Racism in Victoria and what it means for the health of Victorians

VICTORIA State Government | Health and Human Services

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Suggested citation:

Department of Health and Human Services 2017, *Racism in Victoria and what it means for the health of Victorians*, State Government of Victoria, Melbourne.

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50 Lonsdale Street
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Authorised and published by the Victorian Government, 1 Treasury Place, Melbourne.

ISBN 978-0-7311-7166-8 Online (Pdf)

Available at **https://www2.health.vic.gov.au/public-health/population-health-systems/health-status-of-victorians/survey-data-and-reports/racism-in-victoria**

(1703038)

Please note:

Throughout this document, the term 'Aboriginal' is taken to include people of Aboriginal and Torres Islander descent. 'Aboriginal' is used in preference to 'Indigenous' and 'Koori'. While 'Koori' refers to Aboriginal people from the south-eastern part of Australia, we choose not to use this term as not all Aboriginal people living in Victoria are Koori.

Preface

Health is determined by a complex interaction between genetic inheritance, health behaviours, access to quality healthcare, and the social determinants of health. It is the social determinants that make the biggest impact on health.

The social determinants of health are defined by the World Health Organization as 'the conditions, in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems' (WHO 2012).

The social determinants are shaped by the distribution of money, power and resources and are mostly responsible for health inequities – the inequalities in health that are unfair and avoidable. Racism is one such social determinant is the focus of this report.

There is an abundance of high-quality scientific studies that show that racism is a key determinant of the health of Aboriginal Australians and other minority groups. This report shows that racism is harmful to the health of those who are its victims. Moreover, racism is not just harmful to mental health, it is also harmful to physical health.

This report is based on data from the 2014 Victorian Population Health Survey. In this report we show that racism is harming the health of many Victorians and discuss our findings in the context of the wider international literature.

Contents

Executive summary

Aim

To investigate racism in Victoria and its impact on the health of Victorians.

Objectives

- To describe a measure of racism by demography and socioeconomic status.
- To quantify the relationship between racism and mental and physical health.
- To interpret the findings in the context of the current literature.

Methods

We analysed data collected in the 2014 Victorian Population Health Survey where respondents were asked about any experiences of racism. We analysed the data by age, sex, geography, socioeconomic status (household income), and mental and physical health. We used psychological distress as a measure of mental health and self-reported health status as a measure of physical health.

Key findings

- Racism is damaging to both the mental and physical health of Victorians.
- Aboriginal Victorians and Victorians who speak a language other than English at home, but are not of Northern European or North American origin, are most likely to experience racism.
- As socioeconomic status declines, experiences of racism increase.
- Victorian adults who frequently experience racism are almost five times more likely than those who do not experience racism to have poor mental health.
- Victorian adults who frequently experience racism are 2.5 times more likely than those who do not experience racism to have poor physical health.

Conclusions and recommendations

Social determinants (including racism) make a larger contribution to ill-health than the unhealthy behaviours of individuals (lifestyle risk factors). This suggests that more action is needed to address the social determinants of health.

Racism damages health via multiple pathways, directly and indirectly.

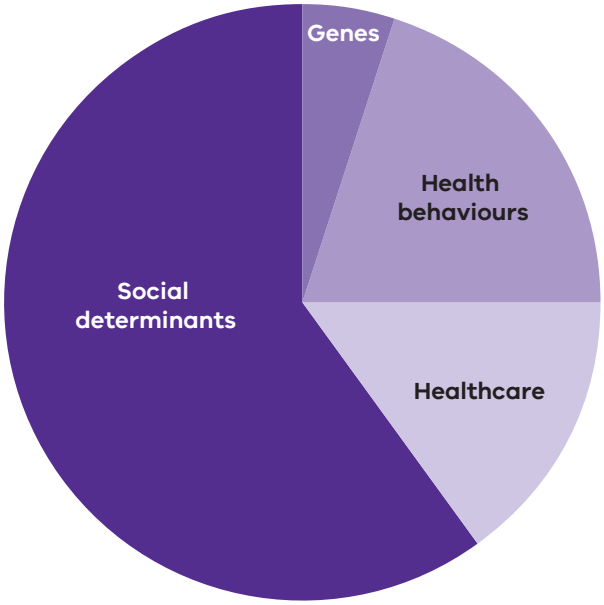
This report suggests that effectively tackling racism would improve the mental and physical health of Victorians. The first step to reducing the harmful impact of racism is to acknowledge that it exists and that it is harmful to health.

1. Introduction

What are the determinants of health?

Health is determined by a complex interaction between genetic inheritance, health behaviours, access to quality health care, and the social determinants of health. The 2011 Australian Burden of Disease Study showed that 31 per cent of the burden of disease is attributable to 29 lifestyle risk factors (health behaviours of individuals) such as smoking, overeating, and physical inactivity (Australian Institute of Health and Welfare 2016). However, as can be seen from Figure 1.1, the social determinants make the largest impact on health.

Figure 1.1: Determinants of health – modified from Tarlov 1999



The purpose of this report is to focus on one social determinant – racism – and to investigate the impact that racism has on the health of Victorians.

What are the social determinants of health?

The World Health Organization defines the social determinants of health as 'the conditions, in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems' (WHO 2012).

The social determinants are shaped by the distribution of money, power and resources and are mostly responsible for health inequities – the inequalities in health that are unfair and avoidable. Social determinants include but are not limited to:

- socioeconomic status
- education
- housing
- transportation
- food security
- psychosocial risk factors

- the social environment
- social support networks
- community and civic engagement
- social and civic trust
- the physical environment.

Social determinants such as socioeconomic status have long been well understood to have significant impacts on an individual's health status; the lower the socioeconomic status the worse the health status (Marmot 1999).

More recently, evidence is accruing that the social environment in which a person lives can also have a significant impact on their health (Yen & Syme 1999). The social environment includes the physical surroundings, social relationships and cultural milieus within which groups of people function and interact (Barnett & Casper 2001).

The social environment influences the health outcomes of an individual by 'shaping norms, enforcing patterns of social control, providing or not providing environmental opportunities to engage in particular behaviours, reducing or producing stress, and placing constraints on individual choice' (McNeill et al. 2006).

This report specifically focuses on one aspect of the social environment – racism.

Racism

Victoria is an extremely diverse community. In 2011 the census showed that 26 per cent of Victoria's population were born overseas and 47 per cent of Victorians were either born overseas, or had a parent who was born overseas. Victorians come from more than 200 countries, speak 260 languages and dialects and follow 135 religious faiths. Therefore, Victoria is a multicultural place and its social cohesion is highly dependent on the acceptance of 'multiculturalism' and different cultural beliefs and norms.

In Australia 'multiculturalism' has been defined as three separate but interrelated concepts (Calma 2007). These are:

- a description of the demography of a society
- a set of norms or principles that advocate the right of all citizens to equal access and participation in the social, cultural, economic and political life of their nation
- a government strategy.

The historical roots of multiculturalism can be traced back to the 1950s when the United Nations Educational, Scientific and Cultural Organization (UNESCO) convened a panel of 'world experts' in response to the events of the Second World War (Lentin 2005). This resulted in the publication of the UNESCO *Statement on race and racial prejudice,* which still serves as the basis for the United Nations' position on racism. The statement formed the basis of anti-racist policy of post-war international institutions and has been widely adopted by Western governments. Multiculturalism is therefore essentially a response to racism.

In this report we define 'racism' as 'that which maintains or exacerbates inequality of opportunity among ethnoracial groups' (Berman & Paradies 2010).

Racism occurs at three levels:

1. Internalised – where a person incorporates attitudes, beliefs and/or ideologies within their world view that serves to maintain or exacerbate the unequal distribution of opportunity across ethnic groups. It takes two forms:
   - 'internalised dominance' – where the individual believes that their ethnic group is superior while other ethnic groups are inferior
   - 'internalised oppression' – where the individual believes that their ethnic group is inferior while other ethnic groups are superior. People who respond to experiences of racism with feelings of shame are more likely to be at risk of internalised oppression.
2. Interpersonal – where the interactions between people serve to maintain or exacerbate the unequal distribution of opportunity across ethnic groups.
3. Systemic or institutional – when the control of, and access to, societal resources serve to maintain or exacerbate the unequal distribution of opportunity across ethnic groups.

Source of data

This report is based on the analysis of the data collected in the 2014 Victorian Population Health Survey. The Victorian Population Health Survey is an important component of the population health surveillance capacity of Victoria's Department of Health and Human Services and is conducted annually to collect information on the health and wellbeing of Victorians, aged 18 years or over.

About this report

We structured this report to evaluate an indicator of racism by:

- age, sex and geographic distribution across Victoria
- socioeconomic status: using total annual household income as a measure of socioeconomic status
- mental health: using psychological distress as a measure of mental health. We measured psychological distress using the Kessler 10 Psychological Distress scale, a tool that is used by many general practitioners across Australia to assess people for affective disorders such as depression and anxiety (Kessler et al. 2003)
- physical health: using self-reported health status as a measure of physical health. Self-reported health status is an internationally validated and robust indicator of a person's overall health that has been shown to be strongly associated with both morbidity and mortality (Burstrom & Fredlund 2001; Idler & Benyamini 1997; Manor et al. 2001).

We interpreted our findings in the context of the most recent literature, seeking the highest level of evidence – the systematic review. Where a systematic review was not available, we report on the next highest level of evidence.

2. Methods

The Victorian Population Health Survey

The Victorian Population Health Survey is a population-representative, cross-sectional, computer-assisted telephone interview (CATI) survey conducted annually since 2001 in adults aged 18 years or over who live in private dwellings in Victoria. The purpose of the survey is to collect relevant, timely and valid health information for policy, planning and decision making. The Department of Health and Human Services Human Research Ethics Committee approve the survey method and questionnaire content. The department outsources the fieldwork data collection to a market research organisation, which department staff supervise. All data are self-reported and stored directly in the CATI system.

Stratification

Every three years, the survey sample size is expanded to allow for estimates to be calculated at the local government area level. There are five rural and three metropolitan Department of Health regions in Victoria that comprise 79 local government areas. The 2014 survey sample was stratified by local government area, with a target sample size of 426 respondents per local government area. A total of 33,654 interviews were completed, including 940 interviews in languages other than English.

Sampling frame

Victorian Population Health Surveys up to and including 2009 used a 'list assisted' form of random digit dialling (RDD) for the sample frame. While list-assisted RDD approaches have provided a good contemporary coverage of households with a landline telephone connection, they tend to underrepresent phone numbers in new exchanges and generate a relatively high proportion of non-working telephone numbers, which leads to some loss in fieldwork efficiency. An exchange-based approach to RDD was employed for the first time in 2010, using a commercial list provider to provide the RDD landline telephone sample. For the 2014 survey, a customised approach to RDD sample generation was agreed with the commercial list provider, whereby RDD numbers were generated and tested at the time of each request, rather than being drawn from a pre-existing (and potentially ageing) pool of numbers.

The advantages of this exchange-based approach to RDD sample generation include:

- improved coverage in areas where new telephone number ranges have been activated
- improved coverage in growth corridors, peri-urban areas and central business district developments
- representing each bank of phone numbers in the sampling frame in proportion to the current population of working landline numbers
- higher connection rates and therefore greater fieldwork efficiency.

Sample generation

RDD was used to generate a sample of telephone numbers that formed the household sample for the CATI. All residential households with landline telephone connections were considered 'in-scope' for the survey. People who are homeless or itinerant were excluded from the survey, as were people in hospitals or institutions, the frail aged and people with disabilities who are unable to participate in an interview.

Sample size

The sample size for each local government area for the Victorian Population Health Survey (conducted in 2008, 2011–12 and 2014) was 426. The sample size is based on the following formula assuming a prevalence of 7.5 per cent for a variable of interest, with a confidence interval of 2.5 per cent (7.5 (5.0, 10.0) per cent), all percentages being expressed as a proportion:

$$\text{Sample size } (n) = \frac{Z^2 * p * (1 - p)}{c^2} = 426$$

where:

p = proportion	(0.075)
Z = 1.96	(Z-score of level of significance (alpha = 0.05))
c = confidence interval	(0.025)

Data collection

Almost two-thirds of all completed interviews were achieved within the first three calls. This proportion is consistent with national experience on similar surveys.

Call routine

The algorithm spreads call attempts over different times of day and days of the week. Other features of the call regime included:

- call initiation on weekday evenings and weekends only (since these are proven to be the best times to establish initial contact with households)
- appointments made for any time the call centre was operational
- appointments set for five days' time after leaving the first answering machine message and eight days' time after leaving the second answering machine message.

After establishing contact, interviewers could make calls, by appointment, outside the time block hours. After contacting a household, an interviewer would select for interview the person aged 18 years or over with the most recent birthday.

The department operated a survey hotline number during business hours throughout the data collection period to help establish survey bona fides and address sample member queries about the survey or survey process and arrange appointment times with respondents for their interview.

Interviewing in languages other than English

Interviews were conducted in nine community languages. As for previous surveys in the series, the department provided translated survey questionnaires in Italian, Greek, Mandarin, Cantonese, Vietnamese, Arabic, Turkish, Serbian and Croatian, with a view to achieving a more representative sample in those areas with a relatively high proportion of speakers of these languages. CATI interviewers were recruited to undertake the interviews in these other languages, as required. The average interview length was 25.4 minutes.

Participation

In 2014 the response rate, defined as the proportion of households contacted that were not identified as out of scope and an interview completed, was 69.6 per cent. The response rate was higher in rural local government areas (72.7 per cent) compared with metropolitan local government areas (65.2 per cent) and ranged from 53.2 per cent in Brimbank to 79.7 per cent in Queenscliffe.

Weighting

The survey data was weighted to reflect the following.

(i) The probability of selecting the respondent within the household

Although a single respondent was randomly selected from within a household, the size of households can vary upwards from one person. To account for this variation, each respondent was treated as representing the whole household, so his or her weight factor included a multiplier of the number of people in the household. Further, a household may have more than one telephone line (that is, landlines used primarily for contact with the household), which would increase that household's probability of selection over those households with only one telephone line. To ensure the probability of contacting any household was the same, the project team divided the weight factor by the number of telephone lines connected to the household.

The formula for the selection weight (*sw*) component is:

$$sw = nah/npl$$

where:
nah = the number of adults aged 18 years or over in the household
npl = the number of telephone lines in the household.

(ii) The age/sex/geographic distribution of the population

The project team applied a population benchmark (*pbmark*) component to ensure the adjusted sample distribution matched the population distribution for the combined cross-cells of age group and sex by local government area, based on the 2011 estimated resident population of Victoria. The categories used for each of the variables were:

- *age group:* 18–24, 25–34, 35–44, 45–54, 55–64 and 65 years or over
- *sex:* male, female
- *geography:* 79 local government areas.

We calculated the *pbmark* component by dividing the population of each cross-cell by the sum of the selection weight components for all the respondents in the sample within that cross-cell. For each cross-cell, the formula for this component was:

$$pbmark_i = Ni/\Sigma swij$$

where:
i = the i th cross-cell
j = the j th person in the cross-cell
Ni = the population of the i th cross-cell
$\Sigma swij$ = the sum of selection weights for all respondents (1 to j) in the i th cross-cell.

Calculating the person weight to be applied

The project team assigned respondent records a weight factor (*pwt*) by multiplying the selection weight (*sw*) value by the population benchmark value (*pbmark*):

*pwtij = swij * pbmarki*

where:
i = the *i* th cross-cell
j = the *j* th person in the cross-cell.

Statistical analysis

We used Stata statistical software package (Version 14.1, StatCorp LP, College Station Texas) to analyse the survey data.

Crude rates

A crude rate is an estimate of a proportion of a population that experiences a specific event over a specified period of time. It is calculated by dividing the number of events recorded for a given period by the number at people in the population. Crude rates (expressed as percentages) are only presented in the report where estimates are broken down by age group. Crude rates are useful for service planning purposes because they indicate the absolute estimate of the indicator of interest.

However, in making comparisons of estimates over time, crude rates can be difficult to interpret because the age distribution of the population is also changing over time. If one does *not* take into account changes in the age distribution, any observed increases, or decreases, in the prevalence of the indicator of interest may just reflect changes in the age distribution. For example, the risk of heart disease increases with age. Therefore, an observed increase in the crude rate of heart disease over time could be due to (a) more people developing heart disease because of a change in the prevalence of a predisposing factor or (b) an increase in the proportion of older people. There is no way to distinguish between the two possible explanations. However, if we take into account (adjust for) the changing age distribution and still see an increase in the prevalence of heart disease, we can rule out explanation (b). To adjust for age, we calculate an **age-standardised rate** (described below). Only age-standardised rates are reported for time-series data in this report. Similarly, only age-standardised rates are reported when making comparisons between different geographic areas. This is particularly pertinent for Victoria because rural local government areas tend to have populations characterised by larger proportions of older people compared with metropolitan local government areas.

Age standardisation

We calculated age-standardised prevalence estimates (also known as age-adjusted prevalence estimates) using the direct method of standardisation. The direct age-standardised rates that are presented in this report are based on the weighted sum of age-specific rates applied to a standard population – the 2011 estimated resident population of Victoria. We used five-year age groups to calculate the age-specific rates for data at the state and Department of Health region level. However, we used 10-year age groups to calculate the age-specific rates for data at the local government area level because the sample size of individual analysis cells was too small in some of the smaller local government areas.

Standard error

The standard error is a measure of the variation in an estimate produced by sampling a population. The standard error can be used to calculate confidence intervals and relative standard errors, providing the likely range of the true value of an estimate and an indication of the reliability of an estimate.

Confidence interval (95 per cent)

A confidence interval is a range in which it is estimated that the true population value lies. A common confidence interval used in statistics is the 95 per cent confidence interval. This is interpreted as: if we were to draw several random samples from the same population, on average, 19 of every 20 (95 per cent) such confidence intervals would contain the true population estimate and one of every 20 (five per cent) would not. Ninety-five per cent confidence intervals are reported for all estimates throughout the report and are used to ascertain statistical significance (see below). The width of a confidence interval expresses the precision of an estimate; the wider the interval the less the precision.

95% confidence interval = point estimate ± (standard error × 1.96)

Statistical significance

Only statistically significant trends and patterns are reported for the 2014 Victorian Population Health Survey. Statistical significance provides an indication of how likely a result is due to chance. With the exception of time trends over time (see below), statistically significant differences between estimates were deemed to exist where the 95 per cent confidence intervals for two prevalence estimates did not overlap.

The term 'significance' is used to denote statistical significance. It is not used to describe clinical significance, the relative importance of a particular finding, or the actual magnitude of difference between two estimates.

Relative standard error

A relative standard error (RSE) provides an indication of the reliability of an estimate. Estimates with RSEs less than 25 per cent are generally regarded as 'reliable' for general use. The percentages presented in tables and graphs in this report have RSEs less than 25 per cent, unless otherwise stated. Rates that have an RSE between 25 and 50 per cent have been marked with an asterisk (*) and should be interpreted with caution. For the purposes of this report, percentages with RSEs over 50 per cent were not considered reliable estimates and have not been presented. A double asterisk (**) has been included in tables and graphs where the percentage would otherwise appear, indicating the relevant RSE was greater than 50 per cent.

Relative standard error (%) = standard error / point estimate × 100

Odds ratios

We used multivariable logistic regression to compute odds ratios. An odds ratio is a relative measure of effect that enables a comparison to be made between two groups. If there is no difference between two groups the odds ratio will be 1.0. However, if a prevalence estimate is higher in group A compared with group B, the odds ratio will be greater than 1.0. Conversely if a prevalence estimate is lower in group A compared with group B, the odds ratio will be less than 1.0. Whether this is statistically significant,

however, will depend on the confidence interval. If the confidence interval includes 1.0 then the difference between the two groups is not significant; for example, odds ratio (OR) = 1.2, 95% confidence interval (CI) = 0.8 to 1.4. If the confidence interval does not contain 1.0 then the two groups are statistically significantly different – for example, OR = 4.0, 95% CI = 2.0 to 6.0 and is interpreted as meaning that the prevalence of the parameter being investigated in group A is four times more likely to occur in group A than group B.

Categorisation of ethnicity

The survey includes questions about the respondent's parental country of birth and language spoken at home. Therefore, we were able to aggregate the data to create categories by ethnicity. Respondents were categorised by whether or not they spoke a language other than English at home and their parents' country of birth. Where both parents were born overseas but in different countries, the mother's country of birth took priority. Each ethnic category includes both first- and second-generation Australians (Table 2.1).

Table 2.1: Ethnic categories by country of birth and language spoken at home

Ethnic category	Criteria	Countries of birth
Non-Aboriginal Australian-born parent / only speak English at home	At least one non-Aboriginal Australian-born parent and only English spoken at home	Australia or any other
New Zealand and South Pacific	Mother born in New Zealand or a South Pacific Island	New Zealand, New Guinea, Samoa, Tonga, Cook Islands, Vanuatu or New Caledonia
Northern Europe and North America	Mother born in Northern Europe or North America	United Kingdom, Ireland, France, Germany, Switzerland, USA or Canada
Southern Europe	Mother born in Southern Europe	Italy, Greece, Greek Cyprus, Spain, Portugal or Malta
Eastern Europe	Mother born in Eastern Europe	Albania, Belarus, Croatia, The Czech Republic, Macedonia, Slovakia, Slovenia, Latvia, Estonia, Serbia, Ukraine, Russia, Lithuania, Poland, Hungary, Bulgaria, Romania, Kosovo, Montenegro or Bosnia and Herzegovina
Middle East	Mother born in the Middle East	Armenia, Egypt, Libya, Algeria, Tunisia, Morocco, Jordan, Syria, Lebanon, Iraq, Iran, Palestine, Turkey, Saudi Arabia, Yemen, Oman, Qatar, Kuwait, Israel, Bahrain or the United Arab Emirates
Indian subcontinent	Mother born on the Indian subcontinent or in a surrounding country	India, Pakistan, Afghanistan, Bhutan Sri Lanka, Nepal or Bangladesh
Other Asia	Mother born in other part of Asia	China, Japan, Malaysia, Indonesia, Philippines, East Timor, Burma, Vietnam Thailand, Cambodia, Laos, Brunei, Korea, Mongolia, Singapore or Taiwan
Sub-Saharan Africa	Mother born in Sub-Saharan Africa	All countries in continental Africa (except Egypt, Libya, Tunisia, Algeria, and Morocco) and Madagascar, Mauritius, Seychelles or Comoros
Aboriginal and Torres Strait Islander	Respondent identified as Aboriginal and/or Torres Strait Islander	Australia
Latin America	Mother born in Central or South America	All countries in Central and South America

Data variables

Table 2.2 provides a description of key data variables used in the survey questionnaire.

Table 2.2: Description of key data variables of survey questionnaire

Data variable	Survey question	Response options
Experiences of racism	'In the last 12 months, have you experienced discrimination or been treated unfairly because of your racial, ethnic, cultural or religious background?'	Never = 1 Less than once a year = 2 A few times a year = 3 A few times a month = 4 At least once a week = 5 Almost every day = 6 Don't know = 9
Total annual household income	Total value of pre-tax household income from all sources, including wages, investments, tax benefits, pensions, etc.	Categorical ranges from $0 to $200,000 or more.
Self-reported health status	In general, would you say that your health is...	Excellent = 1 Very good = 2 Good = 3 Fair = 4 Poor = 5 Don't know = 9
Psychological distress	Respondents were asked 10 questions from the Kessler 10 Psychological Distress Scale about their feelings in the four weeks preceding the survey (Kessler et al. 2003).	None of the time = 1 Little of the time = 2 Some of the time = 3 Most of the time = 4 All of the time = 5 Scores for each item are summed to give a final score of between 10 and 50.

Profile of survey respondents

Known *pbmarks* for selected data items may be used to assess the representativeness of the sample. Table 2.3 shows the profile of respondents in the Victorian Population Health Survey 2014, and indicates the following:

- Women were more likely than men to participate in the survey.
- Adults aged 18–34 years were less likely to participate in the survey.
- Adults aged 55 years or over were more likely to participate in the survey.

Table 2.3: Profile of respondents in the Victorian Population Health Survey, 2014

	Benchmark data[a] (%)	Unweighted survey sample (%)	Weighted survey sample (%)
Sex			
Males	49	39	49
Females	51	61	51
Age group (years)			
18–24	13.0	2.4	12.6
25–34	18.9	3.9	19.3
35–44	18.4	10.8	18.1
45–54	17.3	16.6	16.9
55–64	14.5	22.4	14.3
65+	18.0	43.8	18.7

a Service Planning, Department of Health, 2011, State Government of Victoria

3. Results

Key messages

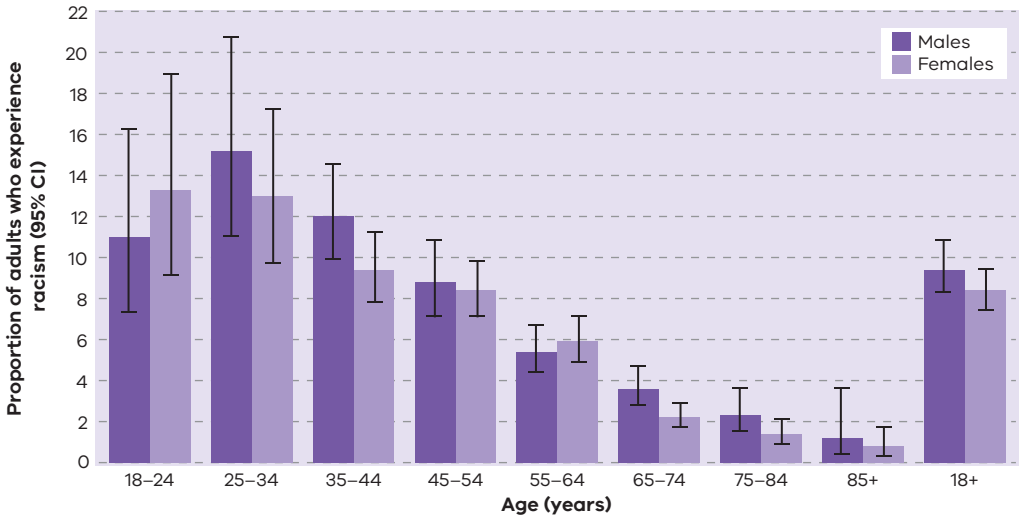
- In the 12 months preceding the survey, 9 per cent of Victorian adults experienced discrimination or were treated unfairly because of their racial, ethnic, cultural or religious background. However, this is likely to be an underestimate of the true prevalence of racism because the Australian Bureau of Statistics, in a face-to-face interview survey, estimated that 18 per cent of Victorians experience racism.
- Aboriginal Victorians and Victorians who speak a language other than English at home, but are not of Northern European or North American origin, are likely to experience racism.
- Racism is a significant health risk factor for both mental and physical health.
- The strength of association between frequent experiences of racism and mental ill-health is much greater than the strength of association between the lifestyle risk factors of smoking and obesity and mental ill-health.
- The strength of association between frequent experiences of racism and physical ill-health is similar to the strength of association between smoking and physical ill-health.

In 2014 additional questions were included in the Victorian Population Health Survey to measure experiences of racism among adult Victorians. Survey respondents reported their experiences of racism in response to the question 'In the last 12 months, have you experienced discrimination or been treated unfairly because of your racial, ethnic, cultural or religious background?' Survey respondents who had experienced racism also reported on how it made them feel.

Experiences of racism, by age and sex

Figure 3.1 shows that 8 per cent of women and 9 per cent of men in Victoria experience racism. There is no difference between the sexes; however, experiences of racism do vary by age. Compared with all adults in Victoria, women (13 per cent) and men (15 per cent) 25–34 years of age are more likely to experience racism while adults aged 55 years or over are less likely.

Figure 3.1: Proportion of Victorian adults who experience racism, by age and sex



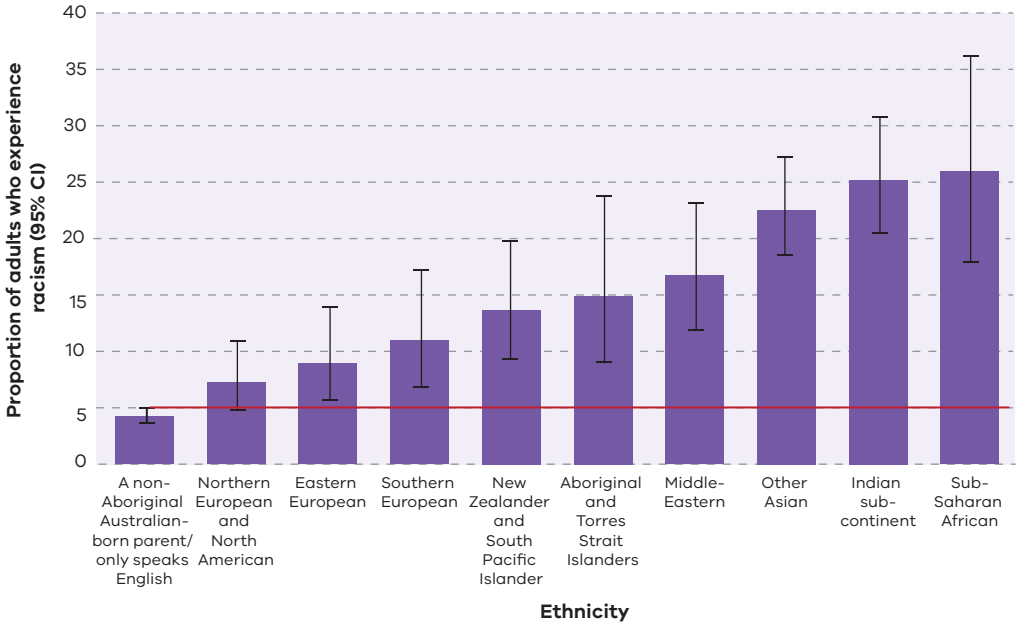
Data were age-standardised to the 2011 population of Victoria.
95% CI = 95 per cent confidence interval.

Experiences of racism, by ethnicity

The survey includes questions about the respondent's parental country of birth and language spoken at home. Therefore, we were able to aggregate the data to create categories by ethnicity, albeit there will be some misclassification error. Respondents were categorised by whether or not they spoke a language other than English at home and their parents' country of birth (see chapter 2 for methods). Each ethnic category included both first- and second-generation Australians.

Figure 3.2 shows that compared with Victorian adults who had at least one non-Aboriginal Australian-born parent and did not speak a language other than English at home, there are significantly higher proportions of adults of every ethnicity who experience racism, with the exception of those of Northern European or North American ethnicity. Sub-Saharan African Victorian adults are most likely to report experiencing racism, with 26 per cent reporting at least one racist experience in the 12 months preceding the survey.

Figure 3.2: Proportion of adults in Victoria who experience racism, by ethnicity



Data were age-standardised to the 2011 population of Victoria.
95% CI = 95 per cent confidence interval.
The red horizontal line represents the upper limit of the 95% CI of the estimate for English-speaking adults who had a non-Aboriginal Australian-born parent.
Where the 95% CI of the remaining estimates do not intersect with this line indicates that they are statistically significantly higher.

Experiences of racism, by geographic location

It was not possible to analyse the data by local government area because the numbers were too small in some of the areas. However, Table 3.1 shows the proportion of adults in Victoria who reported experiencing racism by departmental region. Compared with all Victorians, adults who live in the regions of Barwon-South Western and Grampians are significantly less likely to experience racism.

Table 3.1: Proportion of Victorian adults who experience racism, by geographic region

	Experienced racism in preceding 12 months		
		95% CI	
Region	%	LL	UL
Eastern Metropolitan	**9.7**	7.9	11.8
North & West Metropolitan	**10.6**	9.2	12.1
Southern Metropolitan	**9.4**	7.6	11.5
Barwon-South Western	**3.5**	2.5	5.0
Gippsland	**5.7**	3.5	9.2
Grampians	**3.9**	3.0	5.2
Hume	**6.3**	4.7	8.2
Loddon-Mallee	**8.5**	6.1	11.6
Victoria	**9.0**	**8.2**	**9.9**

Data were age-standardised to the 2011 Victorian population.

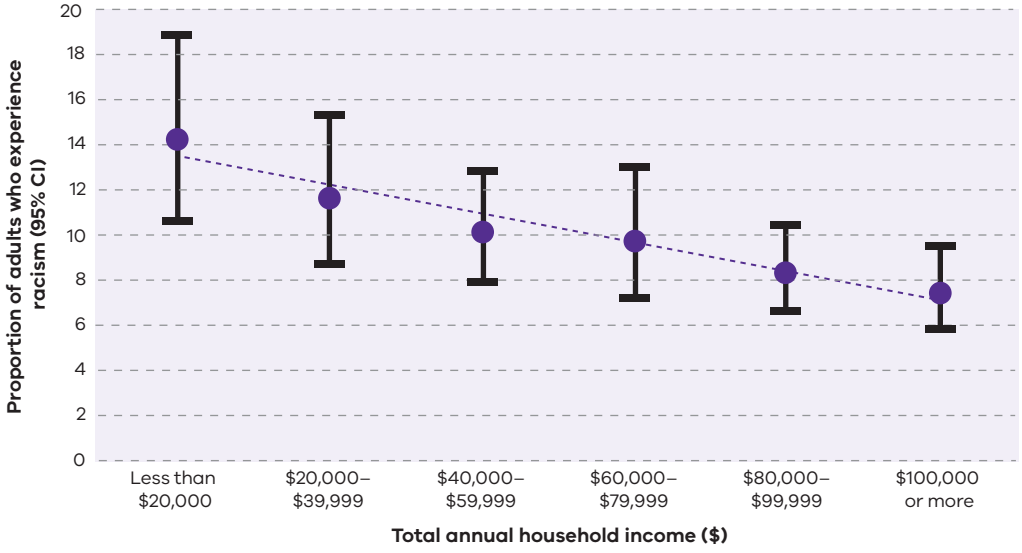
LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

Estimates that are (statistically) significantly different from the corresponding estimate for Victoria are identified by colour as follows: **above** or **below**.

Do experiences of racism vary by socioeconomic status?

We investigated whether experiences of racism vary with socioeconomic status. Figure 3.3 shows that as household income increases, the proportion of adults who experience racism declines. Therefore, experiences of racism are associated with socioeconomic status.

Figure 3.3: The relationship between experiences of racism and socioeconomic status

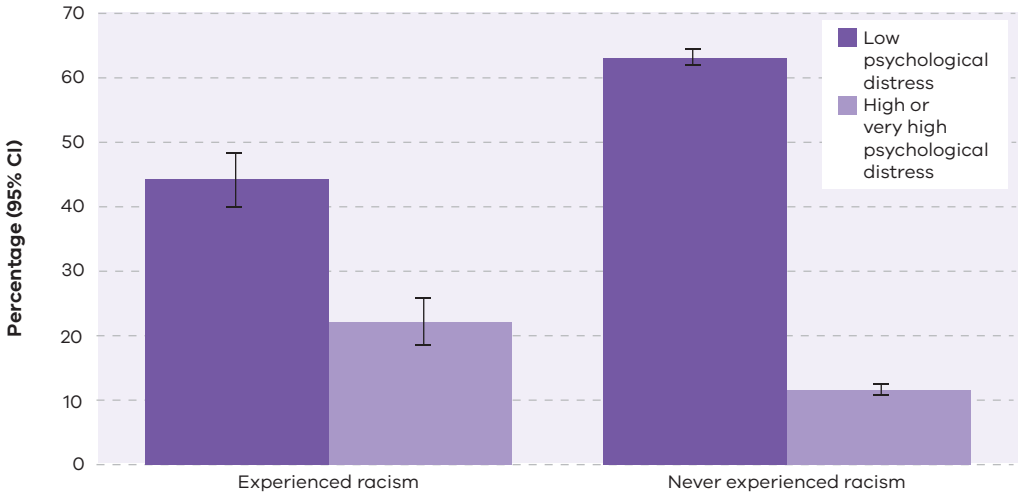


Data were age-standardised to the 2011 population of Victoria.
95% CI = 95 per cent confidence interval.

Are experiences of racism associated with health outcomes?

We investigated whether experiences of racism are associated with mental and/or physical health. Figure 3.4 shows that Victorian adults who experience racism are significantly more likely to have high or very high psychological distress and less likely to have low psychological distress, compared with Victorian adults who never experience racism. Therefore experiences of racism are associated with poorer mental health.

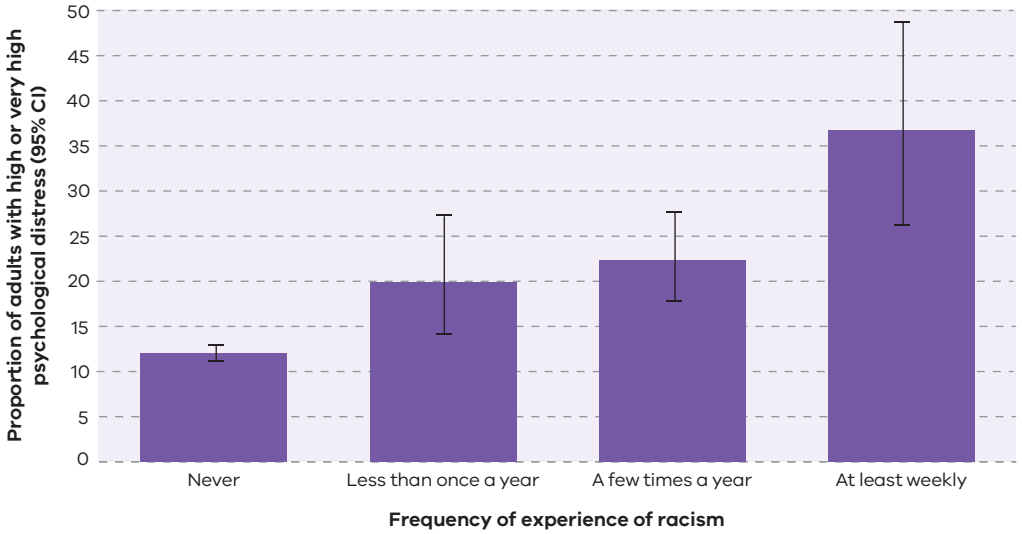
Figure 3.4: The relationship between experiences of racism and mental health



Data were age-standardised to the 2011 population of Victoria.
95% CI = 95 per cent confidence interval.

The proportion of adults with high or very high psychological distress is higher among those who most frequently (at least weekly) experience racism; 37 per cent compared with 12 per cent who never experience racism (Figure 3.5).

Figure 3.5: Mental health by frequency of experiences of racism



Data were age-standardised to the 2011 population of Victoria.
95% CI = 95 per cent confidence interval.

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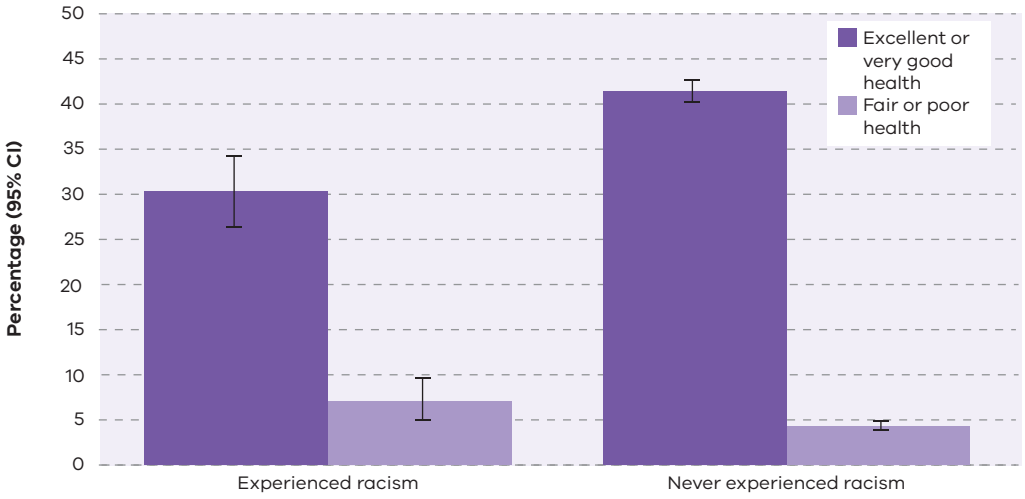
Similarly, Figure 3.6 shows that Victorian adults who experience racism are significantly more likely to report being in fair or poor health and less likely to report being in excellent or very good health, compared with Victorian adults who never experience racism. Therefore experiences of racism are also associated with poorer physical health.

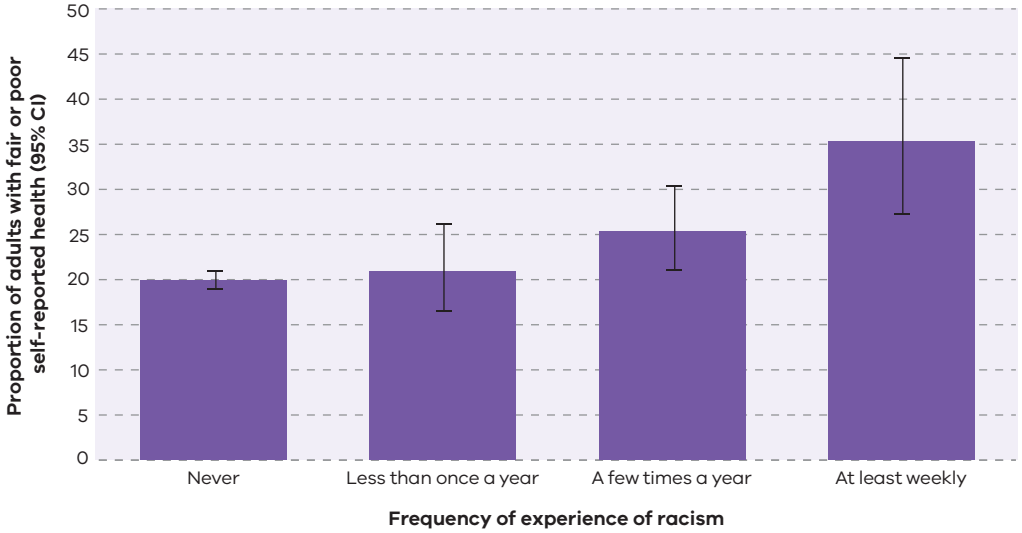
Figure 3.6: The relationship between experiences of racism and physical health



Data were age-standardised to the 2011 population of Victoria.
95% CI = 95 per cent confidence interval.

The proportion of adults who reported being in fair or poor health is much higher among those who most frequently (at least weekly) experience racism; 35 per cent compared with 20 per cent who never experience racism (Figure 3.7).

Figure 3.7: Physical health by frequency of experiences of racism



Data were age-standardised to the 2011 population of Victoria.
95% CI = 95 per cent confidence interval.

Summary of findings

- At least 9 per cent of adults in Victoria experience racism. This varies from a face-to-face survey conducted by the Australian Bureau of Statistics that indicated 18 per cent of Victorians experience racism.
- Adults 25–34 years of age are more likely to experience racism, while adults aged 55 years or over are less likely.
- The ethnic groups most likely to experience racism are Eastern and Southern European, New Zealander and South Pacific Islanders, Aboriginal and Torres Strait Islanders, Middle Eastern, Asian, Sub-Saharan African and Latin American.
- The ethnic groups least likely to experience racism are adults with at least one non-Aboriginal Australian-born parent who does not speak a language other than English and those of Northern European or North American origin.
- The lower the total annual household income the more likely an adult is to experience racism.
- Adults in Victoria who experience racism are significantly more likely to have poor mental and physical health.
- The greater the frequency of racist experiences, the worse the health outcomes.

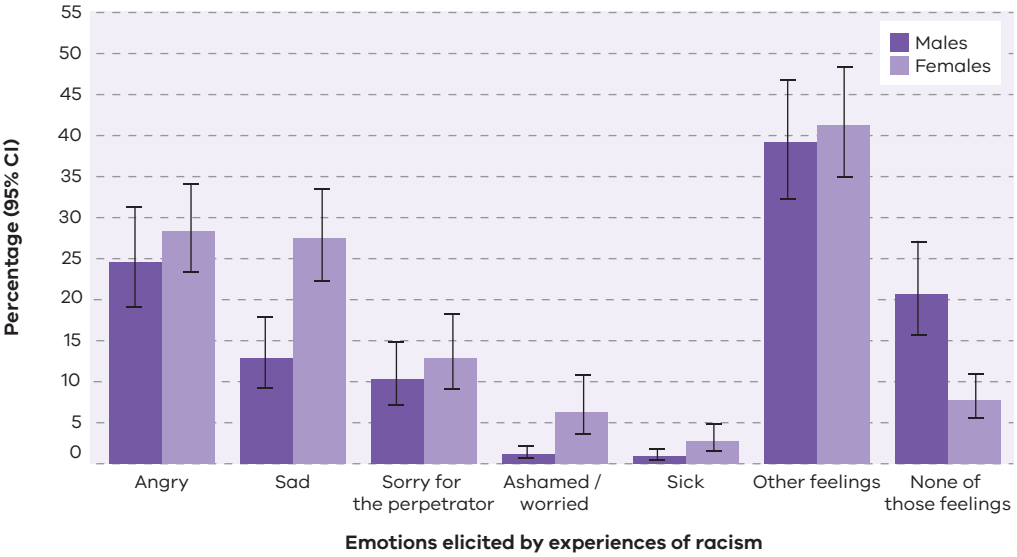
Emotions evoked in response to racism

In order to assess the impact of racism on adults in Victoria who experience racism, respondents were asked 'How did it make you feel?' and could select more than one response.

Figure 3.8 shows the emotions elicited by racism, by age and sex. The most common response to racism is 'other feelings'; however, respondents were not asked to elaborate. The second most common response is 'anger', and men (25 per cent) and women (28 per cent) are just as likely as each other to report feeling angry. However, women are significantly more likely than men to feel sad (28 and 13 per cent, respectively) and/or ashamed or worried (6 and 1 per cent, respectively). Approximately 10 per cent of men and 13 per cent of women feel sorry for the perpetrator.

There is no difference by age, with the exception that women aged 85 years or over (72 per cent) are significantly more likely to feel anger compared with all age groups (Table A6 of the appendix).

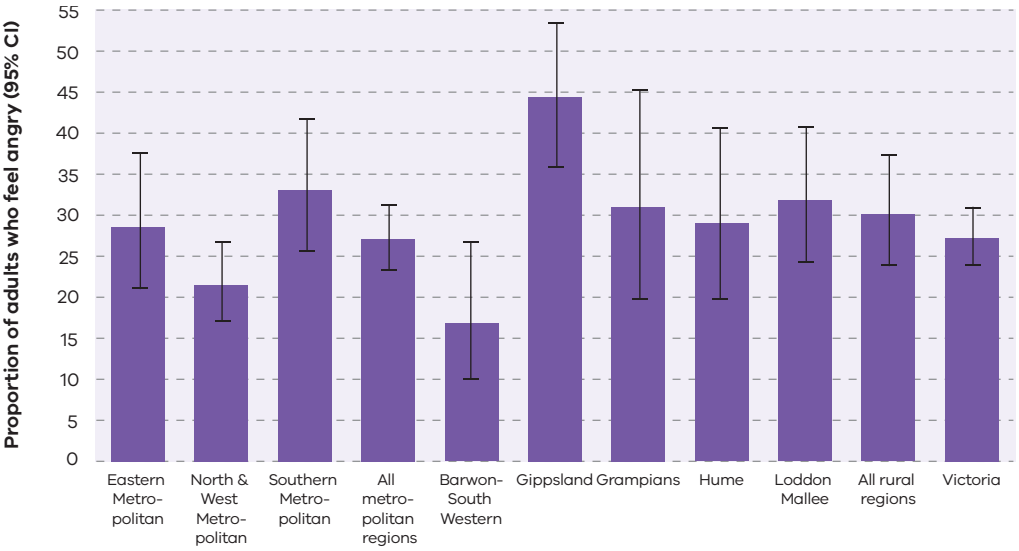
Figure 3.8: Proportion of Victorian adults who experience racism, by emotion evoked in response to racism, age and sex



Data were age-standardised to the 2011 population of Victoria.
95% CI = 95 per cent confidence interval.

Figure 3.9 shows the proportion of Victorian adults who feel angry in response to racism, by geographic region. Adults who live in Gippsland (44 per cent) are significantly more likely to experience anger in response to racism compared with all Victorian adults (27 per cent). There are no other statistically significant differences of note, with the exception that adults who live in rural Victoria are less likely than adults who live in metropolitan Victoria to feel sad in response to racism.

Figure 3.9: Proportion of Victorian adults who feel anger in response to racism, by geographic region

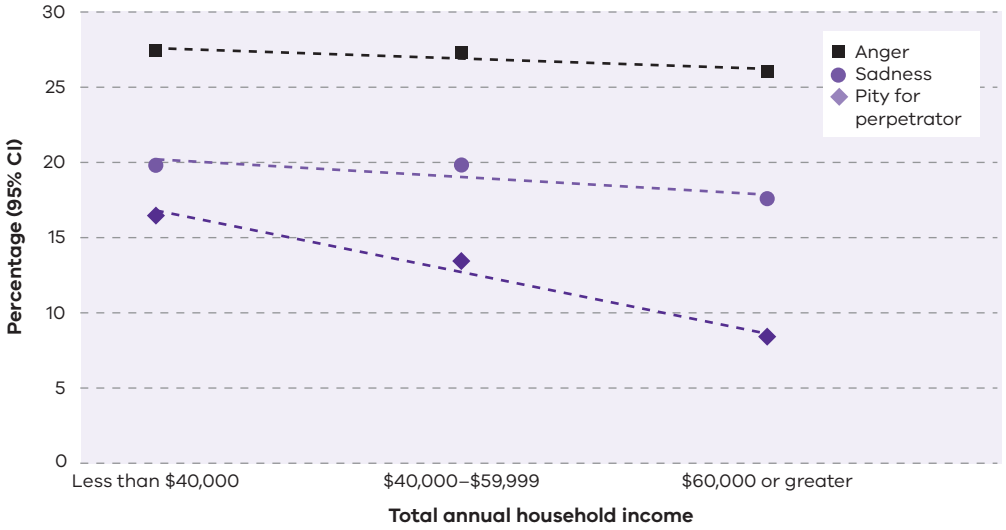


Data were age-standardised to the 2011 population of Victoria.
95% CI = 95 per cent onfidence interval.

Do the emotions evoked in response to racism vary by socioeconomic status?

We investigated whether the types of emotions evoked in response to racism vary with socioeconomic status. Figure 3.10 shows that feelings of anger and sadness evoked by racism do not vary with socioeconomic status. Please note that while the slope of the two trend lines for anger and sadness appear to decline with socioeconomic status, they do not reach statistical significance. In contrast, the higher the socioeconomic status, the lower the proportion of adults who feel sorry for the perpetrator, indicating that sympathy for perpetrators of racism declines with increasing socioeconomic status.

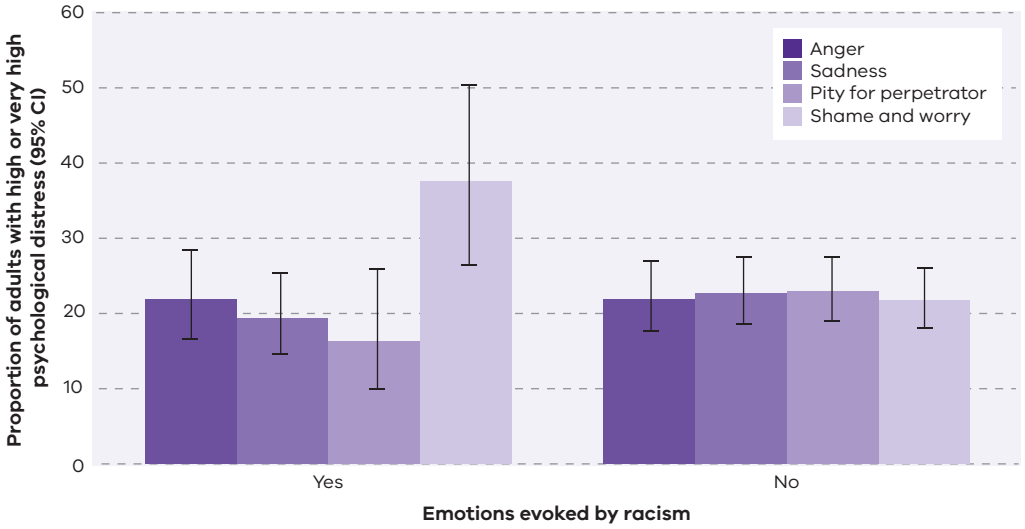
Figure 3.10: The relationship between the type of emotion evoked in response to racism and socioeconomic status



Data were age-standardised to the 2011 population of Victoria.
95% CI = 95 per cent confidence interval.

Are the emotions evoked in response to racism associated with health outcomes? Figure 3.11 shows there is no difference in the level of psychological distress among Victorian adults who feel angry or sad in response to racism. While those who feel sorry for the perpetrator of the racism appear less likely to have high or very high psychological distress (16 per cent) compared with those who do not (23 per cent), this does not reach statistical significance and cannot therefore be considered to be different. In contrast, Victorian adults who feel ashamed or worried about racism are significantly more likely to have high or very high psychological distress (39 per cent) compared with those who do not experience shame or worry (22 per cent). Therefore the emotions of shame and worry evoked by experiences of racism are strongly associated with poorer mental health.

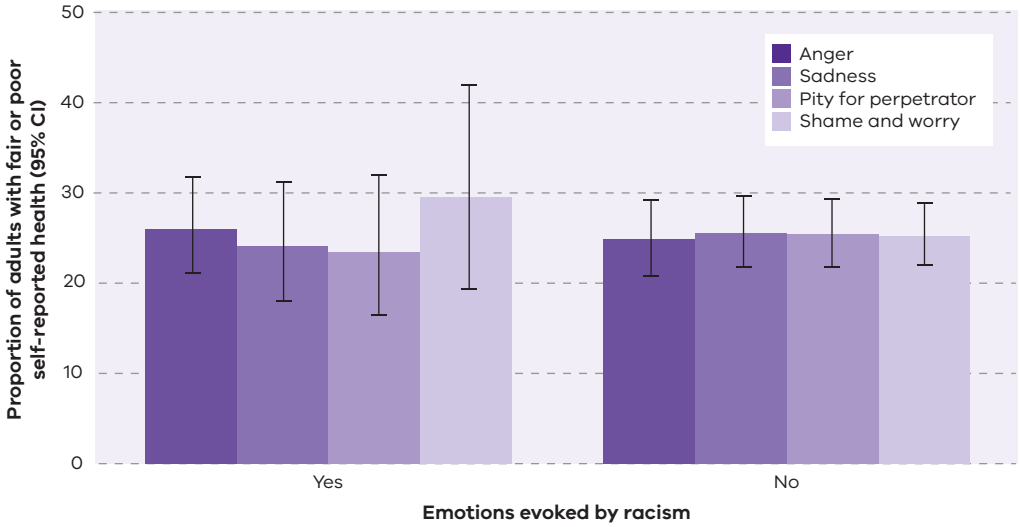
Figure 3.11: The relationship between type of emotion evoked in response to racism and mental health



Data were age-standardised to the 2011 population of Victoria.
95% CI = 95 per cent confidence interval.

Figure 3.12 shows a very similar pattern to that seen for psychological distress, except that none of the differences reached statistical significance. Therefore physical health is not associated with the type of emotion evoked by racism.

Figure 3.12: The relationship between type of emotion evoked in response to racism and physical health



Data were age-standardised to the 2011 population of Victoria.
95% CI = 95 per cent confidence interval.

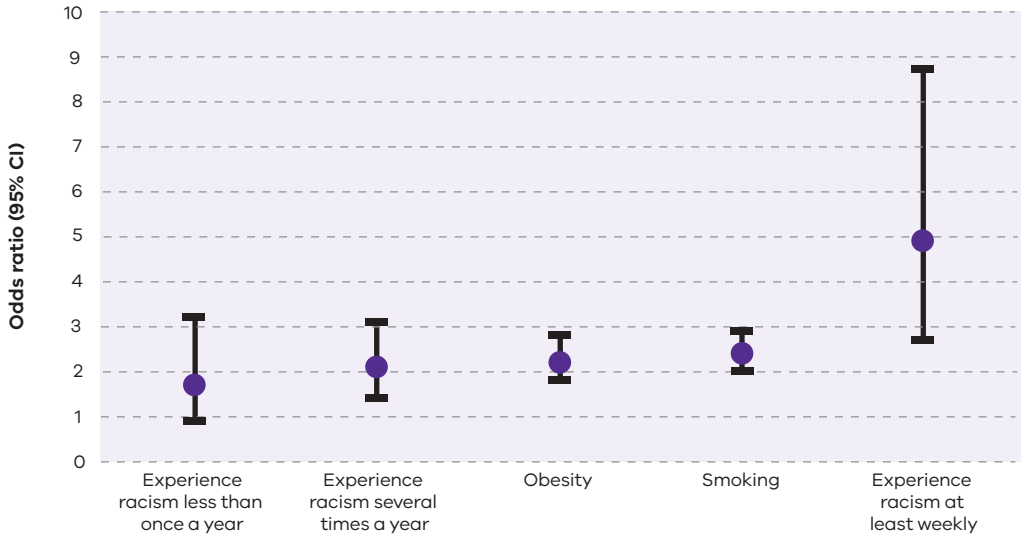
Summary of findings

- The types of emotions evoked by racism include anger (26 per cent), sadness (20 per cent), pity for the perpetrator (12 per cent), shame and worry (4 per cent) and/or 'felt sick' (2 per cent).
- Women in Victoria are more likely than men to feel sad, ashamed or worried in response to racism but just as likely to feel angry or sick.
- Adults who live in Gippsland region are significantly more likely to feel angry in response to racism, while those who live in rural Victoria are less likely to feel sad than those who live in metropolitan Victoria.
- Feelings of anger and sadness evoked by racism are unrelated to household income; however, the higher the household income the less likely an adult is to feel pity for the perpetrator.
- Feelings of shame and worry are associated with poor mental, but not physical health.

Ranking of selected indicators by strength of association with health outcomes

Figure 3.13 shows the strength of the association between selected indicators and psychological distress, expressed as an odds ratio. The odds ratio is a measure of association between an exposure and an outcome. It can be used to provide one of the pieces of evidence needed to determine whether a particular exposure (for example, racism) is a risk factor for a particular outcome (for example, psychological distress). Taking the example of racism experienced at least weekly, the odds ratio is 4.9. This indicates that Victorian adults who experience racism at least weekly are 4.9 times more likely than people who never experience racism to have high or very high psychological distress. In comparison, adults in Victoria who smoke are 2.4 times more likely than non-smokers to have high or very high psychological distress. The higher the odds ratio, the greater the risk of that outcome.

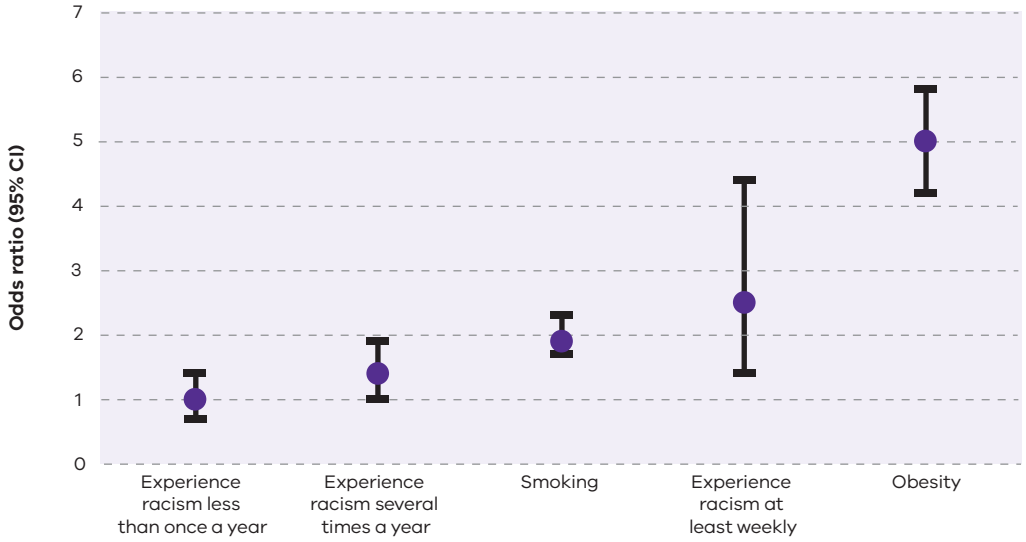
Figure 3.13: Ranking of selected indicators by strength of association with mental ill-health



95% CI = 95 per cent confidence interval
Odds ratio was adjusted for age, sex, and total annual household income.
Outcome variable is high or very high psychological distress.

Figure 3.14 shows that Victorian adults who experience racism at least weekly are 2.5 times more likely than those who never experience racism to be in fair or poor health. Victorian adults who smoke are 1.9 times more likely than non-smokers to be in fair or poor health, and Victorian adults who are obese are five times more likely than non-obese adults to be in fair or poor health.

Figure 3.14: Ranking of selected indicators by strength of association with physical ill-health



95% CI = 95 per cent confidence interval
Odds ratio was adjusted for age, sex, and total annual household income.
Outcome variable is fair or poor self reported health.

Summary of findings

- Victorian adults who experience racism at least weekly are almost five times as likely as those who do not experience racism to have poor mental health.
- Victorian adults who experience racism at least weekly are 2.5 times more likely than those who do not experience racism to have poor physical health.

4. Discussion

Prevalence of experiences of racism

In this study, 9 per cent of Victorian adults reported having experienced racism in the preceding year. The literature shows that experiences of racism are under-reported, particularly by recent immigrants (Krieger 2014)I. People are more likely to report racism if the question is phrased to ask about the experiences of a group that the individual belongs to, rather than the individual. There may be many reasons for this including coping styles that seek to deny or downplay the experience. Studies in the United States have shown that while new immigrants reported less racism than their US counterparts, over time this difference declined (Krieger 2014)I.

The Australian Bureau of Statistics conducted the General Social Survey in 2014 and found that 18 per cent of Victorians had experienced discrimination (Australian Bureau of Statistics 2014). This was slightly lower than the Australian estimate of 19 per cent but suggests that the 2014 Victorian Population Health Survey may have underestimated the prevalence of racism in Victoria. The General Social Survey is conducted face to face at the homes of the respondents and therefore includes people of very low socioeconomic status who are more likely to have experienced racism. Moreover, given the sensitivities regarding discussions of racism, respondents may also be more comfortable reporting racism in a face-to-face interview with an interviewer trained to develop a rapport with the respondent, than over the telephone with a person they cannot see.

Similarly, the eighth Scanlon Foundation Mapping Social Cohesion national survey conducted in 2015 estimated that 18 per cent of Australians experienced racism in 2014 (Scanlon Foundation 2015). It is likely, given the tendency for racism to be under-reported, that the latter two surveys also underestimated the prevalence of racism.

It is important to note that the proportion of Aboriginal Victorians who experienced racism is highly likely to have been underestimated in this study because we are unable to recruit Aboriginal Victorians of very low socioeconomic status. That is because all participants are recruited and interviewed by landline telephone and Aboriginal Victorians, who remain the most severely socially and economically disadvantaged population in Victoria, have one of the highest uptakes of prepaid mobile phones (Australian Communications and Media Authority).

In a survey conducted in 2011 by the Victorian Health Promotion Foundation, 95 per cent of Aboriginal respondents reported at least one experience of racism in the 12 months preceding the survey (Ferdinand et al. 2012). Moreover, 25 per cent reported between one and seven experiences, 38 per cent reported between eight and 11 experiences, and 34 per cent reported 12 or more experiences. Only 3 per cent reported no racist experiences.

It should be noted that a likely under-reporting of racism means that its impact on health may also be underestimated.

The health of those who experience racism

Societies with a high level of social conflict pay a high price in terms of the physical and mental health of its citizens. A number of systematic reviews and meta-analyses (the highest level of evidence) show that the balance of evidence consistently indicates that racism is a significant health risk factor for both mental and physical health (Pascoe & Smart Richman 2009; Paradies et al. 2015; Schmitt et al. 2014)

The most recent systematic review and meta-analysis examined 293 studies conducted between 1983 and 2013, representing 309,687 people across the world including Australia (Paradies et al. 2015). This analysis showed that racism is clearly associated with both poorer mental and physical health even after controlling for age, sex, birthplace and education. The authors concluded that racism is an important determinant of health.

The harmful effects of racism on mental health have been shown to include conditions such as psychological distress, depression, anxiety, post-traumatic stress disorder, psychosis and substance abuse disorders (Berger & Sarnyai 2015; Paradies et al. 2015).

The harmful effects of racism on physical health include diseases and conditions such as cardiovascular disease (Lewis et al. 2014), hypertension (Dolezsar et al. 2014), poor self-reported health (Paradies & Cunningham 2012), obesity (Cozier et al. 2014), adult-onset asthma (Coogan et al. 2014) and cancer (Taylor et al. 2007).

Moreover, a recent study showed that racial discrimination of African American men in the United States is associated with accelerated biological ageing as assessed by measuring telomere length (Chae et al. 2016).

Our findings of statistically significant relationships between poor physical (self-reported health) and poor mental health (psychological distress) in Victorians who experience racism are consistent with this literature.

Emotional responses to racism that are harmful to health

We found that racism evoked a number of emotions including anger, sadness, pity for the perpetrator and shame and worry. However, only the emotions of shame and worry are associated with poorer mental health.

This finding is consistent with the literature, and there is much evidence to support the theory proposed by Scheff in 2013 that most symptoms of mental illness are the consequence of feelings of shame (Scheff 2013). A person who feels shame in response to an experience of racism is internalising the experience in an act of self-blame thus increasing their risk of mental ill-health.

This is an important finding, with implications for policy and intervention. For example, identifying those who succumb to feelings of shame and providing them with appropriate psychological support and training in techniques such as mindfulness meditation (which has been shown to significantly reduce stress) may be empowering and help to dispel inappropriate and harmful feelings of shame.

However, an important caveat to our findings is that the most reported emotional response was categorised as 'other', but we did not ask the respondent to elaborate. Therefore, there may be other unidentified emotions that are also important to consider, requiring further research.

Is racism a key determinant of health?

The authors of the most recent systematic review and meta-analysis concluded that racism is indeed a key determinant of the mental and physical health of minority and Indigenous peoples around the world, including Australia (Paradies et al. 2015). In fact, racism may go a long way in explaining the gap between the health of Aboriginal and non-Aboriginal people in Australia. This is supported by our finding that the strength of the association between racism and mental health is significantly stronger than

between smoking or obesity and mental health. Moreover, the strength of the association between racism and physical health was similar to that between smoking and physical health, although obesity appeared to have a stronger association with physical health.

Racism is a significant stressor for those who are targets. One of the many ways in which racism damages health is through the adoption of unhealthy behaviours, such as smoking and overeating, as coping strategies. We know that Aboriginal Victorians are more likely to be obese and to smoke than non-Aboriginal Victorians, and are subject to high levels of racism perpetrated by non-Aboriginal Victorians (Markwick et al. 2014). Moreover, Aboriginal Victorians are also almost three times more likely to have very high levels of psychological distress than their non-Aboriginal counterparts, probably due, at least in part, to exposure to racism (Markwick et al. 2015). Therefore, reducing racism towards Aboriginal Victorians and other minority groups may be an effective way to improve their mental and physical health, and may be a more effective way to reduce the prevalence of unhealthy behaviours such as smoking and overeating.

How does racism damage health?

Racism affects health directly and indirectly via a number of pathways (Harrell et al. 2011; Paradies et al. 2015).

Indirect pathways:

1. Racism reduces access to employment, housing and education, resulting in low socioeconomic status. As socioeconomic status declines so does mental and physical health.
2. Racism decreases participation in healthy behaviours such as sleep and exercise, and increases participation in unhealthy behaviours such as smoking, consumption of alcohol and overeating, as a means of coping.
3. Maternal exposure to racism elicits a physiological stress response that impacts on the uterine environment and epigenetic activity, causing subtle but harmful effects on a foetus that can be maintained into adulthood.

Direct pathways:

1. Racism acts as a chronic stressor that over-stimulates the body's natural responses to stress. When an individual encounters a stressor, the amygdala, an area of the brain involved in emotional processing, sends a distress signal to the hypothalamus of the brain to do two things.

   The first is to stimulate the sympathetic nervous system to release the hormone adrenaline from the adrenal glands, which are located on top of the kidneys. Adrenaline prepares the body to fight or flee from a potential threat by increasing the heart rate to make more blood available to the heart, muscles and other vital organs. This causes the blood pressure to go up and the person to start breathing harder to take in as much oxygen as possible, which increases the alertness of the brain.

   The second is to stimulate the hypothalamic–pituitary–adrenal axis. The hypothalamus secretes corticotrophin-releasing hormone, which in turn stimulates the pituitary gland (also located in the brain) to release adrenocorticotropic hormone, which stimulates the adrenal glands to release the stress hormone cortisol. Cortisol also prepares the body to deal with a potential threat. For example, by increasing the

availability of blood glucose, the body is better positioned to fight or flee the potential threat.

All these changes happen so quickly that a person is not immediately aware of them, which is why a person can jump out of the way of a car before they think about what they are doing. While this is an important short-term physiological response to ensure survival, chronic stimulation of the hypothalamic–pituitary–adrenal axis causes long-term pathological changes and allostatic load.

Moreover, evidence from human conditioning studies shows that conscious awareness of racism is not a necessary condition for activation of the hypothalamic–pituitary–adrenal axis, reflecting the insidious nature of racism (Harrell et al. 2011). Repeated exposure to individual or institutional racism can condition a person to react physiologically (but not consciously) because of a learned association. For example, the sight of a classroom may be enough to elicit an unconscious physiologic activation of the hypothalamic–pituitary–adrenal axis of a person who experienced racism at school (Harrell et al. 2011).

2. Allostatic load is the 'wear and tear on the body' that grows over time when the individual is exposed to repeated or chronic stress. It represents the physiological consequences of chronic exposure to a fluctuating or heightened neural or neuroendocrine response that results from being repeatedly exposed to stressors.
3. Racism causes adverse cognitive and emotional responses that are associated with psychopathology, such as depression and anxiety.
4. Racism can result in physical injury as a result of racially-motivated violence.

For further reading we suggest:

Paradies, Y., J. Ben, N. Denson, A. Elias, N. Priest, A. Pieterse, A. Gupta, M. Kelaher and G. Gee (2015). 'Racism as a determinant of health: a systematic review and meta-analysis.' *PLoS One* 10(9): e0138511.

Concluding remarks

This report shows that while Victoria is a reasonably tolerant place, many Victorians experience racism and this has a negative impact on their health. Effectively tackling racism would improve the mental and physical health of Victorians. The first step to reducing the harmful impact of racism is to acknowledge that it exists and that it is harmful to health.

Appendix

Table A1: Proportion of Victorian adults who experienced racism in the 12 months preceding the survey, by age and sex

	Age group (years)	Experienced racism in preceding 12 months		
			95% CI	
		%	LL	UL
Males	18–24	11.0	7.3	16.2
	25–34	**15.2**	11.0	20.7
	35–44	12.0	9.9	14.5
	45–54	8.8	7.1	10.8
	55–64	**5.4**	4.4	6.7
	65–74	**3.6**	2.8	4.7
	75–84	**2.3**	1.5	3.6
	85+	**1.2**	0.4	3.6
	18+	**9.4**	**8.3**	**10.8**
Females	18–24	13.3	9.1	18.9
	25–34	**13.0**	9.7	17.2
	35–44	9.4	7.8	11.2
	45–54	8.4	7.1	9.8
	55–64	**5.9**	4.9	7.1
	65–74	**2.2**	1.7	2.9
	75–84	**1.4**	0.9	2.1
	85+	**0.8**	0.3	1.7
	18+	**8.4**	**7.4**	**9.4**
Persons	18–24	12.1	9.2	15.8
	25–34	**14.1**	11.3	17.4
	35–44	10.7	9.4	12.2
	45–54	8.6	7.5	9.8
	55–64	**5.7**	5.0	6.5
	65–74	**2.9**	2.4	3.5
	75–84	**1.8**	1.3	2.5
	85+	**0.9**	0.5	1.9
	18+	**8.9**	**8.1**	**9.7**

Data were age-specific estimates, except for '18+', which are crude estimates (not age-standardised) for Victoria.

% = per cent (proportion), LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

Estimates that are (statistically) significantly different from the corresponding estimate for Victoria are identified by colour as follows: **above** or **below**.

Table A2: Proportion of Victorian adults who experienced racism in the preceding 12 months, by ethnicity

Ethnicity	Experienced racism in preceding 12 months		
		95% CI	
	%	LL	UL
Northern European and North American	7.2	4.8	10.9
Eastern European	**8.9**	5.6	13.9
Southern European	**11.0**	6.8	17.2
New Zealander and South Pacific islander	**13.7**	9.2	19.7
Did not know or refused to say	**14.2***	5.4	32.2
Aboriginal and/or Torres Strait Islander	**14.9**	9.0	23.7
Middle-Eastern	**16.7**	11.8	23.1
Other Asian	**22.5**	18.5	27.2
Indian subcontinent	**25.2**	20.4	30.7
Sub-Saharan African	**25.9**	17.8	36.1
Latin American	**27.2***	15.5	43.3
A non-Aboriginal Australian-born parent / only speaks English	**4.3**	**3.6**	**5.0**

Data were age-standardised to the 2011 Victorian population.

LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

Estimates that are (statistically) significantly different from the estimate for adults who had a non-Aboriginal Australian-born parent and only spoke English at home are identified by colour as follows: **above** or **below**.

* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Table A3: Proportion of Victorian adults who had experienced racism in previous 12 months, by emotion(s) evoked, age and sex

Age group (years)	Angry			Sad			Sorry for the person			Ashamed/ worried			Sick			Other feelings			None of the previous		
	95% CI			95% CI			95% CI			95% CI			95% CI			95% CI			95% CI		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Males																					
18–24	**19.4***	8.2	39.3	**12.6***	5.1	28.1	**22.6***	9.5	44.9	**			**0.0**	.	.	**31.1***	13.6	56.5	**17.5***	7.7	34.9
25–34	**25.5***	13.2	43.5	**10.5***	3.8	25.7	**			**0.0**	.	.	**0.0**	.	.	**48.0**	31.4	65.1	**27.7***	15.3	44.7
35–44	**22.8**	15.2	32.7	**14.8**	9.3	22.7	**12.7***	7.2	21.5	**			**			**41.6**	32.1	51.7	**17.8**	11.4	26.6
45–54	**27.4**	18.8	38.3	**16.2**	9.4	26.5	**9.6***	5.2	17.0	**			**			**32.0**	22.4	43.3	**15.9**	9.7	24.9
55–64	**23.4**	15.8	33.3	**10.7***	5.5	19.8	**11.3***	6.4	19.1	**			**			**29.7**	20.8	40.4	**24.6**	16.3	35.3
65–74	**35.7**	24.4	48.9	**12.2***	6.2	22.8	**8.0***	3.4	17.6	**			**			**39.3**	27.2	52.9	**10.7***	5.2	20.6
75–84	**36.1***	19.3	57.2	**19.4***	6.7	44.4	**16.6***	6.2	37.5	**			**			**23.1**	8.8	48.5	**		
85+	**0.0**	.	.	**0.0**	.	.	**			**0.0**	.	.	**0.0**	.	.	**			**		
18+	**24.6**	**19.0**	**31.2**	**12.9**	**9.2**	**17.8**	**10.3**	**7.1**	**14.8**	**1.1**	**0.6**	**2.1**	**0.9**	**0.4**	**1.8**	**39.2**	**32.2**	**46.6**	**20.7**	**15.6**	**27.0**
Females																					
18–24	**22.0***	10.0	41.6	**24.0***	10.8	45.2	**22.9***	9.5	45.5	**			**0.0**	.	.	**46.6**	28.0	66.1	**	1.5	15.4
25–34	**28.0**	17.4	41.8	**31.9**	20.2	46.4	**6.3***	2.3	16.0	**			**			**44.8**	29.6	61.1	**8.6***	3.7	18.4
35–44	**28.9**	21.3	37.9	**29.3**	21.4	38.7	**14.5**	8.7	23.1	**8.1***	4.0	15.7	**4.2***	1.6	10.5	**39.9**	31.2	49.3	**6.9***	3.8	12.3
45–54	**34.4**	26.7	42.9	**30.9**	23.3	39.8	**9.6**	6.0	14.9	**			**2.4***	0.9	6.1	**35.3**	27.7	43.7	**7.4***	4.0	13.4
55–64	**27.4**	19.9	36.5	**16.2**	10.5	24.4	**14.7**	9.2	22.6	**4.4***	2.2	8.6	**3.7***	1.6	8.5	**39.4**	30.4	49.1	**11.2***	6.7	18.1
65–74	**32.1**	21.2	45.4	**20.2***	10.7	34.8	**12.1***	5.1	26.4	**			**3.4***	1.3	8.6	**35.4**	23.3	49.9	**13.4***	6.9	24.2
75–84	**36.2***	18.3	59.0	**11.1***	4.2	26.2	**27.1***	10.1	55.1	**			**0.0**	.	.	**14.9***	6.5	30.4	**		
85+	**71.9**	38.4	91.3	**0.0**	.	.	**			**0.0**	.	.	**0.0**	.	.	**			**		
18+	**28.3**	**23.3**	**34.0**	**27.5**	**22.2**	**33.4**	**12.9**	**9.0**	**18.2**	**6.3**	**3.6**	**10.8**	**2.7**	**1.5**	**4.8**	**41.3**	**34.8**	**48.2**	**7.8**	**5.5**	**10.9**
Persons																					
18–24	**20.8***	11.7	34.2	**18.7***	10.0	32.1	**22.8***	12.4	38.0	**			**0.0**	.	.	**39.4**	25.8	54.8	**10.8***	5.5	20.1
25–34	**26.7**	17.9	37.8	**20.4**	13.2	30.0	**4.3***	1.9	9.4	**			**			**46.5**	34.9	58.6	**18.9**	11.4	29.5
35–44	**25.5**	19.8	32.1	**21.2**	16.2	27.3	**13.5**	9.2	19.3	**4.6***	2.5	8.3	**2.2***	0.9	5.3	**40.8**	34.2	47.8	**13.0**	9.0	18.4
45–54	**30.9**	24.8	37.7	**23.5**	18.0	30.0	**9.6**	6.5	13.8	**2.8***	1.3	5.9	**2.1***	0.9	4.6	**33.6**	27.3	40.6	**11.7**	7.9	16.9
55–64	**25.5**	19.9	32.1	**13.6**	9.5	19.3	**13.1**	9.1	18.4	**2.5***	1.3	4.7	**4.0***	2.1	7.6	**34.9**	28.3	42.0	**17.4**	12.6	23.7
65–74	**34.2**	26.0	43.6	**15.5**	9.7	23.8	**9.7***	5.3	17.2	**4.4***	1.8	10.5	**1.7***	0.7	3.9	**37.7**	28.7	47.7	**11.8**	7.3	18.6
75–84	**36.1**	23.3	51.3	**16.0***	7.2	31.9	**20.8***	10.2	37.8	**			**			**19.8***	9.6	36.3	**10.3***	4.3	22.9
85+	**34.3***	11.0	68.7	**0.0**	.	.	**			**0.0**	.	.	**0.0**	.	.	**33.6***	10.7	68.0	**		
18+	**26.4**	**22.5**	**30.7**	**19.9**	**16.5**	**23.7**	**11.6**	**8.9**	**14.8**	**3.6**	**2.2**	**5.8**	**1.8**	**1.1**	**2.8**	**40.2**	**35.3**	**45.3**	**14.5**	**11.5**	**18.2**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.

Data were age-standardised to the 2011 Victorian population.

LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

Estimates that are (statistically) significantly different from the corresponding estimate for Victoria are identified by colour as follows: **above** or **below**.

Estimates will not add to 100 per cent because respondents could select multiple responses.

* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

** Estimate has an RSE of greater than or equal to 50 per cent and is not reported because it is unreliable.

Table A4: Proportion of Victorian adults who experienced racism in the 12 months preceding the survey, by emotion(s) evoked and geographic region

Region	Angry			Sad			Sorry for the person			Ashamed / worried			Sick			Other feelings			None of the previous reasons		
		95% CI			95% CI			95% CI			95% CI			95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
People (18+ years)																					
Eastern Metropolitan	**28.6**	21.0	37.5	**21.6**	**14.3**	31.3	**14.7**	8.8	23.4	**2.7***	1.4	5.3	**			**32.3**	24.1	41.8	**9.1***	5.5	14.8
North & West Metropolitan	**21.5**	17.0	26.7	**19.5**	**15.1**	24.8	**14.1**	10.1	19.4	**4.6***	2.3	8.9	**2.0***	0.9	4.3	**42.1**	35.9	48.5	**16.2**	12.1	21.5
Southern Metropolitan	**33.1**	25.6	41.6	**19.0**	**13.8**	25.5	**9.1**	5.8	13.9	**1.7***	0.8	3.7	**2.6***	1.2	5.8	**33.8**	25.8	43.0	**14.6**	9.3	22.3
All metropolitan regions	**27.1**	23.3	31.2	**19.8**	**16.4**	23.7	**12.3**	9.6	15.7	**3.3**	2.1	5.4	**1.9**	1.2	3.0	**37.2**	32.8	41.9	**14.3**	11.3	17.9
Barwon-South Western	**16.8***	10.0	26.7	**16.1**	**9.9**	25.1	**17.6***	8.8	32.2	**6.7***	2.9	14.6	**			**39.2**	29.5	49.8	**15.6***	8.7	26.4
Gippsland	**44.4**	35.8	53.3	**10.3***	**5.8**	17.8	**5.8***	2.6	12.5	**			**			**45.8**	30.9	61.5	**7.8***	3.7	15.6
Grampians	**31.0**	19.7	45.1	**16.8***	**8.5**	30.3	**19.5***	10.2	34.3	**			**			**36.3**	25.1	49.3	**12.7**	8.6	18.5
Hume	**29.0**	19.7	40.5	**18.8**	**12.7**	27.0	**5.7***	3.0	10.8	**2.0***	0.8	4.7	**			**45.6**	35.7	55.8	**12.5***	6.6	22.4
Loddon Mallee	**31.8**	24.2	40.6	**9.4***	**5.4**	15.9	**11.8***	6.2	21.4	**	0.6	6.7	**			**26.7**	19.5	35.3	**25.4**	16.5	37.0
All rural regions	**30.1**	23.8	37.3	**13.9**	**10.7**	18.0	**11.6**	7.9	16.8	**3.2***	1.7	5.9	**2.2***	1.1	4.5	**37.6**	31.1	44.5	**16.7**	11.4	23.8
Victoria	**27.2**	**23.9**	**30.8**	**18.9**	**16.1**	**22.2**	**12.3**	**9.9**	**15.3**	**3.5**	**2.3**	**5.3**	**2.0**	**1.3**	**2.9**	**37.8**	**33.8**	**42.1**	**14.2**	**11.6**	**17.3**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Data were age-standardised to the 2011 Victorian population.
LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.
Estimates that are (statistically) significantly different from the corresponding estimate for Victoria are identified by colour as follows: **above** or **below**.
Estimates will not add to 100 per cent because respondents could select multiple responses.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has an RSE of greater than or equal to 50 per cent and is not reported because it is unreliable.

Table A5: Ranking of selected indicators by strength of association with psychological distress

INDICATOR	Odds ratio	95 per cent confidence interval	
Experienced racism less than once a year	1.7	0.9	3.2
Experienced racism several times a year	2.1	1.4	3.1
Obesity	2.2	1.8	2.8
Smoking	2.4	2.0	2.9
Experienced racism at least weekly	4.9	2.7	8.7

Odds ratio was adjusted for age, sex, and total annual household income.
Outcome variable was high or very high psychological distress.

Table A6: Ranking of selected indicators by strength of association with self-reported health status

INDICATOR	Odds ratio	95 per cent confidence interval	
Experienced racism less than once a year	1.0	0.7	1.4
Experienced racism several times a year	1.4	1.0	1.9
Smoking	1.9	1.7	2.3
Experienced racism at least weekly	2.5	1.4	4.4
Obesity	5.0	4.2	5.8

Odds ratio was adjusted for age, sex, and total annual household income.
Outcome variable was fair or poor self-reported health.

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