the Victorian population were not apparent among people with disability. Victorian women generally have higher wellbeing and life satisfaction than Victorian men (VicHealth 2018), however, there is no difference in wellbeing or life satisfaction between Victorian men and women with disability.

It is important to note that the question used in this survey to identify disability does not capture information about the type of disability and does not include details of the activity and participation restrictions people with disability experience. It can't tell us whether people with different types of disability (sensory, communication, physical, psychosocial, intellectual) do better or worse in terms of their health. It also can't tell us how activity or participation restrictions impact on their health and wellbeing.

The findings in this report align with Australian and international evidence that the health and wellbeing of people with disability is worse than those without. However these poorer health outcomes need to be further investigated to better understand the underlying causes. Improving the health and wellbeing of people with disability has generally not been prioritised in the same way as other population groups experiencing inequity (VicHealth 2014).

Promoting the inclusion of people with disability in local communities will increase the community participation and physical activity levels of people with disability. This may help to improve the health and wellbeing of Victorians with disability and reduce health inequity. However, other barriers to optimal health for people with disability, including lower levels of employment and education, housing insecurity and poverty, contribute more to health inequity than community participation and physical activity. Addressing these structural drivers, otherwise known as 'social determinants of health' would transform the health of people with disability (WHO 1986; VicHealth 2014).

Achieving equality in health and wellbeing requires sustained action from all layers of influence: the socioeconomic, political and cultural contexts; daily living conditions; and individuals' health-related knowledge, attitudes and behaviours. Action is also required across multiple settings and methodologies, and should be guided by the general principle of 'nothing about us without us' which refers to direct participation of members of groups affected by a given policy or program in its development.

VicHealth works to improve health and wellbeing by reducing health inequities throughout the community. At the heart of this endeavour is our vision for an equitable Victoria, where all people have the opportunity for a healthy life. *VicHealth's Health Equity Strategy* outlines our approach to promoting health equity in Victoria for the years 2017–2019.

VicHealth's *Enabling Health: Taking action to improve the health of people with a disability* provides a framework and evidence to act on these key determinants of health. It combines findings from a review of the literature with stories of promising health promotion practice from across Australia and internationally. The Victorian Government's *Absolutely Everyone: The Victorian State Disability Plan 2017–2020* outlines the way the government is tackling the barriers and exclusions that Victorians with disability deal with every day. The plan highlights four key domains that enable a person to live a satisfying life: inclusive communities; health, housing and wellbeing; fairness and safety; and contributing lives. Efforts should focus on improving these four domains to create an inclusive Victoria that supports people with disability to live satisfying lives.

VicHealth has identified potential areas for action to address the inequities in health and wellbeing found between Victorians with disability and those without, particularly the stark differences in physical activity participation and mental health and wellbeing. These were identified by consulting with eleven organisations working to improve health outcomes for people with disability in Victoria. The key insights gained through this process are outlined below:

- Evidence from both research and practice should form the foundation of quality service to meet the needs of people with disabilities. As there are differences in terms of disability type and severity, government and research bodies should continue to work to identify the best way to ask questions that allows details of activity and participation restrictions to be captured. Qualitative research with people with disability would identify ways to better enhance their health and wellbeing.
- Promoting positive attitudes and challenging negative stereotypes about people with disability across the community will help improve community inclusion. It may also help to reduce the threat from violence and social exclusion many people with disability experience. Changing the way media and popular culture portray people with disability can help shift social attitudes. An example of this could be portraying people with disability taking part in the same daily activities (such as work, recreation, and education) as people without disability.

- The experience of inclusion is central to social interaction, sharing information and taking part in everyday experiences like work and recreation activities that make up a healthy and happy life. There is a need for more opportunities for people with disability to participate in community, sporting and recreation activities. This can be assisted by ensuring environments are welcoming, inclusive and accessible.
 - Between 2011–2015, VicHealth supported six State Sporting Associations to provide more welcoming and inclusive sporting environments for people with disabilities by forming effective collaborative partnerships, developing inclusive policies and building the capacity of their clubs and training staff and volunteers. Since then, VicHealth has supported several community sporting clubs and state sporting organisations to offer new participation programs for people with disabilities through investments such as Active Club Grants, the State Sport Program and Regional Sport Program. Beyond VicHealth funding, the Victorian Government *Supporting Victorian Sport and Recreation Program* provides grants to assist state sporting associations and state sport and recreation bodies to increase participation in sport and active recreation for people of all abilities.
 - Councils, if adequately supported and resourced, are ideally placed to offer community development programs to improve social inclusion for people with disability. An example of this is the VicHealth *Bright Futures* Bandmates program, that assists people with disability to attend live music events with the help of a mentor, to increase their community and cultural participation. The program also works with the music industry to deliver accessible and inclusive live music experiences. Programs such as these, which support partnerships between local government, council, local businesses and the broader community, can assist in developing new ways of including people with disability in the life of their communities.
- There is a need to ensure people with disability can participate actively in, and be represented on, decision-making, advisory and planning bodies to influence change within government, organisations and communities. This follows the guiding principle of ‘nothing about us without us’ and includes creating more opportunities for community involvement and economic participation. The Victorian Government’s *Absolutely Everyone: The Victorian State Disability Plan 2017-2020* outlines actions for increasing voice and representation in civic life and avenues for economic inclusion through the Jobs Victoria Employment Network initiative.
- Peer support networks can be a great avenue for social connection by enabling people to share experiences. There is a need for more peer support networks as they play a critical role in assisting people with disability to feel socially connected and included. *VALiD* currently supports 23 peer action groups based in local communities across Victoria. These include self-advocacy, peer action and parent action groups. The groups are diverse and at different stages of development, but all bring a commitment to changing the way communities respond to the aspirations of people with disabilities.

Glossary

Beta coefficient: A beta coefficient is a relative measure of effect, which allows you to compare the strength and direction of membership of the comparison group (for example women) to your reference group (for example men) with the variable of interest. If the beta coefficient is zero, there is no difference between the two groups. Beta coefficients above zero indicate that being in the comparison group has a positive effect on the variable, beta coefficients below zero indicate that being in the comparison group has a negative effect on the variable.

Confidence intervals: Confidence intervals allow the reliability of an estimate to be gauged. Confidence intervals of 95 per cent have been calculated for each indicator estimate in this report. To best interpret 95 per cent confidence intervals we could say that if we were to sample from the same population 100 times, the population estimate would fall within the interval 95 times.

Disability: In this report, disability is defined as a disability, health condition or injury that has lasted, or is likely to last, six months or more, and that restricts everyday activities.

Health equity: The notion that everyone should have a fair opportunity to attain their full health potential, and that no one should be disadvantaged from achieving this potential if it can be avoided.

Intersectionality: People's experiences are shaped by the intersection of a number of social conditions, such as gender, ethnicity, ability, sexuality, gender identity, religion, Aboriginality, age, education, occupation type, income and place of residence. Each of these factors, or identity attributes, influences and affects our lives and experiences. Social structures and systems, and the way they intersect, play a large role in creating social conditions that result in power and privilege or discrimination and oppression, thus shaping the ways in which people experience inequality, disadvantage and violence.

Odds ratio: An odds ratio is a relative measure of effect, which allows you to compare the likelihood of a particular variable for your comparison group (for example women) to your reference group (for example men). If the odds ratio is one, there is no difference between the two groups. Odds ratios above one indicate increased odds in your comparison group and odds ratios below one indicate reduced odds in your comparison group.

P value: When you perform a hypothesis test in statistics, a P value helps you determine the probability that a difference in results between different groups is statistically significant. The P value is a number between 0 and 1. High P values (in this case greater than 0.05) indicate there is no statistically significant difference between the groups you are comparing. P values equal to or less than 0.05 indicate there is a statistically significant difference between the groups you are comparing. The smaller the P value, the more confident you can be that the results are true.

Statistical significance: Statistical significance is an indication of the likelihood that a difference between figures is not due to chance. For the purposes of this report, statistically significant differences between groups were deemed to exist when the P value was below 0.05.

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